# Online Monte Carlo Supplement to "A One Covariate at a Time, Multiple Testing Approach to Variable Selection in High-Dimensional Linear Regression Models"

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## Contents

# 1 Introduction

This supplement to Chudik, Kapetanios, and Pesaran (2018, hereafter CKP) provides a description of individual methods used in the Monte Carlo (MC) exercise and a complete set of MC findings.

The MC set up is described in Section 5 of CKP, and covers five sets of experimental designs (DGP-I to DGP-V). The full description of MC experiments is provided in CKP. A description of individual methods employed in the MC experiments is presented in Section 2 of this supplement, and the subsequent two sections present MC findings for individual experiments. Findings for experiments with Gaussian innovations (G) are in Section 3, and findings for experiments with non-Gaussian innovations (NG) are in Section 4. A summary of these findings is presented in Tables 1, A.1, and A.2 of CKP.

# 2 Description of Individual Methods in Monte Carlo Experiments

## 2.1 OCMT

In the first stage, we consider the $n$ bivariate regressions of $y_t$ on a constant and $x_{it}$ for $i = 1, 2, ..., n$,

$$y_t = c_{i,(1)} + \hat{\phi}_{i,(1)} x_{it} + e_{it,(1)},$$

and compute the $t$-ratios

$$t_{\hat{\phi}_{i,(1)}} = \frac{\hat{\phi}_{T,i,(1)}}{s.e.\left(\hat{\phi}_{T,i,(1)}\right)} = \frac{T^{-1/2}\boldsymbol{x}_i'\boldsymbol{M}_{(0)}\boldsymbol{y}}{\hat{\sigma}_{T,i,(1)}\sqrt{T^{-1}\boldsymbol{x}_i'\boldsymbol{M}_{(0)}\boldsymbol{x}_i}},$$

where $\hat{\phi}_{T,i,(1)} = \left(\boldsymbol{x}_i'\boldsymbol{M}_{(0)}\boldsymbol{x}_i\right)^{-1}\boldsymbol{x}_i'\boldsymbol{M}_{(0)}\boldsymbol{y}$, $\hat{\sigma}^2_{T,i,(1)} = \boldsymbol{e}'_{i,(1)}\boldsymbol{e}_{i,(1)}/T$, $\boldsymbol{e}_{i,(1)} = \boldsymbol{M}_{i,(0)}\boldsymbol{y}$, $\boldsymbol{M}_{i,(0)} = \boldsymbol{I}_T - \boldsymbol{X}_{i,(0)}(\boldsymbol{X}'_{i,(0)}\boldsymbol{X}_{i,(0)})^{-1}\boldsymbol{X}'_{i,(0)}$, $\boldsymbol{X}_{i,(0)} = (\boldsymbol{x}_i, \boldsymbol{\tau}_T)$, and $\boldsymbol{M}_{(0)} = \boldsymbol{I}_T - \boldsymbol{\tau}_T\boldsymbol{\tau}_T'/T$. The first stage multiple testing estimator of $I(\beta_i \neq 0)$ is given by

$$\widehat{\mathcal{J}}_{i,(1)} = I\left[\left|t_{\hat{\phi}_{i,(1)}}\right| > c_p(n,\delta)\right],\ i = 1, 2, ..., n,$$

where the critical value function, $c_p(n,\delta)$, is

$$c_p(n,\delta) = \Phi^{-1}\left[1 - \frac{p}{2f(n,\delta)}\right],$$

in which $\Phi^{-1}(.)$ is the inverse function of the cumulative standard normal distribution, $f(n) = n^{\delta}$, and $\delta > 0$. Regressors for which $\widehat{\mathcal{J}}_{i,(1)} = 1$ are selected in the first stage. Denote the number of variables selected in the first stage by $\hat{k}^o_{n,T,(1)}$, the index set of the selected variables by $\mathcal{S}^o_{(1)}$, and the $T \times \hat{k}^o_{n,T,(1)}$ matrix of the $\hat{k}^o_{n,T,(1)}$ selected variables by $\boldsymbol{X}^o_{(1)}$. Finally, let $\boldsymbol{X}_{(1)} = (\boldsymbol{\tau}_T, \boldsymbol{X}^o_{(1)})$, $\hat{k}_{n,T,(1)} = \hat{k}^o_{n,T,(1)}$, $\mathcal{S}_{(1)} = \mathcal{S}^o_{(1)}$ and $\mathcal{N}_{(1)} = \{1, 2, ..., n\} \setminus \mathcal{S}_{(1)}$.

In stages $j = 2, 3, ...$, we consider the $n - \hat{k}_{(j-1)}$ regressions of $y_t$ on the variables in $\boldsymbol{X}_{(j-1)}$ and, one at the time, $x_{it}$ for $i \in \mathcal{N}_{(j-1)}$. We then compute the following $t$-ratios

$$t_{\hat{\phi}_{i,(j)}} = \frac{\hat{\phi}_{T,i,(j)}}{s.e.\left(\hat{\phi}_{T,i,(j)}\right)} = \frac{T^{-1/2}\boldsymbol{x}_i'\boldsymbol{M}_{(j-1)}\mathbf{y}}{\hat{\sigma}_{T,i,(j)}\sqrt{T^{-1}\boldsymbol{x}_i'\boldsymbol{M}_{(j-1)}\boldsymbol{x}_i}},\ \text{for } i \in \mathcal{N}_{(j-1)},\ j = 2, 3, ...,$$

where $\hat{\phi}_{T,i,(j)} = \left(\boldsymbol{x}_i'\boldsymbol{M}_{(j-1)}\boldsymbol{x}_i\right)^{-1}\boldsymbol{x}_i'\boldsymbol{M}_{(j-1)}\boldsymbol{y}$, $\hat{\sigma}^2_{T,i,(j)} = T^{-1}\boldsymbol{e}'_{i,(j)}\boldsymbol{e}_{i,(j)}$, $\boldsymbol{M}_{(j-1)} = \boldsymbol{I}_T - \boldsymbol{X}_{(j-1)}(\boldsymbol{X}'_{(j-1)}\boldsymbol{X}_{(j-1)})^{-1}\boldsymbol{X}'_{(j-1)}$, $\mathbf{e}_{i,(j)} = \boldsymbol{M}_{i,(j-1)}\boldsymbol{y}$ denotes the $T \times 1$ residual vector of the regression, $\boldsymbol{M}_{i,(j-1)} = \boldsymbol{I}_T - \boldsymbol{X}_{i,(j-1)}(\boldsymbol{X}'_{i,(j-1)}\boldsymbol{X}_{i,(j-1)})^{-1}\boldsymbol{X}'_{i,(j-1)}$, and $\boldsymbol{X}_{i,(j-1)} = \left(\boldsymbol{x}_i, \boldsymbol{X}_{(j-1)}\right)$. Regressors for which

$$\widehat{\mathcal{J}}_{i,(j)} = I\left[\left|t_{\hat{\phi}_{i,(j)}}\right| > c_p(n,\delta^*)\right] = 1, \text{ for } j = 2, 3, ...$$

are then added to the set of already selected covariates from the previous stages, and note that $\delta^* > \delta > 0$. Denote the number of variables selected in stage $j$ by $\hat{k}^o_{n,T,(j)}$, their index set by $\mathcal{S}^o_{(j)}$, and the $T \times \hat{k}^o_{n,T,(j)}$ matrix of the $\hat{k}^o_{n,T,(j)}$ selected variables by $\mathbf{X}^o_{(j)}$. Also define $\mathbf{X}_{(j)} = (\mathbf{X}_{(j-1)}, \mathbf{X}^o_{(j)})$, $\hat{k}_{n,T,(j)} = \hat{k}^o_{n,T,(j)} + \hat{k}_{n,T,(j-1)}$, $\mathcal{S}_{(j)} = \mathcal{S}^o_{(j)} \cup \mathcal{S}_{(j-1)}$, and $\mathcal{N}_{(j)} = \{1, 2, ..., n\} \setminus \mathcal{S}_{(j)}$, and then proceed to stage $j + 1$. The procedure stops when no regressors are selected at a given stage, which we denote by stage $\hat{J}$, and the number of stages where at least one variable was selected is denoted by $\hat{P} = \hat{J} - 1$.

In this multiple procedure $\widehat{\mathcal{J}}_i = \sum_{j=1}^{\hat{P}} \widehat{\mathcal{J}}_{i,(j)}$. In a final step, the regression model is estimated by running the OLS regression of $y_t$ on all selected variables, namely the regressors $x_{it}$ for which $\widehat{\mathcal{J}}_i = 1$, over all $i = 1, 2, ...., n$.

We consider two choices for $(\delta, \delta^*) \in \{(1, 1.5), (1, 2)\}$ and three choices for $p = 0.1$, $0.05$, and $0.01$ in all experiments, which gives 6 values of the critical value function in total.

## 2.2 Penalised regression methods

Penalised regressions are implemented solving the following optimization problem,[1]

$$\min_{\boldsymbol{\beta}} Q\left(\boldsymbol{\beta}\right), \, Q\left(\boldsymbol{\beta}\right) = \left(2T\right)^{-1} \sum_{t=1}^{T} \left( \tilde{y}_t - \sum_{i=1}^{n} \beta_i \tilde{x}_{it} \right)^2 + \left\| P_\lambda\left(\boldsymbol{\beta}\right) \right\|_1,$$

where $\tilde{y}_t = y_t - T^{-1}\sum_{t=1}^{T} y_t$, $\tilde{x}_{it} = \left(x_{it} - \hat{\mu}_{xi}\right)/\hat{s}_{xi}$, $\hat{\mu}_{xi} = T^{-1}\sum_{t=1}^{T} x_{it}$, $\hat{s}_{xi}^2 = T^{-1}\sum_{t=1}^{T}\left(x_{it} - \hat{\mu}_{xi}\right)^2$, and $P_\lambda\left(\boldsymbol{\beta}\right) = P_\lambda\left(|\boldsymbol{\beta}|\right) = \left[p_\lambda\left(|\beta_1|\right), p_\lambda\left(|\beta_2|\right), ..., p_\lambda\left(|\beta_n|\right)\right]'$. Depending on the choice of the penalty function, we have:

$$\begin{aligned} \text{Lasso: } & p_\lambda\left(\beta\right) = \lambda\beta \\ \text{SICA: } & p_\lambda\left(\beta, a\right) = \lambda\left(a+1\right)\beta/\left(a+\beta\right), \text{ with a small shape parameter } a = 10^{-4} \\ \text{Hard thresholding: } & p_\lambda\left(\beta\right) = \frac{1}{2}\left\{\lambda^2 - \left(\lambda-\beta\right)_+^2\right\}, \, \beta \geq 0. \end{aligned}$$

These penalty functions are popular in the literature, see, e.g., Tibshirani (1996), Lv and Fan (2009), and Zheng, Fan, and Lv (2014). We consider the same set of possible values for the penalization parameter $\lambda$ as in Zheng, Fan, and Lv (2014), namely $\lambda \in \Lambda \equiv \{\lambda_{\min}, \lambda_{\min}+\lambda_\epsilon, \lambda_{\min}+2\lambda_\epsilon, ..., \lambda_{\max}\}$, where

$$\lambda_{\max} = \max_{i=1,2,...,n} \left|T^{-1}\tilde{\boldsymbol{x}}_i'\tilde{\boldsymbol{y}}\right|, \, \lambda_{\min} = \epsilon\lambda_{\max}, \;\; \tilde{\boldsymbol{y}} = \left(\tilde{y}_1, \tilde{y}_2, ..., \tilde{y}_T\right)'$$

$$\epsilon = \begin{cases} 0.001, & \text{for } n \leq T \\ 0.01, & \text{for } n > T \end{cases},$$

and $\lambda_\epsilon = \left(\lambda_{\max} - \lambda_{\min}\right)/\left(K-1\right)$, with $K = 50$. Following the literature we select $\lambda$ using 10-fold cross-validation. That is, we divide the available sample into 10 sub-samples of equal length. One at a time, one sub-sample is used for validation and the remaining 9 for training. This gives us 10 different selected values of $\lambda$, which we then average, and this average is denoted by $\hat{\lambda}_a$. We then choose $\lambda = \arg\min_{\lambda\in\Lambda}\left|\lambda - \hat{\lambda}_a\right|$.

We also consider adaptive Lasso method as described in Section 2.8.4 of Buhlmann and van de Geer (2011) based on the implementation of the Lasso method described above.

## 2.3 Boosting

We consider the boosting algorithm proposed by Buhlmann (2006). This algorithm can be described as follows:

**Algorithm 1** *1. (initialization). Let* $\tilde{\boldsymbol{x}}_{nt} = \left(\tilde{x}_{1t}, \tilde{x}_{2t}, ..., \tilde{x}_{nt}\right)'$, $\tilde{\boldsymbol{X}}_n = \left(\tilde{\boldsymbol{x}}_1, \tilde{\boldsymbol{x}}_2, ..., \tilde{\boldsymbol{x}}_n\right)$ *and* $\boldsymbol{e} = \left(e_1, e_2, .., e_T\right)'$. *Define the least squares base procedure:*

$$\hat{g}_{\tilde{\boldsymbol{X}},\boldsymbol{e}}(\tilde{\boldsymbol{x}}_{nt}) = \hat{\delta}_{\hat{s}}\tilde{x}_{\hat{s}t}, \; \hat{s} = \arg\min_{1\leq i\leq n}\left(\boldsymbol{e} - \hat{\delta}_i\tilde{\boldsymbol{x}}_i\right)'\left(\boldsymbol{e} - \hat{\delta}_i\tilde{\boldsymbol{x}}_i\right), \;\; \hat{\delta}_i = \frac{\boldsymbol{e}'\tilde{\boldsymbol{x}}_i}{\tilde{\boldsymbol{x}}_i'\tilde{\boldsymbol{x}}_i},$$

*2. Given data* $\tilde{\boldsymbol{X}}_n$ *and* $\tilde{\boldsymbol{y}} = \left(\tilde{y}_1, \tilde{y}_2, ..., \tilde{y}_T\right)'$*,apply the base procedure to obtain* $\hat{g}^{(1)}_{\tilde{\boldsymbol{X}},\tilde{\boldsymbol{y}}}(\tilde{\boldsymbol{x}}_{nt})$. *Set* $\hat{F}^{(1)}(\tilde{\boldsymbol{x}}_{nt}) = v\hat{g}^{(1)}_{\tilde{\boldsymbol{X}},\tilde{\boldsymbol{y}}}(\tilde{\boldsymbol{x}}_{nt})$*, for some* $v > 0$*, Set* $\hat{s}^{(1)} = \hat{s}$ *and* $m = 1$.

[1] We used the same codes for the Lasso, Hard thresholding and SICA penalised regression methods as in Zheng, Fan, and Lv (2014). We are grateful to Zemin Zheng for providing us with Matlab codes for these penalised regression methods.

3. *Compute the residual vector* $\boldsymbol{e} = \tilde{\boldsymbol{y}} - \hat{F}^{(m)}(\tilde{\boldsymbol{X}}_n)$, *where* $\hat{F}^{(m)}(\tilde{\boldsymbol{X}}_n) = (\hat{F}^{(m)}(\tilde{\boldsymbol{x}}_{n1}), \hat{F}^{(m)}(\tilde{\boldsymbol{x}}_{n2}), ..., \hat{F}^{(m)}(\tilde{\boldsymbol{x}}_{nT}))'$, *and fit the base procedure to these residuals to obtain the fit values* $\hat{g}^{(m+1)}_{\tilde{\mathbf{X}},\mathbf{e}}(\tilde{\boldsymbol{x}}_{nt})$ *and* $\hat{s}^{(m)}$. *Update*

$$\hat{F}^{(m+1)}(\tilde{\boldsymbol{x}}_{nt}) = \hat{F}^{(m)}(\tilde{\boldsymbol{x}}_{nt}) + v\hat{g}^{(m+1)}_{\mathbf{X},\mathbf{e}}(\tilde{\boldsymbol{x}}_{nt}).$$

4. *Increase the iteration index* $m$ *by one and repeat step 3 until the stopping iteration* $M$ *is achieved. The stopping iteration is given by*

$$M = \arg \min_{1 \leq m \leq m_{\max}} AIC_C(m),$$

*for some predetermined large* $m_{\max}$, *where*

$$AIC_C(m) = \log(\hat{\sigma}^2) + \frac{1 + tr\left(\mathcal{B}_m\right)/T}{1 - \left(tr\left(\mathcal{B}_m\right) + 2\right)/T},$$

$$\hat{\sigma}^2 = \frac{1}{T}\left(\boldsymbol{y} - \mathcal{B}_m \tilde{\boldsymbol{y}}\right)' \left(\boldsymbol{y} - \mathcal{B}_m \tilde{\boldsymbol{y}}\right),$$

$$\mathcal{B}_m = I - \left(I - v\mathcal{H}^{(\hat{s}_m)}\right)\left(I - v\mathcal{H}^{(\hat{s}_{m-1})}\right) ... \left(I - v\mathcal{H}^{(\hat{s}_1)}\right),$$

$$\mathcal{H}^{(j)} = \frac{\tilde{\boldsymbol{x}}_j \tilde{\boldsymbol{x}}_j'}{\tilde{\boldsymbol{x}}_j' \tilde{\boldsymbol{x}}_j}.$$

We set $m_{\max} = 500$ and consider two values for the tuning parameter: $v = 0.1$ and 1. The former is suggested in Buhlmann (2006).

### 2.4 Implementation of individual methods in the dynamic case

In the dynamic case, we augment the set of $n$ covariates with $h_{max} = 4$ lags of the dependent variable, before the different methods described in Subsections 2.1-2.3 above are applied.

# 3 Findings for Experiments with Gaussian Innovations (G)

## 3.1 Static specifications

We ordered and numbered individual tables as follows:

**Summary table for experiments with Gaussian innovations (G), and static specification: List of experiments.**

| Table No. | DGP | $\omega$ | $R^2$ | T | Table No. | DGP | $R^2$ | T | Table No. | DGP | $R^2$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | I(a) | - | 70% | 100 | 46 | II(a) | 70% | 100 | 91 | V | 70% | 100 |
| 2 | I(a) | - | 70% | 300 | 47 | II(a) | 70% | 300 | 92 | V | 70% | 300 |
| 3 | I(a) | - | 70% | 500 | 48 | II(a) | 70% | 500 | 93 | V | 70% | 500 |
| 4 | I(a) | - | 50% | 100 | 49 | II(a) | 50% | 100 | 94 | V | 50% | 100 |
| 5 | I(a) | - | 50% | 300 | 50 | II(a) | 50% | 300 | 95 | V | 50% | 300 |
| 6 | I(a) | - | 50% | 500 | 51 | II(a) | 50% | 500 | 96 | V | 50% | 500 |
| 7 | I(a) | - | 30% | 100 | 52 | II(a) | 30% | 100 | 97 | V | 30% | 100 |
| 8 | I(a) | - | 30% | 300 | 53 | II(a) | 30% | 300 | 98 | V | 30% | 300 |
| 9 | I(a) | - | 30% | 500 | 54 | II(a) | 30% | 500 | 99 | V | 30% | 500 |
| 10 | I(b) | - | 70% | 100 | 55 | II(b) | 70% | 100 | | | | |
| 11 | I(b) | - | 70% | 300 | 56 | II(b) | 70% | 300 | | | | |
| 12 | I(b) | - | 70% | 500 | 57 | II(b) | 70% | 500 | | | | |
| 13 | I(b) | - | 50% | 100 | 58 | II(b) | 50% | 100 | | | | |
| 14 | I(b) | - | 50% | 300 | 59 | II(b) | 50% | 300 | | | | |
| 15 | I(b) | - | 50% | 500 | 60 | II(b) | 50% | 500 | | | | |
| 16 | I(b) | - | 30% | 100 | 61 | II(b) | 30% | 100 | | | | |
| 17 | I(b) | - | 30% | 300 | 62 | II(b) | 30% | 300 | | | | |
| 18 | I(b) | - | 30% | 500 | 63 | II(b) | 30% | 500 | | | | |
| 19 | I(c) | - | 70% | 100 | 64 | III | 70% | 100 | | | | |
| 20 | I(c) | - | 70% | 300 | 65 | III | 70% | 300 | | | | |
| 21 | I(c) | - | 70% | 500 | 66 | III | 70% | 500 | | | | |
| 22 | I(c) | - | 50% | 100 | 67 | III | 50% | 100 | | | | |
| 23 | I(c) | - | 50% | 300 | 68 | III | 50% | 300 | | | | |
| 24 | I(c) | - | 50% | 500 | 69 | III | 50% | 500 | | | | |
| 25 | I(c) | - | 30% | 100 | 70 | III | 30% | 100 | | | | |
| 26 | I(c) | - | 30% | 300 | 71 | III | 30% | 300 | | | | |
| 27 | I(c) | - | 30% | 500 | 72 | III | 30% | 500 | | | | |
| 28 | I(d) | low | 70% | 100 | 73 | IV(a) | 70% | 100 | | | | |
| 29 | I(d) | low | 70% | 300 | 74 | IV(a) | 70% | 300 | | | | |
| 30 | I(d) | low | 70% | 500 | 75 | IV(a) | 70% | 500 | | | | |
| 31 | I(d) | low | 50% | 100 | 76 | IV(a) | 50% | 100 | | | | |
| 32 | I(d) | low | 50% | 300 | 77 | IV(a) | 50% | 300 | | | | |
| 33 | I(d) | low | 50% | 500 | 78 | IV(a) | 50% | 500 | | | | |
| 34 | I(d) | low | 30% | 100 | 79 | IV(a) | 30% | 100 | | | | |
| 35 | I(d) | low | 30% | 300 | 80 | IV(a) | 30% | 300 | | | | |
| 36 | I(d) | low | 30% | 500 | 81 | IV(a) | 30% | 500 | | | | |
| 37 | I(d) | high | 70% | 100 | 82 | IV(b) | 70% | 100 | | | | |
| 38 | I(d) | high | 70% | 300 | 83 | IV(b) | 70% | 300 | | | | |
| 39 | I(d) | high | 70% | 500 | 84 | IV(b) | 70% | 500 | | | | |
| 40 | I(d) | high | 50% | 100 | 85 | IV(b) | 50% | 100 | | | | |
| 41 | I(d) | high | 50% | 300 | 86 | IV(b) | 50% | 300 | | | | |
| 42 | I(d) | high | 50% | 500 | 87 | IV(b) | 50% | 500 | | | | |
| 43 | I(d) | high | 30% | 100 | 88 | IV(b) | 30% | 100 | | | | |
| 44 | I(d) | high | 30% | 300 | 89 | IV(b) | 30% | 300 | | | | |
| 45 | I(d) | high | 30% | 500 | 90 | IV(b) | 30% | 500 | | | | |

Notes: $\omega$ is the average pair-wise correlation of the signal variables. The low value is $\omega = 0.2$ and the high value is $\omega = 0.8$. See Section 5 of CKP for a full description of MC design.

### 3.1.1 Findings for designs featuring no hidden signals and no pseudo-signals

## Table 1: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0286 | 0.0286 | 1.005 | 1.074 | 1.000 | 0.842 | 4.18 | 4 | 5 | 7 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0010 | 0.0305 | 0.0305 | 1.007 | 1.084 | 1.000 | 0.834 | 4.19 | 4 | 5 | 7 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0313 | 0.0313 | 1.007 | 1.093 | 1.000 | 0.828 | 4.20 | 4 | 5 | 7 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0147 | 0.0147 | 1.003 | 1.047 | 1.000 | 0.916 | 4.09 | 4 | 5 | 6 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0170 | 0.0170 | 1.004 | 1.053 | 1.000 | 0.904 | 4.10 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0171 | 0.0171 | 1.004 | 1.058 | 1.000 | 0.904 | 4.11 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0049 | 0.0049 | 1.002 | 1.021 | 1.000 | 0.971 | 4.03 | 4 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0041 | 0.0041 | 1.001 | 1.015 | 1.000 | 0.976 | 4.03 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0038 | 0.0038 | 1.001 | 1.016 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0017 | 0.0261 | 0.0261 | 1.004 | 1.058 | 1.000 | 0.856 | 4.16 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0009 | 0.0271 | 0.0271 | 1.005 | 1.059 | 1.000 | 0.851 | 4.17 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0283 | 0.0283 | 1.005 | 1.069 | 1.000 | 0.844 | 4.18 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0127 | 0.0127 | 1.002 | 1.033 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0149 | 0.0149 | 1.003 | 1.036 | 1.000 | 0.915 | 4.09 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0152 | 0.0152 | 1.003 | 1.043 | 1.000 | 0.915 | 4.09 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0040 | 0.0040 | 1.001 | 1.013 | 1.000 | 0.977 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.001 | 1.010 | 1.000 | 0.979 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0037 | 0.0037 | 1.001 | 1.015 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9984 | 0.0563 | 0.4256 | 0.4256 | 1.045 | 1.332 | 0.994 | 0.102 | 9.40 | 4 | 19 | 51 | - | - | - | - |
| | 200 | 0.9980 | 0.0422 | 0.5234 | 0.5234 | 1.053 | 1.393 | 0.992 | 0.054 | 12.26 | 4 | 25 | 52 | - | - | - | - |
| | 300 | 0.9969 | 0.0348 | 0.5560 | 0.5560 | 1.062 | 1.470 | 0.988 | 0.055 | 14.28 | 4 | 33 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9485 | 0.0146 | 0.1313 | 0.1313 | 1.053 | 1.750 | 0.812 | 0.442 | 5.19 | 3 | 11 | 44 | - | - | - | - |
| | 200 | 0.9559 | 0.0159 | 0.2246 | 0.2246 | 1.071 | 1.879 | 0.838 | 0.343 | 6.95 | 3 | 20 | 42 | - | - | - | - |
| | 300 | 0.9568 | 0.0161 | 0.2795 | 0.2795 | 1.088 | 2.047 | 0.845 | 0.301 | 8.59 | 3 | 27 | 48 | - | - | - | - |
| SICA | 100 | 0.6229 | 0.0062 | 0.0891 | 0.0891 | 1.150 | 3.059 | 0.076 | 0.018 | 3.08 | 1 | 6 | 28 | - | - | - | - |
| | 200 | 0.5723 | 0.0026 | 0.0815 | 0.0815 | 1.171 | 3.194 | 0.038 | 0.012 | 2.80 | 1 | 6 | 13 | - | - | - | - |
| | 300 | 0.5346 | 0.0016 | 0.0772 | 0.0772 | 1.191 | 3.358 | 0.014 | 0.004 | 2.60 | 1 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.6473 | 0.0022 | 0.0308 | 0.0308 | 1.137 | 2.948 | 0.206 | 0.150 | 2.80 | 1 | 5 | 17 | - | - | - | - |
| | 200 | 0.6081 | 0.0014 | 0.0382 | 0.0382 | 1.158 | 3.066 | 0.153 | 0.095 | 2.70 | 1 | 5 | 15 | - | - | - | - |
| | 300 | 0.5809 | 0.0009 | 0.0385 | 0.0385 | 1.171 | 3.185 | 0.111 | 0.066 | 2.59 | 1 | 5 | 13 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9990 | 0.3436 | 0.8651 | 0.8651 | 1.131 | 2.255 | 0.996 | 0.000 | 36.99 | 27 | 47 | 56 | - | - | - | - |
| | 200 | 0.9990 | 0.3097 | 0.9236 | 0.9236 | 1.202 | 2.661 | 0.996 | 0.000 | 64.69 | 57 | 72 | 79 | - | - | - | - |
| | 300 | 0.9993 | 0.2416 | 0.9345 | 0.9345 | 1.205 | 2.678 | 0.997 | 0.000 | 75.52 | 68 | 83 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.9481 | 0.1777 | 0.7639 | 0.7639 | 1.275 | 3.557 | 0.796 | 0.000 | 20.85 | 13 | 33 | 47 | - | - | - | - |
| | 200 | 0.8889 | 0.2098 | 0.8935 | 0.8935 | 1.464 | 4.554 | 0.594 | 0.000 | 44.69 | 28 | 68 | 97 | - | - | - | - |
| | 300 | 0.8411 | 0.2328 | 0.9374 | 0.9374 | 1.568 | 5.114 | 0.452 | 0.000 | 72.27 | 47 | 101 | 135 | - | - | - | - |

Notes: TPR is the true positive rate, FPR is the false positive rate, FDR is the false discovery rater of the true model, FDR* is the false discovery rater of the approximating model, rRMSFE is the root mean square forecast error relative to the true benchmark model, rRMSE$_{\tilde{\beta}}$ is the root mean square error of $\hat{\boldsymbol{\beta}}$ relative to the true benchmark model, $\hat{\pi}_k$ is the probability that variables $i = 1, 2, ..., k$ are among the selected variables, $\hat{\pi}$ is the probability of the true model (featuring the first $k$ variables), $\bar{\hat{\kappa}}$ is the average number of selected variables, $\hat{\kappa}_5$ and $\hat{\kappa}_{95}$, respectively, are the 5th and the 95th quantiles of the distribution of the number of selected variables, and $\hat{\kappa}_{\max}$ is the largest number of selected variables. $\bar{\hat{P}}$ is the average number of OCMT stages. $A_j$ is the frequency of event $\hat{P} > j$, for $j = 1, 2, 3$. See Section 5 of CKP for a description of the design.

## Table 2: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0180 | 0.0180 | 1.001 | 1.040 | 1.000 | 0.898 | 4.11 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0204 | 0.0204 | 1.001 | 1.054 | 1.000 | 0.884 | 4.13 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0209 | 0.0209 | 1.001 | 1.056 | 1.000 | 0.883 | 4.13 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0095 | 0.0095 | 1.001 | 1.022 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0114 | 0.0114 | 1.001 | 1.036 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0117 | 0.0117 | 1.001 | 1.032 | 1.000 | 0.934 | 4.07 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.005 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.008 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.008 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0167 | 0.0167 | 1.001 | 1.031 | 1.000 | 0.905 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0194 | 0.0194 | 1.001 | 1.046 | 1.000 | 0.890 | 4.12 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0198 | 0.0198 | 1.001 | 1.047 | 1.000 | 0.890 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0089 | 0.0089 | 1.000 | 1.018 | 1.000 | 0.949 | 4.05 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0107 | 0.0107 | 1.001 | 1.029 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0111 | 0.0111 | 1.001 | 1.027 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.005 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.006 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.007 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0541 | 0.4194 | 0.4194 | 1.013 | 1.294 | 1.000 | 0.098 | 9.19 | 4 | 19 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0333 | 0.4632 | 0.4632 | 1.017 | 1.356 | 1.000 | 0.087 | 10.52 | 4 | 21 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0246 | 0.4832 | 0.4832 | 1.019 | 1.371 | 1.000 | 0.074 | 11.29 | 4 | 24 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9996 | 0.0115 | 0.0888 | 0.0888 | 1.010 | 1.432 | 0.999 | 0.793 | 5.10 | 4 | 12 | 29 | - | - | - | - |
| | 200 | 0.9999 | 0.0107 | 0.1470 | 0.1470 | 1.015 | 1.611 | 1.000 | 0.700 | 6.09 | 4 | 16 | 41 | - | - | - | - |
| | 300 | 0.9999 | 0.0089 | 0.1723 | 0.1723 | 1.019 | 1.688 | 1.000 | 0.667 | 6.64 | 4 | 18 | 49 | - | - | - | - |
| SICA | 100 | 0.9729 | 0.0036 | 0.0480 | 0.0480 | 1.013 | 1.703 | 0.895 | 0.688 | 4.23 | 3 | 6 | 15 | - | - | - | - |
| | 200 | 0.9564 | 0.0014 | 0.0403 | 0.0403 | 1.017 | 1.902 | 0.833 | 0.659 | 4.10 | 3 | 6 | 11 | - | - | - | - |
| | 300 | 0.9446 | 0.0008 | 0.0347 | 0.0347 | 1.020 | 2.006 | 0.785 | 0.632 | 4.01 | 3 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.9736 | 0.0006 | 0.0086 | 0.0086 | 1.010 | 1.620 | 0.917 | 0.873 | 3.95 | 3 | 4 | 10 | - | - | - | - |
| | 200 | 0.9665 | 0.0003 | 0.0090 | 0.0090 | 1.012 | 1.732 | 0.901 | 0.856 | 3.92 | 3 | 4 | 8 | - | - | - | - |
| | 300 | 0.9688 | 0.0001 | 0.0064 | 0.0064 | 1.011 | 1.650 | 0.902 | 0.868 | 3.92 | 3 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3316 | 0.8613 | 0.8613 | 1.038 | 2.116 | 1.000 | 0.000 | 35.83 | 27.5 | 45 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3308 | 0.9277 | 0.9277 | 1.073 | 2.763 | 1.000 | 0.000 | 68.83 | 57 | 79 | 88 | - | - | - | - |
| | 300 | 1.0000 | 0.2839 | 0.9437 | 0.9437 | 1.089 | 2.950 | 1.000 | 0.000 | 88.02 | 80 | 96 | 104 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1499 | 0.7298 | 0.7298 | 1.083 | 3.280 | 1.000 | 0.000 | 18.39 | 12 | 26 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.1536 | 0.8518 | 0.8518 | 1.152 | 4.245 | 1.000 | 0.000 | 34.10 | 24 | 47 | 65 | - | - | - | - |
| | 300 | 1.0000 | 0.1656 | 0.9041 | 0.9041 | 1.221 | 5.003 | 1.000 | 0.000 | 53.02 | 38 | 72 | 116 | - | - | - | - |

Notes: See notes to Table 1.

**Table 3: Monte Carlo findings for DGPI(a)**

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0183 | 0.0183 | 1.001 | 1.053 | 1.000 | 0.896 | 4.11 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0176 | 0.0176 | 1.001 | 1.048 | 1.000 | 0.900 | 4.11 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0196 | 0.0196 | 1.001 | 1.051 | 1.000 | 0.890 | 4.12 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0094 | 0.0094 | 1.000 | 1.030 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0093 | 0.0093 | 1.000 | 1.026 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0093 | 0.0093 | 1.000 | 1.027 | 1.000 | 0.947 | 4.06 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.010 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.006 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.008 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0170 | 0.0170 | 1.001 | 1.044 | 1.000 | 0.903 | 4.10 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0166 | 0.0166 | 1.001 | 1.040 | 1.000 | 0.906 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0187 | 0.0187 | 1.000 | 1.043 | 1.000 | 0.895 | 4.12 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0087 | 0.0087 | 1.000 | 1.025 | 1.000 | 0.950 | 4.05 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0089 | 0.0089 | 1.000 | 1.023 | 1.000 | 0.949 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0089 | 0.0089 | 1.000 | 1.023 | 1.000 | 0.949 | 4.05 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.005 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.006 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0019 | 0.0019 | 1.000 | 1.006 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0527 | 0.4072 | 0.4072 | 1.009 | 1.319 | 1.000 | 0.120 | 9.06 | 4 | 18 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0319 | 0.4456 | 0.4456 | 1.010 | 1.349 | 1.000 | 0.099 | 10.25 | 4 | 21 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0241 | 0.4720 | 0.4720 | 1.011 | 1.365 | 1.000 | 0.090 | 11.12 | 4 | 26 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0102 | 0.0777 | 0.0777 | 1.006 | 1.385 | 1.000 | 0.844 | 4.98 | 4 | 11 | 24 | - | - | - | - |
| | 200 | 1.0000 | 0.0091 | 0.1244 | 0.1244 | 1.007 | 1.504 | 1.000 | 0.772 | 5.77 | 4 | 15 | 38 | - | - | - | - |
| | 300 | 1.0000 | 0.0082 | 0.1587 | 0.1587 | 1.010 | 1.604 | 1.000 | 0.723 | 6.43 | 4 | 18 | 56 | - | - | - | - |
| SICA | 100 | 0.9985 | 0.0018 | 0.0253 | 0.0253 | 1.002 | 1.186 | 0.994 | 0.873 | 4.17 | 4 | 5 | 16 | - | - | - | - |
| | 200 | 0.9969 | 0.0007 | 0.0198 | 0.0198 | 1.002 | 1.226 | 0.988 | 0.892 | 4.12 | 4 | 5 | 11 | - | - | - | - |
| | 300 | 0.9960 | 0.0004 | 0.0172 | 0.0172 | 1.002 | 1.252 | 0.984 | 0.897 | 4.10 | 4 | 5 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.9984 | 0.0005 | 0.0065 | 0.0065 | 1.001 | 1.106 | 0.994 | 0.963 | 4.04 | 4 | 4 | 11 | - | - | - | - |
| | 200 | 0.9956 | 0.0001 | 0.0039 | 0.0039 | 1.002 | 1.205 | 0.985 | 0.967 | 4.01 | 4 | 4 | 10 | - | - | - | - |
| | 300 | 0.9976 | 0.0001 | 0.0057 | 0.0057 | 1.001 | 1.140 | 0.992 | 0.962 | 4.03 | 4 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3299 | 0.8609 | 0.8609 | 1.023 | 2.040 | 1.000 | 0.000 | 35.67 | 27 | 44 | 52 | - | - | - | - |
| | 200 | 1.0000 | 0.3303 | 0.9275 | 0.9275 | 1.044 | 2.731 | 1.000 | 0.000 | 68.73 | 57 | 79 | 87 | - | - | - | - |
| | 300 | 1.0000 | 0.2942 | 0.9455 | 0.9455 | 1.054 | 3.019 | 1.000 | 0.000 | 91.09 | 83 | 99 | 107 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1484 | 0.7273 | 0.7273 | 1.051 | 3.189 | 1.000 | 0.000 | 18.24 | 12 | 26 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.1482 | 0.8480 | 0.8480 | 1.095 | 4.257 | 1.000 | 0.000 | 33.05 | 24 | 44 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.1521 | 0.8971 | 0.8971 | 1.135 | 5.094 | 1.000 | 0.000 | 49.02 | 36 | 64 | 86 | - | - | - | - |

Notes: See notes to Table 1.

## Table 4: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9993 | 0.0018 | 0.0282 | 0.0282 | 1.007 | 1.097 | 0.997 | 0.844 | 4.17 | 4 | 5 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9975 | 0.0009 | 0.0286 | 0.0286 | 1.008 | 1.102 | 0.991 | 0.838 | 4.17 | 4 | 5 | 7 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9976 | 0.0007 | 0.0312 | 0.0312 | 1.008 | 1.120 | 0.991 | 0.822 | 4.19 | 4 | 5 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9983 | 0.0011 | 0.0175 | 0.0175 | 1.005 | 1.065 | 0.993 | 0.896 | 4.10 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9961 | 0.0005 | 0.0164 | 0.0164 | 1.005 | 1.063 | 0.988 | 0.898 | 4.09 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9964 | 0.0004 | 0.0175 | 0.0175 | 1.005 | 1.079 | 0.987 | 0.887 | 4.09 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9941 | 0.0003 | 0.0054 | 0.0054 | 1.002 | 1.031 | 0.978 | 0.949 | 4.01 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9901 | 0.0002 | 0.0050 | 0.0050 | 1.002 | 1.031 | 0.965 | 0.937 | 3.99 | 4 | 4 | 5 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9904 | 0.0001 | 0.0039 | 0.0039 | 1.002 | 1.029 | 0.967 | 0.944 | 3.99 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9993 | 0.0017 | 0.0256 | 0.0256 | 1.006 | 1.079 | 0.997 | 0.859 | 4.16 | 4 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9975 | 0.0008 | 0.0256 | 0.0256 | 1.006 | 1.082 | 0.991 | 0.853 | 4.15 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9976 | 0.0006 | 0.0291 | 0.0291 | 1.007 | 1.103 | 0.991 | 0.833 | 4.17 | 4 | 5 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9983 | 0.0010 | 0.0154 | 0.0154 | 1.004 | 1.049 | 0.993 | 0.907 | 4.09 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9961 | 0.0005 | 0.0145 | 0.0145 | 1.004 | 1.047 | 0.988 | 0.908 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9964 | 0.0003 | 0.0162 | 0.0162 | 1.005 | 1.068 | 0.987 | 0.894 | 4.08 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9941 | 0.0003 | 0.0049 | 0.0049 | 1.002 | 1.026 | 0.978 | 0.951 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9901 | 0.0001 | 0.0043 | 0.0043 | 1.002 | 1.024 | 0.965 | 0.941 | 3.99 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9904 | 0.0001 | 0.0036 | 0.0036 | 1.002 | 1.026 | 0.967 | 0.945 | 3.98 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9586 | 0.0545 | 0.4220 | 0.4220 | 1.044 | 1.306 | 0.840 | 0.088 | 9.06 | 4 | 18 | 39 | - | - | - | - |
| | 200 | 0.9505 | 0.0405 | 0.5134 | 0.5134 | 1.053 | 1.359 | 0.812 | 0.047 | 11.73 | 4 | 26 | 65 | - | - | - | - |
| | 300 | 0.9505 | 0.0351 | 0.5655 | 0.5655 | 1.060 | 1.427 | 0.810 | 0.044 | 14.20 | 4 | 33 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7911 | 0.0156 | 0.1624 | 0.1624 | 1.056 | 1.767 | 0.380 | 0.123 | 4.67 | 2 | 10.5 | 34 | - | - | - | - |
| | 200 | 0.8024 | 0.0164 | 0.2591 | 0.2591 | 1.073 | 1.888 | 0.404 | 0.085 | 6.42 | 2 | 18 | 53 | - | - | - | - |
| | 300 | 0.8165 | 0.0174 | 0.3279 | 0.3279 | 1.095 | 2.084 | 0.433 | 0.075 | 8.40 | 2 | 26 | 52 | - | - | - | - |
| SICA | 100 | 0.4068 | 0.0049 | 0.0865 | 0.0865 | 1.123 | 2.704 | 0.000 | 0.000 | 2.10 | 1 | 5 | 13 | - | - | - | - |
| | 200 | 0.3638 | 0.0018 | 0.0682 | 0.0682 | 1.134 | 2.776 | 0.001 | 0.000 | 1.81 | 1 | 4 | 15 | - | - | - | - |
| | 300 | 0.3504 | 0.0011 | 0.0666 | 0.0666 | 1.139 | 2.859 | 0.000 | 0.000 | 1.73 | 1 | 4 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.3794 | 0.0022 | 0.0393 | 0.0393 | 1.124 | 2.733 | 0.006 | 0.001 | 1.73 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.3515 | 0.0014 | 0.0510 | 0.0510 | 1.136 | 2.792 | 0.003 | 0.001 | 1.68 | 1 | 4 | 19 | - | - | - | - |
| | 300 | 0.3336 | 0.0008 | 0.0453 | 0.0453 | 1.142 | 2.883 | 0.001 | 0.000 | 1.58 | 1 | 4 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9781 | 0.3464 | 0.8678 | 0.8678 | 1.128 | 2.216 | 0.913 | 0.000 | 37.17 | 28 | 48 | 56 | - | - | - | - |
| | 200 | 0.9745 | 0.3126 | 0.9257 | 0.9257 | 1.202 | 2.663 | 0.900 | 0.000 | 65.16 | 58 | 72 | 80 | - | - | - | - |
| | 300 | 0.9760 | 0.2429 | 0.9359 | 0.9359 | 1.204 | 2.701 | 0.905 | 0.000 | 75.79 | 69 | 83 | 90 | - | - | - | - |
| $v = 1$ | 100 | 0.7714 | 0.1758 | 0.7912 | 0.7912 | 1.261 | 3.440 | 0.260 | 0.000 | 19.96 | 12 | 31 | 48 | - | - | - | - |
| | 200 | 0.7094 | 0.2097 | 0.9087 | 0.9087 | 1.435 | 4.359 | 0.162 | 0.000 | 43.95 | 27 | 68 | 119 | - | - | - | - |
| | 300 | 0.6736 | 0.2282 | 0.9455 | 0.9455 | 1.514 | 4.837 | 0.124 | 0.000 | 70.24 | 45 | 100 | 128 | - | - | - | - |

Notes: See notes to Table 1.

## Table 5: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0205 | 0.0205 | 1.001 | 1.070 | 1.000 | 0.884 | 4.13 | 4 | 5 | 6 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0211 | 0.0211 | 1.002 | 1.074 | 1.000 | 0.883 | 4.13 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0205 | 0.0205 | 1.001 | 1.070 | 1.000 | 0.884 | 4.13 | 4 | 5 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0098 | 0.0098 | 1.001 | 1.038 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0111 | 0.0111 | 1.001 | 1.042 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0094 | 0.0094 | 1.001 | 1.036 | 1.000 | 0.945 | 4.06 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.011 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0024 | 0.0024 | 1.000 | 1.012 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.007 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0188 | 0.0188 | 1.001 | 1.058 | 1.000 | 0.894 | 4.12 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0201 | 0.0201 | 1.002 | 1.066 | 1.000 | 0.888 | 4.12 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0197 | 0.0197 | 1.001 | 1.064 | 1.000 | 0.888 | 4.12 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0089 | 0.0089 | 1.001 | 1.031 | 1.000 | 0.949 | 4.05 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0107 | 0.0107 | 1.001 | 1.038 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0090 | 0.0090 | 1.001 | 1.032 | 1.000 | 0.948 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.009 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.010 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.006 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0569 | 0.4364 | 0.4364 | 1.014 | 1.321 | 1.000 | 0.081 | 9.46 | 4 | 18 | 33 | - | - | - | - |
| | 200 | 0.9998 | 0.0353 | 0.4782 | 0.4782 | 1.018 | 1.350 | 0.999 | 0.074 | 10.92 | 4 | 24 | 45 | - | - | - | - |
| | 300 | 0.9994 | 0.0275 | 0.5127 | 0.5127 | 1.019 | 1.384 | 0.998 | 0.061 | 12.13 | 4 | 26 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9846 | 0.0140 | 0.1255 | 0.1255 | 1.014 | 1.639 | 0.939 | 0.573 | 5.29 | 3 | 12 | 28 | - | - | - | - |
| | 200 | 0.9864 | 0.0142 | 0.2030 | 0.2030 | 1.022 | 1.819 | 0.947 | 0.467 | 6.73 | 4 | 19 | 40 | - | - | - | - |
| | 300 | 0.9874 | 0.0124 | 0.2378 | 0.2378 | 1.028 | 1.960 | 0.951 | 0.442 | 7.62 | 4 | 22 | 51 | - | - | - | - |
| SICA | 100 | 0.7630 | 0.0067 | 0.0930 | 0.0930 | 1.039 | 2.662 | 0.254 | 0.090 | 3.70 | 2 | 7 | 14 | - | - | - | - |
| | 200 | 0.6981 | 0.0023 | 0.0709 | 0.0709 | 1.049 | 2.943 | 0.134 | 0.047 | 3.25 | 2 | 6 | 14 | - | - | - | - |
| | 300 | 0.6669 | 0.0012 | 0.0569 | 0.0569 | 1.052 | 3.108 | 0.088 | 0.032 | 3.02 | 2 | 5 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.7796 | 0.0013 | 0.0201 | 0.0201 | 1.034 | 2.569 | 0.435 | 0.357 | 3.25 | 2 | 5 | 9 | - | - | - | - |
| | 200 | 0.7519 | 0.0006 | 0.0193 | 0.0193 | 1.039 | 2.692 | 0.371 | 0.300 | 3.13 | 2 | 5 | 8 | - | - | - | - |
| | 300 | 0.7375 | 0.0004 | 0.0180 | 0.0180 | 1.041 | 2.794 | 0.345 | 0.276 | 3.06 | 2 | 5 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3295 | 0.8608 | 0.8608 | 1.037 | 2.066 | 1.000 | 0.000 | 35.63 | 27 | 44 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.3313 | 0.9278 | 0.9278 | 1.074 | 2.751 | 1.000 | 0.000 | 68.94 | 57 | 79 | 86 | - | - | - | - |
| | 300 | 0.9999 | 0.2862 | 0.9441 | 0.9441 | 1.089 | 2.980 | 1.000 | 0.000 | 88.72 | 81 | 96 | 106 | - | - | - | - |
| $v = 1$ | 100 | 0.9963 | 0.1497 | 0.7295 | 0.7295 | 1.082 | 3.194 | 0.985 | 0.000 | 18.35 | 12 | 26 | 37 | - | - | - | - |
| | 200 | 0.9886 | 0.1561 | 0.8549 | 0.8549 | 1.156 | 4.236 | 0.955 | 0.000 | 34.55 | 24 | 48 | 68 | - | - | - | - |
| | 300 | 0.9820 | 0.1658 | 0.9056 | 0.9056 | 1.221 | 5.086 | 0.929 | 0.000 | 53.01 | 38 | 72 | 111 | - | - | - | - |

Notes: See notes to Table 1.

## Table 6: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0208 | 0.0208 | 1.001 | 1.071 | 1.000 | 0.886 | 4.13 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0180 | 0.0180 | 1.001 | 1.065 | 1.000 | 0.899 | 4.11 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0174 | 0.0174 | 1.001 | 1.066 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0109 | 0.0109 | 1.000 | 1.041 | 1.000 | 0.938 | 4.07 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0080 | 0.0080 | 1.000 | 1.032 | 1.000 | 0.954 | 4.05 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0084 | 0.0084 | 1.000 | 1.035 | 1.000 | 0.953 | 4.05 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.013 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.009 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.006 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0196 | 0.0196 | 1.001 | 1.062 | 1.000 | 0.892 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0169 | 0.0169 | 1.001 | 1.055 | 1.000 | 0.905 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0167 | 0.0167 | 1.001 | 1.061 | 1.000 | 0.907 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0100 | 0.0100 | 1.000 | 1.034 | 1.000 | 0.944 | 4.06 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0002 | 0.0076 | 0.0076 | 1.000 | 1.029 | 1.000 | 0.956 | 4.05 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0081 | 0.0081 | 1.000 | 1.032 | 1.000 | 0.955 | 4.05 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.012 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0017 | 0.0017 | 1.000 | 1.007 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.006 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0560 | 0.4321 | 0.4321 | 1.008 | 1.300 | 1.000 | 0.086 | 9.38 | 4 | 19 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0343 | 0.4690 | 0.4690 | 1.010 | 1.344 | 1.000 | 0.081 | 10.72 | 4 | 24 | 47 | - | - | - | - |
| | 300 | 1.0000 | 0.0258 | 0.4974 | 0.4974 | 1.011 | 1.379 | 1.000 | 0.066 | 11.64 | 4 | 25 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9989 | 0.0126 | 0.1048 | 0.1048 | 1.006 | 1.477 | 0.996 | 0.716 | 5.21 | 4 | 12 | 26 | - | - | - | - |
| | 200 | 0.9986 | 0.0118 | 0.1569 | 0.1569 | 1.010 | 1.675 | 0.995 | 0.649 | 6.32 | 4 | 18 | 44 | - | - | - | - |
| | 300 | 0.9986 | 0.0104 | 0.2015 | 0.2015 | 1.015 | 1.828 | 0.995 | 0.576 | 7.09 | 4 | 20 | 49 | - | - | - | - |
| SICA | 100 | 0.9281 | 0.0051 | 0.0698 | 0.0698 | 1.013 | 2.053 | 0.727 | 0.455 | 4.21 | 3 | 6 | 13 | - | - | - | - |
| | 200 | 0.8881 | 0.0021 | 0.0603 | 0.0603 | 1.018 | 2.398 | 0.590 | 0.370 | 3.97 | 3 | 6 | 17 | - | - | - | - |
| | 300 | 0.8660 | 0.0013 | 0.0551 | 0.0551 | 1.021 | 2.556 | 0.511 | 0.326 | 3.84 | 3 | 6 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.9329 | 0.0009 | 0.0128 | 0.0128 | 1.010 | 1.960 | 0.799 | 0.737 | 3.82 | 2 | 5 | 10 | - | - | - | - |
| | 200 | 0.9290 | 0.0004 | 0.0122 | 0.0122 | 1.011 | 1.988 | 0.781 | 0.720 | 3.79 | 2 | 5 | 9 | - | - | - | - |
| | 300 | 0.9248 | 0.0003 | 0.0117 | 0.0117 | 1.011 | 2.031 | 0.772 | 0.715 | 3.78 | 2 | 5 | 9 | - | - | - | - |
| | | | | | | | **Boosting methods** | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3299 | 0.8608 | 0.8608 | 1.022 | 2.062 | 1.000 | 0.000 | 35.67 | 27 | 44 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.3305 | 0.9276 | 0.9276 | 1.042 | 2.755 | 1.000 | 0.000 | 68.78 | 57 | 80 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2953 | 0.9457 | 0.9457 | 1.054 | 3.034 | 1.000 | 0.000 | 91.40 | 83 | 99 | 111 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1452 | 0.7232 | 0.7232 | 1.050 | 3.196 | 1.000 | 0.000 | 17.94 | 12 | 25 | 35 | - | - | - | - |
| | 200 | 0.9998 | 0.1458 | 0.8453 | 0.8453 | 1.092 | 4.256 | 0.999 | 0.000 | 32.57 | 23 | 44 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.1507 | 0.8963 | 0.8963 | 1.133 | 5.064 | 1.000 | 0.000 | 48.61 | 36 | 64 | 83 | - | - | - | - |

Notes: See notes to Table 1.

## Table 7: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9150 | 0.0017 | 0.0289 | 0.0289 | 1.008 | 1.101 | 0.758 | 0.653 | 3.83 | 2 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8845 | 0.0009 | 0.0298 | 0.0298 | 1.012 | 1.137 | 0.696 | 0.586 | 3.71 | 2 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8751 | 0.0006 | 0.0332 | 0.0332 | 1.012 | 1.153 | 0.667 | 0.554 | 3.68 | 2 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8809 | 0.0010 | 0.0170 | 0.0170 | 1.007 | 1.088 | 0.683 | 0.632 | 3.62 | 2 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8456 | 0.0005 | 0.0170 | 0.0170 | 1.011 | 1.134 | 0.618 | 0.561 | 3.48 | 1 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8365 | 0.0003 | 0.0187 | 0.0187 | 1.011 | 1.140 | 0.590 | 0.533 | 3.44 | 1 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7918 | 0.0003 | 0.0058 | 0.0058 | 1.011 | 1.136 | 0.518 | 0.506 | 3.19 | 1 | 4 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7475 | 0.0001 | 0.0037 | 0.0037 | 1.017 | 1.197 | 0.451 | 0.442 | 3.01 | 1 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7336 | 0.0001 | 0.0044 | 0.0044 | 1.017 | 1.202 | 0.421 | 0.410 | 2.96 | 1 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9150 | 0.0016 | 0.0273 | 0.0273 | 1.008 | 1.089 | 0.758 | 0.658 | 3.82 | 2 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8845 | 0.0008 | 0.0277 | 0.0277 | 1.011 | 1.123 | 0.696 | 0.592 | 3.70 | 2 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8751 | 0.0006 | 0.0314 | 0.0314 | 1.012 | 1.142 | 0.667 | 0.561 | 3.67 | 2 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8809 | 0.0009 | 0.0162 | 0.0162 | 1.007 | 1.083 | 0.683 | 0.633 | 3.61 | 2 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8456 | 0.0004 | 0.0157 | 0.0157 | 1.010 | 1.125 | 0.618 | 0.564 | 3.47 | 1 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8365 | 0.0003 | 0.0174 | 0.0174 | 1.011 | 1.131 | 0.590 | 0.538 | 3.44 | 1 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7918 | 0.0003 | 0.0052 | 0.0052 | 1.011 | 1.132 | 0.518 | 0.508 | 3.19 | 1 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7475 | 0.0001 | 0.0033 | 0.0033 | 1.016 | 1.194 | 0.451 | 0.443 | 3.01 | 1 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7336 | 0.0001 | 0.0043 | 0.0043 | 1.017 | 1.201 | 0.421 | 0.410 | 2.96 | 1 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7985 | 0.0512 | 0.4394 | 0.4394 | 1.035 | 1.143 | 0.368 | 0.038 | 8.11 | 3 | 17 | 36 | - | - | - | - |
| | 200 | 0.7958 | 0.0387 | 0.5285 | 0.5285 | 1.043 | 1.232 | 0.367 | 0.020 | 10.76 | 3 | 24 | 65 | - | - | - | - |
| | 300 | 0.7846 | 0.0330 | 0.5799 | 0.5799 | 1.048 | 1.272 | 0.345 | 0.014 | 12.92 | 3 | 31 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5791 | 0.0175 | 0.2176 | 0.2176 | 1.042 | 1.531 | 0.074 | 0.012 | 4.00 | 1 | 10 | 27 | - | - | - | - |
| | 200 | 0.5980 | 0.0172 | 0.3230 | 0.3230 | 1.064 | 1.767 | 0.098 | 0.007 | 5.75 | 1 | 16 | 57 | - | - | - | - |
| | 300 | 0.6099 | 0.0169 | 0.3831 | 0.3831 | 1.080 | 1.893 | 0.101 | 0.008 | 7.43 | 1 | 22 | 57 | - | - | - | - |
| SICA | 100 | 0.2843 | 0.0047 | 0.1031 | 0.1031 | 1.076 | 2.146 | 0.000 | 0.000 | 1.59 | 1 | 4 | 11 | - | - | - | - |
| | 200 | 0.2701 | 0.0022 | 0.1005 | 0.1005 | 1.083 | 2.194 | 0.000 | 0.000 | 1.52 | 1 | 4 | 14 | - | - | - | - |
| | 300 | 0.2598 | 0.0015 | 0.1022 | 0.1022 | 1.084 | 2.235 | 0.000 | 0.000 | 1.48 | 1 | 4 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.2711 | 0.0032 | 0.0765 | 0.0765 | 1.072 | 2.121 | 0.000 | 0.000 | 1.39 | 1 | 3 | 11 | - | - | - | - |
| | 200 | 0.2630 | 0.0019 | 0.0854 | 0.0854 | 1.080 | 2.182 | 0.000 | 0.000 | 1.42 | 1 | 3 | 11 | - | - | - | - |
| | 300 | 0.2585 | 0.0013 | 0.0948 | 0.0948 | 1.082 | 2.219 | 0.000 | 0.000 | 1.42 | 1 | 3 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.8944 | 0.3458 | 0.8758 | 0.8758 | 1.124 | 2.178 | 0.618 | 0.000 | 36.78 | 27 | 47 | 55 | - | - | - | - |
| | 200 | 0.8796 | 0.3138 | 0.9313 | 0.9313 | 1.198 | 2.656 | 0.576 | 0.000 | 65.03 | 58 | 72 | 79 | - | - | - | - |
| | 300 | 0.8691 | 0.2447 | 0.9417 | 0.9417 | 1.200 | 2.674 | 0.547 | 0.000 | 75.92 | 68 | 84 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.5775 | 0.1720 | 0.8212 | 0.8212 | 1.237 | 3.220 | 0.040 | 0.000 | 18.83 | 11 | 30 | 51 | - | - | - | - |
| | 200 | 0.5666 | 0.2102 | 0.9214 | 0.9214 | 1.399 | 4.096 | 0.047 | 0.000 | 43.46 | 26 | 67 | 105 | - | - | - | - |
| | 300 | 0.5514 | 0.2308 | 0.9531 | 0.9531 | 1.472 | 4.493 | 0.042 | 0.000 | 70.51 | 45 | 100 | 133 | - | - | - | - |

Notes: See notes to Table 1.

**Table 8: Monte Carlo findings for DGPI(a)**

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0180 | 0.0180 | 1.002 | 1.070 | 1.000 | 0.897 | 4.11 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0184 | 0.0184 | 1.002 | 1.081 | 1.000 | 0.895 | 4.11 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0189 | 0.0189 | 1.002 | 1.088 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0096 | 0.0096 | 1.001 | 1.040 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0088 | 0.0088 | 1.001 | 1.043 | 1.000 | 0.949 | 4.05 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0103 | 0.0103 | 1.001 | 1.053 | 1.000 | 0.940 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.010 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0012 | 0.0012 | 1.000 | 1.008 | 1.000 | 0.993 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.011 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0170 | 0.0170 | 1.001 | 1.064 | 1.000 | 0.903 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0178 | 0.0178 | 1.002 | 1.077 | 1.000 | 0.899 | 4.11 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0187 | 0.0187 | 1.002 | 1.086 | 1.000 | 0.895 | 4.12 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0087 | 0.0087 | 1.001 | 1.035 | 1.000 | 0.949 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0083 | 0.0083 | 1.001 | 1.039 | 1.000 | 0.952 | 4.05 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0101 | 0.0101 | 1.001 | 1.052 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.010 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0011 | 0.0011 | 1.000 | 1.007 | 1.000 | 0.994 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.011 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9835 | 0.0544 | 0.4251 | 0.4251 | 1.013 | 1.284 | 0.935 | 0.090 | 9.15 | 4 | 18 | 32 | - | - | - | - |
| | 200 | 0.9795 | 0.0329 | 0.4589 | 0.4589 | 1.017 | 1.349 | 0.919 | 0.089 | 10.37 | 4 | 23 | 46 | - | - | - | - |
| | 300 | 0.9809 | 0.0259 | 0.4995 | 0.4995 | 1.018 | 1.374 | 0.925 | 0.073 | 11.59 | 4 | 26 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8653 | 0.0144 | 0.1504 | 0.1504 | 1.016 | 1.722 | 0.543 | 0.233 | 4.84 | 2 | 10 | 28 | - | - | - | - |
| | 200 | 0.8781 | 0.0127 | 0.2114 | 0.2114 | 1.022 | 1.882 | 0.585 | 0.204 | 6.00 | 2 | 15 | 38 | - | - | - | - |
| | 300 | 0.8823 | 0.0118 | 0.2564 | 0.2564 | 1.029 | 2.036 | 0.598 | 0.160 | 7.01 | 2 | 20 | 49 | - | - | - | - |
| SICA | 100 | 0.4951 | 0.0055 | 0.0875 | 0.0875 | 1.043 | 2.778 | 0.007 | 0.001 | 2.51 | 1 | 6 | 15 | - | - | - | - |
| | 200 | 0.4314 | 0.0017 | 0.0599 | 0.0599 | 1.050 | 2.911 | 0.001 | 0.000 | 2.05 | 1 | 4 | 20 | - | - | - | - |
| | 300 | 0.4045 | 0.0007 | 0.0431 | 0.0431 | 1.052 | 2.995 | 0.000 | 0.000 | 1.83 | 1 | 4 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.4728 | 0.0018 | 0.0300 | 0.0300 | 1.043 | 2.812 | 0.031 | 0.011 | 2.07 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.4100 | 0.0008 | 0.0266 | 0.0266 | 1.052 | 2.959 | 0.010 | 0.003 | 1.80 | 1 | 4 | 11 | - | - | - | - |
| | 300 | 0.3774 | 0.0004 | 0.0223 | 0.0223 | 1.056 | 3.074 | 0.003 | 0.001 | 1.63 | 1 | 3 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9935 | 0.3315 | 0.8618 | 0.8618 | 1.038 | 2.095 | 0.974 | 0.000 | 35.80 | 27 | 45 | 58 | - | - | - | - |
| | 200 | 0.9930 | 0.3323 | 0.9284 | 0.9284 | 1.075 | 2.777 | 0.972 | 0.000 | 69.10 | 57 | 79 | 87 | - | - | - | - |
| | 300 | 0.9913 | 0.2880 | 0.9448 | 0.9448 | 1.090 | 3.021 | 0.965 | 0.000 | 89.23 | 81.5 | 97 | 105 | - | - | - | - |
| $v = 1$ | 100 | 0.9051 | 0.1517 | 0.7469 | 0.7469 | 1.084 | 3.271 | 0.633 | 0.000 | 18.19 | 12 | 26 | 38 | - | - | - | - |
| | 200 | 0.8675 | 0.1559 | 0.8677 | 0.8677 | 1.158 | 4.305 | 0.509 | 0.000 | 34.03 | 24 | 46 | 62 | - | - | - | - |
| | 300 | 0.8365 | 0.1666 | 0.9163 | 0.9163 | 1.227 | 5.188 | 0.415 | 0.000 | 52.66 | 37 | 71 | 95 | - | - | - | - |

Notes: See notes to Table 1.

**Table 9: Monte Carlo findings for DGPI(a)**

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0170 | 0.0170 | 1.001 | 1.064 | 1.000 | 0.906 | 4.11 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0196 | 0.0196 | 1.001 | 1.092 | 1.000 | 0.890 | 4.12 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0194 | 0.0194 | 1.001 | 1.089 | 1.000 | 0.892 | 4.12 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0082 | 0.0082 | 1.001 | 1.037 | 1.000 | 0.954 | 4.05 | 4 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0109 | 0.0109 | 1.001 | 1.055 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0095 | 0.0095 | 1.001 | 1.048 | 1.000 | 0.945 | 4.06 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.010 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.010 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.009 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0160 | 0.0160 | 1.001 | 1.057 | 1.000 | 0.911 | 4.10 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0190 | 0.0190 | 1.001 | 1.087 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0191 | 0.0191 | 1.001 | 1.086 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0073 | 0.0073 | 1.001 | 1.029 | 1.000 | 0.959 | 4.05 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0108 | 0.0108 | 1.001 | 1.054 | 1.000 | 0.938 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0094 | 0.0094 | 1.001 | 1.047 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.008 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.010 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.009 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9978 | 0.0535 | 0.4194 | 0.4194 | 1.009 | 1.284 | 0.991 | 0.100 | 9.13 | 4 | 18 | 30 | - | - | - | - |
| | 200 | 0.9986 | 0.0333 | 0.4663 | 0.4663 | 1.010 | 1.348 | 0.995 | 0.078 | 10.52 | 4 | 22 | 42 | - | - | - | - |
| | 300 | 0.9975 | 0.0254 | 0.4930 | 0.4930 | 1.011 | 1.366 | 0.990 | 0.070 | 11.50 | 4 | 25 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9504 | 0.0124 | 0.1217 | 0.1217 | 1.009 | 1.673 | 0.814 | 0.465 | 5.00 | 3 | 10 | 25 | - | - | - | - |
| | 200 | 0.9609 | 0.0116 | 0.1859 | 0.1859 | 1.012 | 1.815 | 0.850 | 0.404 | 6.11 | 3 | 16 | 34 | - | - | - | - |
| | 300 | 0.9630 | 0.0115 | 0.2356 | 0.2356 | 1.017 | 1.987 | 0.860 | 0.354 | 7.26 | 3 | 21 | 69 | - | - | - | - |
| SICA | 100 | 0.6556 | 0.0070 | 0.0958 | 0.0958 | 1.026 | 2.758 | 0.095 | 0.017 | 3.29 | 2 | 7 | 20 | - | - | - | - |
| | 200 | 0.5828 | 0.0020 | 0.0639 | 0.0639 | 1.031 | 3.048 | 0.022 | 0.003 | 2.73 | 1 | 5 | 16 | - | - | - | - |
| | 300 | 0.5574 | 0.0011 | 0.0540 | 0.0540 | 1.033 | 3.149 | 0.010 | 0.003 | 2.55 | 1 | 5 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.6723 | 0.0018 | 0.0270 | 0.0270 | 1.024 | 2.667 | 0.234 | 0.156 | 2.86 | 1 | 5 | 10 | - | - | - | - |
| | 200 | 0.6214 | 0.0007 | 0.0204 | 0.0204 | 1.028 | 2.903 | 0.148 | 0.103 | 2.62 | 1 | 5 | 12 | - | - | - | - |
| | 300 | 0.5925 | 0.0004 | 0.0186 | 0.0186 | 1.030 | 3.014 | 0.115 | 0.077 | 2.49 | 1 | 4 | 21 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9989 | 0.3282 | 0.8602 | 0.8602 | 1.021 | 2.028 | 0.996 | 0.000 | 35.51 | 27 | 44 | 61 | - | - | - | - |
| | 200 | 0.9998 | 0.3314 | 0.9278 | 0.9278 | 1.044 | 2.742 | 0.999 | 0.000 | 68.95 | 57 | 80 | 88 | - | - | - | - |
| | 300 | 0.9996 | 0.2982 | 0.9463 | 0.9463 | 1.054 | 3.036 | 0.999 | 0.000 | 92.28 | 84 | 100 | 109 | - | - | - | - |
| $v = 1$ | 100 | 0.9833 | 0.1461 | 0.7269 | 0.7269 | 1.048 | 3.131 | 0.933 | 0.000 | 17.96 | 12 | 25 | 34 | - | - | - | - |
| | 200 | 0.9756 | 0.1482 | 0.8507 | 0.8507 | 1.094 | 4.255 | 0.903 | 0.000 | 32.95 | 23 | 44 | 62 | - | - | - | - |
| | 300 | 0.9651 | 0.1517 | 0.8997 | 0.8997 | 1.135 | 5.091 | 0.861 | 0.000 | 48.78 | 36 | 64 | 84 | - | - | - | - |

Notes: See notes to Table 1.

## Table 10: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0027 | 0.0404 | 0.0404 | 1.008 | 1.101 | 1.000 | 0.789 | 4.26 | 4 | 5 | 10 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0015 | 0.0445 | 0.0445 | 1.008 | 1.108 | 1.000 | 0.775 | 4.29 | 4 | 6 | 8 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0504 | 0.0504 | 1.009 | 1.121 | 1.000 | 0.741 | 4.32 | 4 | 6 | 8 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0017 | 0.0254 | 0.0254 | 1.005 | 1.065 | 1.000 | 0.862 | 4.16 | 4 | 5 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0249 | 0.0249 | 1.005 | 1.067 | 1.000 | 0.862 | 4.15 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0296 | 0.0296 | 1.006 | 1.080 | 1.000 | 0.839 | 4.18 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0005 | 0.0072 | 0.0072 | 1.002 | 1.021 | 1.000 | 0.960 | 4.04 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0002 | 0.0064 | 0.0064 | 1.002 | 1.021 | 1.000 | 0.962 | 4.04 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0002 | 0.0082 | 0.0082 | 1.002 | 1.024 | 1.000 | 0.953 | 4.05 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0025 | 0.0372 | 0.0372 | 1.006 | 1.079 | 1.000 | 0.805 | 4.24 | 4 | 5 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0413 | 0.0413 | 1.007 | 1.084 | 1.000 | 0.791 | 4.27 | 4 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0472 | 0.0472 | 1.007 | 1.095 | 1.000 | 0.756 | 4.30 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0015 | 0.0235 | 0.0235 | 1.004 | 1.052 | 1.000 | 0.873 | 4.15 | 4 | 5 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0238 | 0.0238 | 1.005 | 1.059 | 1.000 | 0.869 | 4.15 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0271 | 0.0271 | 1.005 | 1.060 | 1.000 | 0.853 | 4.17 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0004 | 0.0067 | 0.0067 | 1.001 | 1.017 | 1.000 | 0.963 | 4.04 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0002 | 0.0058 | 0.0058 | 1.001 | 1.016 | 1.000 | 0.966 | 4.03 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0002 | 0.0076 | 0.0076 | 1.002 | 1.018 | 1.000 | 0.957 | 4.05 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9985 | 0.0575 | 0.4404 | 0.4404 | 1.046 | 1.338 | 0.994 | 0.084 | 9.52 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.9976 | 0.0434 | 0.5359 | 0.5359 | 1.053 | 1.399 | 0.991 | 0.048 | 12.50 | 4.5 | 26 | 58 | - | - | - | - |
| | 300 | 0.9978 | 0.0366 | 0.5924 | 0.5924 | 1.061 | 1.467 | 0.991 | 0.036 | 14.84 | 5 | 31 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9468 | 0.0144 | 0.1346 | 0.1346 | 1.056 | 1.764 | 0.805 | 0.432 | 5.17 | 3 | 12 | 27 | - | - | - | - |
| | 200 | 0.9501 | 0.0148 | 0.2172 | 0.2172 | 1.073 | 1.880 | 0.817 | 0.339 | 6.70 | 3 | 19 | 42 | - | - | - | - |
| | 300 | 0.9556 | 0.0159 | 0.2938 | 0.2938 | 1.096 | 2.071 | 0.837 | 0.265 | 8.53 | 3 | 24 | 54 | - | - | - | - |
| SICA | 100 | 0.6000 | 0.0064 | 0.0964 | 0.0964 | 1.168 | 3.086 | 0.058 | 0.021 | 3.01 | 1 | 6 | 14 | - | - | - | - |
| | 200 | 0.5425 | 0.0026 | 0.0868 | 0.0868 | 1.192 | 3.357 | 0.022 | 0.007 | 2.67 | 1 | 5 | 14 | - | - | - | - |
| | 300 | 0.5240 | 0.0018 | 0.0941 | 0.0941 | 1.207 | 3.416 | 0.011 | 0.003 | 2.63 | 1 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.6221 | 0.0022 | 0.0307 | 0.0307 | 1.153 | 2.982 | 0.174 | 0.125 | 2.70 | 1 | 5 | 22 | - | - | - | - |
| | 200 | 0.5771 | 0.0011 | 0.0321 | 0.0321 | 1.171 | 3.205 | 0.107 | 0.071 | 2.52 | 1 | 5 | 12 | - | - | - | - |
| | 300 | 0.5673 | 0.0010 | 0.0459 | 0.0459 | 1.184 | 3.239 | 0.097 | 0.051 | 2.58 | 1 | 5 | 19 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9990 | 0.3193 | 0.8549 | 0.8549 | 1.132 | 2.181 | 0.996 | 0.000 | 34.65 | 24 | 46 | 53 | - | - | - | - |
| | 200 | 0.9993 | 0.2824 | 0.9166 | 0.9166 | 1.203 | 2.657 | 0.997 | 0.000 | 59.35 | 51 | 66 | 74 | - | - | - | - |
| | 300 | 0.9984 | 0.2207 | 0.9287 | 0.9287 | 1.215 | 2.668 | 0.994 | 0.000 | 69.32 | 62 | 77 | 86 | - | - | - | - |
| $v = 1$ | 100 | 0.9146 | 0.1815 | 0.7693 | 0.7693 | 1.308 | 3.673 | 0.677 | 0.000 | 21.08 | 12 | 35 | 57 | - | - | - | - |
| | 200 | 0.8540 | 0.2287 | 0.8991 | 0.8991 | 1.538 | 4.911 | 0.485 | 0.000 | 48.25 | 24 | 81 | 117 | - | - | - | - |
| | 300 | 0.8153 | 0.2727 | 0.9452 | 0.9452 | 1.676 | 5.476 | 0.380 | 0.000 | 83.98 | 44 | 124 | 153 | - | - | - | - |

Notes: See notes to Table 1.

**Table 11: Monte Carlo findings for DGPI(b)**

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0019 | 0.0301 | 0.0301 | 1.001 | 1.070 | 1.000 | 0.835 | 4.19 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0011 | 0.0347 | 0.0347 | 1.002 | 1.077 | 1.000 | 0.811 | 4.22 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0363 | 0.0363 | 1.002 | 1.081 | 1.000 | 0.804 | 4.23 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0173 | 0.0173 | 1.001 | 1.043 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0191 | 0.0191 | 1.001 | 1.044 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0200 | 0.0200 | 1.001 | 1.049 | 1.000 | 0.891 | 4.12 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0034 | 0.0034 | 1.000 | 1.014 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0053 | 0.0053 | 1.000 | 1.014 | 1.000 | 0.969 | 4.03 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0047 | 0.0047 | 1.000 | 1.014 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0284 | 0.0284 | 1.001 | 1.058 | 1.000 | 0.845 | 4.18 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0010 | 0.0328 | 0.0328 | 1.001 | 1.062 | 1.000 | 0.821 | 4.20 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0352 | 0.0352 | 1.002 | 1.071 | 1.000 | 0.810 | 4.22 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0164 | 0.0164 | 1.001 | 1.036 | 1.000 | 0.909 | 4.10 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0184 | 0.0184 | 1.001 | 1.039 | 1.000 | 0.897 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0194 | 0.0194 | 1.001 | 1.043 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.007 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0002 | 0.0052 | 0.0052 | 1.000 | 1.013 | 1.000 | 0.969 | 4.03 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0046 | 0.0046 | 1.000 | 1.014 | 1.000 | 0.973 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0538 | 0.4198 | 0.4198 | 1.014 | 1.311 | 1.000 | 0.100 | 9.16 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0355 | 0.4799 | 0.4799 | 1.017 | 1.358 | 1.000 | 0.077 | 10.95 | 4 | 24 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0275 | 0.5080 | 0.5080 | 1.019 | 1.382 | 1.000 | 0.059 | 12.13 | 4 | 27 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0114 | 0.0905 | 0.0905 | 1.010 | 1.452 | 1.000 | 0.781 | 5.09 | 4 | 12.5 | 24 | - | - | - | - |
| | 200 | 0.9999 | 0.0108 | 0.1455 | 0.1455 | 1.016 | 1.597 | 1.000 | 0.703 | 6.11 | 4 | 17 | 37 | - | - | - | - |
| | 300 | 0.9998 | 0.0107 | 0.1939 | 0.1939 | 1.022 | 1.750 | 0.999 | 0.639 | 7.16 | 4 | 20 | 51 | - | - | - | - |
| SICA | 100 | 0.9651 | 0.0038 | 0.0527 | 0.0527 | 1.015 | 1.780 | 0.865 | 0.638 | 4.22 | 3 | 6 | 11 | - | - | - | - |
| | 200 | 0.9504 | 0.0015 | 0.0426 | 0.0426 | 1.019 | 1.978 | 0.810 | 0.628 | 4.09 | 3 | 6 | 10 | - | - | - | - |
| | 300 | 0.9379 | 0.0009 | 0.0396 | 0.0396 | 1.022 | 2.130 | 0.763 | 0.598 | 4.01 | 3 | 6 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.9729 | 0.0006 | 0.0092 | 0.0092 | 1.010 | 1.591 | 0.915 | 0.869 | 3.95 | 3 | 4 | 8 | - | - | - | - |
| | 200 | 0.9630 | 0.0002 | 0.0070 | 0.0070 | 1.013 | 1.757 | 0.886 | 0.852 | 3.90 | 3 | 4 | 7 | - | - | - | - |
| | 300 | 0.9641 | 0.0002 | 0.0081 | 0.0081 | 1.013 | 1.745 | 0.890 | 0.850 | 3.91 | 3 | 4 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3221 | 0.8574 | 0.8574 | 1.037 | 2.063 | 1.000 | 0.000 | 34.92 | 26 | 44 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3127 | 0.9237 | 0.9237 | 1.073 | 2.734 | 1.000 | 0.000 | 65.29 | 53 | 75 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2676 | 0.9404 | 0.9404 | 1.087 | 2.934 | 1.000 | 0.000 | 83.21 | 76 | 91 | 100 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1499 | 0.7274 | 0.7274 | 1.084 | 3.201 | 1.000 | 0.000 | 18.40 | 12 | 27 | 44 | - | - | - | - |
| | 200 | 0.9999 | 0.1530 | 0.8497 | 0.8497 | 1.155 | 4.223 | 1.000 | 0.000 | 33.99 | 23 | 48 | 75 | - | - | - | - |
| | 300 | 1.0000 | 0.1629 | 0.9010 | 0.9010 | 1.222 | 5.008 | 1.000 | 0.000 | 52.23 | 35 | 75 | 115 | - | - | - | - |

Notes: See notes to Table 1.

## Table 12: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0282 | 0.0282 | 1.001 | 1.056 | 1.000 | 0.846 | 4.18 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0010 | 0.0301 | 0.0301 | 1.001 | 1.075 | 1.000 | 0.836 | 4.19 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0345 | 0.0345 | 1.001 | 1.084 | 1.000 | 0.816 | 4.22 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0139 | 0.0139 | 1.000 | 1.028 | 1.000 | 0.922 | 4.09 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0171 | 0.0171 | 1.001 | 1.045 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0183 | 0.0183 | 1.001 | 1.047 | 1.000 | 0.900 | 4.11 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0041 | 0.0041 | 1.000 | 1.011 | 1.000 | 0.976 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0038 | 0.0038 | 1.000 | 1.013 | 1.000 | 0.978 | 4.02 | 4 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0049 | 0.0049 | 1.000 | 1.013 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0270 | 0.0270 | 1.001 | 1.047 | 1.000 | 0.853 | 4.17 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0009 | 0.0281 | 0.0281 | 1.001 | 1.059 | 1.000 | 0.846 | 4.18 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0332 | 0.0332 | 1.001 | 1.071 | 1.000 | 0.821 | 4.21 | 4 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0133 | 0.0133 | 1.000 | 1.023 | 1.000 | 0.925 | 4.08 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0158 | 0.0158 | 1.001 | 1.033 | 1.000 | 0.910 | 4.10 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0178 | 0.0178 | 1.001 | 1.041 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0038 | 0.0038 | 1.000 | 1.009 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.009 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0049 | 0.0049 | 1.000 | 1.013 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0525 | 0.4095 | 0.4095 | 1.009 | 1.302 | 1.000 | 0.122 | 9.04 | 4 | 18 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0336 | 0.4596 | 0.4596 | 1.010 | 1.355 | 1.000 | 0.086 | 10.59 | 4 | 22 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0258 | 0.4912 | 0.4912 | 1.011 | 1.382 | 1.000 | 0.069 | 11.63 | 4 | 26 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0102 | 0.0790 | 0.0790 | 1.006 | 1.375 | 1.000 | 0.842 | 4.98 | 4 | 11 | 24 | - | - | - | - |
| | 200 | 1.0000 | 0.0098 | 0.1375 | 0.1375 | 1.008 | 1.528 | 1.000 | 0.747 | 5.92 | 4 | 15 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0090 | 0.1711 | 0.1711 | 1.011 | 1.644 | 1.000 | 0.703 | 6.65 | 4 | 18 | 39 | - | - | - | - |
| SICA | 100 | 0.9966 | 0.0017 | 0.0243 | 0.0243 | 1.003 | 1.248 | 0.987 | 0.872 | 4.15 | 4 | 5 | 14 | - | - | - | - |
| | 200 | 0.9958 | 0.0007 | 0.0215 | 0.0215 | 1.003 | 1.270 | 0.984 | 0.880 | 4.13 | 4 | 5 | 18 | - | - | - | - |
| | 300 | 0.9945 | 0.0003 | 0.0156 | 0.0156 | 1.003 | 1.290 | 0.978 | 0.899 | 4.08 | 4 | 5 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.9975 | 0.0004 | 0.0053 | 0.0053 | 1.001 | 1.144 | 0.992 | 0.966 | 4.03 | 4 | 4 | 9 | - | - | - | - |
| | 200 | 0.9955 | 0.0001 | 0.0041 | 0.0041 | 1.002 | 1.207 | 0.985 | 0.965 | 4.01 | 4 | 4 | 7 | - | - | - | - |
| | 300 | 0.9960 | 0.0001 | 0.0039 | 0.0039 | 1.002 | 1.194 | 0.987 | 0.966 | 4.01 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3259 | 0.8592 | 0.8592 | 1.022 | 2.073 | 1.000 | 0.000 | 35.29 | 27 | 44 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.3185 | 0.9250 | 0.9250 | 1.043 | 2.692 | 1.000 | 0.000 | 66.43 | 54 | 77 | 88 | - | - | - | - |
| | 300 | 1.0000 | 0.2820 | 0.9433 | 0.9433 | 1.053 | 2.982 | 1.000 | 0.000 | 87.49 | 79 | 96 | 105 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1482 | 0.7266 | 0.7266 | 1.051 | 3.253 | 1.000 | 0.000 | 18.23 | 12 | 26 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.1454 | 0.8452 | 0.8452 | 1.093 | 4.210 | 1.000 | 0.000 | 32.50 | 23 | 44 | 61 | - | - | - | - |
| | 300 | 1.0000 | 0.1495 | 0.8949 | 0.8949 | 1.133 | 5.021 | 1.000 | 0.000 | 48.27 | 35 | 65 | 102 | - | - | - | - |

Notes: See notes to Table 1.

## Table 13: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9986 | 0.0022 | 0.0343 | 0.0343 | 1.007 | 1.096 | 0.995 | 0.813 | 4.21 | 4 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9976 | 0.0012 | 0.0383 | 0.0383 | 1.010 | 1.122 | 0.991 | 0.797 | 4.23 | 4 | 5 | 8 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0009 | 0.0420 | 0.0420 | 1.010 | 1.126 | 0.991 | 0.778 | 4.26 | 4 | 5 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9981 | 0.0012 | 0.0191 | 0.0191 | 1.004 | 1.058 | 0.993 | 0.888 | 4.11 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9959 | 0.0007 | 0.0223 | 0.0223 | 1.006 | 1.079 | 0.984 | 0.870 | 4.12 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9956 | 0.0005 | 0.0237 | 0.0237 | 1.006 | 1.077 | 0.983 | 0.856 | 4.13 | 4 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9921 | 0.0004 | 0.0057 | 0.0057 | 1.002 | 1.024 | 0.972 | 0.939 | 4.00 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9884 | 0.0002 | 0.0073 | 0.0073 | 1.003 | 1.042 | 0.957 | 0.919 | 4.00 | 4 | 4 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9891 | 0.0001 | 0.0066 | 0.0066 | 1.003 | 1.040 | 0.961 | 0.923 | 4.00 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9986 | 0.0021 | 0.0320 | 0.0320 | 1.006 | 1.079 | 0.995 | 0.824 | 4.19 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9976 | 0.0012 | 0.0356 | 0.0356 | 1.008 | 1.102 | 0.991 | 0.809 | 4.22 | 4 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0009 | 0.0402 | 0.0402 | 1.009 | 1.113 | 0.991 | 0.787 | 4.25 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9981 | 0.0012 | 0.0180 | 0.0180 | 1.004 | 1.050 | 0.993 | 0.893 | 4.10 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9959 | 0.0007 | 0.0209 | 0.0209 | 1.005 | 1.069 | 0.984 | 0.877 | 4.11 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9956 | 0.0005 | 0.0230 | 0.0230 | 1.006 | 1.073 | 0.983 | 0.860 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9921 | 0.0003 | 0.0056 | 0.0056 | 1.002 | 1.023 | 0.972 | 0.940 | 4.00 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9884 | 0.0002 | 0.0067 | 0.0067 | 1.003 | 1.034 | 0.957 | 0.923 | 3.99 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9891 | 0.0001 | 0.0063 | 0.0063 | 1.002 | 1.036 | 0.961 | 0.925 | 3.99 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9553 | 0.0555 | 0.4324 | 0.4324 | 1.042 | 1.281 | 0.826 | 0.082 | 9.15 | 4 | 18 | 37 | - | - | - | - |
| | 200 | 0.9530 | 0.0414 | 0.5234 | 0.5234 | 1.052 | 1.362 | 0.817 | 0.042 | 11.93 | 4 | 25 | 54 | - | - | - | - |
| | 300 | 0.9496 | 0.0345 | 0.5726 | 0.5726 | 1.056 | 1.414 | 0.805 | 0.038 | 14.02 | 4 | 30.5 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7744 | 0.0155 | 0.1640 | 0.1640 | 1.058 | 1.764 | 0.355 | 0.122 | 4.59 | 2 | 10 | 30 | - | - | - | - |
| | 200 | 0.7936 | 0.0157 | 0.2560 | 0.2560 | 1.077 | 1.915 | 0.384 | 0.087 | 6.26 | 2 | 17 | 49 | - | - | - | - |
| | 300 | 0.7974 | 0.0152 | 0.3185 | 0.3185 | 1.092 | 2.041 | 0.387 | 0.056 | 7.70 | 2 | 23 | 55 | - | - | - | - |
| SICA | 100 | 0.3985 | 0.0055 | 0.0981 | 0.0981 | 1.133 | 2.735 | 0.001 | 0.000 | 2.12 | 1 | 5 | 15 | - | - | - | - |
| | 200 | 0.3680 | 0.0022 | 0.0897 | 0.0897 | 1.139 | 2.808 | 0.000 | 0.000 | 1.90 | 1 | 4 | 11 | - | - | - | - |
| | 300 | 0.3441 | 0.0014 | 0.0855 | 0.0855 | 1.149 | 2.812 | 0.000 | 0.000 | 1.80 | 1 | 4 | 18 | - | - | - | - |
| Hard thresholding | 100 | 0.3755 | 0.0029 | 0.0495 | 0.0495 | 1.131 | 2.742 | 0.003 | 0.001 | 1.78 | 1 | 4 | 24 | - | - | - | - |
| | 200 | 0.3523 | 0.0015 | 0.0589 | 0.0589 | 1.141 | 2.820 | 0.000 | 0.000 | 1.70 | 1 | 4 | 12 | - | - | - | - |
| | 300 | 0.3351 | 0.0011 | 0.0613 | 0.0613 | 1.148 | 2.810 | 0.001 | 0.000 | 1.66 | 1 | 4 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9750 | 0.3205 | 0.8578 | 0.8578 | 1.131 | 2.203 | 0.901 | 0.000 | 34.67 | 24 | 46 | 55 | - | - | - | - |
| | 200 | 0.9751 | 0.2837 | 0.9184 | 0.9184 | 1.206 | 2.674 | 0.902 | 0.000 | 59.51 | 51 | 67 | 74 | - | - | - | - |
| | 300 | 0.9686 | 0.2219 | 0.9306 | 0.9306 | 1.215 | 2.646 | 0.878 | 0.000 | 69.56 | 62 | 77 | 85 | - | - | - | - |
| $v = 1$ | 100 | 0.7241 | 0.1778 | 0.7969 | 0.7969 | 1.282 | 3.524 | 0.180 | 0.000 | 19.97 | 11 | 34 | 59 | - | - | - | - |
| | 200 | 0.6909 | 0.2255 | 0.9117 | 0.9117 | 1.483 | 4.525 | 0.145 | 0.000 | 46.96 | 24 | 79 | 117 | - | - | - | - |
| | 300 | 0.6844 | 0.2752 | 0.9523 | 0.9523 | 1.600 | 4.945 | 0.129 | 0.000 | 84.21 | 43 | 124 | 156 | - | - | - | - |

Notes: See notes to Table 1.

## Table 14: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0017 | 0.0259 | 0.0259 | 1.002 | 1.071 | 1.000 | 0.857 | 4.16 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0255 | 0.0255 | 1.002 | 1.081 | 1.000 | 0.862 | 4.16 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0295 | 0.0295 | 1.002 | 1.087 | 1.000 | 0.838 | 4.18 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0148 | 0.0148 | 1.001 | 1.044 | 1.000 | 0.915 | 4.09 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0142 | 0.0142 | 1.001 | 1.051 | 1.000 | 0.922 | 4.09 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0169 | 0.0169 | 1.001 | 1.053 | 1.000 | 0.907 | 4.10 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0030 | 0.0030 | 1.000 | 1.009 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.016 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0043 | 0.0043 | 1.000 | 1.015 | 1.000 | 0.976 | 4.03 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0244 | 0.0244 | 1.002 | 1.060 | 1.000 | 0.865 | 4.15 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0247 | 0.0247 | 1.002 | 1.074 | 1.000 | 0.866 | 4.15 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0286 | 0.0286 | 1.002 | 1.078 | 1.000 | 0.842 | 4.18 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0142 | 0.0142 | 1.001 | 1.039 | 1.000 | 0.919 | 4.09 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0136 | 0.0136 | 1.001 | 1.045 | 1.000 | 0.926 | 4.08 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0165 | 0.0165 | 1.001 | 1.049 | 1.000 | 0.909 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0030 | 0.0030 | 1.000 | 1.009 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.013 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0042 | 0.0042 | 1.000 | 1.014 | 1.000 | 0.976 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0572 | 0.4362 | 0.4362 | 1.014 | 1.293 | 0.999 | 0.088 | 9.49 | 4 | 18 | 44 | - | - | - | - |
| | 200 | 0.9998 | 0.0366 | 0.4926 | 0.4926 | 1.017 | 1.360 | 0.999 | 0.065 | 11.17 | 4 | 24 | 42 | - | - | - | - |
| | 300 | 0.9993 | 0.0284 | 0.5200 | 0.5200 | 1.018 | 1.380 | 0.997 | 0.058 | 12.39 | 4 | 27 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9836 | 0.0145 | 0.1227 | 0.1227 | 1.015 | 1.643 | 0.935 | 0.588 | 5.33 | 3 | 13 | 36 | - | - | - | - |
| | 200 | 0.9850 | 0.0134 | 0.1916 | 0.1916 | 1.022 | 1.808 | 0.941 | 0.485 | 6.56 | 3 | 18 | 36 | - | - | - | - |
| | 300 | 0.9838 | 0.0128 | 0.2417 | 0.2417 | 1.028 | 1.944 | 0.938 | 0.429 | 7.71 | 3 | 22 | 51 | - | - | - | - |
| SICA | 100 | 0.7471 | 0.0062 | 0.0864 | 0.0864 | 1.043 | 2.746 | 0.240 | 0.081 | 3.58 | 2 | 7 | 18 | - | - | - | - |
| | 200 | 0.6835 | 0.0020 | 0.0630 | 0.0630 | 1.051 | 3.051 | 0.120 | 0.049 | 3.13 | 2 | 6 | 12 | - | - | - | - |
| | 300 | 0.6480 | 0.0012 | 0.0577 | 0.0577 | 1.057 | 3.202 | 0.068 | 0.027 | 2.94 | 2 | 5 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.7806 | 0.0015 | 0.0220 | 0.0220 | 1.035 | 2.575 | 0.434 | 0.349 | 3.27 | 2 | 5 | 11 | - | - | - | - |
| | 200 | 0.7471 | 0.0005 | 0.0163 | 0.0163 | 1.041 | 2.755 | 0.367 | 0.307 | 3.09 | 2 | 5 | 8 | - | - | - | - |
| | 300 | 0.7153 | 0.0004 | 0.0181 | 0.0181 | 1.045 | 2.912 | 0.299 | 0.241 | 2.98 | 1 | 5 | 12 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3224 | 0.8575 | 0.8575 | 1.039 | 2.075 | 1.000 | 0.000 | 34.95 | 26 | 44 | 56 | - | - | - | - |
| | 200 | 0.9999 | 0.3150 | 0.9243 | 0.9243 | 1.074 | 2.751 | 1.000 | 0.000 | 65.75 | 54 | 75 | 82 | - | - | - | - |
| | 300 | 1.0000 | 0.2691 | 0.9407 | 0.9407 | 1.088 | 2.951 | 1.000 | 0.000 | 83.66 | 76 | 91 | 101 | - | - | - | - |
| $v = 1$ | 100 | 0.9918 | 0.1497 | 0.7290 | 0.7290 | 1.088 | 3.248 | 0.967 | 0.000 | 18.33 | 12 | 26 | 37 | - | - | - | - |
| | 200 | 0.9829 | 0.1543 | 0.8524 | 0.8524 | 1.160 | 4.317 | 0.932 | 0.000 | 34.17 | 22 | 49 | 68 | - | - | - | - |
| | 300 | 0.9708 | 0.1651 | 0.9041 | 0.9041 | 1.228 | 5.127 | 0.884 | 0.000 | 52.75 | 35 | 77 | 106 | - | - | - | - |

Notes: See notes to Table 1.

## Table 15: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0019 | 0.0288 | 0.0288 | 1.001 | 1.083 | 1.000 | 0.845 | 4.18 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0262 | 0.0262 | 1.001 | 1.087 | 1.000 | 0.856 | 4.16 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0299 | 0.0299 | 1.001 | 1.086 | 1.000 | 0.834 | 4.18 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0167 | 0.0167 | 1.001 | 1.053 | 1.000 | 0.908 | 4.10 | 4 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0142 | 0.0142 | 1.001 | 1.052 | 1.000 | 0.918 | 4.09 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0154 | 0.0154 | 1.001 | 1.049 | 1.000 | 0.910 | 4.09 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0039 | 0.0039 | 1.000 | 1.014 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0035 | 0.0035 | 1.000 | 1.016 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.013 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0274 | 0.0274 | 1.001 | 1.073 | 1.000 | 0.853 | 4.17 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0254 | 0.0254 | 1.001 | 1.080 | 1.000 | 0.860 | 4.16 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0290 | 0.0290 | 1.001 | 1.079 | 1.000 | 0.839 | 4.18 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0010 | 0.0159 | 0.0159 | 1.001 | 1.046 | 1.000 | 0.913 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0139 | 0.0139 | 1.001 | 1.049 | 1.000 | 0.920 | 4.08 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0149 | 0.0149 | 1.001 | 1.044 | 1.000 | 0.913 | 4.09 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0039 | 0.0039 | 1.000 | 1.014 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.014 | 1.000 | 0.981 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.013 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0556 | 0.4272 | 0.4272 | 1.008 | 1.294 | 1.000 | 0.094 | 9.34 | 4 | 19 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0347 | 0.4739 | 0.4739 | 1.010 | 1.347 | 1.000 | 0.081 | 10.80 | 4 | 23 | 46 | - | - | - | - |
| | 300 | 1.0000 | 0.0262 | 0.4983 | 0.4983 | 1.011 | 1.370 | 1.000 | 0.068 | 11.75 | 4 | 26 | 48 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9983 | 0.0126 | 0.1019 | 0.1019 | 1.007 | 1.493 | 0.993 | 0.723 | 5.20 | 4 | 12 | 27 | - | - | - | - |
| | 200 | 0.9980 | 0.0117 | 0.1605 | 0.1605 | 1.011 | 1.671 | 0.992 | 0.632 | 6.28 | 4 | 17 | 39 | - | - | - | - |
| | 300 | 0.9990 | 0.0115 | 0.2132 | 0.2132 | 1.015 | 1.831 | 0.996 | 0.567 | 7.40 | 4 | 22 | 36 | - | - | - | - |
| SICA | 100 | 0.9199 | 0.0052 | 0.0714 | 0.0714 | 1.014 | 2.140 | 0.702 | 0.421 | 4.18 | 3 | 6 | 16 | - | - | - | - |
| | 200 | 0.8816 | 0.0020 | 0.0584 | 0.0584 | 1.019 | 2.430 | 0.565 | 0.359 | 3.93 | 3 | 6 | 13 | - | - | - | - |
| | 300 | 0.8573 | 0.0012 | 0.0538 | 0.0538 | 1.022 | 2.600 | 0.487 | 0.313 | 3.79 | 2 | 6 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.9364 | 0.0009 | 0.0124 | 0.0124 | 1.010 | 1.918 | 0.808 | 0.747 | 3.83 | 2 | 5 | 12 | - | - | - | - |
| | 200 | 0.9193 | 0.0004 | 0.0127 | 0.0127 | 1.013 | 2.093 | 0.760 | 0.703 | 3.76 | 2 | 5 | 9 | - | - | - | - |
| | 300 | 0.9163 | 0.0003 | 0.0109 | 0.0109 | 1.013 | 2.091 | 0.749 | 0.698 | 3.74 | 2 | 5 | 10 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3230 | 0.8581 | 0.8581 | 1.022 | 2.066 | 1.000 | 0.000 | 35.01 | 27 | 44 | 51 | - | - | - | - |
| | 200 | 1.0000 | 0.3182 | 0.9249 | 0.9249 | 1.043 | 2.720 | 1.000 | 0.000 | 66.36 | 54 | 78 | 87 | - | - | - | - |
| | 300 | 1.0000 | 0.2833 | 0.9435 | 0.9435 | 1.054 | 2.985 | 1.000 | 0.000 | 87.86 | 79 | 96 | 107 | - | - | - | - |
| $v = 1$ | 100 | 0.9999 | 0.1444 | 0.7209 | 0.7209 | 1.050 | 3.213 | 1.000 | 0.000 | 17.86 | 11 | 25 | 37 | - | - | - | - |
| | 200 | 0.9998 | 0.1442 | 0.8436 | 0.8436 | 1.093 | 4.220 | 0.999 | 0.000 | 32.27 | 22 | 44 | 66 | - | - | - | - |
| | 300 | 0.9995 | 0.1481 | 0.8941 | 0.8941 | 1.136 | 4.978 | 0.998 | 0.000 | 47.84 | 35 | 64 | 97 | - | - | - | - |

Notes: See notes to Table 1.

**Table 16: Monte Carlo findings for DGPI(b)**

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9151 | 0.0019 | 0.0314 | 0.0314 | 1.009 | 1.103 | 0.763 | 0.643 | 3.85 | 2 | 5 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8879 | 0.0011 | 0.0380 | 0.0380 | 1.012 | 1.148 | 0.705 | 0.576 | 3.76 | 2 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8728 | 0.0008 | 0.0408 | 0.0408 | 1.014 | 1.172 | 0.670 | 0.537 | 3.73 | 2 | 5 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8846 | 0.0011 | 0.0188 | 0.0188 | 1.008 | 1.091 | 0.699 | 0.628 | 3.64 | 2 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8561 | 0.0006 | 0.0196 | 0.0196 | 1.010 | 1.120 | 0.641 | 0.569 | 3.53 | 1 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8364 | 0.0005 | 0.0251 | 0.0251 | 1.013 | 1.159 | 0.605 | 0.534 | 3.48 | 1 | 5 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8000 | 0.0003 | 0.0053 | 0.0053 | 1.012 | 1.127 | 0.545 | 0.531 | 3.23 | 1 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7601 | 0.0001 | 0.0041 | 0.0041 | 1.015 | 1.168 | 0.468 | 0.454 | 3.06 | 1 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7315 | 0.0001 | 0.0088 | 0.0088 | 1.019 | 1.219 | 0.441 | 0.420 | 2.97 | 0 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9151 | 0.0018 | 0.0297 | 0.0297 | 1.008 | 1.091 | 0.763 | 0.651 | 3.84 | 2 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8879 | 0.0010 | 0.0361 | 0.0361 | 1.012 | 1.136 | 0.705 | 0.583 | 3.75 | 2 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8728 | 0.0008 | 0.0388 | 0.0388 | 1.013 | 1.159 | 0.670 | 0.542 | 3.72 | 2 | 5 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8846 | 0.0010 | 0.0175 | 0.0175 | 1.007 | 1.081 | 0.699 | 0.636 | 3.64 | 2 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8561 | 0.0005 | 0.0187 | 0.0187 | 1.010 | 1.113 | 0.641 | 0.573 | 3.53 | 1 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8364 | 0.0004 | 0.0243 | 0.0243 | 1.013 | 1.154 | 0.605 | 0.536 | 3.48 | 1 | 5 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8000 | 0.0002 | 0.0048 | 0.0048 | 1.011 | 1.124 | 0.545 | 0.533 | 3.22 | 1 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7601 | 0.0001 | 0.0035 | 0.0035 | 1.015 | 1.164 | 0.468 | 0.454 | 3.06 | 1 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7315 | 0.0001 | 0.0086 | 0.0086 | 1.019 | 1.216 | 0.441 | 0.422 | 2.97 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8058 | 0.0523 | 0.4455 | 0.4455 | 1.033 | 1.144 | 0.391 | 0.036 | 8.25 | 3 | 17 | 37 | - | - | - | - |
| | 200 | 0.7976 | 0.0412 | 0.5568 | 0.5568 | 1.041 | 1.227 | 0.372 | 0.011 | 11.27 | 3 | 24 | 53 | - | - | - | - |
| | 300 | 0.7825 | 0.0341 | 0.6062 | 0.6062 | 1.048 | 1.285 | 0.344 | 0.013 | 13.23 | 3 | 30 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5753 | 0.0170 | 0.2068 | 0.2068 | 1.044 | 1.541 | 0.066 | 0.012 | 3.93 | 1 | 10 | 26 | - | - | - | - |
| | 200 | 0.5995 | 0.0173 | 0.3292 | 0.3292 | 1.064 | 1.746 | 0.095 | 0.007 | 5.79 | 1 | 16 | 45 | - | - | - | - |
| | 300 | 0.5970 | 0.0157 | 0.3944 | 0.3944 | 1.082 | 1.898 | 0.082 | 0.003 | 7.04 | 1 | 20 | 52 | - | - | - | - |
| SICA | 100 | 0.2868 | 0.0059 | 0.1240 | 0.1240 | 1.083 | 2.168 | 0.000 | 0.000 | 1.72 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.2700 | 0.0026 | 0.1159 | 0.1159 | 1.086 | 2.142 | 0.000 | 0.000 | 1.58 | 1 | 4 | 10 | - | - | - | - |
| | 300 | 0.2604 | 0.0016 | 0.1117 | 0.1117 | 1.088 | 2.212 | 0.000 | 0.000 | 1.51 | 1 | 3.5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.2735 | 0.0037 | 0.0859 | 0.0859 | 1.077 | 2.119 | 0.000 | 0.000 | 1.45 | 1 | 3 | 10 | - | - | - | - |
| | 200 | 0.2634 | 0.0020 | 0.0975 | 0.0975 | 1.082 | 2.118 | 0.000 | 0.000 | 1.45 | 1 | 3 | 12 | - | - | - | - |
| | 300 | 0.2596 | 0.0014 | 0.1075 | 0.1075 | 1.085 | 2.195 | 0.000 | 0.000 | 1.46 | 1 | 3 | 15 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.8849 | 0.3199 | 0.8672 | 0.8672 | 1.127 | 2.142 | 0.589 | 0.000 | 34.25 | 24 | 45 | 54 | - | - | - | - |
| | 200 | 0.8746 | 0.2849 | 0.9250 | 0.9250 | 1.204 | 2.579 | 0.560 | 0.000 | 59.33 | 50 | 67 | 73 | - | - | - | - |
| | 300 | 0.8674 | 0.2231 | 0.9364 | 0.9364 | 1.209 | 2.659 | 0.537 | 0.000 | 69.52 | 62 | 77 | 84 | - | - | - | - |
| $v = 1$ | 100 | 0.5586 | 0.1712 | 0.8191 | 0.8191 | 1.247 | 3.193 | 0.027 | 0.000 | 18.67 | 10 | 32 | 52 | - | - | - | - |
| | 200 | 0.5559 | 0.2221 | 0.9219 | 0.9219 | 1.439 | 4.083 | 0.043 | 0.000 | 45.76 | 22 | 80 | 128 | - | - | - | - |
| | 300 | 0.5821 | 0.2709 | 0.9565 | 0.9565 | 1.550 | 4.661 | 0.056 | 0.000 | 82.53 | 43 | 124 | 158 | - | - | - | - |

Notes: See notes to Table 1.

## Table 17: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0222 | 0.0222 | 1.002 | 1.081 | 1.000 | 0.878 | 4.14 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0253 | 0.0253 | 1.003 | 1.104 | 1.000 | 0.859 | 4.16 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0269 | 0.0269 | 1.003 | 1.112 | 1.000 | 0.854 | 4.17 | 4 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0121 | 0.0121 | 1.001 | 1.050 | 1.000 | 0.929 | 4.07 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0140 | 0.0140 | 1.002 | 1.064 | 1.000 | 0.920 | 4.09 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0146 | 0.0146 | 1.002 | 1.071 | 1.000 | 0.918 | 4.09 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0027 | 0.0027 | 1.000 | 1.014 | 1.000 | 0.984 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0032 | 0.0032 | 1.000 | 1.019 | 1.000 | 0.981 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.021 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0211 | 0.0211 | 1.002 | 1.074 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0246 | 0.0246 | 1.002 | 1.099 | 1.000 | 0.863 | 4.15 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0263 | 0.0263 | 1.002 | 1.107 | 1.000 | 0.857 | 4.17 | 4 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0115 | 0.0115 | 1.001 | 1.045 | 1.000 | 0.933 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0135 | 0.0135 | 1.001 | 1.060 | 1.000 | 0.922 | 4.08 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0141 | 0.0141 | 1.001 | 1.066 | 1.000 | 0.921 | 4.09 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.013 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0030 | 0.0030 | 1.000 | 1.017 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.021 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9834 | 0.0549 | 0.4208 | 0.4208 | 1.014 | 1.291 | 0.935 | 0.101 | 9.20 | 4 | 18 | 41 | - | - | - | - |
| | 200 | 0.9809 | 0.0354 | 0.4808 | 0.4808 | 1.016 | 1.341 | 0.925 | 0.073 | 10.86 | 4 | 23 | 53 | - | - | - | - |
| | 300 | 0.9786 | 0.0273 | 0.5077 | 0.5077 | 1.019 | 1.368 | 0.916 | 0.068 | 12.00 | 4 | 26 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8565 | 0.0155 | 0.1528 | 0.1528 | 1.018 | 1.756 | 0.521 | 0.212 | 4.92 | 2 | 11 | 33 | - | - | - | - |
| | 200 | 0.8738 | 0.0133 | 0.2179 | 0.2179 | 1.023 | 1.894 | 0.580 | 0.180 | 6.11 | 2 | 16 | 47 | - | - | - | - |
| | 300 | 0.8764 | 0.0123 | 0.2624 | 0.2624 | 1.029 | 2.027 | 0.586 | 0.157 | 7.14 | 2 | 21 | 53 | - | - | - | - |
| SICA | 100 | 0.4919 | 0.0055 | 0.0888 | 0.0888 | 1.044 | 2.753 | 0.007 | 0.001 | 2.50 | 1 | 5 | 16 | - | - | - | - |
| | 200 | 0.4248 | 0.0016 | 0.0600 | 0.0600 | 1.051 | 2.888 | 0.001 | 0.000 | 2.02 | 1 | 4 | 16 | - | - | - | - |
| | 300 | 0.4008 | 0.0008 | 0.0501 | 0.0501 | 1.054 | 3.005 | 0.000 | 0.000 | 1.85 | 1 | 4 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.4566 | 0.0019 | 0.0316 | 0.0316 | 1.047 | 2.823 | 0.021 | 0.009 | 2.01 | 1 | 4 | 10 | - | - | - | - |
| | 200 | 0.4008 | 0.0006 | 0.0223 | 0.0223 | 1.054 | 2.933 | 0.006 | 0.002 | 1.72 | 1 | 4 | 8 | - | - | - | - |
| | 300 | 0.3760 | 0.0004 | 0.0247 | 0.0247 | 1.057 | 3.063 | 0.002 | 0.000 | 1.64 | 1 | 3 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9923 | 0.3228 | 0.8584 | 0.8584 | 1.038 | 2.082 | 0.970 | 0.000 | 34.96 | 26 | 44 | 55 | - | - | - | - |
| | 200 | 0.9899 | 0.3143 | 0.9246 | 0.9246 | 1.075 | 2.703 | 0.960 | 0.000 | 65.56 | 53 | 76 | 82 | - | - | - | - |
| | 300 | 0.9914 | 0.2705 | 0.9414 | 0.9414 | 1.089 | 2.969 | 0.966 | 0.000 | 84.03 | 76 | 92 | 102 | - | - | - | - |
| $v = 1$ | 100 | 0.8815 | 0.1525 | 0.7507 | 0.7507 | 1.087 | 3.300 | 0.543 | 0.000 | 18.16 | 11 | 26 | 44 | - | - | - | - |
| | 200 | 0.8325 | 0.1536 | 0.8681 | 0.8681 | 1.162 | 4.283 | 0.405 | 0.000 | 33.44 | 22 | 47.5 | 80 | - | - | - | - |
| | 300 | 0.8008 | 0.1645 | 0.9166 | 0.9166 | 1.232 | 5.161 | 0.330 | 0.000 | 51.90 | 35 | 76 | 124 | - | - | - | - |

Notes: See notes to Table 1.

## Table 18: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0201 | 0.0201 | 1.001 | 1.076 | 1.000 | 0.890 | 4.13 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0223 | 0.0223 | 1.001 | 1.098 | 1.000 | 0.876 | 4.14 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0231 | 0.0231 | 1.001 | 1.101 | 1.000 | 0.874 | 4.14 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0112 | 0.0112 | 1.001 | 1.046 | 1.000 | 0.938 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0119 | 0.0119 | 1.001 | 1.059 | 1.000 | 0.931 | 4.07 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0118 | 0.0118 | 1.001 | 1.057 | 1.000 | 0.933 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0033 | 0.0033 | 1.000 | 1.016 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.015 | 1.000 | 0.983 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0030 | 0.0030 | 1.000 | 1.019 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0196 | 0.0196 | 1.001 | 1.072 | 1.000 | 0.892 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0216 | 0.0216 | 1.001 | 1.092 | 1.000 | 0.879 | 4.13 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0228 | 0.0228 | 1.001 | 1.098 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0111 | 0.0111 | 1.001 | 1.045 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0115 | 0.0115 | 1.001 | 1.055 | 1.000 | 0.933 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0117 | 0.0117 | 1.001 | 1.055 | 1.000 | 0.934 | 4.07 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0032 | 0.0032 | 1.000 | 1.015 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.015 | 1.000 | 0.983 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.016 | 1.000 | 0.984 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9986 | 0.0556 | 0.4306 | 0.4306 | 1.008 | 1.292 | 0.995 | 0.088 | 9.33 | 4 | 18 | 32 | - | - | - | - |
| | 200 | 0.9983 | 0.0354 | 0.4862 | 0.4862 | 1.010 | 1.342 | 0.993 | 0.059 | 10.93 | 4 | 24 | 55 | - | - | - | - |
| | 300 | 0.9976 | 0.0264 | 0.5058 | 0.5058 | 1.011 | 1.366 | 0.991 | 0.069 | 11.81 | 4 | 26 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9530 | 0.0133 | 0.1288 | 0.1288 | 1.009 | 1.665 | 0.824 | 0.455 | 5.08 | 3 | 10 | 30 | - | - | - | - |
| | 200 | 0.9618 | 0.0134 | 0.2013 | 0.2013 | 1.014 | 1.866 | 0.856 | 0.376 | 6.47 | 3 | 17 | 38 | - | - | - | - |
| | 300 | 0.9599 | 0.0116 | 0.2383 | 0.2383 | 1.017 | 1.974 | 0.845 | 0.346 | 7.29 | 3 | 21 | 49 | - | - | - | - |
| SICA | 100 | 0.6425 | 0.0067 | 0.0948 | 0.0948 | 1.027 | 2.829 | 0.075 | 0.010 | 3.21 | 2 | 6 | 17 | - | - | - | - |
| | 200 | 0.5793 | 0.0022 | 0.0669 | 0.0669 | 1.033 | 3.045 | 0.026 | 0.004 | 2.74 | 1 | 6 | 15 | - | - | - | - |
| | 300 | 0.5505 | 0.0011 | 0.0570 | 0.0570 | 1.034 | 3.218 | 0.010 | 0.001 | 2.53 | 1 | 5 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.6555 | 0.0018 | 0.0261 | 0.0261 | 1.025 | 2.760 | 0.208 | 0.138 | 2.79 | 1 | 5 | 10 | - | - | - | - |
| | 200 | 0.6213 | 0.0008 | 0.0252 | 0.0252 | 1.029 | 2.887 | 0.157 | 0.104 | 2.65 | 1 | 5 | 10 | - | - | - | - |
| | 300 | 0.5924 | 0.0004 | 0.0184 | 0.0184 | 1.030 | 3.059 | 0.113 | 0.077 | 2.48 | 1 | 4 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9991 | 0.3253 | 0.8590 | 0.8590 | 1.022 | 2.061 | 0.997 | 0.000 | 35.23 | 27 | 44 | 55 | - | - | - | - |
| | 200 | 0.9995 | 0.3177 | 0.9248 | 0.9248 | 1.043 | 2.694 | 0.998 | 0.000 | 66.26 | 54 | 78 | 86 | - | - | - | - |
| | 300 | 0.9996 | 0.2851 | 0.9439 | 0.9439 | 1.055 | 3.039 | 0.999 | 0.000 | 88.39 | 79 | 97 | 105 | - | - | - | - |
| $v = 1$ | 100 | 0.9814 | 0.1483 | 0.7297 | 0.7297 | 1.050 | 3.211 | 0.926 | 0.000 | 18.17 | 12 | 26 | 36 | - | - | - | - |
| | 200 | 0.9620 | 0.1452 | 0.8487 | 0.8487 | 1.094 | 4.223 | 0.848 | 0.000 | 32.30 | 23 | 45 | 66 | - | - | - | - |
| | 300 | 0.9511 | 0.1487 | 0.8983 | 0.8983 | 1.135 | 5.125 | 0.806 | 0.000 | 47.81 | 34 | 64 | 91 | - | - | - | - |

Notes: See notes to Table 1.

## Table 19: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0226 | 0.0226 | 1.005 | 1.129 | 1.000 | 0.897 | 4.17 | 4 | 5 | 21 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0009 | 0.0232 | 0.0232 | 1.006 | 1.149 | 1.000 | 0.894 | 4.18 | 4 | 5 | 34 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0222 | 0.0222 | 1.006 | 1.137 | 1.000 | 0.894 | 4.16 | 4 | 5 | 20 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0010 | 0.0131 | 0.0131 | 1.003 | 1.078 | 1.000 | 0.940 | 4.10 | 4 | 5 | 18 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0129 | 0.0129 | 1.004 | 1.086 | 1.000 | 0.936 | 4.09 | 4 | 5 | 21 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0125 | 0.0125 | 1.004 | 1.079 | 1.000 | 0.938 | 4.08 | 4 | 5 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0036 | 0.0036 | 1.001 | 1.023 | 1.000 | 0.983 | 4.02 | 4 | 4 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.001 | 1.024 | 1.000 | 0.983 | 4.02 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0035 | 0.0035 | 1.002 | 1.032 | 1.000 | 0.981 | 4.02 | 4 | 4 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0204 | 0.0204 | 1.004 | 1.096 | 1.000 | 0.908 | 4.16 | 4 | 5 | 21 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0205 | 0.0205 | 1.005 | 1.105 | 1.000 | 0.907 | 4.16 | 4 | 5 | 34 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0199 | 0.0199 | 1.004 | 1.099 | 1.000 | 0.905 | 4.14 | 4 | 5 | 14 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0120 | 0.0120 | 1.003 | 1.063 | 1.000 | 0.945 | 4.09 | 4 | 5 | 18 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0112 | 0.0112 | 1.003 | 1.059 | 1.000 | 0.945 | 4.08 | 4 | 5 | 21 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0112 | 0.0112 | 1.003 | 1.058 | 1.000 | 0.945 | 4.07 | 4 | 5 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0031 | 0.0031 | 1.001 | 1.017 | 1.000 | 0.985 | 4.02 | 4 | 4 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.013 | 1.000 | 0.985 | 4.02 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0028 | 0.0028 | 1.001 | 1.023 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9988 | 0.0454 | 0.3851 | 0.3851 | 1.040 | 1.437 | 0.995 | 0.120 | 8.35 | 4 | 16 | 36 | - | - | - | - |
| | 200 | 0.9988 | 0.0325 | 0.4559 | 0.4559 | 1.048 | 1.562 | 0.995 | 0.089 | 10.36 | 4 | 22 | 41 | - | - | - | - |
| | 300 | 0.9990 | 0.0253 | 0.4896 | 0.4896 | 1.053 | 1.600 | 0.996 | 0.071 | 11.48 | 4 | 26 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9479 | 0.0095 | 0.0950 | 0.0950 | 1.049 | 1.864 | 0.809 | 0.523 | 4.70 | 3 | 9 | 34 | - | - | - | - |
| | 200 | 0.9515 | 0.0101 | 0.1594 | 0.1594 | 1.062 | 2.152 | 0.823 | 0.428 | 5.79 | 3 | 16 | 33 | - | - | - | - |
| | 300 | 0.9511 | 0.0095 | 0.1938 | 0.1938 | 1.072 | 2.338 | 0.825 | 0.387 | 6.62 | 3 | 20 | 41 | - | - | - | - |
| SICA | 100 | 0.6765 | 0.0061 | 0.0877 | 0.0877 | 1.127 | 2.981 | 0.144 | 0.047 | 3.29 | 2 | 6 | 14 | - | - | - | - |
| | 200 | 0.6173 | 0.0028 | 0.0820 | 0.0820 | 1.154 | 3.240 | 0.078 | 0.023 | 3.01 | 1 | 6 | 33 | - | - | - | - |
| | 300 | 0.5846 | 0.0017 | 0.0806 | 0.0806 | 1.168 | 3.307 | 0.040 | 0.013 | 2.85 | 1 | 6 | 16 | - | - | - | - |
| Hard thresholding | 100 | 0.6660 | 0.0020 | 0.0274 | 0.0274 | 1.128 | 2.911 | 0.245 | 0.181 | 2.85 | 1 | 5 | 13 | - | - | - | - |
| | 200 | 0.6389 | 0.0013 | 0.0344 | 0.0344 | 1.144 | 3.072 | 0.200 | 0.139 | 2.80 | 1 | 5 | 13 | - | - | - | - |
| | 300 | 0.6063 | 0.0010 | 0.0398 | 0.0398 | 1.159 | 3.170 | 0.144 | 0.091 | 2.72 | 1 | 6 | 17 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9998 | 0.3280 | 0.8592 | 0.8592 | 1.123 | 3.304 | 0.999 | 0.000 | 35.49 | 26 | 44 | 51 | - | - | - | - |
| | 200 | 0.9993 | 0.2541 | 0.9080 | 0.9080 | 1.166 | 3.853 | 0.997 | 0.000 | 53.80 | 46 | 62 | 70 | - | - | - | - |
| | 300 | 0.9993 | 0.1963 | 0.9202 | 0.9202 | 1.174 | 3.833 | 0.997 | 0.000 | 62.12 | 53 | 71 | 78 | - | - | - | - |
| $v = 1$ | 100 | 0.9818 | 0.2471 | 0.8094 | 0.8094 | 1.223 | 4.639 | 0.928 | 0.000 | 27.65 | 14 | 44 | 63 | - | - | - | - |
| | 200 | 0.9628 | 0.2929 | 0.9152 | 0.9152 | 1.398 | 6.438 | 0.854 | 0.000 | 61.27 | 34.5 | 94 | 119 | - | - | - | - |
| | 300 | 0.9453 | 0.3159 | 0.9486 | 0.9486 | 1.485 | 6.983 | 0.788 | 0.000 | 97.28 | 62 | 134 | 158 | - | - | - | - |

Notes: See notes to Table 1.

**Table 20: Monte Carlo findings for DGPI(c)**

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0008 | 0.0116 | 0.0116 | 1.001 | 1.071 | 1.000 | 0.942 | 4.08 | 4 | 5 | 14 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0111 | 0.0111 | 1.001 | 1.059 | 1.000 | 0.946 | 4.08 | 4 | 5 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0132 | 0.0132 | 1.001 | 1.076 | 1.000 | 0.938 | 4.12 | 4 | 5 | 45 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0004 | 0.0059 | 0.0059 | 1.000 | 1.037 | 1.000 | 0.971 | 4.04 | 4 | 4 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0059 | 0.0059 | 1.001 | 1.032 | 1.000 | 0.969 | 4.04 | 4 | 4 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0069 | 0.0069 | 1.001 | 1.040 | 1.000 | 0.966 | 4.06 | 4 | 4 | 31 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0010 | 0.0010 | 1.000 | 1.005 | 1.000 | 0.994 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0005 | 0.0005 | 1.000 | 1.002 | 1.000 | 0.997 | 4.00 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.014 | 1.000 | 0.990 | 4.01 | 4 | 4 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0008 | 0.0103 | 0.0103 | 1.001 | 1.047 | 1.000 | 0.949 | 4.07 | 4 | 5 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0099 | 0.0099 | 1.000 | 1.040 | 1.000 | 0.952 | 4.07 | 4 | 4 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0123 | 0.0123 | 1.001 | 1.063 | 1.000 | 0.942 | 4.11 | 4 | 5 | 45 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0004 | 0.0053 | 0.0053 | 1.000 | 1.024 | 1.000 | 0.974 | 4.04 | 4 | 4 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0002 | 0.0053 | 0.0053 | 1.000 | 1.023 | 1.000 | 0.972 | 4.03 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0064 | 0.0064 | 1.000 | 1.034 | 1.000 | 0.969 | 4.05 | 4 | 4 | 31 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0010 | 0.0010 | 1.000 | 1.005 | 1.000 | 0.994 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0004 | 0.0004 | 1.000 | 1.001 | 1.000 | 0.998 | 4.00 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0019 | 0.0019 | 1.000 | 1.010 | 1.000 | 0.991 | 4.01 | 4 | 4 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0409 | 0.3634 | 0.3634 | 1.011 | 1.371 | 1.000 | 0.124 | 7.92 | 4 | 14 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0243 | 0.3957 | 0.3957 | 1.013 | 1.428 | 1.000 | 0.125 | 8.77 | 4 | 18 | 40 | - | - | - | - |
| | 300 | 1.0000 | 0.0194 | 0.4391 | 0.4391 | 1.015 | 1.486 | 1.000 | 0.085 | 9.74 | 4 | 20 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0067 | 0.0592 | 0.0592 | 1.008 | 1.545 | 0.999 | 0.842 | 4.65 | 4 | 9 | 21 | - | - | - | - |
| | 200 | 1.0000 | 0.0059 | 0.0932 | 0.0932 | 1.011 | 1.754 | 1.000 | 0.782 | 5.16 | 4 | 12 | 30 | - | - | - | - |
| | 300 | 0.9998 | 0.0053 | 0.1135 | 0.1135 | 1.013 | 1.934 | 0.999 | 0.753 | 5.58 | 4 | 15 | 46 | - | - | - | - |
| SICA | 100 | 0.9789 | 0.0032 | 0.0438 | 0.0438 | 1.011 | 1.749 | 0.917 | 0.723 | 4.22 | 3 | 6 | 14 | - | - | - | - |
| | 200 | 0.9655 | 0.0013 | 0.0371 | 0.0371 | 1.014 | 1.908 | 0.866 | 0.698 | 4.12 | 3 | 6 | 11 | - | - | - | - |
| | 300 | 0.9616 | 0.0008 | 0.0348 | 0.0348 | 1.014 | 1.967 | 0.854 | 0.697 | 4.08 | 3 | 5 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.9738 | 0.0006 | 0.0081 | 0.0081 | 1.009 | 1.634 | 0.916 | 0.884 | 3.95 | 3 | 4 | 9 | - | - | - | - |
| | 200 | 0.9693 | 0.0003 | 0.0078 | 0.0078 | 1.011 | 1.722 | 0.909 | 0.879 | 3.93 | 3 | 4 | 10 | - | - | - | - |
| | 300 | 0.9625 | 0.0001 | 0.0049 | 0.0049 | 1.013 | 1.803 | 0.890 | 0.871 | 3.88 | 3 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3276 | 0.8591 | 0.8591 | 1.037 | 3.208 | 1.000 | 0.000 | 35.45 | 26 | 44 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.2730 | 0.9139 | 0.9139 | 1.056 | 3.910 | 1.000 | 0.000 | 57.51 | 50 | 66 | 76 | - | - | - | - |
| | 300 | 1.0000 | 0.2159 | 0.9270 | 0.9270 | 1.063 | 4.122 | 1.000 | 0.000 | 67.90 | 59 | 77 | 84 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.2300 | 0.7991 | 0.7991 | 1.065 | 4.368 | 1.000 | 0.001 | 26.08 | 15 | 40 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.2356 | 0.8957 | 0.8957 | 1.123 | 6.028 | 1.000 | 0.000 | 50.17 | 31 | 74 | 109 | - | - | - | - |
| | 300 | 1.0000 | 0.2500 | 0.9328 | 0.9328 | 1.181 | 7.415 | 1.000 | 0.000 | 78.00 | 49.5 | 111 | 144 | - | - | - | - |

Notes: See notes to Table 1.

## Table 21: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0128 | 0.0128 | 1.000 | 1.062 | 1.000 | 0.939 | 4.09 | 4 | 5 | 12 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0139 | 0.0139 | 1.001 | 1.083 | 1.000 | 0.935 | 4.12 | 4 | 5 | 31 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0129 | 0.0129 | 1.001 | 1.083 | 1.000 | 0.942 | 4.11 | 4 | 5 | 31 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0066 | 0.0066 | 1.000 | 1.031 | 1.000 | 0.969 | 4.05 | 4 | 4 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0079 | 0.0079 | 1.000 | 1.045 | 1.000 | 0.963 | 4.07 | 4 | 4 | 18 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0068 | 0.0068 | 1.000 | 1.051 | 1.000 | 0.967 | 4.05 | 4 | 4 | 15 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0015 | 0.0015 | 1.000 | 1.008 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.019 | 1.000 | 0.988 | 4.01 | 4 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0019 | 0.0019 | 1.000 | 1.016 | 1.000 | 0.990 | 4.01 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0009 | 0.0117 | 0.0117 | 1.000 | 1.045 | 1.000 | 0.944 | 4.08 | 4 | 5 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0127 | 0.0127 | 1.000 | 1.066 | 1.000 | 0.941 | 4.11 | 4 | 5 | 31 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0119 | 0.0119 | 1.000 | 1.062 | 1.000 | 0.946 | 4.10 | 4 | 5 | 31 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0004 | 0.0059 | 0.0059 | 1.000 | 1.023 | 1.000 | 0.972 | 4.04 | 4 | 4 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0072 | 0.0072 | 1.000 | 1.034 | 1.000 | 0.967 | 4.06 | 4 | 4 | 18 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0060 | 0.0060 | 1.000 | 1.035 | 1.000 | 0.970 | 4.04 | 4 | 4 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0013 | 0.0013 | 1.000 | 1.007 | 1.000 | 0.993 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.012 | 1.000 | 0.990 | 4.01 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.012 | 1.000 | 0.991 | 4.01 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0384 | 0.3480 | 0.3480 | 1.007 | 1.357 | 1.000 | 0.142 | 7.68 | 4 | 15 | 29 | - | - | - | - |
| | 200 | 1.0000 | 0.0244 | 0.4015 | 0.4015 | 1.008 | 1.431 | 1.000 | 0.115 | 8.78 | 4 | 17 | 35 | - | - | - | - |
| | 300 | 1.0000 | 0.0179 | 0.4163 | 0.4163 | 1.009 | 1.460 | 1.000 | 0.114 | 9.30 | 4 | 17 | 44 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0052 | 0.0449 | 0.0449 | 1.004 | 1.430 | 1.000 | 0.897 | 4.50 | 4 | 9 | 19 | - | - | - | - |
| | 200 | 1.0000 | 0.0052 | 0.0810 | 0.0810 | 1.005 | 1.657 | 1.000 | 0.831 | 5.02 | 4 | 11 | 27 | - | - | - | - |
| | 300 | 1.0000 | 0.0042 | 0.0968 | 0.0968 | 1.006 | 1.784 | 1.000 | 0.813 | 5.25 | 4 | 12 | 32 | - | - | - | - |
| SICA | 100 | 0.9990 | 0.0018 | 0.0261 | 0.0261 | 1.002 | 1.307 | 0.996 | 0.870 | 4.17 | 4 | 5 | 10 | - | - | - | - |
| | 200 | 0.9984 | 0.0008 | 0.0233 | 0.0233 | 1.002 | 1.321 | 0.994 | 0.875 | 4.14 | 4 | 5 | 8 | - | - | - | - |
| | 300 | 0.9969 | 0.0004 | 0.0176 | 0.0176 | 1.002 | 1.354 | 0.988 | 0.900 | 4.10 | 4 | 5 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.9991 | 0.0004 | 0.0051 | 0.0051 | 1.001 | 1.125 | 0.998 | 0.979 | 4.04 | 4 | 4 | 14 | - | - | - | - |
| | 200 | 0.9981 | 0.0002 | 0.0057 | 0.0057 | 1.001 | 1.163 | 0.993 | 0.971 | 4.03 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 0.9973 | 0.0001 | 0.0038 | 0.0038 | 1.001 | 1.187 | 0.991 | 0.975 | 4.02 | 4 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3264 | 0.8588 | 0.8588 | 1.021 | 3.168 | 1.000 | 0.000 | 35.34 | 26 | 44 | 51 | - | - | - | - |
| | 200 | 1.0000 | 0.2736 | 0.9141 | 0.9141 | 1.033 | 3.853 | 1.000 | 0.000 | 57.62 | 50 | 65 | 78 | - | - | - | - |
| | 300 | 1.0000 | 0.2196 | 0.9282 | 0.9282 | 1.038 | 4.214 | 1.000 | 0.000 | 69.01 | 61 | 78 | 88 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.2268 | 0.7977 | 0.7977 | 1.039 | 4.316 | 1.000 | 0.000 | 25.77 | 15 | 39 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.2282 | 0.8929 | 0.8929 | 1.072 | 5.882 | 1.000 | 0.000 | 48.72 | 30.5 | 71.5 | 97 | - | - | - | - |
| | 300 | 1.0000 | 0.2325 | 0.9284 | 0.9284 | 1.106 | 7.402 | 1.000 | 0.000 | 72.83 | 47 | 102 | 137 | - | - | - | - |

Notes: See notes to Table 1.

## Table 22: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9979 | 0.0017 | 0.0204 | 0.0204 | 1.006 | 1.135 | 0.992 | 0.900 | 4.15 | 4 | 5 | 23 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9979 | 0.0006 | 0.0181 | 0.0181 | 1.005 | 1.129 | 0.992 | 0.905 | 4.11 | 4 | 5 | 14 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9975 | 0.0007 | 0.0212 | 0.0212 | 1.008 | 1.169 | 0.991 | 0.895 | 4.19 | 4 | 5 | 47 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9971 | 0.0008 | 0.0106 | 0.0106 | 1.003 | 1.076 | 0.989 | 0.938 | 4.06 | 4 | 5 | 18 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9969 | 0.0003 | 0.0104 | 0.0104 | 1.003 | 1.076 | 0.988 | 0.938 | 4.06 | 4 | 4.5 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9960 | 0.0004 | 0.0125 | 0.0125 | 1.005 | 1.101 | 0.985 | 0.929 | 4.10 | 4 | 5 | 35 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9945 | 0.0002 | 0.0028 | 0.0028 | 1.001 | 1.023 | 0.979 | 0.964 | 4.00 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9914 | 0.0001 | 0.0018 | 0.0018 | 1.001 | 1.025 | 0.970 | 0.961 | 3.98 | 4 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9894 | 0.0001 | 0.0031 | 0.0031 | 1.001 | 1.033 | 0.961 | 0.948 | 3.98 | 4 | 4 | 18 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9979 | 0.0014 | 0.0172 | 0.0172 | 1.004 | 1.093 | 0.992 | 0.915 | 4.13 | 4 | 5 | 23 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9979 | 0.0006 | 0.0165 | 0.0165 | 1.004 | 1.104 | 0.992 | 0.913 | 4.10 | 4 | 5 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9975 | 0.0006 | 0.0191 | 0.0191 | 1.006 | 1.134 | 0.991 | 0.905 | 4.18 | 4 | 5 | 46 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9971 | 0.0007 | 0.0091 | 0.0091 | 1.002 | 1.057 | 0.989 | 0.946 | 4.05 | 4 | 4 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9969 | 0.0003 | 0.0095 | 0.0095 | 1.002 | 1.059 | 0.988 | 0.943 | 4.05 | 4 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9960 | 0.0004 | 0.0111 | 0.0111 | 1.003 | 1.074 | 0.985 | 0.936 | 4.09 | 4 | 4 | 35 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9945 | 0.0002 | 0.0024 | 0.0024 | 1.001 | 1.019 | 0.979 | 0.966 | 3.99 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9914 | 0.0001 | 0.0016 | 0.0016 | 1.001 | 1.022 | 0.970 | 0.962 | 3.98 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9894 | 0.0001 | 0.0029 | 0.0029 | 1.001 | 1.028 | 0.961 | 0.949 | 3.98 | 4 | 4 | 18 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9633 | 0.0420 | 0.3631 | 0.3631 | 1.039 | 1.402 | 0.860 | 0.132 | 7.88 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9595 | 0.0306 | 0.4454 | 0.4454 | 1.046 | 1.494 | 0.843 | 0.087 | 9.84 | 4 | 21.5 | 51 | - | - | - | - |
| | 300 | 0.9569 | 0.0257 | 0.4929 | 0.4929 | 1.051 | 1.582 | 0.830 | 0.058 | 11.44 | 4 | 27 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7803 | 0.0102 | 0.1172 | 0.1172 | 1.052 | 1.873 | 0.349 | 0.150 | 4.10 | 2 | 9 | 24 | - | - | - | - |
| | 200 | 0.7930 | 0.0104 | 0.1866 | 0.1866 | 1.064 | 2.136 | 0.385 | 0.115 | 5.21 | 2 | 14 | 42 | - | - | - | - |
| | 300 | 0.8036 | 0.0108 | 0.2340 | 0.2340 | 1.076 | 2.372 | 0.399 | 0.099 | 6.41 | 2 | 20 | 56 | - | - | - | - |
| SICA | 100 | 0.4535 | 0.0053 | 0.0899 | 0.0899 | 1.112 | 2.737 | 0.005 | 0.001 | 2.32 | 1 | 5 | 19 | - | - | - | - |
| | 200 | 0.4031 | 0.0024 | 0.0859 | 0.0859 | 1.125 | 2.878 | 0.002 | 0.001 | 2.08 | 1 | 5 | 14 | - | - | - | - |
| | 300 | 0.3830 | 0.0014 | 0.0800 | 0.0800 | 1.132 | 2.957 | 0.000 | 0.000 | 1.94 | 1 | 4 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.4131 | 0.0025 | 0.0414 | 0.0414 | 1.116 | 2.718 | 0.012 | 0.003 | 1.90 | 1 | 4 | 17 | - | - | - | - |
| | 200 | 0.3774 | 0.0013 | 0.0463 | 0.0463 | 1.127 | 2.833 | 0.005 | 0.001 | 1.77 | 1 | 4 | 13 | - | - | - | - |
| | 300 | 0.3598 | 0.0009 | 0.0494 | 0.0494 | 1.135 | 2.940 | 0.003 | 0.000 | 1.71 | 1 | 4 | 12 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9814 | 0.3281 | 0.8610 | 0.8610 | 1.118 | 3.290 | 0.926 | 0.000 | 35.42 | 25 | 44 | 49 | - | - | - | - |
| | 200 | 0.9766 | 0.2567 | 0.9104 | 0.9104 | 1.164 | 3.816 | 0.909 | 0.000 | 54.21 | 46 | 62 | 70 | - | - | - | - |
| | 300 | 0.9785 | 0.1970 | 0.9217 | 0.9217 | 1.171 | 3.939 | 0.915 | 0.000 | 62.23 | 53 | 71 | 80 | - | - | - | - |
| $v = 1$ | 100 | 0.8606 | 0.2437 | 0.8246 | 0.8246 | 1.216 | 4.573 | 0.499 | 0.000 | 26.84 | 14 | 43 | 57 | - | - | - | - |
| | 200 | 0.8376 | 0.2913 | 0.9232 | 0.9232 | 1.388 | 6.287 | 0.438 | 0.000 | 60.45 | 34 | 93 | 125 | - | - | - | - |
| | 300 | 0.8143 | 0.3132 | 0.9540 | 0.9540 | 1.467 | 7.031 | 0.387 | 0.000 | 95.97 | 62 | 131 | 153 | - | - | - | - |

Notes: See notes to Table 1.

## Table 23: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0159 | 0.0159 | 1.001 | 1.089 | 1.000 | 0.931 | 4.14 | 4 | 5 | 30 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0136 | 0.0136 | 1.001 | 1.089 | 1.000 | 0.939 | 4.10 | 4 | 5 | 15 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0133 | 0.0133 | 1.001 | 1.102 | 1.000 | 0.943 | 4.13 | 4 | 5 | 38 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0091 | 0.0091 | 1.001 | 1.053 | 1.000 | 0.961 | 4.08 | 4 | 4 | 23 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0075 | 0.0075 | 1.001 | 1.056 | 1.000 | 0.965 | 4.05 | 4 | 4 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0071 | 0.0071 | 1.001 | 1.063 | 1.000 | 0.968 | 4.06 | 4 | 4 | 29 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.015 | 1.000 | 0.989 | 4.02 | 4 | 4 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.015 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.020 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0151 | 0.0151 | 1.001 | 1.075 | 1.000 | 0.936 | 4.13 | 4 | 5 | 30 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0133 | 0.0133 | 1.001 | 1.082 | 1.000 | 0.940 | 4.10 | 4 | 5 | 15 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0123 | 0.0123 | 1.001 | 1.085 | 1.000 | 0.947 | 4.12 | 4 | 5 | 38 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0086 | 0.0086 | 1.001 | 1.046 | 1.000 | 0.964 | 4.08 | 4 | 4 | 23 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0074 | 0.0074 | 1.001 | 1.053 | 1.000 | 0.965 | 4.05 | 4 | 4 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0061 | 0.0061 | 1.000 | 1.044 | 1.000 | 0.974 | 4.06 | 4 | 4 | 29 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.015 | 1.000 | 0.989 | 4.02 | 4 | 4 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.015 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.015 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0411 | 0.3676 | 0.3676 | 1.012 | 1.378 | 1.000 | 0.120 | 7.95 | 4 | 15 | 25 | - | - | - | - |
| | 200 | 0.9996 | 0.0259 | 0.4125 | 0.4125 | 1.014 | 1.446 | 0.999 | 0.101 | 9.08 | 4 | 18 | 37 | - | - | - | - |
| | 300 | 1.0000 | 0.0205 | 0.4475 | 0.4475 | 1.015 | 1.512 | 1.000 | 0.089 | 10.06 | 4 | 21.5 | 46 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9838 | 0.0077 | 0.0781 | 0.0781 | 1.012 | 1.708 | 0.936 | 0.684 | 4.67 | 3 | 8 | 20 | - | - | - | - |
| | 200 | 0.9834 | 0.0073 | 0.1214 | 0.1214 | 1.015 | 1.977 | 0.934 | 0.597 | 5.36 | 3 | 13 | 33 | - | - | - | - |
| | 300 | 0.9851 | 0.0070 | 0.1572 | 0.1572 | 1.018 | 2.209 | 0.942 | 0.541 | 6.01 | 3 | 16 | 42 | - | - | - | - |
| SICA | 100 | 0.8073 | 0.0064 | 0.0860 | 0.0860 | 1.032 | 2.672 | 0.372 | 0.155 | 3.85 | 2 | 7 | 23 | - | - | - | - |
| | 200 | 0.7479 | 0.0024 | 0.0700 | 0.0700 | 1.040 | 2.868 | 0.230 | 0.100 | 3.46 | 2 | 6 | 13 | - | - | - | - |
| | 300 | 0.7166 | 0.0013 | 0.0613 | 0.0613 | 1.045 | 3.060 | 0.176 | 0.084 | 3.25 | 2 | 6 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.7894 | 0.0016 | 0.0216 | 0.0216 | 1.033 | 2.611 | 0.452 | 0.378 | 3.31 | 2 | 5 | 10 | - | - | - | - |
| | 200 | 0.7589 | 0.0006 | 0.0161 | 0.0161 | 1.038 | 2.692 | 0.379 | 0.328 | 3.15 | 2 | 5 | 10 | - | - | - | - |
| | 300 | 0.7471 | 0.0003 | 0.0149 | 0.0149 | 1.040 | 2.806 | 0.362 | 0.314 | 3.09 | 2 | 5 | 10 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3270 | 0.8592 | 0.8592 | 1.036 | 3.217 | 1.000 | 0.000 | 35.40 | 26 | 44 | 55 | - | - | - | - |
| | 200 | 1.0000 | 0.2722 | 0.9137 | 0.9137 | 1.056 | 3.879 | 1.000 | 0.000 | 57.35 | 49 | 65 | 72 | - | - | - | - |
| | 300 | 1.0000 | 0.2183 | 0.9278 | 0.9278 | 1.063 | 4.167 | 1.000 | 0.000 | 68.63 | 60 | 77 | 86 | - | - | - | - |
| $v = 1$ | 100 | 0.9989 | 0.2276 | 0.7975 | 0.7975 | 1.064 | 4.355 | 0.996 | 0.000 | 25.85 | 14 | 39 | 57 | - | - | - | - |
| | 200 | 0.9980 | 0.2343 | 0.8951 | 0.8951 | 1.122 | 5.931 | 0.992 | 0.000 | 49.92 | 31 | 74 | 105 | - | - | - | - |
| | 300 | 0.9966 | 0.2508 | 0.9333 | 0.9333 | 1.183 | 7.465 | 0.987 | 0.000 | 78.24 | 50 | 110 | 155 | - | - | - | - |

Notes: See notes to Table 1.

## Table 24: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0147 | 0.0147 | 1.001 | 1.090 | 1.000 | 0.938 | 4.13 | 4 | 5 | 29 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0150 | 0.0150 | 1.001 | 1.100 | 1.000 | 0.937 | 4.13 | 4 | 5 | 22 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0123 | 0.0123 | 1.001 | 1.093 | 1.000 | 0.945 | 4.12 | 4 | 5 | 63 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0081 | 0.0081 | 1.000 | 1.046 | 1.000 | 0.965 | 4.07 | 4 | 4 | 19 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0084 | 0.0084 | 1.000 | 1.053 | 1.000 | 0.962 | 4.06 | 4 | 4 | 14 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0070 | 0.0070 | 1.000 | 1.057 | 1.000 | 0.968 | 4.07 | 4 | 4 | 47 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.008 | 1.000 | 0.993 | 4.01 | 4 | 4 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.022 | 1.000 | 0.989 | 4.01 | 4 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.014 | 1.000 | 0.993 | 4.01 | 4 | 4 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0139 | 0.0139 | 1.000 | 1.074 | 1.000 | 0.942 | 4.13 | 4 | 5 | 29 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0144 | 0.0144 | 1.001 | 1.084 | 1.000 | 0.940 | 4.12 | 4 | 5 | 22 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0115 | 0.0115 | 1.001 | 1.079 | 1.000 | 0.948 | 4.11 | 4 | 5 | 63 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0079 | 0.0079 | 1.000 | 1.043 | 1.000 | 0.967 | 4.07 | 4 | 4 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0079 | 0.0079 | 1.000 | 1.045 | 1.000 | 0.965 | 4.06 | 4 | 4 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0063 | 0.0063 | 1.000 | 1.047 | 1.000 | 0.971 | 4.06 | 4 | 4 | 47 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.008 | 1.000 | 0.993 | 4.01 | 4 | 4 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.018 | 1.000 | 0.990 | 4.01 | 4 | 4 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.012 | 1.000 | 0.994 | 4.01 | 4 | 4 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0408 | 0.3611 | 0.3611 | 1.007 | 1.380 | 1.000 | 0.143 | 7.92 | 4 | 15 | 26 | - | - | - | - |
| | 200 | 1.0000 | 0.0253 | 0.4086 | 0.4086 | 1.009 | 1.419 | 1.000 | 0.108 | 8.95 | 4 | 18 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0193 | 0.4339 | 0.4339 | 1.009 | 1.480 | 1.000 | 0.093 | 9.72 | 4 | 20 | 48 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9986 | 0.0066 | 0.0627 | 0.0627 | 1.005 | 1.567 | 0.995 | 0.797 | 4.63 | 4 | 8 | 23 | - | - | - | - |
| | 200 | 0.9985 | 0.0063 | 0.0991 | 0.0991 | 1.007 | 1.806 | 0.994 | 0.734 | 5.23 | 4 | 13 | 40 | - | - | - | - |
| | 300 | 0.9994 | 0.0055 | 0.1186 | 0.1186 | 1.008 | 1.994 | 0.998 | 0.704 | 5.63 | 4 | 15 | 42 | - | - | - | - |
| SICA | 100 | 0.9420 | 0.0049 | 0.0676 | 0.0676 | 1.010 | 2.133 | 0.780 | 0.504 | 4.24 | 3 | 6 | 12 | - | - | - | - |
| | 200 | 0.9185 | 0.0020 | 0.0555 | 0.0555 | 1.013 | 2.308 | 0.692 | 0.463 | 4.06 | 3 | 6 | 13 | - | - | - | - |
| | 300 | 0.8926 | 0.0012 | 0.0529 | 0.0529 | 1.017 | 2.496 | 0.605 | 0.412 | 3.93 | 3 | 6 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.9301 | 0.0008 | 0.0104 | 0.0104 | 1.010 | 2.019 | 0.788 | 0.748 | 3.80 | 2 | 4 | 10 | - | - | - | - |
| | 200 | 0.9299 | 0.0004 | 0.0104 | 0.0104 | 1.010 | 2.033 | 0.792 | 0.750 | 3.79 | 2 | 4 | 9 | - | - | - | - |
| | 300 | 0.9145 | 0.0002 | 0.0086 | 0.0086 | 1.013 | 2.157 | 0.748 | 0.716 | 3.72 | 2 | 4 | 10 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3261 | 0.8585 | 0.8585 | 1.021 | 3.204 | 1.000 | 0.000 | 35.30 | 26 | 44 | 51 | - | - | - | - |
| | 200 | 1.0000 | 0.2770 | 0.9151 | 0.9151 | 1.033 | 3.957 | 1.000 | 0.000 | 58.28 | 51 | 66 | 75 | - | - | - | - |
| | 300 | 1.0000 | 0.2220 | 0.9289 | 0.9289 | 1.037 | 4.129 | 1.000 | 0.000 | 69.72 | 61 | 78 | 87 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.2260 | 0.7964 | 0.7964 | 1.038 | 4.331 | 1.000 | 0.000 | 25.69 | 14 | 39 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.2251 | 0.8910 | 0.8910 | 1.071 | 5.982 | 1.000 | 0.000 | 48.12 | 29 | 70 | 93 | - | - | - | - |
| | 300 | 1.0000 | 0.2310 | 0.9279 | 0.9279 | 1.104 | 7.207 | 1.000 | 0.000 | 72.37 | 46 | 103 | 140 | - | - | - | - |

Notes: See notes to Table 1.

**Table 25: Monte Carlo findings for DGPI(c)**

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9239 | 0.0017 | 0.0225 | 0.0225 | 1.009 | 1.155 | 0.782 | 0.706 | 3.86 | 2 | 5 | 20 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8879 | 0.0010 | 0.0255 | 0.0255 | 1.011 | 1.200 | 0.698 | 0.631 | 3.75 | 2 | 5 | 43 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8660 | 0.0006 | 0.0233 | 0.0233 | 1.013 | 1.240 | 0.661 | 0.591 | 3.65 | 2 | 5 | 42 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8929 | 0.0009 | 0.0131 | 0.0131 | 1.007 | 1.123 | 0.716 | 0.676 | 3.66 | 2 | 4 | 15 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8519 | 0.0006 | 0.0154 | 0.0154 | 1.011 | 1.169 | 0.633 | 0.597 | 3.52 | 1 | 4 | 35 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8244 | 0.0004 | 0.0144 | 0.0144 | 1.013 | 1.206 | 0.587 | 0.549 | 3.40 | 1 | 4 | 28 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8029 | 0.0002 | 0.0035 | 0.0035 | 1.011 | 1.139 | 0.539 | 0.531 | 3.23 | 1 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7521 | 0.0002 | 0.0047 | 0.0047 | 1.015 | 1.200 | 0.458 | 0.447 | 3.04 | 1 | 4 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7183 | 0.0001 | 0.0047 | 0.0047 | 1.020 | 1.250 | 0.419 | 0.411 | 2.90 | 0 | 4 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9239 | 0.0016 | 0.0207 | 0.0207 | 1.007 | 1.130 | 0.782 | 0.713 | 3.85 | 2 | 5 | 20 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8879 | 0.0010 | 0.0244 | 0.0244 | 1.010 | 1.181 | 0.698 | 0.634 | 3.74 | 2 | 5 | 43 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8660 | 0.0006 | 0.0217 | 0.0217 | 1.011 | 1.213 | 0.661 | 0.598 | 3.63 | 2 | 5 | 38 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8929 | 0.0009 | 0.0124 | 0.0124 | 1.007 | 1.112 | 0.716 | 0.679 | 3.65 | 2 | 4 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8519 | 0.0005 | 0.0146 | 0.0146 | 1.010 | 1.157 | 0.633 | 0.599 | 3.51 | 1 | 4 | 34 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8244 | 0.0003 | 0.0134 | 0.0134 | 1.012 | 1.188 | 0.587 | 0.553 | 3.40 | 1 | 4 | 26 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8029 | 0.0002 | 0.0031 | 0.0031 | 1.011 | 1.134 | 0.539 | 0.532 | 3.23 | 1 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7521 | 0.0002 | 0.0046 | 0.0046 | 1.015 | 1.199 | 0.458 | 0.448 | 3.04 | 1 | 4 | 17 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7183 | 0.0001 | 0.0042 | 0.0042 | 1.019 | 1.244 | 0.419 | 0.411 | 2.90 | 0 | 4 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8251 | 0.0421 | 0.3937 | 0.3937 | 1.032 | 1.273 | 0.425 | 0.035 | 7.34 | 3 | 15 | 32 | - | - | - | - |
| | 200 | 0.8053 | 0.0297 | 0.4674 | 0.4674 | 1.039 | 1.375 | 0.388 | 0.028 | 9.05 | 3 | 20.5 | 59 | - | - | - | - |
| | 300 | 0.8020 | 0.0244 | 0.5107 | 0.5107 | 1.042 | 1.469 | 0.376 | 0.026 | 10.42 | 3 | 24 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5801 | 0.0119 | 0.1591 | 0.1591 | 1.041 | 1.686 | 0.077 | 0.019 | 3.46 | 1 | 8 | 31 | - | - | - | - |
| | 200 | 0.5843 | 0.0113 | 0.2450 | 0.2450 | 1.054 | 1.979 | 0.076 | 0.015 | 4.55 | 1 | 12 | 48 | - | - | - | - |
| | 300 | 0.5988 | 0.0108 | 0.2963 | 0.2963 | 1.064 | 2.245 | 0.091 | 0.011 | 5.59 | 1 | 17 | 61 | - | - | - | - |
| SICA | 100 | 0.3028 | 0.0053 | 0.1151 | 0.1151 | 1.077 | 2.328 | 0.001 | 0.000 | 1.72 | 1 | 4 | 19 | - | - | - | - |
| | 200 | 0.2828 | 0.0022 | 0.0983 | 0.0983 | 1.080 | 2.386 | 0.000 | 0.000 | 1.57 | 1 | 4 | 20 | - | - | - | - |
| | 300 | 0.2720 | 0.0015 | 0.0991 | 0.0991 | 1.084 | 2.429 | 0.000 | 0.000 | 1.53 | 1 | 4 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.2843 | 0.0031 | 0.0716 | 0.0716 | 1.071 | 2.208 | 0.000 | 0.000 | 1.43 | 1 | 3 | 16 | - | - | - | - |
| | 200 | 0.2725 | 0.0016 | 0.0782 | 0.0782 | 1.077 | 2.318 | 0.000 | 0.000 | 1.41 | 1 | 3 | 12 | - | - | - | - |
| | 300 | 0.2659 | 0.0012 | 0.0837 | 0.0837 | 1.080 | 2.365 | 0.000 | 0.000 | 1.42 | 1 | 3 | 18 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9019 | 0.3290 | 0.8692 | 0.8692 | 1.121 | 3.280 | 0.641 | 0.000 | 35.20 | 26 | 44 | 50 | - | - | - | - |
| | 200 | 0.8950 | 0.2579 | 0.9163 | 0.9163 | 1.162 | 3.830 | 0.616 | 0.000 | 54.12 | 46 | 62 | 71 | - | - | - | - |
| | 300 | 0.8839 | 0.2000 | 0.9284 | 0.9284 | 1.170 | 3.935 | 0.581 | 0.000 | 62.72 | 54 | 72 | 79 | - | - | - | - |
| $v = 1$ | 100 | 0.6689 | 0.2412 | 0.8504 | 0.8504 | 1.210 | 4.472 | 0.134 | 0.000 | 25.83 | 13 | 41 | 60 | - | - | - | - |
| | 200 | 0.7004 | 0.2899 | 0.9326 | 0.9326 | 1.370 | 6.173 | 0.187 | 0.000 | 59.62 | 33 | 91 | 126 | - | - | - | - |
| | 300 | 0.7011 | 0.3133 | 0.9588 | 0.9588 | 1.446 | 6.840 | 0.199 | 0.000 | 95.54 | 59 | 131 | 159 | - | - | - | - |

Notes: See notes to Table 1.

## Table 26: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0144 | 0.0144 | 1.001 | 1.108 | 1.000 | 0.932 | 4.12 | 4 | 5 | 33 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0127 | 0.0127 | 1.001 | 1.112 | 1.000 | 0.942 | 4.11 | 4 | 5 | 21 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0003 | 0.0131 | 0.0131 | 1.001 | 1.118 | 1.000 | 0.938 | 4.10 | 4 | 5 | 23 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0085 | 0.0085 | 1.001 | 1.070 | 1.000 | 0.959 | 4.07 | 4 | 4 | 27 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0074 | 0.0074 | 1.001 | 1.073 | 1.000 | 0.965 | 4.06 | 4 | 4 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0002 | 0.0073 | 0.0073 | 1.001 | 1.069 | 1.000 | 0.965 | 4.05 | 4 | 4 | 16 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0020 | 0.0020 | 1.000 | 1.016 | 1.000 | 0.991 | 4.02 | 4 | 4 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.021 | 1.000 | 0.991 | 4.01 | 4 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.021 | 1.000 | 0.990 | 4.01 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0139 | 0.0139 | 1.001 | 1.103 | 1.000 | 0.934 | 4.12 | 4 | 5 | 33 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0122 | 0.0122 | 1.001 | 1.102 | 1.000 | 0.945 | 4.10 | 4 | 5 | 21 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0003 | 0.0126 | 0.0126 | 1.001 | 1.106 | 1.000 | 0.941 | 4.10 | 4 | 5 | 23 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0079 | 0.0079 | 1.001 | 1.065 | 1.000 | 0.961 | 4.06 | 4 | 4 | 27 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0071 | 0.0071 | 1.001 | 1.064 | 1.000 | 0.967 | 4.05 | 4 | 4 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0002 | 0.0068 | 0.0068 | 1.001 | 1.062 | 1.000 | 0.967 | 4.05 | 4 | 4 | 16 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.015 | 1.000 | 0.992 | 4.01 | 4 | 4 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0017 | 0.0017 | 1.000 | 1.016 | 1.000 | 0.992 | 4.01 | 4 | 4 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.018 | 1.000 | 0.991 | 4.01 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9860 | 0.0406 | 0.3631 | 0.3631 | 1.011 | 1.362 | 0.944 | 0.125 | 7.84 | 4 | 15 | 31 | - | - | - | - |
| | 200 | 0.9828 | 0.0247 | 0.4021 | 0.4021 | 1.014 | 1.418 | 0.931 | 0.101 | 8.78 | 4 | 18 | 44 | - | - | - | - |
| | 300 | 0.9834 | 0.0197 | 0.4368 | 0.4368 | 1.015 | 1.491 | 0.934 | 0.091 | 9.77 | 4 | 20 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8608 | 0.0095 | 0.1087 | 0.1087 | 1.015 | 1.812 | 0.527 | 0.267 | 4.36 | 2 | 8 | 26 | - | - | - | - |
| | 200 | 0.8588 | 0.0070 | 0.1419 | 0.1419 | 1.018 | 1.995 | 0.530 | 0.228 | 4.81 | 2 | 11 | 31 | - | - | - | - |
| | 300 | 0.8651 | 0.0069 | 0.1779 | 0.1779 | 1.022 | 2.246 | 0.557 | 0.211 | 5.51 | 2 | 14 | 60 | - | - | - | - |
| SICA | 100 | 0.5374 | 0.0057 | 0.0875 | 0.0875 | 1.038 | 2.810 | 0.024 | 0.004 | 2.70 | 1 | 6 | 15 | - | - | - | - |
| | 200 | 0.4718 | 0.0019 | 0.0656 | 0.0656 | 1.044 | 2.927 | 0.007 | 0.000 | 2.27 | 1 | 5 | 15 | - | - | - | - |
| | 300 | 0.4464 | 0.0011 | 0.0558 | 0.0558 | 1.047 | 3.042 | 0.004 | 0.001 | 2.10 | 1 | 4 | 17 | - | - | - | - |
| Hard thresholding | 100 | 0.4906 | 0.0019 | 0.0279 | 0.0279 | 1.042 | 2.790 | 0.045 | 0.026 | 2.14 | 1 | 4 | 16 | - | - | - | - |
| | 200 | 0.4383 | 0.0007 | 0.0251 | 0.0251 | 1.047 | 2.920 | 0.017 | 0.007 | 1.90 | 1 | 4 | 11 | - | - | - | - |
| | 300 | 0.4159 | 0.0004 | 0.0216 | 0.0216 | 1.050 | 3.039 | 0.009 | 0.004 | 1.79 | 1 | 4 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9925 | 0.3273 | 0.8597 | 0.8597 | 1.038 | 3.216 | 0.970 | 0.000 | 35.39 | 26 | 44 | 52 | - | - | - | - |
| | 200 | 0.9923 | 0.2763 | 0.9154 | 0.9154 | 1.057 | 3.911 | 0.969 | 0.000 | 58.12 | 50 | 66 | 74 | - | - | - | - |
| | 300 | 0.9941 | 0.2191 | 0.9283 | 0.9283 | 1.063 | 4.222 | 0.977 | 0.000 | 68.83 | 60 | 78 | 87 | - | - | - | - |
| $v = 1$ | 100 | 0.9495 | 0.2256 | 0.8033 | 0.8033 | 1.066 | 4.348 | 0.800 | 0.000 | 25.45 | 14 | 39 | 52 | - | - | - | - |
| | 200 | 0.9408 | 0.2335 | 0.8991 | 0.8991 | 1.122 | 6.005 | 0.769 | 0.000 | 49.53 | 30 | 74 | 108 | - | - | - | - |
| | 300 | 0.9345 | 0.2523 | 0.9366 | 0.9366 | 1.182 | 7.577 | 0.743 | 0.000 | 78.43 | 48.5 | 112 | 159 | - | - | - | - |

Notes: See notes to Table 1.

**Table 27: Monte Carlo findings for DGPI(c)**

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0126 | 0.0126 | 1.001 | 1.106 | 1.000 | 0.941 | 4.11 | 4 | 5 | 42 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0128 | 0.0128 | 1.001 | 1.105 | 1.000 | 0.943 | 4.10 | 4 | 5 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0128 | 0.0128 | 1.001 | 1.123 | 1.000 | 0.945 | 4.13 | 4 | 5 | 53 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0064 | 0.0064 | 1.000 | 1.060 | 1.000 | 0.969 | 4.06 | 4 | 4 | 31 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0067 | 0.0067 | 1.000 | 1.062 | 1.000 | 0.969 | 4.05 | 4 | 4 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0070 | 0.0070 | 1.000 | 1.078 | 1.000 | 0.969 | 4.08 | 4 | 4 | 39 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0018 | 0.0018 | 1.000 | 1.021 | 1.000 | 0.992 | 4.02 | 4 | 4 | 15 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0012 | 0.0012 | 1.000 | 1.015 | 1.000 | 0.994 | 4.01 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.022 | 1.000 | 0.991 | 4.02 | 4 | 4 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0121 | 0.0121 | 1.001 | 1.095 | 1.000 | 0.943 | 4.10 | 4 | 5 | 42 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0127 | 0.0127 | 1.001 | 1.100 | 1.000 | 0.943 | 4.10 | 4 | 5 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0125 | 0.0125 | 1.001 | 1.115 | 1.000 | 0.946 | 4.13 | 4 | 5 | 53 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0064 | 0.0064 | 1.000 | 1.060 | 1.000 | 0.969 | 4.06 | 4 | 4 | 31 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0002 | 0.0063 | 0.0063 | 1.000 | 1.053 | 1.000 | 0.971 | 4.05 | 4 | 4 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0069 | 0.0069 | 1.000 | 1.076 | 1.000 | 0.969 | 4.08 | 4 | 4 | 39 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0017 | 0.0017 | 1.000 | 1.020 | 1.000 | 0.993 | 4.02 | 4 | 4 | 15 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0012 | 0.0012 | 1.000 | 1.013 | 1.000 | 0.994 | 4.01 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.018 | 1.000 | 0.992 | 4.02 | 4 | 4 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9990 | 0.0409 | 0.3656 | 0.3656 | 1.007 | 1.381 | 0.996 | 0.119 | 7.92 | 4 | 15 | 30 | - | - | - | - |
| | 200 | 0.9986 | 0.0259 | 0.4156 | 0.4156 | 1.009 | 1.432 | 0.995 | 0.101 | 9.08 | 4 | 18 | 48 | - | - | - | - |
| | 300 | 0.9983 | 0.0192 | 0.4376 | 0.4376 | 1.009 | 1.475 | 0.993 | 0.092 | 9.67 | 4 | 20 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9518 | 0.0085 | 0.0914 | 0.0914 | 1.008 | 1.773 | 0.816 | 0.531 | 4.62 | 3 | 8 | 26 | - | - | - | - |
| | 200 | 0.9516 | 0.0068 | 0.1234 | 0.1234 | 1.010 | 1.966 | 0.817 | 0.465 | 5.13 | 3 | 11 | 43 | - | - | - | - |
| | 300 | 0.9526 | 0.0061 | 0.1555 | 0.1555 | 1.012 | 2.171 | 0.820 | 0.420 | 5.63 | 3 | 14 | 43 | - | - | - | - |
| SICA | 100 | 0.7028 | 0.0066 | 0.0912 | 0.0912 | 1.021 | 2.766 | 0.166 | 0.046 | 3.44 | 2 | 7 | 16 | - | - | - | - |
| | 200 | 0.6436 | 0.0023 | 0.0697 | 0.0697 | 1.025 | 2.939 | 0.076 | 0.020 | 3.02 | 2 | 6 | 15 | - | - | - | - |
| | 300 | 0.6121 | 0.0014 | 0.0655 | 0.0655 | 1.029 | 3.159 | 0.051 | 0.014 | 2.86 | 1 | 6 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.6738 | 0.0021 | 0.0288 | 0.0288 | 1.023 | 2.748 | 0.237 | 0.161 | 2.90 | 1 | 5.5 | 13 | - | - | - | - |
| | 200 | 0.6331 | 0.0008 | 0.0212 | 0.0212 | 1.027 | 2.890 | 0.168 | 0.120 | 2.68 | 1 | 5 | 12 | - | - | - | - |
| | 300 | 0.6146 | 0.0004 | 0.0198 | 0.0198 | 1.029 | 3.039 | 0.153 | 0.111 | 2.59 | 1 | 5 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9996 | 0.3265 | 0.8588 | 0.8588 | 1.021 | 3.136 | 0.999 | 0.000 | 35.34 | 26 | 44 | 51 | - | - | - | - |
| | 200 | 0.9991 | 0.2775 | 0.9153 | 0.9153 | 1.033 | 3.888 | 0.997 | 0.000 | 58.39 | 51 | 66 | 74 | - | - | - | - |
| | 300 | 0.9994 | 0.2237 | 0.9294 | 0.9294 | 1.039 | 4.245 | 0.998 | 0.000 | 70.20 | 62 | 79 | 93 | - | - | - | - |
| $v = 1$ | 100 | 0.9946 | 0.2217 | 0.7946 | 0.7946 | 1.037 | 4.210 | 0.979 | 0.000 | 25.26 | 15 | 38 | 54 | - | - | - | - |
| | 200 | 0.9915 | 0.2208 | 0.8903 | 0.8903 | 1.071 | 5.841 | 0.966 | 0.000 | 47.25 | 29 | 69 | 106 | - | - | - | - |
| | 300 | 0.9908 | 0.2307 | 0.9284 | 0.9284 | 1.107 | 7.377 | 0.963 | 0.000 | 72.26 | 47 | 103 | 144 | - | - | - | - |

Notes: See notes to Table 1.

**Table 28: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9974 | 0.0017 | 0.0260 | 0.0260 | 1.007 | 1.133 | 0.990 | 0.850 | 4.15 | 4 | 5 | 7 | 1.031 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9953 | 0.0010 | 0.0306 | 0.0306 | 1.009 | 1.183 | 0.982 | 0.819 | 4.17 | 4 | 5 | 7 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9939 | 0.0006 | 0.0287 | 0.0287 | 1.010 | 1.209 | 0.977 | 0.825 | 4.15 | 4 | 5 | 8 | 1.033 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9958 | 0.0008 | 0.0126 | 0.0126 | 1.005 | 1.109 | 0.983 | 0.916 | 4.06 | 4 | 5 | 6 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9924 | 0.0005 | 0.0171 | 0.0171 | 1.008 | 1.168 | 0.971 | 0.876 | 4.07 | 4 | 5 | 6 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9915 | 0.0003 | 0.0164 | 0.0164 | 1.009 | 1.191 | 0.968 | 0.879 | 4.07 | 4 | 5 | 7 | 1.032 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9878 | 0.0002 | 0.0028 | 0.0028 | 1.008 | 1.173 | 0.953 | 0.939 | 3.97 | 4 | 4 | 6 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9831 | 0.0002 | 0.0053 | 0.0053 | 1.011 | 1.243 | 0.935 | 0.906 | 3.96 | 3 | 4 | 6 | 1.032 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9759 | 0.0001 | 0.0034 | 0.0034 | 1.015 | 1.330 | 0.907 | 0.889 | 3.92 | 3 | 4 | 6 | 1.036 | 0.04 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9963 | 0.0014 | 0.0221 | 0.0221 | 1.005 | 1.114 | 0.985 | 0.867 | 4.12 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9945 | 0.0009 | 0.0276 | 0.0276 | 1.008 | 1.161 | 0.979 | 0.830 | 4.15 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9924 | 0.0005 | 0.0257 | 0.0257 | 1.009 | 1.201 | 0.971 | 0.836 | 4.13 | 4 | 5 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9944 | 0.0007 | 0.0103 | 0.0103 | 1.005 | 1.106 | 0.978 | 0.923 | 4.04 | 4 | 5 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9904 | 0.0005 | 0.0157 | 0.0157 | 1.009 | 1.177 | 0.964 | 0.877 | 4.06 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9886 | 0.0003 | 0.0144 | 0.0144 | 1.010 | 1.209 | 0.957 | 0.880 | 4.04 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9854 | 0.0002 | 0.0025 | 0.0025 | 1.010 | 1.202 | 0.943 | 0.931 | 3.96 | 3 | 4 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9791 | 0.0001 | 0.0047 | 0.0047 | 1.014 | 1.286 | 0.921 | 0.895 | 3.94 | 3 | 4 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9708 | 0.0001 | 0.0028 | 0.0028 | 1.018 | 1.386 | 0.888 | 0.873 | 3.90 | 3 | 4 | 6 | 1.014 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0835 | 0.5455 | 0.5455 | 1.060 | 1.739 | 1.000 | 0.023 | 12.02 | 5 | 22 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0573 | 0.6165 | 0.6165 | 1.075 | 1.882 | 1.000 | 0.016 | 15.23 | 6 | 30 | 65 | - | - | - | - |
| | 300 | 0.9999 | 0.0493 | 0.6707 | 0.6707 | 1.089 | 2.024 | 1.000 | 0.010 | 18.59 | 6 | 38.5 | 92 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9975 | 0.0214 | 0.1809 | 0.1809 | 1.042 | 1.683 | 0.990 | 0.476 | 6.05 | 4 | 15 | 34 | - | - | - | - |
| | 200 | 0.9971 | 0.0225 | 0.2920 | 0.2920 | 1.071 | 2.041 | 0.989 | 0.341 | 8.40 | 4 | 23 | 51 | - | - | - | - |
| | 300 | 0.9984 | 0.0238 | 0.3750 | 0.3750 | 1.102 | 2.381 | 0.994 | 0.275 | 11.02 | 4 | 31 | 62 | - | - | - | - |
| SICA | 100 | 0.9560 | 0.0032 | 0.0442 | 0.0442 | 1.041 | 1.774 | 0.835 | 0.655 | 4.13 | 3 | 6 | 13 | - | - | - | - |
| | 200 | 0.9314 | 0.0017 | 0.0462 | 0.0462 | 1.060 | 2.035 | 0.755 | 0.588 | 4.05 | 3 | 6 | 13 | - | - | - | - |
| | 300 | 0.9214 | 0.0012 | 0.0513 | 0.0513 | 1.068 | 2.123 | 0.717 | 0.533 | 4.05 | 3 | 6 | 14 | - | - | - | - |
| Hard thresholding | 100 | 0.9480 | 0.0017 | 0.0226 | 0.0226 | 1.041 | 1.763 | 0.811 | 0.711 | 3.95 | 3 | 5 | 21 | - | - | - | - |
| | 200 | 0.9331 | 0.0011 | 0.0283 | 0.0283 | 1.052 | 1.951 | 0.761 | 0.661 | 3.95 | 3 | 5 | 19 | - | - | - | - |
| | 300 | 0.9295 | 0.0008 | 0.0323 | 0.0323 | 1.058 | 1.981 | 0.752 | 0.630 | 3.96 | 3 | 5 | 15 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3471 | 0.8662 | 0.8662 | 1.135 | 2.686 | 1.000 | 0.000 | 37.33 | 28 | 47 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3051 | 0.9225 | 0.9225 | 1.209 | 3.264 | 1.000 | 0.000 | 63.79 | 57 | 71 | 80 | - | - | - | - |
| | 300 | 1.0000 | 0.2372 | 0.9333 | 0.9333 | 1.215 | 3.247 | 1.000 | 0.000 | 74.20 | 67 | 82 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.9993 | 0.1683 | 0.7474 | 0.7474 | 1.223 | 3.617 | 0.997 | 0.000 | 20.15 | 12 | 31 | 49 | - | - | - | - |
| | 200 | 0.9959 | 0.2045 | 0.8809 | 0.8809 | 1.390 | 4.797 | 0.984 | 0.000 | 44.07 | 27 | 67 | 129 | - | - | - | - |
| | 300 | 0.9896 | 0.2239 | 0.9266 | 0.9266 | 1.467 | 5.192 | 0.959 | 0.000 | 70.22 | 46 | 99.5 | 130 | - | - | - | - |

Notes: See notes to Table 1.

**Table 29: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0194 | 0.0194 | 1.001 | 1.076 | 1.000 | 0.890 | 4.12 | 4 | 5 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0216 | 0.0216 | 1.001 | 1.090 | 1.000 | 0.878 | 4.13 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0214 | 0.0214 | 1.001 | 1.084 | 1.000 | 0.879 | 4.13 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0099 | 0.0099 | 1.001 | 1.045 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0123 | 0.0123 | 1.001 | 1.055 | 1.000 | 0.929 | 4.08 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0100 | 0.0100 | 1.001 | 1.045 | 1.000 | 0.942 | 4.06 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.008 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.016 | 1.000 | 0.983 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.015 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0173 | 0.0173 | 1.001 | 1.056 | 1.000 | 0.901 | 4.11 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0205 | 0.0205 | 1.001 | 1.077 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0199 | 0.0199 | 1.001 | 1.065 | 1.000 | 0.887 | 4.12 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0087 | 0.0087 | 1.001 | 1.033 | 1.000 | 0.948 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0115 | 0.0115 | 1.001 | 1.046 | 1.000 | 0.934 | 4.07 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0092 | 0.0092 | 1.001 | 1.033 | 1.000 | 0.947 | 4.06 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.008 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.013 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.010 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0783 | 0.5284 | 0.5284 | 1.018 | 1.667 | 1.000 | 0.031 | 11.51 | 5 | 22 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0512 | 0.5917 | 0.5917 | 1.024 | 1.798 | 1.000 | 0.018 | 14.04 | 5 | 27 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0380 | 0.6100 | 0.6100 | 1.025 | 1.865 | 1.000 | 0.020 | 15.26 | 5 | 32 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0149 | 0.1071 | 0.1071 | 1.009 | 1.480 | 1.000 | 0.745 | 5.43 | 4 | 14 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0146 | 0.1756 | 0.1756 | 1.018 | 1.803 | 1.000 | 0.643 | 6.87 | 4 | 20 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0141 | 0.2352 | 0.2352 | 1.024 | 2.051 | 1.000 | 0.564 | 8.17 | 4 | 24 | 43 | - | - | - | - |
| SICA | 100 | 0.9990 | 0.0004 | 0.0067 | 0.0067 | 1.001 | 1.102 | 0.996 | 0.961 | 4.04 | 4 | 4 | 8 | - | - | - | - |
| | 200 | 0.9995 | 0.0001 | 0.0039 | 0.0039 | 1.001 | 1.067 | 0.998 | 0.978 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 0.9981 | 0.0001 | 0.0041 | 0.0041 | 1.002 | 1.125 | 0.993 | 0.973 | 4.02 | 4 | 4 | 10 | - | - | - | - |
| Hard thresholding | 100 | 1.0000 | 0.0008 | 0.0104 | 0.0104 | 1.001 | 1.088 | 1.000 | 0.956 | 4.08 | 4 | 4 | 13 | - | - | - | - |
| | 200 | 1.0000 | 0.0002 | 0.0051 | 0.0051 | 1.001 | 1.053 | 1.000 | 0.977 | 4.03 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0048 | 0.0048 | 1.001 | 1.049 | 1.000 | 0.977 | 4.03 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3368 | 0.8633 | 0.8633 | 1.040 | 2.449 | 1.000 | 0.000 | 36.33 | 28 | 45 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3300 | 0.9277 | 0.9277 | 1.074 | 3.349 | 1.000 | 0.000 | 68.69 | 58 | 77.5 | 85 | - | - | - | - |
| | 300 | 1.0000 | 0.2767 | 0.9423 | 0.9423 | 1.089 | 3.469 | 1.000 | 0.000 | 85.92 | 78 | 94 | 102 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1469 | 0.7247 | 0.7247 | 1.077 | 3.476 | 1.000 | 0.000 | 18.10 | 12 | 26 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.1534 | 0.8518 | 0.8518 | 1.146 | 4.939 | 1.000 | 0.000 | 34.06 | 24 | 46 | 70 | - | - | - | - |
| | 300 | 1.0000 | 0.1627 | 0.9027 | 0.9027 | 1.212 | 5.746 | 1.000 | 0.000 | 52.15 | 38 | 70 | 107 | - | - | - | - |

Notes: See notes to Table 1.

**Table 30: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0195 | 0.0195 | 1.001 | 1.071 | 1.000 | 0.895 | 4.12 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0173 | 0.0173 | 1.001 | 1.069 | 1.000 | 0.900 | 4.11 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0178 | 0.0178 | 1.001 | 1.067 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0106 | 0.0106 | 1.000 | 1.044 | 1.000 | 0.941 | 4.07 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0092 | 0.0092 | 1.000 | 1.039 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0085 | 0.0085 | 1.000 | 1.035 | 1.000 | 0.953 | 4.05 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0029 | 0.0029 | 1.000 | 1.013 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.007 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.009 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0180 | 0.0180 | 1.001 | 1.056 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0160 | 0.0160 | 1.000 | 1.054 | 1.000 | 0.907 | 4.10 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0168 | 0.0168 | 1.000 | 1.054 | 1.000 | 0.907 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0097 | 0.0097 | 1.000 | 1.033 | 1.000 | 0.947 | 4.06 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0087 | 0.0087 | 1.000 | 1.032 | 1.000 | 0.950 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0081 | 0.0081 | 1.000 | 1.030 | 1.000 | 0.955 | 4.05 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.009 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.007 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.008 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0782 | 0.5284 | 0.5284 | 1.011 | 1.657 | 1.000 | 0.028 | 11.51 | 5 | 21 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0467 | 0.5660 | 0.5660 | 1.013 | 1.761 | 1.000 | 0.027 | 13.15 | 5 | 28 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0356 | 0.5965 | 0.5965 | 1.015 | 1.837 | 1.000 | 0.020 | 14.53 | 5 | 28.5 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0129 | 0.0912 | 0.0912 | 1.005 | 1.432 | 1.000 | 0.830 | 5.24 | 4 | 13 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0124 | 0.1551 | 0.1551 | 1.008 | 1.687 | 1.000 | 0.735 | 6.44 | 4 | 19 | 35 | - | - | - | - |
| | 300 | 1.0000 | 0.0118 | 0.2092 | 0.2092 | 1.012 | 1.914 | 1.000 | 0.658 | 7.49 | 4 | 20 | 39 | - | - | - | - |
| SICA | 100 | 0.9998 | 0.0002 | 0.0035 | 0.0035 | 1.000 | 1.053 | 0.999 | 0.981 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| | 200 | 0.9995 | 0.0001 | 0.0030 | 0.0030 | 1.001 | 1.073 | 0.998 | 0.984 | 4.02 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 0.9998 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.040 | 0.999 | 0.990 | 4.01 | 4 | 4 | 6 | - | - | - | - |
| Hard thresholding | 100 | 1.0000 | 0.0005 | 0.0073 | 0.0073 | 1.001 | 1.066 | 1.000 | 0.967 | 4.05 | 4 | 4 | 10 | - | - | - | - |
| | 200 | 1.0000 | 0.0001 | 0.0040 | 0.0040 | 1.000 | 1.040 | 1.000 | 0.981 | 4.03 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0045 | 0.0045 | 1.000 | 1.048 | 1.000 | 0.978 | 4.03 | 4 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3356 | 0.8630 | 0.8630 | 1.023 | 2.431 | 1.000 | 0.000 | 36.22 | 28 | 45 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.3300 | 0.9276 | 0.9276 | 1.044 | 3.254 | 1.000 | 0.000 | 68.68 | 57 | 79 | 87 | - | - | - | - |
| | 300 | 1.0000 | 0.2860 | 0.9441 | 0.9441 | 1.053 | 3.535 | 1.000 | 0.000 | 88.67 | 81 | 97 | 104 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1380 | 0.7129 | 0.7129 | 1.044 | 3.442 | 1.000 | 0.000 | 17.25 | 11 | 24 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.1438 | 0.8442 | 0.8442 | 1.088 | 4.812 | 1.000 | 0.000 | 32.18 | 23 | 43 | 62 | - | - | - | - |
| | 300 | 1.0000 | 0.1490 | 0.8952 | 0.8952 | 1.130 | 5.820 | 1.000 | 0.000 | 48.11 | 35.5 | 63 | 85 | - | - | - | - |

Notes: See notes to Table 1.

**Table 31: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9429 | 0.0017 | 0.0282 | 0.0282 | 1.020 | 1.390 | 0.796 | 0.678 | 3.94 | 3 | 5 | 7 | 1.025 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9178 | 0.0009 | 0.0314 | 0.0314 | 1.027 | 1.520 | 0.718 | 0.609 | 3.85 | 3 | 5 | 7 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9026 | 0.0007 | 0.0341 | 0.0341 | 1.033 | 1.598 | 0.682 | 0.562 | 3.81 | 2 | 5 | 7 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9199 | 0.0009 | 0.0153 | 0.0153 | 1.023 | 1.452 | 0.724 | 0.669 | 3.77 | 3 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8883 | 0.0005 | 0.0166 | 0.0166 | 1.032 | 1.600 | 0.634 | 0.581 | 3.64 | 2 | 5 | 6 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8720 | 0.0004 | 0.0206 | 0.0206 | 1.038 | 1.682 | 0.601 | 0.540 | 3.60 | 2 | 5 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8459 | 0.0002 | 0.0041 | 0.0041 | 1.040 | 1.730 | 0.537 | 0.524 | 3.40 | 2 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8054 | 0.0001 | 0.0048 | 0.0048 | 1.054 | 1.894 | 0.454 | 0.445 | 3.24 | 2 | 4 | 5 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7815 | 0.0001 | 0.0053 | 0.0053 | 1.061 | 1.986 | 0.400 | 0.391 | 3.15 | 2 | 4 | 5 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9421 | 0.0015 | 0.0248 | 0.0248 | 1.018 | 1.369 | 0.794 | 0.693 | 3.91 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9171 | 0.0008 | 0.0285 | 0.0285 | 1.026 | 1.501 | 0.717 | 0.620 | 3.83 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9024 | 0.0006 | 0.0312 | 0.0312 | 1.032 | 1.578 | 0.681 | 0.574 | 3.79 | 2 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9190 | 0.0008 | 0.0135 | 0.0135 | 1.022 | 1.444 | 0.722 | 0.676 | 3.75 | 3 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8875 | 0.0004 | 0.0149 | 0.0149 | 1.032 | 1.591 | 0.633 | 0.587 | 3.63 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8716 | 0.0003 | 0.0187 | 0.0187 | 1.038 | 1.670 | 0.600 | 0.546 | 3.59 | 2 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8453 | 0.0002 | 0.0037 | 0.0037 | 1.040 | 1.731 | 0.535 | 0.524 | 3.40 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8045 | 0.0001 | 0.0046 | 0.0046 | 1.054 | 1.895 | 0.453 | 0.445 | 3.24 | 2 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7809 | 0.0001 | 0.0049 | 0.0049 | 1.061 | 1.985 | 0.398 | 0.391 | 3.15 | 2 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9891 | 0.0767 | 0.5243 | 0.5243 | 1.062 | 1.757 | 0.958 | 0.028 | 11.32 | 5 | 21 | 39 | - | - | - | - |
| | 200 | 0.9871 | 0.0568 | 0.6085 | 0.6085 | 1.077 | 1.917 | 0.951 | 0.020 | 15.09 | 5 | 31 | 59 | - | - | - | - |
| | 300 | 0.9849 | 0.0473 | 0.6580 | 0.6580 | 1.085 | 2.002 | 0.942 | 0.009 | 17.95 | 6 | 37 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9304 | 0.0233 | 0.2238 | 0.2238 | 1.060 | 1.919 | 0.759 | 0.237 | 5.96 | 3 | 12 | 32 | - | - | - | - |
| | 200 | 0.9335 | 0.0240 | 0.3380 | 0.3380 | 1.089 | 2.258 | 0.772 | 0.146 | 8.45 | 3 | 22.5 | 50 | - | - | - | - |
| | 300 | 0.9348 | 0.0235 | 0.4123 | 0.4123 | 1.112 | 2.492 | 0.776 | 0.106 | 10.69 | 3 | 30 | 62 | - | - | - | - |
| SICA | 100 | 0.7276 | 0.0066 | 0.0967 | 0.0967 | 1.101 | 2.485 | 0.237 | 0.113 | 3.54 | 2 | 7 | 16 | - | - | - | - |
| | 200 | 0.6495 | 0.0027 | 0.0884 | 0.0884 | 1.125 | 2.703 | 0.122 | 0.056 | 3.13 | 1 | 6 | 15 | - | - | - | - |
| | 300 | 0.6261 | 0.0019 | 0.0946 | 0.0946 | 1.135 | 2.783 | 0.094 | 0.049 | 3.07 | 1 | 6 | 14 | - | - | - | - |
| Hard thresholding | 100 | 0.7240 | 0.0040 | 0.0598 | 0.0598 | 1.093 | 2.399 | 0.238 | 0.155 | 3.28 | 2 | 6 | 17 | - | - | - | - |
| | 200 | 0.6728 | 0.0022 | 0.0677 | 0.0677 | 1.113 | 2.588 | 0.160 | 0.096 | 3.13 | 1 | 6 | 16 | - | - | - | - |
| | 300 | 0.6520 | 0.0017 | 0.0774 | 0.0774 | 1.124 | 2.677 | 0.132 | 0.076 | 3.10 | 1 | 6 | 20 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9970 | 0.3481 | 0.8670 | 0.8670 | 1.137 | 2.654 | 0.988 | 0.000 | 37.40 | 28 | 47 | 55 | - | - | - | - |
| | 200 | 0.9955 | 0.3083 | 0.9235 | 0.9235 | 1.208 | 3.196 | 0.983 | 0.000 | 64.41 | 57 | 71 | 78 | - | - | - | - |
| | 300 | 0.9966 | 0.2395 | 0.9341 | 0.9341 | 1.216 | 3.223 | 0.987 | 0.000 | 74.88 | 68 | 82.5 | 90 | - | - | - | - |
| $v = 1$ | 100 | 0.9471 | 0.1694 | 0.7566 | 0.7566 | 1.238 | 3.690 | 0.798 | 0.000 | 20.05 | 12 | 31 | 52 | - | - | - | - |
| | 200 | 0.9116 | 0.2074 | 0.8897 | 0.8897 | 1.409 | 4.815 | 0.670 | 0.000 | 44.30 | 27 | 68 | 103 | - | - | - | - |
| | 300 | 0.8906 | 0.2270 | 0.9329 | 0.9329 | 1.487 | 5.275 | 0.598 | 0.000 | 70.75 | 46 | 100 | 127 | - | - | - | - |

Notes: See notes to Table 1.

**Table 32: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0199 | 0.0199 | 1.002 | 1.105 | 1.000 | 0.888 | 4.12 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0201 | 0.0201 | 1.002 | 1.105 | 1.000 | 0.888 | 4.12 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0213 | 0.0213 | 1.002 | 1.119 | 1.000 | 0.880 | 4.13 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0106 | 0.0106 | 1.001 | 1.065 | 1.000 | 0.938 | 4.06 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0113 | 0.0113 | 1.001 | 1.063 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0111 | 0.0111 | 1.001 | 1.069 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0027 | 0.0027 | 1.000 | 1.021 | 1.000 | 0.984 | 4.02 | 4 | 4 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.015 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.014 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0175 | 0.0175 | 1.001 | 1.081 | 1.000 | 0.901 | 4.11 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0185 | 0.0185 | 1.001 | 1.087 | 1.000 | 0.896 | 4.11 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0200 | 0.0200 | 1.002 | 1.106 | 1.000 | 0.887 | 4.12 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0093 | 0.0093 | 1.001 | 1.050 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0103 | 0.0103 | 1.001 | 1.053 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0103 | 0.0103 | 1.001 | 1.060 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.014 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.014 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0019 | 0.0019 | 1.000 | 1.013 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0808 | 0.5398 | 0.5398 | 1.018 | 1.664 | 1.000 | 0.028 | 11.75 | 5 | 22 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0505 | 0.5887 | 0.5887 | 1.023 | 1.789 | 1.000 | 0.019 | 13.89 | 5 | 27 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0372 | 0.6119 | 0.6119 | 1.025 | 1.845 | 1.000 | 0.017 | 15.01 | 6 | 30 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0179 | 0.1561 | 0.1561 | 1.010 | 1.544 | 0.999 | 0.543 | 5.72 | 4 | 13 | 36 | - | - | - | - |
| | 200 | 0.9996 | 0.0179 | 0.2416 | 0.2416 | 1.021 | 1.948 | 0.999 | 0.435 | 7.51 | 4 | 21 | 48 | - | - | - | - |
| | 300 | 0.9999 | 0.0165 | 0.2992 | 0.2992 | 1.029 | 2.207 | 1.000 | 0.358 | 8.89 | 4 | 25 | 49 | - | - | - | - |
| SICA | 100 | 0.9851 | 0.0021 | 0.0293 | 0.0293 | 1.007 | 1.443 | 0.941 | 0.809 | 4.14 | 3 | 5 | 11 | - | - | - | - |
| | 200 | 0.9778 | 0.0007 | 0.0206 | 0.0206 | 1.009 | 1.520 | 0.913 | 0.817 | 4.05 | 3 | 5 | 9 | - | - | - | - |
| | 300 | 0.9709 | 0.0005 | 0.0194 | 0.0194 | 1.010 | 1.618 | 0.885 | 0.793 | 4.02 | 3 | 5 | 18 | - | - | - | - |
| Hard thresholding | 100 | 0.9856 | 0.0011 | 0.0150 | 0.0150 | 1.005 | 1.353 | 0.943 | 0.876 | 4.05 | 3 | 5 | 9 | - | - | - | - |
| | 200 | 0.9795 | 0.0004 | 0.0121 | 0.0121 | 1.007 | 1.445 | 0.920 | 0.861 | 4.00 | 3 | 5 | 9 | - | - | - | - |
| | 300 | 0.9778 | 0.0002 | 0.0111 | 0.0111 | 1.007 | 1.470 | 0.914 | 0.858 | 3.98 | 3 | 5 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3349 | 0.8627 | 0.8627 | 1.039 | 2.449 | 1.000 | 0.000 | 36.15 | 28 | 44.5 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3316 | 0.9280 | 0.9280 | 1.076 | 3.323 | 1.000 | 0.000 | 68.99 | 58 | 78 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2805 | 0.9430 | 0.9430 | 1.089 | 3.538 | 1.000 | 0.000 | 87.02 | 79 | 95 | 104 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1462 | 0.7243 | 0.7243 | 1.076 | 3.506 | 1.000 | 0.000 | 18.04 | 12 | 26 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.1532 | 0.8520 | 0.8520 | 1.146 | 4.859 | 1.000 | 0.000 | 34.02 | 24 | 46 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.1638 | 0.9031 | 0.9031 | 1.210 | 5.821 | 1.000 | 0.000 | 52.49 | 38 | 72 | 112 | - | - | - | - |

Notes: See notes to Table 1.

**Table 33: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0193 | 0.0193 | 1.001 | 1.096 | 1.000 | 0.894 | 4.12 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0187 | 0.0187 | 1.001 | 1.105 | 1.000 | 0.896 | 4.12 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0173 | 0.0173 | 1.001 | 1.106 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0102 | 0.0102 | 1.000 | 1.054 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0098 | 0.0098 | 1.000 | 1.060 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0080 | 0.0080 | 1.001 | 1.055 | 1.000 | 0.955 | 4.05 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0024 | 0.0024 | 1.000 | 1.017 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.017 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.016 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0178 | 0.0178 | 1.001 | 1.081 | 1.000 | 0.903 | 4.11 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0175 | 0.0175 | 1.001 | 1.090 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0164 | 0.0164 | 1.001 | 1.095 | 1.000 | 0.907 | 4.10 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0098 | 0.0098 | 1.000 | 1.049 | 1.000 | 0.945 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0090 | 0.0090 | 1.000 | 1.049 | 1.000 | 0.948 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0075 | 0.0075 | 1.000 | 1.049 | 1.000 | 0.958 | 4.05 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.016 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0017 | 0.0017 | 1.000 | 1.012 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.014 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0809 | 0.5404 | 0.5404 | 1.011 | 1.665 | 1.000 | 0.020 | 11.77 | 5 | 22 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0499 | 0.5844 | 0.5844 | 1.013 | 1.780 | 1.000 | 0.020 | 13.78 | 5 | 28 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0364 | 0.6017 | 0.6017 | 1.015 | 1.863 | 1.000 | 0.019 | 14.78 | 5 | 30 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0159 | 0.1245 | 0.1245 | 1.006 | 1.503 | 1.000 | 0.653 | 5.53 | 4 | 14 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0155 | 0.1989 | 0.1989 | 1.011 | 1.846 | 1.000 | 0.538 | 7.04 | 4 | 20.5 | 39 | - | - | - | - |
| | 300 | 1.0000 | 0.0144 | 0.2504 | 0.2504 | 1.016 | 2.145 | 1.000 | 0.493 | 8.27 | 4 | 24 | 46 | - | - | - | - |
| SICA | 100 | 0.9984 | 0.0007 | 0.0098 | 0.0098 | 1.001 | 1.133 | 0.994 | 0.947 | 4.06 | 4 | 4 | 12 | - | - | - | - |
| | 200 | 0.9959 | 0.0003 | 0.0086 | 0.0086 | 1.002 | 1.208 | 0.984 | 0.940 | 4.04 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 0.9960 | 0.0002 | 0.0080 | 0.0080 | 1.002 | 1.202 | 0.984 | 0.942 | 4.03 | 4 | 4 | 6 | - | - | - | - |
| Hard thresholding | 100 | 0.9995 | 0.0007 | 0.0097 | 0.0097 | 1.001 | 1.099 | 0.998 | 0.955 | 4.07 | 4 | 4 | 12 | - | - | - | - |
| | 200 | 0.9991 | 0.0002 | 0.0066 | 0.0066 | 1.001 | 1.093 | 0.997 | 0.966 | 4.04 | 4 | 4 | 10 | - | - | - | - |
| | 300 | 0.9988 | 0.0002 | 0.0086 | 0.0086 | 1.001 | 1.125 | 0.995 | 0.955 | 4.05 | 4 | 4 | 8 | - | - | - | - |
| | | | | | | | **Boosting methods** | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3361 | 0.8632 | 0.8632 | 1.023 | 2.452 | 1.000 | 0.000 | 36.26 | 28 | 45 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3319 | 0.9280 | 0.9280 | 1.045 | 3.235 | 1.000 | 0.000 | 69.06 | 58 | 79 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2900 | 0.9448 | 0.9448 | 1.055 | 3.518 | 1.000 | 0.000 | 89.84 | 82 | 98 | 106 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1445 | 0.7231 | 0.7231 | 1.046 | 3.536 | 1.000 | 0.000 | 17.87 | 12 | 25 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.1467 | 0.8468 | 0.8468 | 1.090 | 4.822 | 1.000 | 0.000 | 32.75 | 23 | 44 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.1494 | 0.8954 | 0.8954 | 1.130 | 5.784 | 1.000 | 0.000 | 48.22 | 36 | 63 | 85 | - | - | - | - |

Notes: See notes to Table 1.

**Table 34: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6498 | 0.0018 | 0.0380 | 0.0380 | 1.046 | 1.749 | 0.225 | 0.182 | 2.77 | 1 | 4 | 6 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5871 | 0.0010 | 0.0458 | 0.0458 | 1.058 | 1.907 | 0.150 | 0.129 | 2.54 | 1 | 4 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5498 | 0.0006 | 0.0418 | 0.0418 | 1.065 | 1.945 | 0.149 | 0.119 | 2.37 | 0 | 4 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5813 | 0.0010 | 0.0233 | 0.0233 | 1.054 | 1.839 | 0.160 | 0.137 | 2.42 | 0 | 4 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5149 | 0.0006 | 0.0284 | 0.0284 | 1.068 | 1.994 | 0.097 | 0.091 | 2.17 | 0 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4789 | 0.0003 | 0.0228 | 0.0228 | 1.074 | 2.023 | 0.097 | 0.085 | 2.00 | 0 | 4 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4334 | 0.0003 | 0.0081 | 0.0081 | 1.078 | 2.055 | 0.061 | 0.059 | 1.76 | 0 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3711 | 0.0001 | 0.0082 | 0.0082 | 1.090 | 2.184 | 0.038 | 0.038 | 1.51 | 0 | 3 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3493 | 0.0001 | 0.0063 | 0.0063 | 1.095 | 2.185 | 0.037 | 0.035 | 1.42 | 0 | 3 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.6498 | 0.0016 | 0.0348 | 0.0348 | 1.045 | 1.734 | 0.225 | 0.186 | 2.76 | 1 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5870 | 0.0009 | 0.0442 | 0.0442 | 1.058 | 1.900 | 0.150 | 0.131 | 2.53 | 1 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.5498 | 0.0005 | 0.0402 | 0.0402 | 1.064 | 1.937 | 0.149 | 0.121 | 2.36 | 0 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5813 | 0.0009 | 0.0214 | 0.0214 | 1.054 | 1.831 | 0.160 | 0.138 | 2.41 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5149 | 0.0005 | 0.0268 | 0.0268 | 1.067 | 1.988 | 0.097 | 0.092 | 2.16 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4789 | 0.0003 | 0.0221 | 0.0221 | 1.074 | 2.019 | 0.097 | 0.085 | 2.00 | 0 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4334 | 0.0003 | 0.0078 | 0.0078 | 1.078 | 2.054 | 0.061 | 0.059 | 1.76 | 0 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3711 | 0.0001 | 0.0077 | 0.0077 | 1.090 | 2.182 | 0.038 | 0.038 | 1.51 | 0 | 3 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3493 | 0.0001 | 0.0062 | 0.0062 | 1.095 | 2.184 | 0.037 | 0.035 | 1.42 | 0 | 3 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8744 | 0.0683 | 0.5089 | 0.5089 | 1.054 | 1.633 | 0.591 | 0.022 | 10.05 | 3.5 | 21 | 42 | - | - | - | - |
| | 200 | 0.8481 | 0.0496 | 0.5943 | 0.5943 | 1.067 | 1.793 | 0.515 | 0.010 | 13.11 | 4 | 29 | 59 | - | - | - | - |
| | 300 | 0.8364 | 0.0427 | 0.6513 | 0.6513 | 1.075 | 1.855 | 0.495 | 0.009 | 16.00 | 4 | 36 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7204 | 0.0265 | 0.2814 | 0.2814 | 1.064 | 1.937 | 0.261 | 0.038 | 5.43 | 2 | 13 | 39 | - | - | - | - |
| | 200 | 0.7149 | 0.0236 | 0.3930 | 0.3930 | 1.093 | 2.280 | 0.263 | 0.018 | 7.49 | 2 | 20 | 53 | - | - | - | - |
| | 300 | 0.7154 | 0.0235 | 0.4757 | 0.4757 | 1.117 | 2.485 | 0.269 | 0.012 | 9.80 | 2 | 26 | 57 | - | - | - | - |
| SICA | 100 | 0.4508 | 0.0089 | 0.1580 | 0.1580 | 1.104 | 2.468 | 0.009 | 0.002 | 2.66 | 1 | 6 | 17 | - | - | - | - |
| | 200 | 0.3981 | 0.0042 | 0.1604 | 0.1604 | 1.118 | 2.580 | 0.003 | 0.001 | 2.41 | 1 | 6 | 13 | - | - | - | - |
| | 300 | 0.3675 | 0.0029 | 0.1662 | 0.1662 | 1.127 | 2.672 | 0.002 | 0.000 | 2.32 | 1 | 6 | 16 | - | - | - | - |
| Hard thresholding | 100 | 0.4454 | 0.0068 | 0.1265 | 0.1265 | 1.098 | 2.410 | 0.010 | 0.002 | 2.44 | 1 | 5 | 15 | - | - | - | - |
| | 200 | 0.4059 | 0.0040 | 0.1533 | 0.1533 | 1.115 | 2.553 | 0.001 | 0.000 | 2.40 | 1 | 5 | 17 | - | - | - | - |
| | 300 | 0.3820 | 0.0029 | 0.1672 | 0.1672 | 1.124 | 2.647 | 0.003 | 0.001 | 2.39 | 1 | 6 | 26 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9584 | 0.3438 | 0.8690 | 0.8690 | 1.132 | 2.603 | 0.841 | 0.000 | 36.84 | 27 | 47 | 54 | - | - | - | - |
| | 200 | 0.9411 | 0.3108 | 0.9272 | 0.9272 | 1.211 | 3.204 | 0.784 | 0.000 | 64.69 | 57 | 71 | 81 | - | - | - | - |
| | 300 | 0.9266 | 0.2417 | 0.9381 | 0.9381 | 1.212 | 3.233 | 0.730 | 0.000 | 75.26 | 68 | 82 | 93 | - | - | - | - |
| $v = 1$ | 100 | 0.7725 | 0.1671 | 0.7828 | 0.7828 | 1.234 | 3.638 | 0.291 | 0.000 | 19.13 | 11 | 30 | 46 | - | - | - | - |
| | 200 | 0.7426 | 0.2055 | 0.9043 | 0.9043 | 1.405 | 4.762 | 0.244 | 0.000 | 43.25 | 26 | 67 | 95 | - | - | - | - |
| | 300 | 0.7143 | 0.2264 | 0.9428 | 0.9428 | 1.470 | 5.203 | 0.200 | 0.000 | 69.86 | 46 | 101 | 136 | - | - | - | - |

Notes: See notes to Table 1.

**Table 35: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9990 | 0.0011 | 0.0177 | 0.0177 | 1.002 | 1.107 | 0.996 | 0.896 | 4.11 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9973 | 0.0006 | 0.0202 | 0.0202 | 1.002 | 1.138 | 0.989 | 0.877 | 4.11 | 4 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9966 | 0.0004 | 0.0197 | 0.0197 | 1.003 | 1.143 | 0.987 | 0.879 | 4.11 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9979 | 0.0006 | 0.0089 | 0.0089 | 1.001 | 1.068 | 0.992 | 0.941 | 4.05 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9953 | 0.0004 | 0.0116 | 0.0116 | 1.002 | 1.106 | 0.981 | 0.916 | 4.05 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9935 | 0.0002 | 0.0095 | 0.0095 | 1.002 | 1.105 | 0.975 | 0.923 | 4.03 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9918 | 0.0001 | 0.0020 | 0.0020 | 1.001 | 1.065 | 0.968 | 0.956 | 3.98 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9870 | 0.0001 | 0.0025 | 0.0025 | 1.001 | 1.099 | 0.950 | 0.936 | 3.96 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9809 | 0.0000 | 0.0017 | 0.0017 | 1.002 | 1.135 | 0.928 | 0.919 | 3.93 | 3 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9990 | 0.0010 | 0.0164 | 0.0164 | 1.002 | 1.093 | 0.996 | 0.904 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9973 | 0.0006 | 0.0197 | 0.0197 | 1.002 | 1.132 | 0.989 | 0.879 | 4.11 | 4 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9966 | 0.0004 | 0.0191 | 0.0191 | 1.002 | 1.137 | 0.987 | 0.882 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9979 | 0.0005 | 0.0083 | 0.0083 | 1.001 | 1.061 | 0.992 | 0.945 | 4.04 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9953 | 0.0003 | 0.0113 | 0.0113 | 1.002 | 1.103 | 0.981 | 0.917 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9935 | 0.0002 | 0.0094 | 0.0094 | 1.002 | 1.104 | 0.975 | 0.924 | 4.03 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9918 | 0.0001 | 0.0020 | 0.0020 | 1.001 | 1.065 | 0.968 | 0.956 | 3.98 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9870 | 0.0001 | 0.0025 | 0.0025 | 1.001 | 1.099 | 0.950 | 0.936 | 3.96 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9809 | 0.0000 | 0.0017 | 0.0017 | 1.002 | 1.135 | 0.928 | 0.919 | 3.93 | 3 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9994 | 0.0775 | 0.5268 | 0.5268 | 1.019 | 1.674 | 0.998 | 0.038 | 11.44 | 5 | 21 | 34 | - | - | - | - |
| | 200 | 0.9971 | 0.0488 | 0.5777 | 0.5777 | 1.023 | 1.803 | 0.989 | 0.022 | 13.55 | 5 | 27 | 47 | - | - | - | - |
| | 300 | 0.9978 | 0.0377 | 0.6078 | 0.6078 | 1.027 | 1.851 | 0.991 | 0.023 | 15.15 | 5 | 30 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9778 | 0.0223 | 0.2156 | 0.2156 | 1.016 | 1.753 | 0.914 | 0.332 | 6.06 | 3 | 13 | 28 | - | - | - | - |
| | 200 | 0.9778 | 0.0204 | 0.3022 | 0.3022 | 1.026 | 2.119 | 0.916 | 0.255 | 7.91 | 3 | 20 | 43 | - | - | - | - |
| | 300 | 0.9775 | 0.0183 | 0.3603 | 0.3603 | 1.035 | 2.350 | 0.919 | 0.209 | 9.32 | 3 | 23 | 62 | - | - | - | - |
| SICA | 100 | 0.8456 | 0.0050 | 0.0675 | 0.0675 | 1.024 | 2.169 | 0.471 | 0.288 | 3.86 | 2 | 6 | 16 | - | - | - | - |
| | 200 | 0.7829 | 0.0018 | 0.0544 | 0.0544 | 1.031 | 2.410 | 0.317 | 0.210 | 3.48 | 2 | 6 | 13 | - | - | - | - |
| | 300 | 0.7490 | 0.0012 | 0.0541 | 0.0541 | 1.036 | 2.563 | 0.238 | 0.140 | 3.35 | 2 | 6 | 14 | - | - | - | - |
| Hard thresholding | 100 | 0.8369 | 0.0024 | 0.0345 | 0.0345 | 1.022 | 2.108 | 0.456 | 0.352 | 3.58 | 2 | 5 | 12 | - | - | - | - |
| | 200 | 0.7934 | 0.0011 | 0.0336 | 0.0336 | 1.028 | 2.302 | 0.345 | 0.262 | 3.38 | 2 | 5 | 11 | - | - | - | - |
| | 300 | 0.7698 | 0.0007 | 0.0336 | 0.0336 | 1.031 | 2.412 | 0.291 | 0.214 | 3.29 | 2 | 5 | 12 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9996 | 0.3352 | 0.8627 | 0.8627 | 1.038 | 2.461 | 0.999 | 0.000 | 36.18 | 28 | 45 | 52 | - | - | - | - |
| | 200 | 0.9999 | 0.3320 | 0.9281 | 0.9281 | 1.076 | 3.306 | 1.000 | 0.000 | 69.08 | 58 | 78 | 87 | - | - | - | - |
| | 300 | 0.9998 | 0.2830 | 0.9435 | 0.9435 | 1.091 | 3.580 | 0.999 | 0.000 | 87.78 | 80 | 96 | 103 | - | - | - | - |
| $v = 1$ | 100 | 0.9936 | 0.1447 | 0.7232 | 0.7232 | 1.074 | 3.550 | 0.975 | 0.000 | 17.87 | 12 | 25 | 38 | - | - | - | - |
| | 200 | 0.9900 | 0.1539 | 0.8530 | 0.8530 | 1.148 | 4.864 | 0.960 | 0.000 | 34.12 | 23 | 47 | 91 | - | - | - | - |
| | 300 | 0.9808 | 0.1651 | 0.9052 | 0.9052 | 1.215 | 5.901 | 0.924 | 0.000 | 52.80 | 38 | 72 | 99 | - | - | - | - |

Notes: See notes to Table 1.

**Table 36: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0164 | 0.0164 | 1.001 | 1.097 | 1.000 | 0.906 | 4.10 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0190 | 0.0190 | 1.001 | 1.121 | 1.000 | 0.895 | 4.12 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0179 | 0.0179 | 1.001 | 1.117 | 1.000 | 0.898 | 4.11 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0084 | 0.0084 | 1.001 | 1.054 | 1.000 | 0.952 | 4.05 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0098 | 0.0098 | 1.001 | 1.068 | 1.000 | 0.944 | 4.06 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0095 | 0.0095 | 1.001 | 1.071 | 1.000 | 0.945 | 4.06 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.016 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.010 | 1.000 | 0.993 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.021 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0156 | 0.0156 | 1.001 | 1.089 | 1.000 | 0.910 | 4.10 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0184 | 0.0184 | 1.001 | 1.113 | 1.000 | 0.899 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0176 | 0.0176 | 1.001 | 1.113 | 1.000 | 0.900 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0083 | 0.0083 | 1.001 | 1.053 | 1.000 | 0.952 | 4.05 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0095 | 0.0095 | 1.001 | 1.064 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0092 | 0.0092 | 1.001 | 1.066 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.016 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.010 | 1.000 | 0.993 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0024 | 0.0024 | 1.000 | 1.020 | 1.000 | 0.986 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0800 | 0.5386 | 0.5386 | 1.010 | 1.662 | 1.000 | 0.028 | 11.68 | 5 | 22 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0506 | 0.5889 | 0.5889 | 1.014 | 1.799 | 1.000 | 0.022 | 13.92 | 5 | 27 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0352 | 0.5992 | 0.5992 | 1.014 | 1.822 | 1.000 | 0.020 | 14.42 | 5 | 28 | 49 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9983 | 0.0200 | 0.1859 | 0.1859 | 1.007 | 1.602 | 0.994 | 0.460 | 5.91 | 4 | 13 | 32 | - | - | - | - |
| | 200 | 0.9984 | 0.0198 | 0.2800 | 0.2800 | 1.015 | 2.043 | 0.994 | 0.345 | 7.88 | 4 | 22 | 42 | - | - | - | - |
| | 300 | 0.9980 | 0.0166 | 0.3192 | 0.3192 | 1.019 | 2.276 | 0.993 | 0.314 | 8.90 | 4 | 24.5 | 42 | - | - | - | - |
| SICA | 100 | 0.9569 | 0.0029 | 0.0405 | 0.0405 | 1.008 | 1.677 | 0.832 | 0.656 | 4.11 | 3 | 6 | 10 | - | - | - | - |
| | 200 | 0.9405 | 0.0012 | 0.0361 | 0.0361 | 1.009 | 1.854 | 0.770 | 0.611 | 4.00 | 3 | 5 | 14 | - | - | - | - |
| | 300 | 0.9304 | 0.0008 | 0.0344 | 0.0344 | 1.011 | 1.941 | 0.735 | 0.592 | 3.95 | 3 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.9549 | 0.0015 | 0.0212 | 0.0212 | 1.007 | 1.616 | 0.828 | 0.731 | 3.96 | 3 | 5 | 9 | - | - | - | - |
| | 200 | 0.9459 | 0.0007 | 0.0199 | 0.0199 | 1.007 | 1.735 | 0.793 | 0.698 | 3.91 | 3 | 5 | 11 | - | - | - | - |
| | 300 | 0.9411 | 0.0004 | 0.0200 | 0.0200 | 1.008 | 1.782 | 0.780 | 0.688 | 3.90 | 3 | 5 | 14 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3329 | 0.8619 | 0.8619 | 1.023 | 2.409 | 1.000 | 0.000 | 35.96 | 28 | 45 | 55 | - | - | - | - |
| | 200 | 1.0000 | 0.3314 | 0.9278 | 0.9278 | 1.044 | 3.316 | 1.000 | 0.000 | 68.95 | 57 | 79 | 88 | - | - | - | - |
| | 300 | 1.0000 | 0.2931 | 0.9454 | 0.9454 | 1.056 | 3.620 | 1.000 | 0.000 | 90.76 | 83 | 98 | 111 | - | - | - | - |
| $v = 1$ | 100 | 0.9999 | 0.1447 | 0.7223 | 0.7223 | 1.047 | 3.524 | 1.000 | 0.000 | 17.89 | 12 | 25 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.1460 | 0.8461 | 0.8461 | 1.089 | 4.933 | 1.000 | 0.000 | 32.62 | 23 | 44 | 57 | - | - | - | - |
| | 300 | 0.9999 | 0.1507 | 0.8964 | 0.8964 | 1.133 | 5.916 | 1.000 | 0.000 | 48.60 | 36 | 64 | 81 | - | - | - | - |

Notes: See notes to Table 1.

**Table 37: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0278 | 0.0278 | 1.006 | 1.033 | 1.000 | 0.851 | 4.17 | 4 | 5 | 7 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0010 | 0.0310 | 0.0310 | 1.006 | 1.038 | 1.000 | 0.832 | 4.19 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0298 | 0.0298 | 1.006 | 1.036 | 1.000 | 0.835 | 4.19 | 4 | 5 | 7 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0010 | 0.0158 | 0.0158 | 1.003 | 1.021 | 1.000 | 0.911 | 4.10 | 4 | 5 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0185 | 0.0185 | 1.004 | 1.025 | 1.000 | 0.895 | 4.11 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0163 | 0.0163 | 1.004 | 1.020 | 1.000 | 0.906 | 4.10 | 4 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0046 | 0.0046 | 1.001 | 1.008 | 1.000 | 0.974 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0044 | 0.0044 | 1.001 | 1.007 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0038 | 0.0038 | 1.001 | 1.006 | 1.000 | 0.978 | 4.02 | 4 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0248 | 0.0248 | 1.004 | 1.022 | 1.000 | 0.865 | 4.16 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0009 | 0.0288 | 0.0288 | 1.005 | 1.029 | 1.000 | 0.843 | 4.18 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0264 | 0.0264 | 1.005 | 1.025 | 1.000 | 0.852 | 4.16 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0133 | 0.0133 | 1.002 | 1.013 | 1.000 | 0.924 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0172 | 0.0172 | 1.003 | 1.019 | 1.000 | 0.902 | 4.11 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0146 | 0.0146 | 1.003 | 1.014 | 1.000 | 0.915 | 4.09 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0040 | 0.0040 | 1.001 | 1.006 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0041 | 0.0041 | 1.001 | 1.006 | 1.000 | 0.976 | 4.03 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.001 | 1.004 | 1.000 | 0.981 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9601 | 0.0438 | 0.3624 | 0.3624 | 1.035 | 1.070 | 0.843 | 0.151 | 8.05 | 4 | 17 | 38 | - | - | - | - |
| | 200 | 0.9535 | 0.0312 | 0.4310 | 0.4310 | 1.041 | 1.088 | 0.819 | 0.113 | 9.93 | 4 | 23 | 49 | - | - | - | - |
| | 300 | 0.9510 | 0.0278 | 0.4925 | 0.4925 | 1.044 | 1.096 | 0.809 | 0.085 | 12.04 | 4 | 28 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7126 | 0.0098 | 0.0959 | 0.0959 | 1.055 | 1.781 | 0.214 | 0.098 | 3.79 | 2 | 9.5 | 24 | - | - | - | - |
| | 200 | 0.7219 | 0.0102 | 0.1559 | 0.1559 | 1.065 | 1.776 | 0.238 | 0.077 | 4.89 | 2 | 16 | 38 | - | - | - | - |
| | 300 | 0.7496 | 0.0120 | 0.2236 | 0.2236 | 1.079 | 1.779 | 0.291 | 0.067 | 6.54 | 2 | 23 | 48 | - | - | - | - |
| SICA | 100 | 0.2633 | 0.0017 | 0.0319 | 0.0319 | 1.147 | 3.097 | 0.000 | 0.000 | 1.22 | 1 | 2 | 13 | - | - | - | - |
| | 200 | 0.2545 | 0.0004 | 0.0150 | 0.0150 | 1.145 | 3.121 | 0.000 | 0.000 | 1.09 | 1 | 1 | 14 | - | - | - | - |
| | 300 | 0.2521 | 0.0002 | 0.0127 | 0.0127 | 1.149 | 3.153 | 0.000 | 0.000 | 1.07 | 1 | 1 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.2614 | 0.0008 | 0.0114 | 0.0114 | 1.144 | 3.097 | 0.001 | 0.001 | 1.12 | 1 | 1 | 16 | - | - | - | - |
| | 200 | 0.2568 | 0.0002 | 0.0067 | 0.0067 | 1.144 | 3.111 | 0.000 | 0.000 | 1.07 | 1 | 1 | 13 | - | - | - | - |
| | 300 | 0.2550 | 0.0002 | 0.0097 | 0.0097 | 1.146 | 3.145 | 0.000 | 0.000 | 1.08 | 1 | 1 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9705 | 0.3463 | 0.8686 | 0.8686 | 1.125 | 1.605 | 0.883 | 0.000 | 37.13 | 28 | 47 | 57 | - | - | - | - |
| | 200 | 0.9693 | 0.3138 | 0.9262 | 0.9262 | 1.197 | 1.866 | 0.879 | 0.000 | 65.38 | 58 | 72 | 78 | - | - | - | - |
| | 300 | 0.9668 | 0.2439 | 0.9367 | 0.9367 | 1.195 | 1.869 | 0.870 | 0.000 | 76.07 | 69 | 83 | 92 | - | - | - | - |
| $v = 1$ | 100 | 0.6374 | 0.1909 | 0.8259 | 0.8259 | 1.310 | 3.149 | 0.096 | 0.000 | 20.87 | 12 | 33 | 54 | - | - | - | - |
| | 200 | 0.5476 | 0.2120 | 0.9237 | 0.9237 | 1.489 | 3.763 | 0.030 | 0.000 | 43.75 | 26 | 69 | 100 | - | - | - | - |
| | 300 | 0.5089 | 0.2338 | 0.9558 | 0.9558 | 1.572 | 4.055 | 0.016 | 0.000 | 71.24 | 45 | 103 | 137 | - | - | - | - |

Notes: See notes to Table 1.

**Table 38: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0222 | 0.0222 | 1.001 | 1.024 | 1.000 | 0.879 | 4.14 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0217 | 0.0217 | 1.001 | 1.026 | 1.000 | 0.879 | 4.13 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0205 | 0.0205 | 1.001 | 1.027 | 1.000 | 0.882 | 4.13 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0112 | 0.0112 | 1.001 | 1.013 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0105 | 0.0105 | 1.001 | 1.014 | 1.000 | 0.939 | 4.06 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0108 | 0.0108 | 1.001 | 1.016 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0027 | 0.0027 | 1.000 | 1.004 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0023 | 0.0023 | 1.000 | 1.005 | 1.000 | 0.987 | 4.01 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0206 | 0.0206 | 1.001 | 1.019 | 1.000 | 0.888 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0203 | 0.0203 | 1.001 | 1.020 | 1.000 | 0.887 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0191 | 0.0191 | 1.001 | 1.021 | 1.000 | 0.890 | 4.12 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0102 | 0.0102 | 1.001 | 1.010 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0098 | 0.0098 | 1.001 | 1.012 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0097 | 0.0097 | 1.001 | 1.012 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.003 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.003 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.003 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0411 | 0.3412 | 0.3412 | 1.011 | 1.098 | 1.000 | 0.197 | 7.94 | 4 | 16 | 33 | - | - | - | - |
| | 200 | 0.9994 | 0.0254 | 0.3839 | 0.3839 | 1.014 | 1.112 | 0.998 | 0.169 | 8.98 | 4 | 20 | 41 | - | - | - | - |
| | 300 | 0.9993 | 0.0191 | 0.4015 | 0.4015 | 1.015 | 1.122 | 0.997 | 0.151 | 9.64 | 4 | 23 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9448 | 0.0097 | 0.0785 | 0.0785 | 1.018 | 1.787 | 0.794 | 0.618 | 4.71 | 3 | 11 | 27 | - | - | - | - |
| | 200 | 0.9490 | 0.0084 | 0.1241 | 0.1241 | 1.021 | 1.787 | 0.806 | 0.561 | 5.45 | 3 | 14 | 34 | - | - | - | - |
| | 300 | 0.9449 | 0.0074 | 0.1483 | 0.1483 | 1.025 | 1.831 | 0.792 | 0.514 | 5.96 | 3 | 16 | 43 | - | - | - | - |
| SICA | 100 | 0.4631 | 0.0086 | 0.1210 | 0.1210 | 1.096 | 4.133 | 0.004 | 0.001 | 2.68 | 1 | 7 | 21 | - | - | - | - |
| | 200 | 0.3786 | 0.0016 | 0.0584 | 0.0584 | 1.114 | 4.592 | 0.000 | 0.000 | 1.83 | 1 | 4 | 11 | - | - | - | - |
| | 300 | 0.3648 | 0.0009 | 0.0519 | 0.0519 | 1.118 | 4.652 | 0.000 | 0.000 | 1.74 | 1 | 4 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.5340 | 0.0011 | 0.0175 | 0.0175 | 1.091 | 4.127 | 0.217 | 0.163 | 2.25 | 1 | 5 | 9 | - | - | - | - |
| | 200 | 0.4756 | 0.0004 | 0.0144 | 0.0144 | 1.104 | 4.349 | 0.123 | 0.091 | 1.99 | 1 | 4 | 7 | - | - | - | - |
| | 300 | 0.4645 | 0.0003 | 0.0148 | 0.0148 | 1.105 | 4.376 | 0.103 | 0.072 | 1.95 | 1 | 4 | 9 | - | - | - | - |
| | | | | | | | **Boosting methods** | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9998 | 0.3318 | 0.8614 | 0.8614 | 1.035 | 1.539 | 0.999 | 0.000 | 35.86 | 27 | 45 | 59 | - | - | - | - |
| | 200 | 0.9998 | 0.3338 | 0.9284 | 0.9284 | 1.073 | 1.942 | 0.999 | 0.000 | 69.43 | 58 | 79 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2877 | 0.9444 | 0.9444 | 1.091 | 2.063 | 1.000 | 0.000 | 89.16 | 82 | 97 | 108 | - | - | - | - |
| $v = 1$ | 100 | 0.9858 | 0.1722 | 0.7566 | 0.7566 | 1.099 | 2.911 | 0.943 | 0.000 | 20.47 | 13 | 29 | 48 | - | - | - | - |
| | 200 | 0.9665 | 0.1695 | 0.8667 | 0.8667 | 1.180 | 3.638 | 0.867 | 0.000 | 37.10 | 25.5 | 51 | 68 | - | - | - | - |
| | 300 | 0.9478 | 0.1746 | 0.9118 | 0.9118 | 1.255 | 4.167 | 0.796 | 0.000 | 55.46 | 39 | 76 | 108 | - | - | - | - |

Notes: See notes to Table 1.

**Table 39: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0195 | 0.0195 | 1.000 | 1.020 | 1.000 | 0.891 | 4.12 | 4 | 5 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0193 | 0.0193 | 1.001 | 1.023 | 1.000 | 0.891 | 4.12 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0199 | 0.0199 | 1.001 | 1.024 | 1.000 | 0.886 | 4.12 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0102 | 0.0102 | 1.000 | 1.010 | 1.000 | 0.942 | 4.06 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0106 | 0.0106 | 1.000 | 1.013 | 1.000 | 0.938 | 4.06 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0098 | 0.0098 | 1.000 | 1.014 | 1.000 | 0.943 | 4.06 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.003 | 1.000 | 0.987 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0010 | 0.0010 | 1.000 | 1.002 | 1.000 | 0.994 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0180 | 0.0180 | 1.000 | 1.014 | 1.000 | 0.899 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0179 | 0.0179 | 1.001 | 1.018 | 1.000 | 0.899 | 4.11 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0186 | 0.0186 | 1.001 | 1.019 | 1.000 | 0.894 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0093 | 0.0093 | 1.000 | 1.007 | 1.000 | 0.947 | 4.06 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0099 | 0.0099 | 1.000 | 1.010 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0091 | 0.0091 | 1.000 | 1.011 | 1.000 | 0.947 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.002 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.003 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0009 | 0.0009 | 1.000 | 1.001 | 1.000 | 0.995 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0408 | 0.3414 | 0.3414 | 1.007 | 1.094 | 1.000 | 0.192 | 7.92 | 4 | 18 | 30 | - | - | - | - |
| | 200 | 1.0000 | 0.0238 | 0.3634 | 0.3634 | 1.008 | 1.106 | 1.000 | 0.203 | 8.66 | 4 | 17 | 38 | - | - | - | - |
| | 300 | 0.9999 | 0.0178 | 0.3804 | 0.3804 | 1.009 | 1.120 | 1.000 | 0.170 | 9.27 | 4 | 20 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9843 | 0.0105 | 0.0872 | 0.0872 | 1.009 | 1.658 | 0.938 | 0.744 | 4.94 | 3 | 11 | 23 | - | - | - | - |
| | 200 | 0.9871 | 0.0069 | 0.1106 | 0.1106 | 1.010 | 1.662 | 0.949 | 0.716 | 5.30 | 3 | 12 | 32 | - | - | - | - |
| | 300 | 0.9891 | 0.0067 | 0.1477 | 0.1477 | 1.012 | 1.683 | 0.957 | 0.671 | 5.93 | 4 | 14 | 37 | - | - | - | - |
| SICA | 100 | 0.6908 | 0.0132 | 0.1629 | 0.1629 | 1.045 | 3.550 | 0.131 | 0.014 | 4.03 | 1 | 9 | 23 | - | - | - | - |
| | 200 | 0.5941 | 0.0038 | 0.1148 | 0.1148 | 1.061 | 4.237 | 0.030 | 0.004 | 3.12 | 1 | 6 | 18 | - | - | - | - |
| | 300 | 0.5408 | 0.0017 | 0.0812 | 0.0812 | 1.069 | 4.662 | 0.011 | 0.002 | 2.65 | 1 | 6 | 19 | - | - | - | - |
| Hard thresholding | 100 | 0.8090 | 0.0008 | 0.0116 | 0.0116 | 1.038 | 3.424 | 0.657 | 0.600 | 3.31 | 1 | 5 | 8 | - | - | - | - |
| | 200 | 0.7919 | 0.0003 | 0.0106 | 0.0106 | 1.041 | 3.508 | 0.596 | 0.546 | 3.23 | 1 | 5 | 7 | - | - | - | - |
| | 300 | 0.7729 | 0.0002 | 0.0105 | 0.0105 | 1.044 | 3.690 | 0.563 | 0.512 | 3.16 | 1 | 5 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3297 | 0.8606 | 0.8606 | 1.021 | 1.519 | 1.000 | 0.000 | 35.65 | 27 | 44 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.3301 | 0.9275 | 0.9275 | 1.043 | 1.916 | 1.000 | 0.000 | 68.71 | 57 | 79 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2974 | 0.9461 | 0.9461 | 1.053 | 2.100 | 1.000 | 0.000 | 92.04 | 84 | 100 | 109 | - | - | - | - |
| $v = 1$ | 100 | 0.9993 | 0.1675 | 0.7508 | 0.7508 | 1.058 | 2.802 | 0.997 | 0.000 | 20.07 | 13 | 28 | 38 | - | - | - | - |
| | 200 | 0.9983 | 0.1589 | 0.8565 | 0.8565 | 1.105 | 3.472 | 0.993 | 0.000 | 35.13 | 25 | 48 | 69 | - | - | - | - |
| | 300 | 0.9981 | 0.1597 | 0.9014 | 0.9014 | 1.147 | 4.045 | 0.993 | 0.000 | 51.25 | 37 | 68 | 95 | - | - | - | - |

Notes: See notes to Table 1.

**Table 40: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0017 | 0.0269 | 0.0269 | 1.006 | 1.039 | 1.000 | 0.851 | 4.17 | 4 | 5 | 7 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0009 | 0.0299 | 0.0299 | 1.008 | 1.044 | 1.000 | 0.834 | 4.19 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0309 | 0.0309 | 1.008 | 1.042 | 1.000 | 0.832 | 4.19 | 4 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0142 | 0.0142 | 1.004 | 1.025 | 1.000 | 0.919 | 4.09 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0178 | 0.0178 | 1.005 | 1.030 | 1.000 | 0.898 | 4.11 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0181 | 0.0181 | 1.005 | 1.026 | 1.000 | 0.899 | 4.11 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0042 | 0.0042 | 1.001 | 1.009 | 1.000 | 0.976 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0055 | 0.0055 | 1.002 | 1.010 | 1.000 | 0.968 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0001 | 0.0042 | 0.0042 | 1.001 | 1.007 | 1.000 | 0.975 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0242 | 0.0242 | 1.005 | 1.032 | 1.000 | 0.865 | 4.15 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0009 | 0.0274 | 0.0274 | 1.006 | 1.034 | 1.000 | 0.847 | 4.17 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0286 | 0.0286 | 1.007 | 1.034 | 1.000 | 0.843 | 4.18 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0126 | 0.0126 | 1.003 | 1.020 | 1.000 | 0.928 | 4.08 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0160 | 0.0160 | 1.004 | 1.023 | 1.000 | 0.908 | 4.10 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0170 | 0.0170 | 1.005 | 1.022 | 1.000 | 0.904 | 4.10 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0037 | 0.0037 | 1.001 | 1.008 | 1.000 | 0.979 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0048 | 0.0048 | 1.001 | 1.008 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0001 | 0.0040 | 0.0040 | 1.001 | 1.006 | 1.000 | 0.977 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8370 | 0.0416 | 0.3671 | 0.3671 | 1.030 | 0.947 | 0.455 | 0.088 | 7.34 | 3 | 16 | 38 | - | - | - | - |
| | 200 | 0.8285 | 0.0318 | 0.4480 | 0.4480 | 1.038 | 0.966 | 0.417 | 0.051 | 9.56 | 3 | 24 | 58 | - | - | - | - |
| | 300 | 0.8250 | 0.0282 | 0.5165 | 0.5165 | 1.042 | 0.981 | 0.411 | 0.036 | 11.65 | 3 | 29 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5349 | 0.0103 | 0.1229 | 0.1229 | 1.038 | 1.473 | 0.040 | 0.010 | 3.13 | 1 | 8 | 26 | - | - | - | - |
| | 200 | 0.5646 | 0.0119 | 0.2037 | 0.2037 | 1.053 | 1.509 | 0.059 | 0.006 | 4.59 | 1 | 16 | 40 | - | - | - | - |
| | 300 | 0.5760 | 0.0126 | 0.2656 | 0.2656 | 1.069 | 1.548 | 0.083 | 0.009 | 6.03 | 1 | 22 | 61 | - | - | - | - |
| SICA | 100 | 0.2506 | 0.0009 | 0.0233 | 0.0233 | 1.060 | 2.081 | 0.000 | 0.000 | 1.09 | 1 | 2 | 7 | - | - | - | - |
| | 200 | 0.2500 | 0.0004 | 0.0185 | 0.0185 | 1.061 | 2.116 | 0.000 | 0.000 | 1.08 | 1 | 1 | 13 | - | - | - | - |
| | 300 | 0.2500 | 0.0003 | 0.0185 | 0.0185 | 1.061 | 2.145 | 0.000 | 0.000 | 1.08 | 1 | 1 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.2513 | 0.0006 | 0.0125 | 0.0125 | 1.057 | 2.073 | 0.000 | 0.000 | 1.06 | 1 | 1 | 9 | - | - | - | - |
| | 200 | 0.2501 | 0.0002 | 0.0096 | 0.0096 | 1.058 | 2.105 | 0.000 | 0.000 | 1.04 | 1 | 1 | 6 | - | - | - | - |
| | 300 | 0.2500 | 0.0001 | 0.0101 | 0.0101 | 1.058 | 2.136 | 0.000 | 0.000 | 1.04 | 1 | 1 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.8805 | 0.3454 | 0.8769 | 0.8769 | 1.120 | 1.521 | 0.569 | 0.000 | 36.68 | 27 | 47 | 56 | - | - | - | - |
| | 200 | 0.8775 | 0.3145 | 0.9316 | 0.9316 | 1.194 | 1.818 | 0.556 | 0.000 | 65.15 | 58 | 72 | 79 | - | - | - | - |
| | 300 | 0.8743 | 0.2450 | 0.9414 | 0.9414 | 1.196 | 1.840 | 0.554 | 0.000 | 76.02 | 68 | 84 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.4569 | 0.1768 | 0.8465 | 0.8465 | 1.252 | 2.602 | 0.008 | 0.000 | 18.81 | 10 | 30 | 52 | - | - | - | - |
| | 200 | 0.4223 | 0.2105 | 0.9342 | 0.9342 | 1.416 | 3.136 | 0.005 | 0.000 | 42.94 | 25 | 68 | 104 | - | - | - | - |
| | 300 | 0.4133 | 0.2309 | 0.9608 | 0.9608 | 1.484 | 3.386 | 0.003 | 0.000 | 70.01 | 44 | 101 | 122 | - | - | - | - |

Notes: See notes to Table 1.

**Table 41: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0206 | 0.0206 | 1.002 | 1.029 | 1.000 | 0.886 | 4.13 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0214 | 0.0214 | 1.001 | 1.031 | 1.000 | 0.883 | 4.13 | 4 | 5 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0185 | 0.0185 | 1.002 | 1.030 | 1.000 | 0.897 | 4.11 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0107 | 0.0107 | 1.001 | 1.017 | 1.000 | 0.939 | 4.07 | 4 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0123 | 0.0123 | 1.001 | 1.019 | 1.000 | 0.931 | 4.08 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0098 | 0.0098 | 1.001 | 1.018 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.005 | 1.000 | 0.983 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.006 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0192 | 0.0192 | 1.001 | 1.024 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0203 | 0.0203 | 1.001 | 1.026 | 1.000 | 0.889 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0174 | 0.0174 | 1.001 | 1.026 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0099 | 0.0099 | 1.001 | 1.014 | 1.000 | 0.944 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0117 | 0.0117 | 1.001 | 1.016 | 1.000 | 0.934 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0090 | 0.0090 | 1.001 | 1.015 | 1.000 | 0.947 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.004 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.005 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9799 | 0.0401 | 0.3417 | 0.3417 | 1.012 | 1.074 | 0.920 | 0.179 | 7.77 | 4 | 16 | 33 | - | - | - | - |
| | 200 | 0.9783 | 0.0259 | 0.3891 | 0.3891 | 1.013 | 1.089 | 0.914 | 0.147 | 8.99 | 4 | 20 | 35 | - | - | - | - |
| | 300 | 0.9800 | 0.0199 | 0.4100 | 0.4100 | 1.016 | 1.106 | 0.920 | 0.141 | 9.80 | 4 | 23 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7851 | 0.0091 | 0.0841 | 0.0841 | 1.018 | 1.785 | 0.339 | 0.189 | 4.02 | 2 | 9.5 | 27 | - | - | - | - |
| | 200 | 0.8003 | 0.0084 | 0.1327 | 0.1327 | 1.022 | 1.818 | 0.392 | 0.179 | 4.84 | 2 | 15 | 32 | - | - | - | - |
| | 300 | 0.7995 | 0.0082 | 0.1681 | 0.1681 | 1.028 | 1.865 | 0.391 | 0.134 | 5.62 | 2 | 18 | 52 | - | - | - | - |
| SICA | 100 | 0.2824 | 0.0024 | 0.0400 | 0.0400 | 1.064 | 3.529 | 0.000 | 0.000 | 1.36 | 1 | 4 | 14 | - | - | - | - |
| | 200 | 0.2655 | 0.0006 | 0.0225 | 0.0225 | 1.066 | 3.569 | 0.000 | 0.000 | 1.19 | 1 | 2 | 9 | - | - | - | - |
| | 300 | 0.2591 | 0.0002 | 0.0132 | 0.0132 | 1.066 | 3.553 | 0.000 | 0.000 | 1.11 | 1 | 1 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.2776 | 0.0007 | 0.0112 | 0.0112 | 1.065 | 3.556 | 0.002 | 0.000 | 1.18 | 1 | 3 | 13 | - | - | - | - |
| | 200 | 0.2674 | 0.0002 | 0.0087 | 0.0087 | 1.066 | 3.562 | 0.000 | 0.000 | 1.12 | 1 | 2 | 9 | - | - | - | - |
| | 300 | 0.2606 | 0.0001 | 0.0061 | 0.0061 | 1.066 | 3.547 | 0.000 | 0.000 | 1.08 | 1 | 1 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9873 | 0.3311 | 0.8625 | 0.8625 | 1.037 | 1.544 | 0.949 | 0.000 | 35.74 | 27 | 45 | 55 | - | - | - | - |
| | 200 | 0.9869 | 0.3332 | 0.9289 | 0.9289 | 1.073 | 1.954 | 0.948 | 0.000 | 69.26 | 57 | 79 | 86 | - | - | - | - |
| | 300 | 0.9849 | 0.2897 | 0.9454 | 0.9454 | 1.089 | 2.067 | 0.940 | 0.000 | 89.68 | 82 | 98 | 108 | - | - | - | - |
| $v = 1$ | 100 | 0.8534 | 0.1686 | 0.7743 | 0.7743 | 1.098 | 2.894 | 0.471 | 0.000 | 19.60 | 12 | 29 | 48 | - | - | - | - |
| | 200 | 0.7805 | 0.1660 | 0.8830 | 0.8830 | 1.175 | 3.598 | 0.295 | 0.000 | 35.65 | 24 | 50 | 70 | - | - | - | - |
| | 300 | 0.7308 | 0.1733 | 0.9267 | 0.9267 | 1.250 | 4.100 | 0.210 | 0.000 | 54.23 | 38 | 74 | 101 | - | - | - | - |

Notes: See notes to Table 1.

**Table 42: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0160 | 0.0160 | 1.001 | 1.023 | 1.000 | 0.908 | 4.10 | 4 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0209 | 0.0209 | 1.001 | 1.034 | 1.000 | 0.885 | 4.13 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0192 | 0.0192 | 1.001 | 1.028 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0084 | 0.0084 | 1.000 | 1.014 | 1.000 | 0.950 | 4.05 | 4 | 4.5 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0109 | 0.0109 | 1.001 | 1.020 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0098 | 0.0098 | 1.000 | 1.016 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.003 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.007 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0014 | 0.0014 | 1.000 | 1.002 | 1.000 | 0.992 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0009 | 0.0146 | 0.0146 | 1.001 | 1.019 | 1.000 | 0.916 | 4.09 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0194 | 0.0194 | 1.001 | 1.028 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0183 | 0.0183 | 1.001 | 1.025 | 1.000 | 0.898 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0077 | 0.0077 | 1.000 | 1.011 | 1.000 | 0.954 | 4.05 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0098 | 0.0098 | 1.000 | 1.016 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0093 | 0.0093 | 1.000 | 1.014 | 1.000 | 0.947 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.002 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.005 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.002 | 1.000 | 0.992 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9979 | 0.0411 | 0.3455 | 0.3455 | 1.007 | 1.092 | 0.992 | 0.184 | 7.93 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9966 | 0.0244 | 0.3769 | 0.3769 | 1.008 | 1.105 | 0.987 | 0.162 | 8.76 | 4 | 19 | 37 | - | - | - | - |
| | 300 | 0.9963 | 0.0186 | 0.3991 | 0.3991 | 1.009 | 1.110 | 0.985 | 0.154 | 9.49 | 4 | 22 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8896 | 0.0086 | 0.0741 | 0.0741 | 1.011 | 1.817 | 0.603 | 0.428 | 4.38 | 3 | 10 | 26 | - | - | - | - |
| | 200 | 0.8934 | 0.0078 | 0.1162 | 0.1162 | 1.013 | 1.826 | 0.615 | 0.378 | 5.10 | 3 | 15 | 32 | - | - | - | - |
| | 300 | 0.9035 | 0.0071 | 0.1464 | 0.1464 | 1.015 | 1.822 | 0.651 | 0.369 | 5.72 | 3 | 17 | 47 | - | - | - | - |
| SICA | 100 | 0.3779 | 0.0061 | 0.0929 | 0.0929 | 1.052 | 3.997 | 0.001 | 0.000 | 2.10 | 1 | 6 | 14 | - | - | - | - |
| | 200 | 0.3191 | 0.0013 | 0.0472 | 0.0472 | 1.060 | 4.251 | 0.000 | 0.000 | 1.54 | 1 | 4 | 12 | - | - | - | - |
| | 300 | 0.3115 | 0.0006 | 0.0371 | 0.0371 | 1.059 | 4.280 | 0.000 | 0.000 | 1.44 | 1 | 3 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.3994 | 0.0013 | 0.0189 | 0.0189 | 1.053 | 4.077 | 0.071 | 0.037 | 1.72 | 1 | 4 | 16 | - | - | - | - |
| | 200 | 0.3563 | 0.0004 | 0.0144 | 0.0144 | 1.056 | 4.187 | 0.033 | 0.016 | 1.51 | 1 | 4 | 9 | - | - | - | - |
| | 300 | 0.3374 | 0.0002 | 0.0107 | 0.0107 | 1.059 | 4.236 | 0.016 | 0.007 | 1.41 | 1 | 3 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9976 | 0.3300 | 0.8611 | 0.8611 | 1.021 | 1.524 | 0.991 | 0.000 | 35.67 | 27 | 44 | 59 | - | - | - | - |
| | 200 | 0.9975 | 0.3307 | 0.9278 | 0.9278 | 1.043 | 1.912 | 0.990 | 0.000 | 68.80 | 57 | 80 | 88 | - | - | - | - |
| | 300 | 0.9984 | 0.2998 | 0.9466 | 0.9466 | 1.055 | 2.092 | 0.994 | 0.000 | 92.75 | 85 | 101 | 109 | - | - | - | - |
| $v = 1$ | 100 | 0.9650 | 0.1675 | 0.7564 | 0.7564 | 1.057 | 2.828 | 0.862 | 0.000 | 19.94 | 13 | 28 | 38 | - | - | - | - |
| | 200 | 0.9439 | 0.1586 | 0.8622 | 0.8622 | 1.106 | 3.475 | 0.782 | 0.000 | 34.86 | 25 | 47 | 60 | - | - | - | - |
| | 300 | 0.9224 | 0.1611 | 0.9077 | 0.9077 | 1.149 | 4.000 | 0.701 | 0.000 | 51.37 | 37.5 | 69 | 91 | - | - | - | - |

Notes: See notes to Table 1.

**Table 43: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9908 | 0.0019 | 0.0297 | 0.0297 | 1.008 | 1.033 | 0.978 | 0.825 | 4.15 | 4 | 5 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9793 | 0.0010 | 0.0308 | 0.0308 | 1.009 | 1.035 | 0.949 | 0.796 | 4.11 | 4 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9786 | 0.0006 | 0.0312 | 0.0312 | 1.010 | 1.037 | 0.946 | 0.787 | 4.11 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9859 | 0.0009 | 0.0146 | 0.0146 | 1.004 | 1.007 | 0.967 | 0.890 | 4.03 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9690 | 0.0005 | 0.0171 | 0.0171 | 1.006 | 1.010 | 0.930 | 0.842 | 3.98 | 3 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9680 | 0.0004 | 0.0182 | 0.0182 | 1.006 | 1.008 | 0.924 | 0.831 | 3.98 | 3 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9633 | 0.0003 | 0.0047 | 0.0047 | 1.001 | 0.972 | 0.913 | 0.889 | 3.88 | 3 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9391 | 0.0001 | 0.0040 | 0.0040 | 1.002 | 0.965 | 0.869 | 0.852 | 3.78 | 2 | 4 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9359 | 0.0001 | 0.0054 | 0.0054 | 1.003 | 0.976 | 0.864 | 0.843 | 3.77 | 2 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9908 | 0.0018 | 0.0278 | 0.0278 | 1.007 | 1.027 | 0.978 | 0.833 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9793 | 0.0009 | 0.0289 | 0.0289 | 1.008 | 1.028 | 0.949 | 0.806 | 4.09 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9786 | 0.0006 | 0.0295 | 0.0295 | 1.009 | 1.030 | 0.946 | 0.795 | 4.10 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9859 | 0.0008 | 0.0134 | 0.0134 | 1.003 | 1.002 | 0.967 | 0.897 | 4.02 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9690 | 0.0005 | 0.0156 | 0.0156 | 1.005 | 1.004 | 0.930 | 0.850 | 3.97 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9680 | 0.0004 | 0.0173 | 0.0173 | 1.005 | 1.004 | 0.924 | 0.835 | 3.98 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9633 | 0.0003 | 0.0044 | 0.0044 | 1.001 | 0.971 | 0.913 | 0.890 | 3.88 | 3 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9391 | 0.0001 | 0.0032 | 0.0032 | 1.002 | 0.961 | 0.869 | 0.856 | 3.77 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9359 | 0.0001 | 0.0049 | 0.0049 | 1.003 | 0.974 | 0.864 | 0.845 | 3.77 | 2 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6626 | 0.0448 | 0.4237 | 0.4237 | 1.023 | 0.778 | 0.133 | 0.021 | 6.95 | 2 | 16 | 43 | - | - | - | - |
| | 200 | 0.6515 | 0.0340 | 0.5129 | 0.5129 | 1.030 | 0.806 | 0.123 | 0.012 | 9.28 | 2 | 23 | 64 | - | - | - | - |
| | 300 | 0.6483 | 0.0285 | 0.5501 | 0.5501 | 1.034 | 0.831 | 0.123 | 0.007 | 11.02 | 2 | 29 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4080 | 0.0143 | 0.1955 | 0.1955 | 1.025 | 1.149 | 0.005 | 0.001 | 3.00 | 1 | 9 | 42 | - | - | - | - |
| | 200 | 0.4249 | 0.0141 | 0.2843 | 0.2843 | 1.044 | 1.245 | 0.008 | 0.001 | 4.47 | 1 | 14 | 49 | - | - | - | - |
| | 300 | 0.4360 | 0.0140 | 0.3526 | 0.3526 | 1.058 | 1.328 | 0.016 | 0.000 | 5.90 | 1 | 20 | 53 | - | - | - | - |
| SICA | 100 | 0.2500 | 0.0023 | 0.0552 | 0.0552 | 1.026 | 1.447 | 0.000 | 0.000 | 1.23 | 1 | 2 | 10 | - | - | - | - |
| | 200 | 0.2498 | 0.0010 | 0.0497 | 0.0497 | 1.026 | 1.470 | 0.000 | 0.000 | 1.19 | 1 | 2 | 10 | - | - | - | - |
| | 300 | 0.2500 | 0.0007 | 0.0526 | 0.0526 | 1.028 | 1.458 | 0.000 | 0.000 | 1.21 | 1 | 2 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.2500 | 0.0016 | 0.0386 | 0.0386 | 1.023 | 1.432 | 0.000 | 0.000 | 1.15 | 1 | 2 | 8 | - | - | - | - |
| | 200 | 0.2498 | 0.0008 | 0.0406 | 0.0406 | 1.024 | 1.455 | 0.000 | 0.000 | 1.15 | 1 | 2 | 13 | - | - | - | - |
| | 300 | 0.2500 | 0.0006 | 0.0470 | 0.0470 | 1.026 | 1.449 | 0.000 | 0.000 | 1.19 | 1 | 2 | 12 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.7426 | 0.3467 | 0.8911 | 0.8911 | 1.118 | 1.439 | 0.254 | 0.000 | 36.26 | 27 | 47 | 56 | - | - | - | - |
| | 200 | 0.7443 | 0.3167 | 0.9396 | 0.9396 | 1.191 | 1.760 | 0.245 | 0.000 | 65.06 | 57 | 72 | 79 | - | - | - | - |
| | 300 | 0.7240 | 0.2466 | 0.9492 | 0.9492 | 1.192 | 1.735 | 0.219 | 0.000 | 75.89 | 69 | 84 | 92 | - | - | - | - |
| $v = 1$ | 100 | 0.3523 | 0.1677 | 0.8603 | 0.8603 | 1.218 | 2.182 | 0.002 | 0.000 | 17.50 | 10 | 28 | 46 | - | - | - | - |
| | 200 | 0.3695 | 0.2084 | 0.9387 | 0.9387 | 1.375 | 2.738 | 0.002 | 0.000 | 42.32 | 25 | 68 | 108 | - | - | - | - |
| | 300 | 0.3735 | 0.2320 | 0.9632 | 0.9632 | 1.442 | 2.913 | 0.003 | 0.000 | 70.18 | 44 | 100 | 131 | - | - | - | - |

Notes: See notes to Table 1.

**Table 44: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0191 | 0.0191 | 1.002 | 1.033 | 1.000 | 0.895 | 4.12 | 4 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0204 | 0.0204 | 1.002 | 1.038 | 1.000 | 0.886 | 4.13 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0207 | 0.0207 | 1.002 | 1.038 | 1.000 | 0.887 | 4.13 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0100 | 0.0100 | 1.001 | 1.018 | 1.000 | 0.944 | 4.06 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0109 | 0.0109 | 1.001 | 1.023 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0114 | 0.0114 | 1.001 | 1.022 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.005 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.008 | 1.000 | 0.984 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0023 | 0.0023 | 1.000 | 1.005 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0183 | 0.0183 | 1.002 | 1.030 | 1.000 | 0.899 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0199 | 0.0199 | 1.002 | 1.036 | 1.000 | 0.889 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0203 | 0.0203 | 1.002 | 1.036 | 1.000 | 0.889 | 4.13 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0093 | 0.0093 | 1.001 | 1.015 | 1.000 | 0.948 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0101 | 0.0101 | 1.001 | 1.020 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0112 | 0.0112 | 1.001 | 1.021 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.005 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0024 | 0.0024 | 1.000 | 1.007 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0023 | 0.0023 | 1.000 | 1.005 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8855 | 0.0402 | 0.3557 | 0.3557 | 1.010 | 0.982 | 0.575 | 0.097 | 7.40 | 3 | 16 | 34 | - | - | - | - |
| | 200 | 0.8765 | 0.0255 | 0.3939 | 0.3939 | 1.013 | 0.991 | 0.561 | 0.096 | 8.51 | 3 | 20 | 42 | - | - | - | - |
| | 300 | 0.8658 | 0.0194 | 0.4244 | 0.4244 | 1.014 | 0.986 | 0.519 | 0.070 | 9.22 | 3 | 22 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5920 | 0.0091 | 0.1065 | 0.1065 | 1.014 | 1.577 | 0.075 | 0.023 | 3.24 | 1 | 8 | 28 | - | - | - | - |
| | 200 | 0.6083 | 0.0091 | 0.1603 | 0.1603 | 1.019 | 1.613 | 0.104 | 0.020 | 4.21 | 1 | 13 | 36 | - | - | - | - |
| | 300 | 0.6161 | 0.0078 | 0.1933 | 0.1933 | 1.022 | 1.615 | 0.107 | 0.019 | 4.77 | 1 | 16 | 48 | - | - | - | - |
| SICA | 100 | 0.2506 | 0.0008 | 0.0176 | 0.0176 | 1.027 | 2.411 | 0.000 | 0.000 | 1.07 | 1 | 1 | 14 | - | - | - | - |
| | 200 | 0.2500 | 0.0002 | 0.0092 | 0.0092 | 1.027 | 2.435 | 0.000 | 0.000 | 1.04 | 1 | 1 | 10 | - | - | - | - |
| | 300 | 0.2499 | 0.0001 | 0.0050 | 0.0050 | 1.027 | 2.407 | 0.000 | 0.000 | 1.02 | 1 | 1 | 6 | - | - | - | - |
| Hard thresholding | 100 | 0.2513 | 0.0002 | 0.0043 | 0.0043 | 1.027 | 2.404 | 0.000 | 0.000 | 1.03 | 1 | 1 | 7 | - | - | - | - |
| | 200 | 0.2504 | 0.0001 | 0.0036 | 0.0036 | 1.027 | 2.428 | 0.000 | 0.000 | 1.02 | 1 | 1 | 6 | - | - | - | - |
| | 300 | 0.2503 | 0.0000 | 0.0024 | 0.0024 | 1.027 | 2.402 | 0.000 | 0.000 | 1.01 | 1 | 1 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9171 | 0.3329 | 0.8700 | 0.8700 | 1.036 | 1.488 | 0.685 | 0.000 | 35.63 | 27 | 44 | 53 | - | - | - | - |
| | 200 | 0.9198 | 0.3345 | 0.9328 | 0.9328 | 1.074 | 1.929 | 0.695 | 0.000 | 69.24 | 57 | 79 | 90 | - | - | - | - |
| | 300 | 0.9174 | 0.2907 | 0.9484 | 0.9484 | 1.087 | 2.052 | 0.684 | 0.000 | 89.71 | 82 | 98 | 108 | - | - | - | - |
| $v = 1$ | 100 | 0.5870 | 0.1623 | 0.8140 | 0.8140 | 1.091 | 2.684 | 0.048 | 0.000 | 17.93 | 11 | 27 | 39 | - | - | - | - |
| | 200 | 0.5151 | 0.1600 | 0.9084 | 0.9084 | 1.164 | 3.343 | 0.020 | 0.000 | 33.42 | 23 | 47 | 70 | - | - | - | - |
| | 300 | 0.4786 | 0.1685 | 0.9430 | 0.9430 | 1.228 | 3.776 | 0.008 | 0.000 | 51.81 | 37 | 71 | 94 | - | - | - | - |

Notes: See notes to Table 1.

**Table 45: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0191 | 0.0191 | 1.001 | 1.034 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0180 | 0.0180 | 1.001 | 1.036 | 1.000 | 0.898 | 4.11 | 4 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0188 | 0.0188 | 1.001 | 1.037 | 1.000 | 0.893 | 4.12 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0105 | 0.0105 | 1.001 | 1.020 | 1.000 | 0.943 | 4.07 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0100 | 0.0100 | 1.001 | 1.021 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0106 | 0.0106 | 1.001 | 1.022 | 1.000 | 0.938 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.004 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.005 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.006 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0183 | 0.0183 | 1.001 | 1.030 | 1.000 | 0.899 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0172 | 0.0172 | 1.001 | 1.033 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0185 | 0.0185 | 1.001 | 1.035 | 1.000 | 0.894 | 4.11 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0097 | 0.0097 | 1.001 | 1.017 | 1.000 | 0.947 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0096 | 0.0096 | 1.001 | 1.019 | 1.000 | 0.945 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0104 | 0.0104 | 1.001 | 1.022 | 1.000 | 0.939 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.004 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.005 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.005 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9521 | 0.0404 | 0.3449 | 0.3449 | 1.006 | 1.040 | 0.813 | 0.155 | 7.69 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9483 | 0.0251 | 0.3861 | 0.3861 | 1.007 | 1.051 | 0.800 | 0.119 | 8.72 | 4 | 20 | 48 | - | - | - | - |
| | 300 | 0.9444 | 0.0186 | 0.4045 | 0.4045 | 1.009 | 1.066 | 0.783 | 0.119 | 9.28 | 4 | 22 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7138 | 0.0088 | 0.0917 | 0.0917 | 1.010 | 1.720 | 0.208 | 0.087 | 3.70 | 2 | 8 | 25 | - | - | - | - |
| | 200 | 0.7271 | 0.0083 | 0.1342 | 0.1342 | 1.013 | 1.728 | 0.231 | 0.081 | 4.54 | 2 | 14 | 41 | - | - | - | - |
| | 300 | 0.7338 | 0.0076 | 0.1675 | 0.1675 | 1.015 | 1.778 | 0.252 | 0.061 | 5.18 | 2 | 17 | 42 | - | - | - | - |
| SICA | 100 | 0.2606 | 0.0015 | 0.0250 | 0.0250 | 1.029 | 3.028 | 0.000 | 0.000 | 1.18 | 1 | 2 | 20 | - | - | - | - |
| | 200 | 0.2520 | 0.0002 | 0.0076 | 0.0076 | 1.029 | 3.081 | 0.000 | 0.000 | 1.04 | 1 | 1 | 12 | - | - | - | - |
| | 300 | 0.2508 | 0.0001 | 0.0078 | 0.0078 | 1.029 | 3.081 | 0.000 | 0.000 | 1.03 | 1 | 1 | 6 | - | - | - | - |
| Hard thresholding | 100 | 0.2593 | 0.0005 | 0.0088 | 0.0088 | 1.029 | 3.030 | 0.001 | 0.001 | 1.09 | 1 | 1 | 10 | - | - | - | - |
| | 200 | 0.2539 | 0.0001 | 0.0036 | 0.0036 | 1.029 | 3.074 | 0.000 | 0.000 | 1.03 | 1 | 1 | 9 | - | - | - | - |
| | 300 | 0.2528 | 0.0001 | 0.0033 | 0.0033 | 1.028 | 3.073 | 0.000 | 0.000 | 1.03 | 1 | 1 | 6 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9686 | 0.3301 | 0.8639 | 0.8639 | 1.021 | 1.498 | 0.875 | 0.000 | 35.56 | 27 | 44 | 58 | - | - | - | - |
| | 200 | 0.9689 | 0.3322 | 0.9296 | 0.9296 | 1.042 | 1.914 | 0.876 | 0.000 | 68.98 | 56 | 80 | 91 | - | - | - | - |
| | 300 | 0.9656 | 0.3006 | 0.9480 | 0.9480 | 1.054 | 2.101 | 0.863 | 0.000 | 92.84 | 84 | 101 | 111 | - | - | - | - |
| $v = 1$ | 100 | 0.7796 | 0.1633 | 0.7820 | 0.7820 | 1.056 | 2.735 | 0.285 | 0.000 | 18.79 | 12 | 27 | 39 | - | - | - | - |
| | 200 | 0.7215 | 0.1568 | 0.8840 | 0.8840 | 1.101 | 3.415 | 0.183 | 0.000 | 33.61 | 23 | 46 | 68 | - | - | - | - |
| | 300 | 0.6716 | 0.1570 | 0.9247 | 0.9247 | 1.145 | 3.921 | 0.112 | 0.000 | 49.17 | 36 | 66 | 83 | - | - | - | - |

Notes: See notes to Table 1.

### 3.1.2 Findings for designs featuring pseudo-signals

## Table 46: MC findings for DGPII(a)

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0226 | 0.2999 | 0.0216 | 1.016 | 1.441 | 1.000 | 0.000 | 0.989 | 0.836 | 6.17 | 6 | 7 | 9 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0111 | 0.3003 | 0.0229 | 1.017 | 1.455 | 1.000 | 0.000 | 0.985 | 0.819 | 6.17 | 6 | 7 | 9 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.2996 | 0.0227 | 1.017 | 1.450 | 1.000 | 0.001 | 0.981 | 0.822 | 6.17 | 6 | 7 | 9 | 1.024 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0216 | 0.2920 | 0.0111 | 1.013 | 1.417 | 1.000 | 0.000 | 0.986 | 0.905 | 6.08 | 6 | 7 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2921 | 0.0127 | 1.015 | 1.429 | 1.000 | 0.000 | 0.978 | 0.883 | 6.08 | 6 | 7 | 8 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2909 | 0.0123 | 1.014 | 1.421 | 1.000 | 0.001 | 0.971 | 0.884 | 6.07 | 6 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0208 | 0.2840 | 0.0036 | 1.011 | 1.392 | 1.000 | 0.002 | 0.966 | 0.940 | 5.99 | 6 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0101 | 0.2815 | 0.0030 | 1.012 | 1.398 | 1.000 | 0.002 | 0.949 | 0.926 | 5.97 | 5 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0066 | 0.2796 | 0.0033 | 1.011 | 1.384 | 1.000 | 0.004 | 0.934 | 0.912 | 5.96 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0223 | 0.2980 | 0.0190 | 1.014 | 1.424 | 1.000 | 0.000 | 0.989 | 0.851 | 6.14 | 6 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0110 | 0.2983 | 0.0201 | 1.015 | 1.433 | 1.000 | 0.000 | 0.985 | 0.838 | 6.15 | 6 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2977 | 0.0200 | 1.015 | 1.429 | 1.000 | 0.001 | 0.981 | 0.839 | 6.14 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2908 | 0.0095 | 1.012 | 1.405 | 1.000 | 0.000 | 0.986 | 0.915 | 6.06 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2909 | 0.0110 | 1.013 | 1.417 | 1.000 | 0.000 | 0.978 | 0.895 | 6.07 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2900 | 0.0110 | 1.013 | 1.410 | 1.000 | 0.001 | 0.971 | 0.891 | 6.06 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0207 | 0.2837 | 0.0032 | 1.011 | 1.388 | 1.000 | 0.002 | 0.966 | 0.943 | 5.99 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0100 | 0.2811 | 0.0025 | 1.011 | 1.394 | 1.000 | 0.002 | 0.949 | 0.930 | 5.97 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0066 | 0.2794 | 0.0030 | 1.011 | 1.382 | 1.000 | 0.004 | 0.934 | 0.913 | 5.95 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9954 | 0.0598 | 0.4475 | 0.3978 | 1.046 | 1.423 | 0.982 | 0.073 | 0.066 | 0.004 | 9.72 | 4 | 19 | 39 | - | - | - | - |
| | 200 | 0.9949 | 0.0432 | 0.5301 | 0.4910 | 1.056 | 1.481 | 0.980 | 0.047 | 0.050 | 0.001 | 12.44 | 4 | 26 | 49 | - | - | - | - |
| | 300 | 0.9951 | 0.0361 | 0.5744 | 0.5397 | 1.062 | 1.538 | 0.981 | 0.043 | 0.056 | 0.001 | 14.68 | 5 | 33 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9376 | 0.0165 | 0.1506 | 0.1289 | 1.055 | 1.833 | 0.772 | 0.415 | 0.008 | 0.000 | 5.34 | 3 | 12 | 30 | - | - | - | - |
| | 200 | 0.9436 | 0.0164 | 0.2269 | 0.2074 | 1.074 | 1.969 | 0.792 | 0.333 | 0.010 | 0.001 | 6.99 | 3 | 21 | 40 | - | - | - | - |
| | 300 | 0.9485 | 0.0169 | 0.3007 | 0.2816 | 1.091 | 2.108 | 0.810 | 0.263 | 0.012 | 0.000 | 8.78 | 3 | 26 | 47 | - | - | - | - |
| SICA | 100 | 0.6040 | 0.0065 | 0.1014 | 0.0800 | 1.150 | 3.061 | 0.061 | 0.016 | 0.000 | 0.000 | 3.04 | 1 | 6 | 16 | - | - | - | - |
| | 200 | 0.5524 | 0.0028 | 0.0957 | 0.0773 | 1.176 | 3.272 | 0.022 | 0.007 | 0.000 | 0.000 | 2.76 | 1 | 6 | 16 | - | - | - | - |
| | 300 | 0.5233 | 0.0018 | 0.0918 | 0.0751 | 1.193 | 3.439 | 0.015 | 0.005 | 0.000 | 0.000 | 2.62 | 1 | 6 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.6154 | 0.0025 | 0.0422 | 0.0262 | 1.144 | 3.019 | 0.159 | 0.118 | 0.000 | 0.000 | 2.70 | 1 | 5 | 11 | - | - | - | - |
| | 200 | 0.5954 | 0.0015 | 0.0482 | 0.0353 | 1.159 | 3.123 | 0.133 | 0.077 | 0.000 | 0.000 | 2.67 | 1 | 5 | 12 | - | - | - | - |
| | 300 | 0.5783 | 0.0012 | 0.0563 | 0.0434 | 1.171 | 3.245 | 0.109 | 0.064 | 0.000 | 0.000 | 2.67 | 1 | 5 | 19 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9984 | 0.3462 | 0.8660 | 0.8449 | 1.125 | 2.244 | 0.994 | 0.000 | 0.161 | 0.000 | 37.23 | 28 | 47 | 55 | - | - | - | - |
| | 200 | 0.9976 | 0.3134 | 0.9245 | 0.9131 | 1.199 | 2.687 | 0.991 | 0.000 | 0.137 | 0.000 | 65.42 | 58 | 73 | 81 | - | - | - | - |
| | 300 | 0.9976 | 0.2427 | 0.9348 | 0.9256 | 1.204 | 2.737 | 0.991 | 0.000 | 0.132 | 0.000 | 75.82 | 68 | 84 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.9014 | 0.1784 | 0.7726 | 0.7474 | 1.263 | 3.627 | 0.637 | 0.000 | 0.026 | 0.000 | 20.73 | 12 | 32 | 51 | - | - | - | - |
| | 200 | 0.8615 | 0.2117 | 0.8957 | 0.8830 | 1.460 | 4.639 | 0.504 | 0.000 | 0.023 | 0.000 | 44.94 | 27 | 68 | 101 | - | - | - | - |
| | 300 | 0.8081 | 0.2307 | 0.9385 | 0.9305 | 1.562 | 5.243 | 0.362 | 0.000 | 0.016 | 0.000 | 71.52 | 46 | 103 | 133 | - | - | - | - |

Notes: $\hat{\pi}_{k+k^*}$ is the probability that all signal and pseudo-signal variables are among the selected variables, and $\hat{\pi}^*$ is the probability of selecting the approximating model. See notes to Table 1 for a brief summary of the remaining reported statistics. See Section 5 of CKP for a detailed summary of the reported statistics, a description of the design and a description of implementation of individual methods.

## Table 47: MC findings for DGPII(a)

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2962 | 0.0147 | 1.005 | 1.401 | 1.000 | 0.000 | 1.000 | 0.892 | 6.12 | 6 | 7 | 9 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2959 | 0.0143 | 1.004 | 1.414 | 1.000 | 0.000 | 1.000 | 0.894 | 6.12 | 6 | 7 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2967 | 0.0153 | 1.005 | 1.411 | 1.000 | 0.000 | 1.000 | 0.886 | 6.13 | 6 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2916 | 0.0083 | 1.004 | 1.385 | 1.000 | 0.000 | 1.000 | 0.938 | 6.07 | 6 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2910 | 0.0074 | 1.004 | 1.399 | 1.000 | 0.000 | 1.000 | 0.944 | 6.06 | 6 | 7 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2912 | 0.0077 | 1.004 | 1.395 | 1.000 | 0.000 | 1.000 | 0.941 | 6.06 | 6 | 7 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2874 | 0.0024 | 1.004 | 1.366 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2870 | 0.0018 | 1.004 | 1.384 | 1.000 | 0.000 | 1.000 | 0.986 | 6.02 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2866 | 0.0013 | 1.003 | 1.372 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2952 | 0.0132 | 1.004 | 1.389 | 1.000 | 0.000 | 1.000 | 0.902 | 6.11 | 6 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2952 | 0.0133 | 1.004 | 1.406 | 1.000 | 0.000 | 1.000 | 0.901 | 6.11 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2958 | 0.0142 | 1.004 | 1.402 | 1.000 | 0.000 | 1.000 | 0.894 | 6.12 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2909 | 0.0073 | 1.004 | 1.377 | 1.000 | 0.000 | 1.000 | 0.946 | 6.06 | 6 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2905 | 0.0067 | 1.004 | 1.394 | 1.000 | 0.000 | 1.000 | 0.948 | 6.05 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2906 | 0.0068 | 1.004 | 1.386 | 1.000 | 0.000 | 1.000 | 0.948 | 6.06 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2872 | 0.0020 | 1.003 | 1.362 | 1.000 | 0.000 | 1.000 | 0.984 | 6.02 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2869 | 0.0017 | 1.004 | 1.382 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2866 | 0.0012 | 1.003 | 1.371 | 1.000 | 0.000 | 1.000 | 0.991 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0574 | 0.4458 | 0.3991 | 1.014 | 1.374 | 1.000 | 0.060 | 0.052 | 0.004 | 9.52 | 4 | 19 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0348 | 0.4798 | 0.4383 | 1.018 | 1.420 | 1.000 | 0.057 | 0.052 | 0.004 | 10.81 | 4 | 22.5 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0266 | 0.5116 | 0.4735 | 1.020 | 1.455 | 1.000 | 0.051 | 0.048 | 0.001 | 11.89 | 4 | 25 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0118 | 0.0952 | 0.0853 | 1.010 | 1.457 | 0.998 | 0.757 | 0.005 | 0.000 | 5.13 | 4 | 12 | 27 | - | - | - | - |
| | 200 | 0.9996 | 0.0105 | 0.1416 | 0.1316 | 1.016 | 1.618 | 0.999 | 0.699 | 0.010 | 0.000 | 6.06 | 4 | 17 | 43 | - | - | - | - |
| | 300 | 0.9999 | 0.0090 | 0.1723 | 0.1632 | 1.019 | 1.715 | 1.000 | 0.657 | 0.008 | 0.000 | 6.67 | 4 | 18.5 | 54 | - | - | - | - |
| SICA | 100 | 0.9543 | 0.0048 | 0.0677 | 0.0540 | 1.016 | 1.956 | 0.823 | 0.611 | 0.000 | 0.000 | 4.27 | 3 | 6 | 17 | - | - | - | - |
| | 200 | 0.9396 | 0.0016 | 0.0494 | 0.0363 | 1.019 | 2.112 | 0.768 | 0.619 | 0.000 | 0.000 | 4.07 | 3 | 5 | 13 | - | - | - | - |
| | 300 | 0.9339 | 0.0010 | 0.0470 | 0.0362 | 1.021 | 2.175 | 0.746 | 0.599 | 0.000 | 0.000 | 4.03 | 3 | 5 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.9683 | 0.0010 | 0.0154 | 0.0109 | 1.011 | 1.685 | 0.895 | 0.844 | 0.000 | 0.000 | 3.97 | 3 | 5 | 10 | - | - | - | - |
| | 200 | 0.9659 | 0.0004 | 0.0136 | 0.0083 | 1.010 | 1.721 | 0.888 | 0.847 | 0.000 | 0.000 | 3.95 | 3 | 4 | 10 | - | - | - | - |
| | 300 | 0.9636 | 0.0002 | 0.0096 | 0.0067 | 1.012 | 1.760 | 0.885 | 0.853 | 0.000 | 0.000 | 3.91 | 3 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3341 | 0.8622 | 0.8414 | 1.038 | 2.122 | 1.000 | 0.000 | 0.149 | 0.000 | 36.07 | 28 | 45 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.3331 | 0.9282 | 0.9166 | 1.073 | 2.818 | 1.000 | 0.000 | 0.167 | 0.000 | 69.29 | 57 | 79 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2853 | 0.9440 | 0.9359 | 1.088 | 3.006 | 1.000 | 0.000 | 0.130 | 0.000 | 88.46 | 81 | 96 | 104 | - | - | - | - |
| $v = 1$ | 100 | 0.9983 | 0.1541 | 0.7344 | 0.7111 | 1.084 | 3.363 | 0.993 | 0.000 | 0.054 | 0.000 | 18.79 | 12 | 27 | 38 | - | - | - | - |
| | 200 | 0.9975 | 0.1569 | 0.8546 | 0.8425 | 1.151 | 4.376 | 0.990 | 0.000 | 0.049 | 0.000 | 34.74 | 24 | 48 | 70 | - | - | - | - |
| | 300 | 0.9958 | 0.1667 | 0.9050 | 0.8968 | 1.221 | 5.155 | 0.983 | 0.000 | 0.048 | 0.000 | 53.34 | 39 | 73 | 105 | - | - | - | - |

Notes: See notes to Table 46.

## Table 48: MC findings for DGPII(a)

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2957 | 0.0139 | 1.003 | 1.415 | 1.000 | 0.000 | 1.000 | 0.895 | 6.11 | 6 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2952 | 0.0133 | 1.003 | 1.400 | 1.000 | 0.000 | 1.000 | 0.901 | 6.11 | 6 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2958 | 0.0141 | 1.003 | 1.404 | 1.000 | 0.000 | 1.000 | 0.895 | 6.11 | 6 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2906 | 0.0068 | 1.002 | 1.398 | 1.000 | 0.000 | 1.000 | 0.948 | 6.06 | 6 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2902 | 0.0063 | 1.003 | 1.386 | 1.000 | 0.000 | 1.000 | 0.952 | 6.05 | 6 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2906 | 0.0068 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.948 | 6.06 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2867 | 0.0014 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2868 | 0.0016 | 1.002 | 1.374 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2867 | 0.0014 | 1.002 | 1.370 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2949 | 0.0129 | 1.003 | 1.407 | 1.000 | 0.000 | 1.000 | 0.904 | 6.11 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2948 | 0.0128 | 1.003 | 1.396 | 1.000 | 0.000 | 1.000 | 0.905 | 6.10 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2953 | 0.0135 | 1.003 | 1.399 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2902 | 0.0063 | 1.002 | 1.393 | 1.000 | 0.000 | 1.000 | 0.953 | 6.05 | 6 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2900 | 0.0060 | 1.002 | 1.383 | 1.000 | 0.000 | 1.000 | 0.954 | 6.05 | 6 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2904 | 0.0065 | 1.002 | 1.382 | 1.000 | 0.000 | 1.000 | 0.950 | 6.05 | 6 | 6.5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2866 | 0.0012 | 1.002 | 1.382 | 1.000 | 0.000 | 1.000 | 0.991 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0014 | 1.002 | 1.373 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2867 | 0.0014 | 1.002 | 1.370 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0578 | 0.4414 | 0.3900 | 1.008 | 1.395 | 1.000 | 0.072 | 0.074 | 0.006 | 9.55 | 4 | 18 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0331 | 0.4654 | 0.4233 | 1.011 | 1.418 | 1.000 | 0.056 | 0.051 | 0.002 | 10.48 | 4 | 22 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0247 | 0.4876 | 0.4473 | 1.012 | 1.444 | 1.000 | 0.064 | 0.053 | 0.004 | 11.32 | 4 | 26 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0116 | 0.0899 | 0.0838 | 1.005 | 1.404 | 1.000 | 0.817 | 0.007 | 0.000 | 5.12 | 4 | 12 | 22 | - | - | - | - |
| | 200 | 1.0000 | 0.0087 | 0.1207 | 0.1137 | 1.008 | 1.507 | 1.000 | 0.774 | 0.005 | 0.000 | 5.71 | 4 | 15 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0080 | 0.1562 | 0.1489 | 1.010 | 1.622 | 1.000 | 0.718 | 0.010 | 0.000 | 6.36 | 4 | 18 | 42 | - | - | - | - |
| SICA | 100 | 0.9914 | 0.0023 | 0.0342 | 0.0290 | 1.003 | 1.418 | 0.966 | 0.838 | 0.000 | 0.000 | 4.19 | 4 | 5 | 11 | - | - | - | - |
| | 200 | 0.9884 | 0.0009 | 0.0292 | 0.0233 | 1.004 | 1.509 | 0.954 | 0.847 | 0.000 | 0.000 | 4.14 | 4 | 5 | 9 | - | - | - | - |
| | 300 | 0.9870 | 0.0005 | 0.0234 | 0.0170 | 1.004 | 1.531 | 0.948 | 0.865 | 0.000 | 0.000 | 4.09 | 4 | 5 | 8 | - | - | - | - |
| Hard thresholding | 100 | 0.9975 | 0.0005 | 0.0072 | 0.0064 | 1.001 | 1.142 | 0.991 | 0.958 | 0.000 | 0.000 | 4.04 | 4 | 4 | 7 | - | - | - | - |
| | 200 | 0.9964 | 0.0002 | 0.0047 | 0.0041 | 1.001 | 1.181 | 0.989 | 0.967 | 0.000 | 0.000 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 0.9965 | 0.0001 | 0.0063 | 0.0048 | 1.001 | 1.181 | 0.987 | 0.959 | 0.000 | 0.000 | 4.02 | 4 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3321 | 0.8618 | 0.8403 | 1.022 | 2.087 | 1.000 | 0.000 | 0.150 | 0.000 | 35.88 | 28 | 44 | 55 | - | - | - | - |
| | 200 | 1.0000 | 0.3315 | 0.9278 | 0.9168 | 1.043 | 2.755 | 1.000 | 0.000 | 0.144 | 0.000 | 68.97 | 57 | 80 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2952 | 0.9457 | 0.9376 | 1.054 | 3.061 | 1.000 | 0.000 | 0.140 | 0.000 | 91.37 | 83 | 100 | 109 | - | - | - | - |
| $v = 1$ | 100 | 0.9999 | 0.1519 | 0.7319 | 0.7082 | 1.050 | 3.305 | 1.000 | 0.000 | 0.062 | 0.000 | 18.58 | 12 | 26 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.1495 | 0.8492 | 0.8358 | 1.094 | 4.316 | 1.000 | 0.000 | 0.055 | 0.000 | 33.31 | 24 | 45 | 58 | - | - | - | - |
| | 300 | 1.0000 | 0.1530 | 0.8977 | 0.8884 | 1.137 | 5.192 | 1.000 | 0.000 | 0.051 | 0.000 | 49.28 | 36 | 64 | 85 | - | - | - | - |

Notes: See notes to Table 46.

## Table 49: MC findings for DGPII(a)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9984 | 0.0215 | 0.2886 | 0.0217 | 1.017 | 1.450 | 0.994 | 0.006 | 0.897 | 0.763 | 6.06 | 5 | 7 | 10 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9986 | 0.0103 | 0.2826 | 0.0231 | 1.016 | 1.421 | 0.995 | 0.011 | 0.847 | 0.704 | 6.01 | 5 | 7 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9970 | 0.0067 | 0.2780 | 0.0234 | 1.017 | 1.411 | 0.989 | 0.016 | 0.810 | 0.668 | 5.97 | 5 | 7 | 9 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9979 | 0.0204 | 0.2772 | 0.0133 | 1.014 | 1.421 | 0.993 | 0.009 | 0.858 | 0.776 | 5.95 | 5 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9978 | 0.0096 | 0.2690 | 0.0137 | 1.013 | 1.386 | 0.992 | 0.015 | 0.797 | 0.715 | 5.88 | 5 | 7 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9946 | 0.0062 | 0.2618 | 0.0116 | 1.013 | 1.370 | 0.980 | 0.020 | 0.752 | 0.685 | 5.80 | 5 | 7 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9943 | 0.0181 | 0.2526 | 0.0039 | 1.011 | 1.366 | 0.979 | 0.028 | 0.740 | 0.718 | 5.71 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9920 | 0.0084 | 0.2421 | 0.0037 | 1.010 | 1.328 | 0.972 | 0.043 | 0.673 | 0.651 | 5.62 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9875 | 0.0053 | 0.2332 | 0.0029 | 1.010 | 1.309 | 0.956 | 0.054 | 0.610 | 0.597 | 5.53 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9984 | 0.0214 | 0.2873 | 0.0199 | 1.016 | 1.436 | 0.994 | 0.006 | 0.897 | 0.775 | 6.05 | 5 | 7 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9986 | 0.0102 | 0.2810 | 0.0209 | 1.015 | 1.404 | 0.995 | 0.011 | 0.847 | 0.715 | 6.00 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9970 | 0.0066 | 0.2761 | 0.0208 | 1.016 | 1.391 | 0.989 | 0.016 | 0.810 | 0.683 | 5.95 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9979 | 0.0203 | 0.2765 | 0.0122 | 1.014 | 1.412 | 0.993 | 0.009 | 0.858 | 0.784 | 5.94 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9978 | 0.0096 | 0.2680 | 0.0123 | 1.012 | 1.374 | 0.992 | 0.015 | 0.797 | 0.722 | 5.87 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9946 | 0.0061 | 0.2607 | 0.0102 | 1.012 | 1.358 | 0.980 | 0.021 | 0.752 | 0.692 | 5.79 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9943 | 0.0181 | 0.2523 | 0.0035 | 1.010 | 1.363 | 0.979 | 0.028 | 0.740 | 0.719 | 5.71 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9920 | 0.0084 | 0.2419 | 0.0034 | 1.009 | 1.326 | 0.972 | 0.043 | 0.673 | 0.653 | 5.62 | 4 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9875 | 0.0053 | 0.2329 | 0.0025 | 1.009 | 1.305 | 0.956 | 0.054 | 0.610 | 0.599 | 5.52 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9450 | 0.0568 | 0.4445 | 0.3959 | 1.044 | 1.360 | 0.794 | 0.061 | 0.043 | 0.005 | 9.23 | 4 | 19 | 40 | - | - | - | - |
| | 200 | 0.9365 | 0.0419 | 0.5241 | 0.4843 | 1.052 | 1.415 | 0.760 | 0.044 | 0.036 | 0.003 | 11.95 | 4 | 27 | 56 | - | - | - | - |
| | 300 | 0.9329 | 0.0354 | 0.5748 | 0.5413 | 1.058 | 1.457 | 0.749 | 0.030 | 0.032 | 0.001 | 14.22 | 4 | 32 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7616 | 0.0172 | 0.1843 | 0.1552 | 1.056 | 1.817 | 0.312 | 0.110 | 0.002 | 0.000 | 4.70 | 2 | 11 | 32 | - | - | - | - |
| | 200 | 0.7750 | 0.0171 | 0.2779 | 0.2516 | 1.073 | 1.936 | 0.335 | 0.071 | 0.003 | 0.000 | 6.45 | 2 | 18 | 49 | - | - | - | - |
| | 300 | 0.7908 | 0.0171 | 0.3385 | 0.3159 | 1.092 | 2.058 | 0.373 | 0.055 | 0.004 | 0.000 | 8.22 | 2 | 25 | 57 | - | - | - | - |
| SICA | 100 | 0.3900 | 0.0055 | 0.1041 | 0.0805 | 1.123 | 2.720 | 0.001 | 0.000 | 0.000 | 0.000 | 2.09 | 1 | 5 | 14 | - | - | - | - |
| | 200 | 0.3598 | 0.0024 | 0.0912 | 0.0742 | 1.138 | 2.760 | 0.001 | 0.000 | 0.000 | 0.000 | 1.90 | 1 | 4 | 14 | - | - | - | - |
| | 300 | 0.3353 | 0.0013 | 0.0806 | 0.0676 | 1.141 | 2.865 | 0.000 | 0.000 | 0.000 | 0.000 | 1.73 | 1 | 4 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.3663 | 0.0025 | 0.0508 | 0.0342 | 1.125 | 2.746 | 0.004 | 0.002 | 0.000 | 0.000 | 1.70 | 1 | 4 | 11 | - | - | - | - |
| | 200 | 0.3463 | 0.0018 | 0.0628 | 0.0503 | 1.137 | 2.780 | 0.001 | 0.000 | 0.000 | 0.000 | 1.73 | 1 | 4 | 18 | - | - | - | - |
| | 300 | 0.3275 | 0.0009 | 0.0579 | 0.0441 | 1.139 | 2.855 | 0.002 | 0.000 | 0.000 | 0.000 | 1.58 | 1 | 3.5 | 15 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9670 | 0.3477 | 0.8692 | 0.8482 | 1.127 | 2.238 | 0.870 | 0.000 | 0.130 | 0.000 | 37.24 | 28 | 48 | 56 | - | - | - | - |
| | 200 | 0.9596 | 0.3139 | 0.9268 | 0.9147 | 1.202 | 2.670 | 0.844 | 0.000 | 0.132 | 0.000 | 65.37 | 58 | 72 | 83 | - | - | - | - |
| | 300 | 0.9608 | 0.2442 | 0.9370 | 0.9276 | 1.200 | 2.701 | 0.847 | 0.000 | 0.114 | 0.000 | 76.13 | 69 | 84 | 92 | - | - | - | - |
| $v = 1$ | 100 | 0.7223 | 0.1782 | 0.8015 | 0.7768 | 1.257 | 3.491 | 0.196 | 0.000 | 0.007 | 0.000 | 19.99 | 12 | 31 | 50 | - | - | - | - |
| | 200 | 0.6706 | 0.2098 | 0.9119 | 0.8998 | 1.430 | 4.353 | 0.121 | 0.000 | 0.010 | 0.000 | 43.80 | 26 | 69 | 99 | - | - | - | - |
| | 300 | 0.6393 | 0.2268 | 0.9470 | 0.9392 | 1.508 | 4.810 | 0.086 | 0.000 | 0.005 | 0.000 | 69.68 | 44 | 101 | 136 | - | - | - | - |

Notes: See notes to Table 46.

## Table 50: MC findings for DGPII(a)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2962 | 0.0147 | 1.005 | 1.412 | 1.000 | 0.000 | 1.000 | 0.893 | 6.12 | 6 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2967 | 0.0154 | 1.005 | 1.417 | 1.000 | 0.000 | 1.000 | 0.887 | 6.13 | 6 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2966 | 0.0153 | 1.005 | 1.439 | 1.000 | 0.000 | 1.000 | 0.885 | 6.12 | 6 | 7 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2912 | 0.0077 | 1.004 | 1.390 | 1.000 | 0.000 | 1.000 | 0.941 | 6.06 | 6 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2915 | 0.0081 | 1.004 | 1.397 | 1.000 | 0.000 | 1.000 | 0.939 | 6.07 | 6 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2920 | 0.0087 | 1.005 | 1.417 | 1.000 | 0.000 | 1.000 | 0.932 | 6.07 | 6 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2870 | 0.0018 | 1.004 | 1.370 | 1.000 | 0.000 | 1.000 | 0.986 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2868 | 0.0016 | 1.004 | 1.376 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2870 | 0.0018 | 1.004 | 1.390 | 1.000 | 0.000 | 1.000 | 0.986 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2954 | 0.0136 | 1.005 | 1.403 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2964 | 0.0149 | 1.005 | 1.413 | 1.000 | 0.000 | 1.000 | 0.891 | 6.12 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2960 | 0.0144 | 1.005 | 1.433 | 1.000 | 0.000 | 1.000 | 0.891 | 6.12 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2908 | 0.0071 | 1.004 | 1.386 | 1.000 | 0.000 | 1.000 | 0.946 | 6.06 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2911 | 0.0076 | 1.004 | 1.392 | 1.000 | 0.000 | 1.000 | 0.943 | 6.06 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2917 | 0.0083 | 1.005 | 1.413 | 1.000 | 0.000 | 1.000 | 0.935 | 6.07 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2869 | 0.0016 | 1.004 | 1.368 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0013 | 1.004 | 1.373 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2870 | 0.0018 | 1.004 | 1.389 | 1.000 | 0.000 | 1.000 | 0.986 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9991 | 0.0588 | 0.4520 | 0.4029 | 1.015 | 1.385 | 0.997 | 0.060 | 0.062 | 0.003 | 9.64 | 4 | 19 | 32 | - | - | - | - |
| | 200 | 0.9996 | 0.0357 | 0.4861 | 0.4455 | 1.017 | 1.423 | 0.999 | 0.060 | 0.055 | 0.003 | 10.99 | 4 | 23 | 47 | - | - | - | - |
| | 300 | 0.9986 | 0.0276 | 0.5211 | 0.4848 | 1.020 | 1.472 | 0.995 | 0.050 | 0.047 | 0.003 | 12.16 | 4 | 26 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9760 | 0.0146 | 0.1368 | 0.1193 | 1.015 | 1.680 | 0.907 | 0.519 | 0.006 | 0.000 | 5.31 | 3 | 12 | 27 | - | - | - | - |
| | 200 | 0.9789 | 0.0129 | 0.1913 | 0.1731 | 1.021 | 1.845 | 0.919 | 0.467 | 0.013 | 0.002 | 6.44 | 3 | 17 | 38 | - | - | - | - |
| | 300 | 0.9821 | 0.0119 | 0.2394 | 0.2219 | 1.027 | 1.999 | 0.931 | 0.418 | 0.012 | 0.001 | 7.45 | 4 | 21 | 44 | - | - | - | - |
| SICA | 100 | 0.7426 | 0.0077 | 0.1103 | 0.0897 | 1.041 | 2.758 | 0.232 | 0.084 | 0.000 | 0.000 | 3.71 | 2 | 7 | 18 | - | - | - | - |
| | 200 | 0.6805 | 0.0025 | 0.0803 | 0.0651 | 1.050 | 3.059 | 0.112 | 0.045 | 0.000 | 0.000 | 3.22 | 2 | 6 | 13 | - | - | - | - |
| | 300 | 0.6461 | 0.0014 | 0.0713 | 0.0560 | 1.055 | 3.192 | 0.065 | 0.031 | 0.000 | 0.000 | 3.00 | 2 | 5 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.7704 | 0.0022 | 0.0345 | 0.0223 | 1.035 | 2.599 | 0.397 | 0.314 | 0.000 | 0.000 | 3.29 | 2 | 5 | 17 | - | - | - | - |
| | 200 | 0.7369 | 0.0008 | 0.0280 | 0.0168 | 1.040 | 2.791 | 0.329 | 0.275 | 0.000 | 0.000 | 3.11 | 2 | 5 | 10 | - | - | - | - |
| | 300 | 0.7140 | 0.0005 | 0.0281 | 0.0175 | 1.044 | 2.894 | 0.285 | 0.228 | 0.000 | 0.000 | 3.02 | 2 | 5 | 13 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9991 | 0.3332 | 0.8621 | 0.8407 | 1.037 | 2.116 | 0.997 | 0.000 | 0.156 | 0.000 | 35.99 | 27 | 45 | 57 | - | - | - | - |
| | 200 | 0.9995 | 0.3332 | 0.9283 | 0.9171 | 1.076 | 2.814 | 0.998 | 0.000 | 0.142 | 0.000 | 69.30 | 58 | 79 | 86 | - | - | - | - |
| | 300 | 0.9995 | 0.2869 | 0.9443 | 0.9360 | 1.090 | 3.024 | 0.998 | 0.000 | 0.132 | 0.000 | 88.91 | 81 | 96 | 107 | - | - | - | - |
| $v = 1$ | 100 | 0.9714 | 0.1513 | 0.7348 | 0.7118 | 1.082 | 3.321 | 0.888 | 0.000 | 0.030 | 0.000 | 18.41 | 12 | 26 | 43 | - | - | - | - |
| | 200 | 0.9619 | 0.1574 | 0.8589 | 0.8454 | 1.158 | 4.404 | 0.852 | 0.000 | 0.029 | 0.000 | 34.69 | 24 | 47 | 66 | - | - | - | - |
| | 300 | 0.9549 | 0.1667 | 0.9078 | 0.8996 | 1.223 | 5.190 | 0.825 | 0.000 | 0.024 | 0.000 | 53.16 | 38 | 72 | 100 | - | - | - | - |

Notes: See notes to Table 46.

## Table 51: MC findings for DGPII(a)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2955 | 0.0137 | 1.002 | 1.420 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2955 | 0.0137 | 1.003 | 1.404 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2958 | 0.0141 | 1.003 | 1.435 | 1.000 | 0.000 | 1.000 | 0.895 | 6.11 | 6 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2907 | 0.0070 | 1.002 | 1.400 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2908 | 0.0071 | 1.002 | 1.383 | 1.000 | 0.000 | 1.000 | 0.945 | 6.06 | 6 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2903 | 0.0064 | 1.003 | 1.409 | 1.000 | 0.000 | 1.000 | 0.951 | 6.05 | 6 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2865 | 0.0011 | 1.002 | 1.382 | 1.000 | 0.000 | 1.000 | 0.991 | 6.01 | 6 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2868 | 0.0015 | 1.002 | 1.365 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2867 | 0.0014 | 1.002 | 1.392 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2948 | 0.0127 | 1.002 | 1.413 | 1.000 | 0.000 | 1.000 | 0.906 | 6.10 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2951 | 0.0131 | 1.003 | 1.399 | 1.000 | 0.000 | 1.000 | 0.903 | 6.11 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2953 | 0.0134 | 1.003 | 1.430 | 1.000 | 0.000 | 1.000 | 0.898 | 6.11 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2903 | 0.0064 | 1.002 | 1.395 | 1.000 | 0.000 | 1.000 | 0.951 | 6.05 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2906 | 0.0069 | 1.002 | 1.381 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2901 | 0.0061 | 1.002 | 1.407 | 1.000 | 0.000 | 1.000 | 0.952 | 6.05 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2864 | 0.0009 | 1.002 | 1.380 | 1.000 | 0.000 | 1.000 | 0.993 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0013 | 1.002 | 1.363 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2866 | 0.0012 | 1.002 | 1.389 | 1.000 | 0.000 | 1.000 | 0.991 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0587 | 0.4504 | 0.4020 | 1.008 | 1.388 | 1.000 | 0.061 | 0.070 | 0.004 | 9.63 | 4 | 18 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0347 | 0.4810 | 0.4389 | 1.010 | 1.408 | 1.000 | 0.049 | 0.048 | 0.003 | 10.80 | 5 | 24 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0265 | 0.5014 | 0.4638 | 1.011 | 1.449 | 1.000 | 0.059 | 0.048 | 0.002 | 11.84 | 4 | 26 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9970 | 0.0123 | 0.1034 | 0.0916 | 1.007 | 1.536 | 0.988 | 0.696 | 0.003 | 0.000 | 5.17 | 4 | 12 | 28 | - | - | - | - |
| | 200 | 0.9975 | 0.0107 | 0.1557 | 0.1436 | 1.010 | 1.674 | 0.990 | 0.619 | 0.008 | 0.000 | 6.10 | 4 | 16 | 40 | - | - | - | - |
| | 300 | 0.9983 | 0.0114 | 0.2066 | 0.1934 | 1.015 | 1.877 | 0.993 | 0.564 | 0.014 | 0.001 | 7.37 | 4 | 21.5 | 53 | - | - | - | - |
| SICA | 100 | 0.9035 | 0.0063 | 0.0867 | 0.0720 | 1.014 | 2.265 | 0.641 | 0.392 | 0.000 | 0.000 | 4.22 | 3 | 7 | 16 | - | - | - | - |
| | 200 | 0.8703 | 0.0023 | 0.0705 | 0.0558 | 1.019 | 2.521 | 0.532 | 0.344 | 0.000 | 0.000 | 3.94 | 3 | 6 | 15 | - | - | - | - |
| | 300 | 0.8555 | 0.0014 | 0.0639 | 0.0524 | 1.021 | 2.621 | 0.484 | 0.322 | 0.000 | 0.000 | 3.83 | 2 | 6 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.9280 | 0.0013 | 0.0203 | 0.0133 | 1.010 | 1.992 | 0.775 | 0.712 | 0.000 | 0.000 | 3.84 | 2 | 5 | 9 | - | - | - | - |
| | 200 | 0.9159 | 0.0006 | 0.0186 | 0.0121 | 1.012 | 2.135 | 0.752 | 0.696 | 0.000 | 0.000 | 3.78 | 2 | 5 | 9 | - | - | - | - |
| | 300 | 0.9099 | 0.0004 | 0.0173 | 0.0118 | 1.013 | 2.165 | 0.731 | 0.675 | 0.000 | 0.000 | 3.74 | 2 | 5 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3333 | 0.8622 | 0.8406 | 1.022 | 2.101 | 1.000 | 0.000 | 0.158 | 0.000 | 36.00 | 28 | 45 | 60 | - | - | - | - |
| | 200 | 1.0000 | 0.3319 | 0.9279 | 0.9165 | 1.043 | 2.766 | 1.000 | 0.000 | 0.162 | 0.000 | 69.05 | 57 | 80 | 88 | - | - | - | - |
| | 300 | 1.0000 | 0.2968 | 0.9460 | 0.9379 | 1.055 | 3.042 | 1.000 | 0.000 | 0.149 | 0.000 | 91.85 | 83 | 100 | 109 | - | - | - | - |
| $v = 1$ | 100 | 0.9955 | 0.1490 | 0.7296 | 0.7085 | 1.049 | 3.308 | 0.982 | 0.000 | 0.049 | 0.000 | 18.28 | 12 | 26 | 38 | - | - | - | - |
| | 200 | 0.9928 | 0.1480 | 0.8489 | 0.8369 | 1.094 | 4.341 | 0.971 | 0.000 | 0.035 | 0.000 | 32.98 | 24 | 44 | 53 | - | - | - | - |
| | 300 | 0.9924 | 0.1510 | 0.8971 | 0.8887 | 1.136 | 5.109 | 0.970 | 0.000 | 0.035 | 0.000 | 48.66 | 36 | 64 | 86 | - | - | - | - |

Notes: See notes to Table 46.

## Table 52: MC findings for DGPII(a)

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9220 | 0.0151 | 0.2184 | 0.0216 | 1.013 | 1.325 | 0.781 | 0.061 | 0.437 | 0.370 | 5.14 | 3 | 7 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8815 | 0.0065 | 0.1983 | 0.0226 | 1.015 | 1.317 | 0.690 | 0.069 | 0.327 | 0.284 | 4.80 | 2 | 6 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8596 | 0.0043 | 0.2006 | 0.0296 | 1.019 | 1.338 | 0.645 | 0.065 | 0.293 | 0.244 | 4.71 | 2 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8930 | 0.0130 | 0.1947 | 0.0118 | 1.012 | 1.285 | 0.717 | 0.076 | 0.364 | 0.334 | 4.82 | 2 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8425 | 0.0056 | 0.1762 | 0.0129 | 1.015 | 1.290 | 0.616 | 0.081 | 0.268 | 0.250 | 4.46 | 1 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8211 | 0.0036 | 0.1723 | 0.0183 | 1.018 | 1.306 | 0.576 | 0.082 | 0.224 | 0.200 | 4.34 | 1 | 6 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8103 | 0.0090 | 0.1436 | 0.0034 | 1.014 | 1.255 | 0.559 | 0.121 | 0.193 | 0.190 | 4.10 | 1 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7449 | 0.0038 | 0.1273 | 0.0034 | 1.021 | 1.295 | 0.456 | 0.096 | 0.139 | 0.137 | 3.72 | 1 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7200 | 0.0023 | 0.1220 | 0.0057 | 1.022 | 1.301 | 0.414 | 0.105 | 0.112 | 0.110 | 3.57 | 1 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9220 | 0.0150 | 0.2167 | 0.0194 | 1.012 | 1.311 | 0.781 | 0.061 | 0.437 | 0.379 | 5.13 | 3 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8815 | 0.0065 | 0.1972 | 0.0213 | 1.014 | 1.309 | 0.690 | 0.070 | 0.327 | 0.287 | 4.79 | 2 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8596 | 0.0042 | 0.1990 | 0.0276 | 1.018 | 1.325 | 0.645 | 0.067 | 0.293 | 0.250 | 4.70 | 2 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8930 | 0.0129 | 0.1936 | 0.0105 | 1.011 | 1.275 | 0.717 | 0.076 | 0.364 | 0.340 | 4.81 | 2 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8425 | 0.0055 | 0.1754 | 0.0119 | 1.014 | 1.283 | 0.616 | 0.082 | 0.268 | 0.251 | 4.46 | 1 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8211 | 0.0035 | 0.1714 | 0.0171 | 1.018 | 1.298 | 0.576 | 0.083 | 0.224 | 0.203 | 4.33 | 1 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8103 | 0.0090 | 0.1432 | 0.0030 | 1.014 | 1.252 | 0.559 | 0.121 | 0.193 | 0.190 | 4.10 | 1 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7449 | 0.0038 | 0.1272 | 0.0032 | 1.021 | 1.294 | 0.456 | 0.097 | 0.139 | 0.137 | 3.72 | 1 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7200 | 0.0023 | 0.1215 | 0.0052 | 1.022 | 1.298 | 0.414 | 0.105 | 0.112 | 0.111 | 3.57 | 1 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7799 | 0.0517 | 0.4556 | 0.4048 | 1.035 | 1.183 | 0.341 | 0.027 | 0.012 | 0.001 | 8.08 | 3 | 17 | 35 | - | - | - | - |
| | 200 | 0.7626 | 0.0389 | 0.5415 | 0.5031 | 1.046 | 1.261 | 0.305 | 0.015 | 0.007 | 0.000 | 10.67 | 3 | 25 | 50 | - | - | - | - |
| | 300 | 0.7470 | 0.0339 | 0.5996 | 0.5656 | 1.050 | 1.296 | 0.273 | 0.008 | 0.006 | 0.000 | 13.02 | 3 | 31 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5530 | 0.0178 | 0.2310 | 0.1947 | 1.044 | 1.572 | 0.055 | 0.013 | 0.000 | 0.000 | 3.92 | 1 | 10 | 33 | - | - | - | - |
| | 200 | 0.5644 | 0.0178 | 0.3435 | 0.3130 | 1.065 | 1.782 | 0.069 | 0.004 | 0.000 | 0.000 | 5.74 | 1 | 16 | 43 | - | - | - | - |
| | 300 | 0.5771 | 0.0177 | 0.4157 | 0.3876 | 1.083 | 1.902 | 0.073 | 0.002 | 0.000 | 0.000 | 7.56 | 1 | 23.5 | 56 | - | - | - | - |
| SICA | 100 | 0.2740 | 0.0054 | 0.1189 | 0.0981 | 1.077 | 2.142 | 0.000 | 0.000 | 0.000 | 0.000 | 1.62 | 1 | 4 | 31 | - | - | - | - |
| | 200 | 0.2556 | 0.0023 | 0.1094 | 0.0904 | 1.079 | 2.156 | 0.000 | 0.000 | 0.000 | 0.000 | 1.47 | 1 | 4 | 14 | - | - | - | - |
| | 300 | 0.2543 | 0.0017 | 0.1201 | 0.1034 | 1.085 | 2.212 | 0.000 | 0.000 | 0.000 | 0.000 | 1.51 | 1 | 4 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.2613 | 0.0037 | 0.0912 | 0.0739 | 1.075 | 2.127 | 0.000 | 0.000 | 0.000 | 0.000 | 1.40 | 1 | 3 | 16 | - | - | - | - |
| | 200 | 0.2519 | 0.0018 | 0.0947 | 0.0778 | 1.076 | 2.134 | 0.000 | 0.000 | 0.000 | 0.000 | 1.36 | 1 | 3 | 10 | - | - | - | - |
| | 300 | 0.2510 | 0.0014 | 0.1074 | 0.0914 | 1.083 | 2.195 | 0.000 | 0.000 | 0.000 | 0.000 | 1.42 | 1 | 3 | 13 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.8509 | 0.3447 | 0.8796 | 0.8581 | 1.121 | 2.160 | 0.491 | 0.000 | 0.058 | 0.000 | 36.50 | 27 | 47 | 54 | - | - | - | - |
| | 200 | 0.8451 | 0.3165 | 0.9338 | 0.9226 | 1.195 | 2.626 | 0.474 | 0.000 | 0.051 | 0.000 | 65.41 | 58 | 73 | 78 | - | - | - | - |
| | 300 | 0.8356 | 0.2462 | 0.9436 | 0.9350 | 1.200 | 2.652 | 0.456 | 0.000 | 0.039 | 0.000 | 76.21 | 69 | 84 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.5244 | 0.1717 | 0.8314 | 0.8062 | 1.232 | 3.211 | 0.027 | 0.000 | 0.001 | 0.000 | 18.58 | 11 | 29 | 44 | - | - | - | - |
| | 200 | 0.5176 | 0.2089 | 0.9257 | 0.9152 | 1.395 | 4.051 | 0.028 | 0.000 | 0.002 | 0.000 | 43.02 | 26 | 66 | 103 | - | - | - | - |
| | 300 | 0.5008 | 0.2279 | 0.9554 | 0.9485 | 1.468 | 4.431 | 0.021 | 0.000 | 0.000 | 0.000 | 69.45 | 44 | 99 | 124 | - | - | - | - |

Notes: See notes to Table 46.

## Table 53: MC findings for DGPII(a)

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR$^*$ | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2951 | 0.0138 | 1.005 | 1.424 | 1.000 | 0.000 | 0.996 | 0.896 | 6.11 | 6 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2961 | 0.0154 | 1.005 | 1.440 | 1.000 | 0.000 | 0.995 | 0.881 | 6.12 | 6 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2969 | 0.0164 | 1.006 | 1.454 | 1.000 | 0.000 | 0.995 | 0.873 | 6.13 | 6 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2906 | 0.0082 | 1.005 | 1.406 | 1.000 | 0.000 | 0.992 | 0.932 | 6.06 | 6 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2901 | 0.0076 | 1.004 | 1.410 | 1.000 | 0.000 | 0.991 | 0.933 | 6.05 | 6 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2897 | 0.0077 | 1.005 | 1.417 | 1.000 | 0.000 | 0.988 | 0.928 | 6.05 | 6 | 7 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0207 | 0.2842 | 0.0018 | 1.004 | 1.374 | 1.000 | 0.001 | 0.978 | 0.965 | 5.99 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0101 | 0.2837 | 0.0014 | 1.004 | 1.380 | 1.000 | 0.001 | 0.976 | 0.965 | 5.99 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0067 | 0.2826 | 0.0017 | 1.004 | 1.387 | 1.000 | 0.002 | 0.965 | 0.952 | 5.98 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2945 | 0.0130 | 1.005 | 1.417 | 1.000 | 0.000 | 0.996 | 0.901 | 6.10 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2957 | 0.0147 | 1.005 | 1.435 | 1.000 | 0.000 | 0.995 | 0.885 | 6.12 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2964 | 0.0158 | 1.006 | 1.448 | 1.000 | 0.000 | 0.995 | 0.878 | 6.12 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2902 | 0.0076 | 1.005 | 1.401 | 1.000 | 0.000 | 0.992 | 0.937 | 6.05 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2898 | 0.0073 | 1.004 | 1.407 | 1.000 | 0.000 | 0.991 | 0.935 | 6.05 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2894 | 0.0072 | 1.005 | 1.413 | 1.000 | 0.000 | 0.988 | 0.932 | 6.05 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0207 | 0.2842 | 0.0017 | 1.004 | 1.373 | 1.000 | 0.001 | 0.978 | 0.966 | 5.99 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0101 | 0.2837 | 0.0013 | 1.004 | 1.380 | 1.000 | 0.001 | 0.976 | 0.965 | 5.99 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0067 | 0.2826 | 0.0017 | 1.004 | 1.387 | 1.000 | 0.002 | 0.965 | 0.952 | 5.98 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9743 | 0.0550 | 0.4390 | 0.3889 | 1.015 | 1.364 | 0.898 | 0.066 | 0.044 | 0.004 | 9.18 | 4 | 18 | 29 | - | - | - | - |
| | 200 | 0.9733 | 0.0357 | 0.4902 | 0.4465 | 1.017 | 1.406 | 0.895 | 0.053 | 0.050 | 0.002 | 10.88 | 4 | 23 | 41 | - | - | - | - |
| | 300 | 0.9709 | 0.0254 | 0.5018 | 0.4636 | 1.018 | 1.406 | 0.888 | 0.056 | 0.040 | 0.004 | 11.41 | 4 | 25 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8479 | 0.0144 | 0.1591 | 0.1327 | 1.017 | 1.790 | 0.499 | 0.223 | 0.005 | 0.001 | 4.78 | 2 | 10 | 28 | - | - | - | - |
| | 200 | 0.8509 | 0.0139 | 0.2365 | 0.2096 | 1.024 | 1.951 | 0.517 | 0.149 | 0.008 | 0.001 | 6.12 | 2 | 16 | 38 | - | - | - | - |
| | 300 | 0.8614 | 0.0114 | 0.2624 | 0.2398 | 1.029 | 2.029 | 0.538 | 0.158 | 0.006 | 0.000 | 6.81 | 2 | 18 | 54 | - | - | - | - |
| SICA | 100 | 0.4786 | 0.0058 | 0.0956 | 0.0792 | 1.044 | 2.791 | 0.002 | 0.001 | 0.000 | 0.000 | 2.47 | 1 | 6 | 18 | - | - | - | - |
| | 200 | 0.4209 | 0.0020 | 0.0750 | 0.0596 | 1.049 | 2.903 | 0.000 | 0.000 | 0.000 | 0.000 | 2.07 | 1 | 4 | 12 | - | - | - | - |
| | 300 | 0.3884 | 0.0011 | 0.0704 | 0.0531 | 1.055 | 3.038 | 0.000 | 0.000 | 0.000 | 0.000 | 1.88 | 1 | 4 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.4516 | 0.0023 | 0.0426 | 0.0289 | 1.045 | 2.845 | 0.025 | 0.009 | 0.000 | 0.000 | 2.03 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.4026 | 0.0009 | 0.0360 | 0.0237 | 1.050 | 2.939 | 0.011 | 0.003 | 0.000 | 0.000 | 1.79 | 1 | 4 | 11 | - | - | - | - |
| | 300 | 0.3674 | 0.0006 | 0.0364 | 0.0236 | 1.056 | 3.082 | 0.002 | 0.002 | 0.000 | 0.000 | 1.64 | 1 | 3 | 16 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9846 | 0.3334 | 0.8636 | 0.8419 | 1.037 | 2.112 | 0.939 | 0.000 | 0.137 | 0.000 | 35.94 | 28 | 45 | 57 | - | - | - | - |
| | 200 | 0.9824 | 0.3344 | 0.9294 | 0.9185 | 1.075 | 2.778 | 0.930 | 0.000 | 0.124 | 0.000 | 69.47 | 58 | 79.5 | 87 | - | - | - | - |
| | 300 | 0.9836 | 0.2894 | 0.9454 | 0.9372 | 1.091 | 3.029 | 0.935 | 0.000 | 0.115 | 0.000 | 89.59 | 82 | 98 | 106 | - | - | - | - |
| $v = 1$ | 100 | 0.8511 | 0.1528 | 0.7573 | 0.7326 | 1.083 | 3.347 | 0.466 | 0.000 | 0.006 | 0.000 | 18.08 | 11.5 | 26 | 34 | - | - | - | - |
| | 200 | 0.8170 | 0.1570 | 0.8735 | 0.8593 | 1.156 | 4.338 | 0.382 | 0.000 | 0.008 | 0.000 | 34.04 | 23 | 46 | 63 | - | - | - | - |
| | 300 | 0.7919 | 0.1672 | 0.9199 | 0.9106 | 1.228 | 5.205 | 0.307 | 0.000 | 0.007 | 0.000 | 52.67 | 38 | 71 | 96 | - | - | - | - |

Notes: See notes to Table 46.

## Table 54: MC findings for DGPII(a)

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2945 | 0.0124 | 1.003 | 1.407 | 1.000 | 0.000 | 1.000 | 0.907 | 6.10 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2965 | 0.0151 | 1.003 | 1.448 | 1.000 | 0.000 | 1.000 | 0.888 | 6.12 | 6 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2957 | 0.0140 | 1.003 | 1.447 | 1.000 | 0.000 | 1.000 | 0.897 | 6.11 | 6 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0213 | 0.2897 | 0.0055 | 1.002 | 1.383 | 1.000 | 0.000 | 1.000 | 0.956 | 6.04 | 6 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2913 | 0.0078 | 1.003 | 1.420 | 1.000 | 0.000 | 1.000 | 0.941 | 6.06 | 6 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2907 | 0.0070 | 1.003 | 1.417 | 1.000 | 0.000 | 1.000 | 0.946 | 6.06 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2864 | 0.0010 | 1.002 | 1.364 | 1.000 | 0.000 | 1.000 | 0.992 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2871 | 0.0019 | 1.002 | 1.394 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2869 | 0.0017 | 1.002 | 1.391 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2944 | 0.0121 | 1.003 | 1.406 | 1.000 | 0.000 | 1.000 | 0.908 | 6.10 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2961 | 0.0146 | 1.003 | 1.444 | 1.000 | 0.000 | 1.000 | 0.891 | 6.12 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2954 | 0.0136 | 1.003 | 1.444 | 1.000 | 0.000 | 1.000 | 0.900 | 6.11 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0213 | 0.2894 | 0.0052 | 1.002 | 1.380 | 1.000 | 0.000 | 1.000 | 0.959 | 6.04 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2910 | 0.0075 | 1.003 | 1.417 | 1.000 | 0.000 | 1.000 | 0.944 | 6.06 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2906 | 0.0069 | 1.003 | 1.416 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2864 | 0.0009 | 1.002 | 1.364 | 1.000 | 0.000 | 1.000 | 0.993 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2870 | 0.0018 | 1.002 | 1.393 | 1.000 | 0.000 | 1.000 | 0.986 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2869 | 0.0016 | 1.002 | 1.391 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9950 | 0.0565 | 0.4398 | 0.3897 | 1.009 | 1.375 | 0.980 | 0.071 | 0.065 | 0.004 | 9.41 | 4 | 18 | 32 | - | - | - | - |
| | 200 | 0.9950 | 0.0352 | 0.4899 | 0.4457 | 1.010 | 1.429 | 0.980 | 0.052 | 0.053 | 0.004 | 10.88 | 4 | 22 | 50 | - | - | - | - |
| | 300 | 0.9953 | 0.0261 | 0.5106 | 0.4723 | 1.012 | 1.444 | 0.981 | 0.043 | 0.050 | 0.001 | 11.71 | 5 | 25 | 47 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9405 | 0.0151 | 0.1462 | 0.1250 | 1.010 | 1.742 | 0.774 | 0.421 | 0.006 | 0.001 | 5.21 | 3 | 11 | 28 | - | - | - | - |
| | 200 | 0.9500 | 0.0131 | 0.2118 | 0.1913 | 1.014 | 1.912 | 0.812 | 0.354 | 0.009 | 0.001 | 6.37 | 3 | 16 | 43 | - | - | - | - |
| | 300 | 0.9493 | 0.0112 | 0.2456 | 0.2246 | 1.017 | 2.029 | 0.807 | 0.305 | 0.007 | 0.000 | 7.12 | 3 | 20 | 44 | - | - | - | - |
| SICA | 100 | 0.6388 | 0.0079 | 0.1152 | 0.0931 | 1.027 | 2.870 | 0.076 | 0.012 | 0.000 | 0.000 | 3.31 | 2 | 7 | 15 | - | - | - | - |
| | 200 | 0.5710 | 0.0023 | 0.0780 | 0.0626 | 1.032 | 3.047 | 0.017 | 0.003 | 0.000 | 0.000 | 2.73 | 1 | 5 | 14 | - | - | - | - |
| | 300 | 0.5371 | 0.0013 | 0.0685 | 0.0537 | 1.035 | 3.185 | 0.007 | 0.001 | 0.000 | 0.000 | 2.53 | 1 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.6453 | 0.0023 | 0.0385 | 0.0227 | 1.025 | 2.819 | 0.184 | 0.127 | 0.000 | 0.000 | 2.80 | 1 | 5 | 9 | - | - | - | - |
| | 200 | 0.6145 | 0.0009 | 0.0335 | 0.0220 | 1.028 | 2.881 | 0.141 | 0.095 | 0.000 | 0.000 | 2.64 | 1 | 5 | 9 | - | - | - | - |
| | 300 | 0.5779 | 0.0006 | 0.0342 | 0.0214 | 1.031 | 3.038 | 0.092 | 0.050 | 0.000 | 0.000 | 2.50 | 1 | 5 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9973 | 0.3318 | 0.8616 | 0.8398 | 1.022 | 2.120 | 0.989 | 0.000 | 0.158 | 0.000 | 35.84 | 27 | 44 | 55 | - | - | - | - |
| | 200 | 0.9973 | 0.3311 | 0.9278 | 0.9168 | 1.042 | 2.714 | 0.989 | 0.000 | 0.148 | 0.000 | 68.89 | 57 | 80 | 89 | - | - | - | - |
| | 300 | 0.9983 | 0.2991 | 0.9465 | 0.9386 | 1.055 | 3.031 | 0.993 | 0.000 | 0.135 | 0.000 | 92.53 | 84 | 100 | 112 | - | - | - | - |
| $v = 1$ | 100 | 0.9446 | 0.1487 | 0.7373 | 0.7128 | 1.049 | 3.346 | 0.787 | 0.000 | 0.016 | 0.000 | 18.05 | 12 | 25 | 46 | - | - | - | - |
| | 200 | 0.9374 | 0.1472 | 0.8539 | 0.8403 | 1.093 | 4.263 | 0.756 | 0.000 | 0.017 | 0.000 | 32.61 | 23 | 44 | 56 | - | - | - | - |
| | 300 | 0.9279 | 0.1516 | 0.9024 | 0.8937 | 1.135 | 5.104 | 0.723 | 0.000 | 0.013 | 0.000 | 48.59 | 36 | 63 | 88 | - | - | - | - |

Notes: See notes to Table 46.

## Table 55: MC findings for DGPII(b)

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9998 | 0.0058 | 0.0869 | 0.0246 | 1.008 | 1.138 | 0.999 | 0.555 | 4.56 | 4 | 6 | 8 | 1.029 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9978 | 0.0025 | 0.0782 | 0.0268 | 1.009 | 1.153 | 0.991 | 0.585 | 4.49 | 4 | 6 | 8 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9981 | 0.0015 | 0.0715 | 0.0284 | 1.009 | 1.141 | 0.993 | 0.625 | 4.45 | 4 | 6 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9994 | 0.0040 | 0.0619 | 0.0132 | 1.006 | 1.101 | 0.998 | 0.663 | 4.38 | 4 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9966 | 0.0018 | 0.0565 | 0.0163 | 1.007 | 1.121 | 0.987 | 0.683 | 4.34 | 4 | 5 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9971 | 0.0011 | 0.0505 | 0.0162 | 1.006 | 1.110 | 0.989 | 0.716 | 4.30 | 4 | 5 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9969 | 0.0020 | 0.0311 | 0.0028 | 1.004 | 1.069 | 0.988 | 0.810 | 4.18 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9933 | 0.0008 | 0.0276 | 0.0042 | 1.004 | 1.092 | 0.974 | 0.815 | 4.14 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9901 | 0.0005 | 0.0241 | 0.0046 | 1.005 | 1.116 | 0.961 | 0.827 | 4.11 | 4 | 5 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9995 | 0.0055 | 0.0832 | 0.0208 | 1.006 | 1.112 | 0.998 | 0.568 | 4.53 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9976 | 0.0024 | 0.0753 | 0.0239 | 1.008 | 1.132 | 0.991 | 0.596 | 4.47 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9981 | 0.0015 | 0.0689 | 0.0257 | 1.007 | 1.120 | 0.993 | 0.637 | 4.43 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9990 | 0.0039 | 0.0598 | 0.0111 | 1.005 | 1.087 | 0.996 | 0.671 | 4.37 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9965 | 0.0017 | 0.0549 | 0.0146 | 1.006 | 1.109 | 0.986 | 0.690 | 4.33 | 4 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9969 | 0.0010 | 0.0488 | 0.0145 | 1.006 | 1.099 | 0.988 | 0.724 | 4.29 | 4 | 5 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9965 | 0.0019 | 0.0307 | 0.0023 | 1.004 | 1.066 | 0.986 | 0.810 | 4.17 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9931 | 0.0008 | 0.0273 | 0.0040 | 1.004 | 1.090 | 0.974 | 0.816 | 4.14 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9898 | 0.0005 | 0.0236 | 0.0041 | 1.005 | 1.115 | 0.959 | 0.828 | 4.10 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0663 | 0.4758 | 0.4344 | 1.053 | 1.488 | 0.999 | 0.067 | 10.36 | 4 | 20 | 37 | - | - | - | - |
| | 200 | 0.9986 | 0.0495 | 0.5688 | 0.5418 | 1.063 | 1.584 | 0.995 | 0.025 | 13.71 | 5 | 29 | 63 | - | - | - | - |
| | 300 | 0.9996 | 0.0406 | 0.6086 | 0.5882 | 1.072 | 1.640 | 0.999 | 0.035 | 16.02 | 5 | 34 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9680 | 0.0181 | 0.1534 | 0.1406 | 1.055 | 1.834 | 0.887 | 0.468 | 5.61 | 3 | 14 | 34 | - | - | - | - |
| | 200 | 0.9694 | 0.0197 | 0.2586 | 0.2458 | 1.078 | 2.013 | 0.889 | 0.334 | 7.75 | 3 | 22 | 54 | - | - | - | - |
| | 300 | 0.9720 | 0.0188 | 0.3205 | 0.3101 | 1.097 | 2.141 | 0.905 | 0.282 | 9.46 | 3 | 28 | 52 | - | - | - | - |
| SICA | 100 | 0.6901 | 0.0046 | 0.0681 | 0.0621 | 1.122 | 3.021 | 0.195 | 0.091 | 3.21 | 2 | 6 | 15 | - | - | - | - |
| | 200 | 0.6320 | 0.0019 | 0.0600 | 0.0562 | 1.146 | 3.256 | 0.107 | 0.051 | 2.90 | 2 | 5 | 12 | - | - | - | - |
| | 300 | 0.6005 | 0.0011 | 0.0556 | 0.0531 | 1.158 | 3.438 | 0.067 | 0.038 | 2.73 | 1 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.7328 | 0.0015 | 0.0215 | 0.0195 | 1.099 | 2.769 | 0.322 | 0.265 | 3.08 | 2 | 5 | 12 | - | - | - | - |
| | 200 | 0.7083 | 0.0012 | 0.0328 | 0.0309 | 1.116 | 2.903 | 0.292 | 0.216 | 3.06 | 1 | 5 | 15 | - | - | - | - |
| | 300 | 0.6939 | 0.0009 | 0.0378 | 0.0363 | 1.123 | 3.028 | 0.270 | 0.187 | 3.03 | 1 | 5 | 15 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9996 | 0.3784 | 0.8759 | 0.8099 | 1.138 | 2.482 | 0.999 | 0.000 | 40.32 | 29.5 | 50 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.3090 | 0.9234 | 0.8900 | 1.195 | 2.785 | 1.000 | 0.000 | 64.57 | 58 | 71 | 79 | - | - | - | - |
| | 300 | 0.9995 | 0.2388 | 0.9337 | 0.9109 | 1.203 | 2.828 | 0.998 | 0.000 | 74.67 | 67 | 82 | 90 | - | - | - | - |
| $v = 1$ | 100 | 0.9615 | 0.2201 | 0.7973 | 0.7348 | 1.275 | 3.839 | 0.856 | 0.000 | 24.98 | 14 | 39 | 68 | - | - | - | - |
| | 200 | 0.9146 | 0.2540 | 0.9073 | 0.8749 | 1.465 | 4.907 | 0.695 | 0.000 | 53.43 | 31 | 82 | 114 | - | - | - | - |
| | 300 | 0.8719 | 0.2598 | 0.9420 | 0.9193 | 1.546 | 5.426 | 0.562 | 0.000 | 80.40 | 52 | 113 | 142 | - | - | - | - |

Notes: See notes to Table 1.

## Table 56: MC findings for DGPII(b)

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0135 | 0.1980 | 0.0169 | 1.003 | 1.212 | 1.000 | 0.046 | 5.29 | 5 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0061 | 0.1862 | 0.0174 | 1.003 | 1.197 | 1.000 | 0.068 | 5.20 | 4 | 6 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1819 | 0.0182 | 1.003 | 1.191 | 1.000 | 0.077 | 5.17 | 4 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0120 | 0.1809 | 0.0087 | 1.003 | 1.178 | 1.000 | 0.072 | 5.16 | 4 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0054 | 0.1694 | 0.0079 | 1.002 | 1.164 | 1.000 | 0.100 | 5.07 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1646 | 0.0093 | 1.002 | 1.160 | 1.000 | 0.109 | 5.03 | 4 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0100 | 0.1545 | 0.0019 | 1.002 | 1.139 | 1.000 | 0.144 | 4.96 | 4 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0045 | 0.1428 | 0.0016 | 1.001 | 1.125 | 1.000 | 0.192 | 4.88 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.1356 | 0.0020 | 1.002 | 1.117 | 1.000 | 0.217 | 4.83 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0134 | 0.1972 | 0.0160 | 1.003 | 1.202 | 1.000 | 0.046 | 5.29 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0061 | 0.1854 | 0.0165 | 1.003 | 1.187 | 1.000 | 0.068 | 5.19 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1810 | 0.0172 | 1.003 | 1.180 | 1.000 | 0.078 | 5.16 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0120 | 0.1803 | 0.0079 | 1.003 | 1.171 | 1.000 | 0.072 | 5.15 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0054 | 0.1689 | 0.0073 | 1.002 | 1.159 | 1.000 | 0.100 | 5.06 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1640 | 0.0086 | 1.002 | 1.152 | 1.000 | 0.110 | 5.02 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0099 | 0.1541 | 0.0015 | 1.002 | 1.134 | 1.000 | 0.144 | 4.95 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0045 | 0.1425 | 0.0012 | 1.001 | 1.121 | 1.000 | 0.193 | 4.87 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.1355 | 0.0020 | 1.002 | 1.116 | 1.000 | 0.217 | 4.83 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0644 | 0.4729 | 0.4300 | 1.016 | 1.442 | 1.000 | 0.058 | 10.18 | 4 | 20 | 59 | - | - | - | - |
| | 200 | 1.0000 | 0.0424 | 0.5321 | 0.5057 | 1.020 | 1.541 | 1.000 | 0.041 | 12.31 | 5 | 27 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0317 | 0.5599 | 0.5419 | 1.022 | 1.572 | 1.000 | 0.031 | 13.37 | 5 | 28 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0124 | 0.0921 | 0.0834 | 1.010 | 1.448 | 1.000 | 0.780 | 5.19 | 4 | 13 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0134 | 0.1695 | 0.1620 | 1.017 | 1.693 | 1.000 | 0.658 | 6.63 | 4 | 19 | 38 | - | - | - | - |
| | 300 | 1.0000 | 0.0117 | 0.2110 | 0.2049 | 1.022 | 1.813 | 1.000 | 0.601 | 7.47 | 4 | 21 | 48 | - | - | - | - |
| SICA | 100 | 0.9831 | 0.0022 | 0.0312 | 0.0295 | 1.009 | 1.608 | 0.939 | 0.793 | 4.15 | 3 | 5 | 10 | - | - | - | - |
| | 200 | 0.9708 | 0.0008 | 0.0222 | 0.0215 | 1.012 | 1.824 | 0.892 | 0.787 | 4.03 | 3 | 5 | 12 | - | - | - | - |
| | 300 | 0.9686 | 0.0004 | 0.0200 | 0.0196 | 1.013 | 1.897 | 0.886 | 0.792 | 4.01 | 3 | 5 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.9896 | 0.0004 | 0.0054 | 0.0051 | 1.004 | 1.369 | 0.969 | 0.943 | 3.99 | 4 | 4 | 8 | - | - | - | - |
| | 200 | 0.9830 | 0.0002 | 0.0050 | 0.0048 | 1.006 | 1.517 | 0.946 | 0.923 | 3.97 | 3 | 4 | 7 | - | - | - | - |
| | 300 | 0.9845 | 0.0001 | 0.0053 | 0.0051 | 1.006 | 1.515 | 0.953 | 0.927 | 3.97 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3678 | 0.8731 | 0.8103 | 1.042 | 2.378 | 1.000 | 0.000 | 39.30 | 30 | 49 | 61 | - | - | - | - |
| | 200 | 1.0000 | 0.3427 | 0.9303 | 0.8971 | 1.072 | 2.945 | 1.000 | 0.000 | 71.17 | 62 | 79 | 88 | - | - | - | - |
| | 300 | 1.0000 | 0.2788 | 0.9427 | 0.9203 | 1.085 | 3.137 | 1.000 | 0.000 | 86.53 | 79 | 94 | 101 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1919 | 0.7728 | 0.7157 | 1.089 | 3.656 | 1.000 | 0.000 | 22.42 | 14 | 33 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.1964 | 0.8789 | 0.8469 | 1.163 | 4.765 | 1.000 | 0.000 | 42.50 | 28 | 60 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2068 | 0.9207 | 0.8978 | 1.238 | 5.794 | 1.000 | 0.000 | 65.22 | 44 | 93 | 140 | - | - | - | - |

Notes: See notes to Table 1.

## Table 57: MC findings for DGPII(b)

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0162 | 0.2301 | 0.0130 | 1.002 | 1.233 | 1.000 | 0.002 | 5.56 | 5 | 7 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0077 | 0.2237 | 0.0151 | 1.002 | 1.222 | 1.000 | 0.000 | 5.50 | 5 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.2171 | 0.0138 | 1.002 | 1.232 | 1.000 | 0.002 | 5.44 | 5 | 6 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0149 | 0.2162 | 0.0073 | 1.002 | 1.207 | 1.000 | 0.003 | 5.43 | 5 | 6 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0069 | 0.2079 | 0.0075 | 1.002 | 1.194 | 1.000 | 0.001 | 5.36 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2023 | 0.0061 | 1.002 | 1.197 | 1.000 | 0.005 | 5.31 | 5 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0128 | 0.1931 | 0.0018 | 1.001 | 1.168 | 1.000 | 0.007 | 5.23 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0060 | 0.1873 | 0.0019 | 1.001 | 1.161 | 1.000 | 0.010 | 5.18 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1826 | 0.0012 | 1.001 | 1.167 | 1.000 | 0.017 | 5.14 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0161 | 0.2291 | 0.0118 | 1.002 | 1.222 | 1.000 | 0.002 | 5.55 | 5 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0076 | 0.2233 | 0.0145 | 1.002 | 1.217 | 1.000 | 0.000 | 5.50 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0048 | 0.2162 | 0.0128 | 1.002 | 1.223 | 1.000 | 0.002 | 5.43 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0148 | 0.2155 | 0.0064 | 1.002 | 1.199 | 1.000 | 0.003 | 5.42 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0069 | 0.2077 | 0.0071 | 1.002 | 1.190 | 1.000 | 0.001 | 5.35 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2019 | 0.0055 | 1.002 | 1.192 | 1.000 | 0.005 | 5.30 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0128 | 0.1930 | 0.0016 | 1.001 | 1.166 | 1.000 | 0.007 | 5.23 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0060 | 0.1873 | 0.0019 | 1.001 | 1.161 | 1.000 | 0.010 | 5.18 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0038 | 0.1823 | 0.0010 | 1.001 | 1.164 | 1.000 | 0.017 | 5.14 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0633 | 0.4679 | 0.4252 | 1.010 | 1.444 | 1.000 | 0.065 | 10.08 | 4 | 19 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0389 | 0.5030 | 0.4765 | 1.012 | 1.514 | 1.000 | 0.054 | 11.63 | 4 | 23 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0300 | 0.5393 | 0.5199 | 1.013 | 1.561 | 1.000 | 0.043 | 12.88 | 5 | 28 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0113 | 0.0865 | 0.0792 | 1.005 | 1.392 | 1.000 | 0.825 | 5.09 | 4 | 11 | 29 | - | - | - | - |
| | 200 | 1.0000 | 0.0111 | 0.1428 | 0.1368 | 1.008 | 1.572 | 1.000 | 0.755 | 6.18 | 4 | 16 | 37 | - | - | - | - |
| | 300 | 1.0000 | 0.0105 | 0.1904 | 0.1846 | 1.011 | 1.716 | 1.000 | 0.682 | 7.11 | 4 | 20 | 48 | - | - | - | - |
| SICA | 100 | 0.9985 | 0.0012 | 0.0172 | 0.0160 | 1.002 | 1.189 | 0.994 | 0.913 | 4.11 | 4 | 5 | 9 | - | - | - | - |
| | 200 | 0.9973 | 0.0004 | 0.0113 | 0.0107 | 1.002 | 1.223 | 0.990 | 0.930 | 4.06 | 4 | 5 | 8 | - | - | - | - |
| | 300 | 0.9970 | 0.0002 | 0.0102 | 0.0100 | 1.002 | 1.239 | 0.989 | 0.937 | 4.05 | 4 | 5 | 8 | - | - | - | - |
| Hard thresholding | 100 | 0.9995 | 0.0004 | 0.0054 | 0.0048 | 1.001 | 1.074 | 0.999 | 0.976 | 4.04 | 4 | 4 | 13 | - | - | - | - |
| | 200 | 0.9990 | 0.0001 | 0.0041 | 0.0038 | 1.001 | 1.095 | 0.997 | 0.976 | 4.02 | 4 | 4 | 11 | - | - | - | - |
| | 300 | 0.9985 | 0.0001 | 0.0034 | 0.0032 | 1.001 | 1.125 | 0.996 | 0.980 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3645 | 0.8721 | 0.8064 | 1.025 | 2.340 | 1.000 | 0.000 | 38.99 | 29 | 49 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.3484 | 0.9314 | 0.8978 | 1.044 | 3.000 | 1.000 | 0.000 | 72.29 | 63 | 81 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2897 | 0.9447 | 0.9220 | 1.051 | 3.163 | 1.000 | 0.000 | 89.75 | 82 | 98 | 110 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1839 | 0.7652 | 0.7058 | 1.053 | 3.586 | 1.000 | 0.000 | 21.66 | 13 | 32 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.1837 | 0.8723 | 0.8408 | 1.097 | 4.787 | 1.000 | 0.000 | 40.00 | 27 | 56 | 85 | - | - | - | - |
| | 300 | 1.0000 | 0.1895 | 0.9150 | 0.8927 | 1.142 | 5.749 | 1.000 | 0.000 | 60.09 | 42 | 82 | 109 | - | - | - | - |

Notes: See notes to Table 1.

## Table 58: MC findings for DGPII(b)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9779 | 0.0038 | 0.0587 | 0.0239 | 1.010 | 1.173 | 0.914 | 0.633 | 4.28 | 3 | 5 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9693 | 0.0017 | 0.0536 | 0.0288 | 1.012 | 1.190 | 0.884 | 0.632 | 4.21 | 3 | 5 | 7 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9609 | 0.0011 | 0.0543 | 0.0305 | 1.014 | 1.241 | 0.854 | 0.604 | 4.18 | 3 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9690 | 0.0026 | 0.0406 | 0.0139 | 1.009 | 1.161 | 0.883 | 0.688 | 4.12 | 3 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9553 | 0.0011 | 0.0352 | 0.0173 | 1.011 | 1.193 | 0.836 | 0.675 | 4.03 | 3 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9453 | 0.0007 | 0.0358 | 0.0173 | 1.013 | 1.236 | 0.800 | 0.636 | 3.99 | 3 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9353 | 0.0012 | 0.0189 | 0.0034 | 1.011 | 1.213 | 0.762 | 0.671 | 3.85 | 3 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9169 | 0.0004 | 0.0148 | 0.0051 | 1.014 | 1.255 | 0.708 | 0.648 | 3.75 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9055 | 0.0003 | 0.0140 | 0.0048 | 1.015 | 1.298 | 0.672 | 0.614 | 3.70 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9779 | 0.0037 | 0.0565 | 0.0218 | 1.009 | 1.159 | 0.914 | 0.641 | 4.26 | 3 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9693 | 0.0016 | 0.0515 | 0.0267 | 1.010 | 1.175 | 0.884 | 0.641 | 4.19 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9609 | 0.0011 | 0.0516 | 0.0278 | 1.013 | 1.223 | 0.854 | 0.616 | 4.16 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9690 | 0.0025 | 0.0396 | 0.0128 | 1.008 | 1.153 | 0.883 | 0.691 | 4.12 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9553 | 0.0010 | 0.0337 | 0.0158 | 1.010 | 1.182 | 0.836 | 0.681 | 4.02 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9453 | 0.0007 | 0.0346 | 0.0160 | 1.012 | 1.227 | 0.800 | 0.641 | 3.99 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9353 | 0.0011 | 0.0186 | 0.0031 | 1.010 | 1.210 | 0.762 | 0.672 | 3.85 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9168 | 0.0004 | 0.0142 | 0.0046 | 1.014 | 1.252 | 0.708 | 0.649 | 3.75 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9054 | 0.0003 | 0.0136 | 0.0043 | 1.015 | 1.294 | 0.672 | 0.615 | 3.70 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9608 | 0.0629 | 0.4633 | 0.4246 | 1.051 | 1.459 | 0.854 | 0.055 | 9.88 | 4 | 20 | 49 | - | - | - | - |
| | 200 | 0.9541 | 0.0459 | 0.5494 | 0.5252 | 1.060 | 1.517 | 0.830 | 0.033 | 12.82 | 4 | 28 | 54 | - | - | - | - |
| | 300 | 0.9506 | 0.0392 | 0.6033 | 0.5821 | 1.070 | 1.608 | 0.816 | 0.024 | 15.39 | 4 | 35 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8151 | 0.0179 | 0.1821 | 0.1656 | 1.058 | 1.856 | 0.454 | 0.139 | 4.98 | 2 | 11 | 48 | - | - | - | - |
| | 200 | 0.8293 | 0.0189 | 0.2839 | 0.2721 | 1.079 | 2.011 | 0.492 | 0.105 | 7.02 | 2 | 20 | 42 | - | - | - | - |
| | 300 | 0.8355 | 0.0191 | 0.3568 | 0.3452 | 1.099 | 2.191 | 0.501 | 0.067 | 9.00 | 2 | 29 | 48 | - | - | - | - |
| SICA | 100 | 0.4663 | 0.0040 | 0.0717 | 0.0644 | 1.108 | 2.708 | 0.005 | 0.001 | 2.25 | 1 | 5 | 16 | - | - | - | - |
| | 200 | 0.4305 | 0.0019 | 0.0746 | 0.0698 | 1.121 | 2.805 | 0.001 | 0.000 | 2.10 | 1 | 4 | 10 | - | - | - | - |
| | 300 | 0.4070 | 0.0012 | 0.0705 | 0.0668 | 1.127 | 2.897 | 0.000 | 0.000 | 1.99 | 1 | 4 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.4711 | 0.0026 | 0.0463 | 0.0398 | 1.104 | 2.661 | 0.016 | 0.008 | 2.14 | 1 | 4 | 11 | - | - | - | - |
| | 200 | 0.4395 | 0.0016 | 0.0582 | 0.0535 | 1.117 | 2.763 | 0.003 | 0.001 | 2.08 | 1 | 4 | 15 | - | - | - | - |
| | 300 | 0.4213 | 0.0012 | 0.0617 | 0.0586 | 1.124 | 2.858 | 0.002 | 0.000 | 2.03 | 1 | 4.5 | 17 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9858 | 0.3787 | 0.8773 | 0.8119 | 1.140 | 2.474 | 0.944 | 0.000 | 40.30 | 29 | 50 | 57 | - | - | - | - |
| | 200 | 0.9830 | 0.3102 | 0.9247 | 0.8911 | 1.200 | 2.814 | 0.934 | 0.000 | 64.72 | 58 | 71 | 78 | - | - | - | - |
| | 300 | 0.9794 | 0.2409 | 0.9353 | 0.9124 | 1.204 | 2.824 | 0.920 | 0.000 | 75.22 | 68 | 83 | 93 | - | - | - | - |
| $v = 1$ | 100 | 0.8074 | 0.2162 | 0.8147 | 0.7534 | 1.265 | 3.710 | 0.372 | 0.000 | 23.98 | 13 | 40 | 57 | - | - | - | - |
| | 200 | 0.7588 | 0.2556 | 0.9200 | 0.8861 | 1.437 | 4.666 | 0.264 | 0.000 | 53.13 | 32 | 83 | 113 | - | - | - | - |
| | 300 | 0.7246 | 0.2586 | 0.9493 | 0.9266 | 1.501 | 5.017 | 0.201 | 0.000 | 79.43 | 51.5 | 109 | 133 | - | - | - | - |

Notes: See notes to Table 1.

## Table 59: MC findings for DGPII(b)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0106 | 0.1590 | 0.0172 | 1.003 | 1.178 | 1.000 | 0.191 | 5.02 | 4 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0048 | 0.1463 | 0.0182 | 1.003 | 1.174 | 1.000 | 0.240 | 4.93 | 4 | 6 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0030 | 0.1407 | 0.0182 | 1.003 | 1.175 | 1.000 | 0.268 | 4.89 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0091 | 0.1397 | 0.0098 | 1.002 | 1.142 | 1.000 | 0.252 | 4.88 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0040 | 0.1262 | 0.0096 | 1.002 | 1.138 | 1.000 | 0.310 | 4.79 | 4 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0025 | 0.1209 | 0.0092 | 1.002 | 1.130 | 1.000 | 0.337 | 4.75 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0066 | 0.1044 | 0.0023 | 1.001 | 1.091 | 1.000 | 0.400 | 4.64 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0909 | 0.0017 | 1.001 | 1.089 | 1.000 | 0.473 | 4.55 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0018 | 0.0870 | 0.0022 | 1.001 | 1.080 | 1.000 | 0.496 | 4.53 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0106 | 0.1583 | 0.0165 | 1.003 | 1.172 | 1.000 | 0.192 | 5.01 | 4 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0047 | 0.1453 | 0.0171 | 1.003 | 1.164 | 1.000 | 0.242 | 4.93 | 4 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0030 | 0.1400 | 0.0174 | 1.003 | 1.168 | 1.000 | 0.268 | 4.89 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0091 | 0.1393 | 0.0094 | 1.002 | 1.138 | 1.000 | 0.253 | 4.87 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0040 | 0.1254 | 0.0087 | 1.002 | 1.130 | 1.000 | 0.312 | 4.78 | 4 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0025 | 0.1206 | 0.0088 | 1.002 | 1.125 | 1.000 | 0.337 | 4.75 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0066 | 0.1044 | 0.0023 | 1.001 | 1.091 | 1.000 | 0.400 | 4.64 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0028 | 0.0908 | 0.0016 | 1.001 | 1.088 | 1.000 | 0.474 | 4.55 | 4 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0018 | 0.0867 | 0.0018 | 1.001 | 1.075 | 1.000 | 0.496 | 4.53 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0675 | 0.4849 | 0.4428 | 1.016 | 1.448 | 1.000 | 0.045 | 10.48 | 5 | 20 | 33 | - | - | - | - |
| | 200 | 0.9999 | 0.0421 | 0.5372 | 0.5108 | 1.019 | 1.507 | 1.000 | 0.036 | 12.25 | 5 | 25 | 45 | - | - | - | - |
| | 300 | 1.0000 | 0.0324 | 0.5677 | 0.5492 | 1.021 | 1.561 | 1.000 | 0.029 | 13.60 | 5 | 29 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9930 | 0.0169 | 0.1478 | 0.1353 | 1.014 | 1.650 | 0.973 | 0.555 | 5.60 | 4 | 13 | 30 | - | - | - | - |
| | 200 | 0.9913 | 0.0146 | 0.2118 | 0.2003 | 1.021 | 1.833 | 0.967 | 0.458 | 6.82 | 4 | 18 | 37 | - | - | - | - |
| | 300 | 0.9921 | 0.0145 | 0.2679 | 0.2594 | 1.029 | 2.048 | 0.970 | 0.411 | 8.27 | 4 | 24 | 46 | - | - | - | - |
| SICA | 100 | 0.8156 | 0.0040 | 0.0571 | 0.0518 | 1.032 | 2.725 | 0.429 | 0.258 | 3.65 | 2 | 6 | 11 | - | - | - | - |
| | 200 | 0.7591 | 0.0016 | 0.0475 | 0.0454 | 1.041 | 3.025 | 0.292 | 0.169 | 3.34 | 2 | 6 | 14 | - | - | - | - |
| | 300 | 0.7250 | 0.0009 | 0.0438 | 0.0423 | 1.046 | 3.219 | 0.223 | 0.133 | 3.17 | 2 | 5 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.8550 | 0.0010 | 0.0145 | 0.0126 | 1.023 | 2.422 | 0.598 | 0.537 | 3.52 | 2 | 5 | 10 | - | - | - | - |
| | 200 | 0.8348 | 0.0005 | 0.0139 | 0.0131 | 1.027 | 2.530 | 0.551 | 0.492 | 3.43 | 2 | 5 | 11 | - | - | - | - |
| | 300 | 0.8146 | 0.0003 | 0.0127 | 0.0120 | 1.030 | 2.659 | 0.498 | 0.448 | 3.34 | 2 | 5 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3665 | 0.8726 | 0.8092 | 1.042 | 2.374 | 1.000 | 0.000 | 39.18 | 29 | 50 | 59 | - | - | - | - |
| | 200 | 1.0000 | 0.3450 | 0.9308 | 0.8970 | 1.074 | 2.972 | 1.000 | 0.000 | 71.63 | 62 | 80 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2822 | 0.9434 | 0.9204 | 1.086 | 3.121 | 1.000 | 0.000 | 87.54 | 80 | 95.5 | 103 | - | - | - | - |
| $v = 1$ | 100 | 0.9966 | 0.1906 | 0.7711 | 0.7125 | 1.087 | 3.629 | 0.987 | 0.000 | 22.28 | 14 | 33 | 45 | - | - | - | - |
| | 200 | 0.9945 | 0.1932 | 0.8775 | 0.8448 | 1.162 | 4.734 | 0.978 | 0.000 | 41.84 | 28 | 60 | 82 | - | - | - | - |
| | 300 | 0.9904 | 0.2070 | 0.9216 | 0.8992 | 1.235 | 5.669 | 0.962 | 0.000 | 65.23 | 45 | 92 | 122 | - | - | - | - |

Notes: See notes to Table 1.

## Table 60: MC findings for DGPII(b)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0140 | 0.2057 | 0.0138 | 1.002 | 1.224 | 1.000 | 0.020 | 5.35 | 5 | 6 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0065 | 0.1975 | 0.0129 | 1.002 | 1.210 | 1.000 | 0.025 | 5.28 | 5 | 6 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1909 | 0.0137 | 1.002 | 1.209 | 1.000 | 0.045 | 5.23 | 5 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0127 | 0.1904 | 0.0070 | 1.002 | 1.189 | 1.000 | 0.035 | 5.22 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0059 | 0.1837 | 0.0067 | 1.002 | 1.174 | 1.000 | 0.043 | 5.17 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0038 | 0.1776 | 0.0076 | 1.002 | 1.179 | 1.000 | 0.063 | 5.12 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0107 | 0.1655 | 0.0017 | 1.001 | 1.147 | 1.000 | 0.083 | 5.02 | 4 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0050 | 0.1594 | 0.0015 | 1.001 | 1.130 | 1.000 | 0.105 | 4.98 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.1547 | 0.0015 | 1.001 | 1.133 | 1.000 | 0.123 | 4.95 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0140 | 0.2050 | 0.0129 | 1.002 | 1.217 | 1.000 | 0.020 | 5.34 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0065 | 0.1971 | 0.0124 | 1.002 | 1.204 | 1.000 | 0.025 | 5.28 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1900 | 0.0127 | 1.002 | 1.199 | 1.000 | 0.046 | 5.22 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0127 | 0.1903 | 0.0068 | 1.002 | 1.187 | 1.000 | 0.035 | 5.22 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0059 | 0.1836 | 0.0066 | 1.002 | 1.172 | 1.000 | 0.043 | 5.16 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0038 | 0.1771 | 0.0071 | 1.002 | 1.174 | 1.000 | 0.063 | 5.12 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0107 | 0.1654 | 0.0015 | 1.001 | 1.145 | 1.000 | 0.084 | 5.02 | 4 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0050 | 0.1593 | 0.0013 | 1.001 | 1.128 | 1.000 | 0.105 | 4.98 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.1547 | 0.0015 | 1.001 | 1.133 | 1.000 | 0.123 | 4.95 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0656 | 0.4784 | 0.4358 | 1.009 | 1.445 | 1.000 | 0.052 | 10.30 | 4 | 19.5 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0403 | 0.5233 | 0.4982 | 1.012 | 1.501 | 1.000 | 0.050 | 11.90 | 5 | 24.5 | 42 | - | - | - | - |
| | 300 | 1.0000 | 0.0298 | 0.5397 | 0.5203 | 1.013 | 1.549 | 1.000 | 0.046 | 12.82 | 5 | 27 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0136 | 0.1073 | 0.0971 | 1.006 | 1.493 | 0.999 | 0.709 | 5.31 | 4 | 13 | 28 | - | - | - | - |
| | 200 | 0.9990 | 0.0139 | 0.1846 | 0.1762 | 1.012 | 1.730 | 0.996 | 0.595 | 6.71 | 4 | 19 | 35 | - | - | - | - |
| | 300 | 0.9995 | 0.0125 | 0.2240 | 0.2157 | 1.016 | 1.902 | 0.998 | 0.546 | 7.69 | 4 | 22 | 57 | - | - | - | - |
| SICA | 100 | 0.9488 | 0.0029 | 0.0398 | 0.0371 | 1.010 | 2.035 | 0.815 | 0.643 | 4.07 | 3 | 6 | 11 | - | - | - | - |
| | 200 | 0.9240 | 0.0012 | 0.0357 | 0.0345 | 1.014 | 2.337 | 0.729 | 0.576 | 3.94 | 3 | 5 | 12 | - | - | - | - |
| | 300 | 0.9028 | 0.0006 | 0.0282 | 0.0271 | 1.016 | 2.517 | 0.667 | 0.541 | 3.79 | 2 | 5 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.9659 | 0.0006 | 0.0081 | 0.0074 | 1.005 | 1.725 | 0.898 | 0.862 | 3.92 | 3 | 4 | 11 | - | - | - | - |
| | 200 | 0.9581 | 0.0002 | 0.0068 | 0.0063 | 1.007 | 1.841 | 0.872 | 0.840 | 3.88 | 3 | 4 | 8 | - | - | - | - |
| | 300 | 0.9536 | 0.0002 | 0.0070 | 0.0068 | 1.007 | 1.869 | 0.855 | 0.819 | 3.86 | 3 | 4 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3671 | 0.8730 | 0.8092 | 1.024 | 2.346 | 1.000 | 0.000 | 39.24 | 30 | 49 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.3491 | 0.9315 | 0.8979 | 1.044 | 3.007 | 1.000 | 0.000 | 72.43 | 62 | 81 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2921 | 0.9452 | 0.9224 | 1.053 | 3.131 | 1.000 | 0.000 | 90.46 | 82 | 98 | 106 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1896 | 0.7704 | 0.7124 | 1.052 | 3.632 | 1.000 | 0.000 | 22.20 | 14 | 32 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.1843 | 0.8727 | 0.8403 | 1.099 | 4.795 | 1.000 | 0.000 | 40.12 | 27 | 57 | 82 | - | - | - | - |
| | 300 | 1.0000 | 0.1886 | 0.9146 | 0.8924 | 1.143 | 5.631 | 1.000 | 0.000 | 59.83 | 43 | 81 | 113 | - | - | - | - |

Notes: See notes to Table 1.

## Table 61: MC findings for DGPII(b)

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7956 | 0.0025 | 0.0455 | 0.0276 | 1.020 | 1.278 | 0.442 | 0.339 | 3.43 | 2 | 5 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7514 | 0.0012 | 0.0478 | 0.0335 | 1.024 | 1.353 | 0.364 | 0.276 | 3.25 | 1 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7266 | 0.0008 | 0.0460 | 0.0348 | 1.028 | 1.378 | 0.328 | 0.250 | 3.13 | 1 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7483 | 0.0016 | 0.0298 | 0.0163 | 1.022 | 1.303 | 0.358 | 0.301 | 3.14 | 1 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6951 | 0.0007 | 0.0299 | 0.0197 | 1.027 | 1.386 | 0.280 | 0.231 | 2.93 | 1 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.6766 | 0.0004 | 0.0291 | 0.0214 | 1.031 | 1.406 | 0.260 | 0.223 | 2.84 | 1 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6299 | 0.0005 | 0.0101 | 0.0040 | 1.032 | 1.414 | 0.197 | 0.185 | 2.57 | 0 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5748 | 0.0002 | 0.0089 | 0.0050 | 1.038 | 1.495 | 0.146 | 0.138 | 2.34 | 0 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.5523 | 0.0001 | 0.0100 | 0.0068 | 1.044 | 1.527 | 0.134 | 0.125 | 2.25 | 0 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7955 | 0.0025 | 0.0444 | 0.0268 | 1.020 | 1.272 | 0.442 | 0.341 | 3.42 | 2 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7513 | 0.0012 | 0.0460 | 0.0317 | 1.023 | 1.343 | 0.364 | 0.277 | 3.24 | 1 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7266 | 0.0007 | 0.0439 | 0.0327 | 1.027 | 1.365 | 0.328 | 0.257 | 3.12 | 1 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7481 | 0.0015 | 0.0290 | 0.0156 | 1.022 | 1.298 | 0.358 | 0.301 | 3.14 | 1 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6951 | 0.0007 | 0.0289 | 0.0189 | 1.027 | 1.379 | 0.280 | 0.233 | 2.92 | 1 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.6766 | 0.0004 | 0.0279 | 0.0204 | 1.031 | 1.399 | 0.260 | 0.226 | 2.83 | 1 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6299 | 0.0005 | 0.0098 | 0.0037 | 1.032 | 1.414 | 0.197 | 0.185 | 2.57 | 0 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5746 | 0.0002 | 0.0088 | 0.0048 | 1.038 | 1.494 | 0.146 | 0.138 | 2.34 | 0 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.5523 | 0.0001 | 0.0096 | 0.0065 | 1.044 | 1.524 | 0.134 | 0.125 | 2.25 | 0 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8061 | 0.0589 | 0.4769 | 0.4336 | 1.044 | 1.312 | 0.393 | 0.019 | 8.88 | 3 | 19 | 41 | - | - | - | - |
| | 200 | 0.7928 | 0.0419 | 0.5530 | 0.5265 | 1.052 | 1.393 | 0.382 | 0.014 | 11.38 | 3 | 26 | 51 | - | - | - | - |
| | 300 | 0.7763 | 0.0351 | 0.6093 | 0.5898 | 1.058 | 1.426 | 0.342 | 0.009 | 13.51 | 3 | 32 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6030 | 0.0213 | 0.2560 | 0.2318 | 1.053 | 1.676 | 0.106 | 0.013 | 4.46 | 1 | 11 | 26 | - | - | - | - |
| | 200 | 0.6006 | 0.0187 | 0.3422 | 0.3266 | 1.072 | 1.895 | 0.104 | 0.010 | 6.07 | 1 | 17 | 45 | - | - | - | - |
| | 300 | 0.6144 | 0.0181 | 0.4115 | 0.3978 | 1.090 | 2.020 | 0.121 | 0.008 | 7.81 | 1 | 24 | 60 | - | - | - | - |
| SICA | 100 | 0.3418 | 0.0061 | 0.1244 | 0.1136 | 1.079 | 2.184 | 0.000 | 0.000 | 1.95 | 1 | 5 | 15 | - | - | - | - |
| | 200 | 0.3125 | 0.0027 | 0.1155 | 0.1106 | 1.084 | 2.224 | 0.000 | 0.000 | 1.78 | 1 | 4 | 21 | - | - | - | - |
| | 300 | 0.2995 | 0.0018 | 0.1201 | 0.1145 | 1.091 | 2.234 | 0.000 | 0.000 | 1.73 | 1 | 4 | 16 | - | - | - | - |
| Hard thresholding | 100 | 0.3328 | 0.0046 | 0.1004 | 0.0921 | 1.076 | 2.148 | 0.000 | 0.000 | 1.77 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.3085 | 0.0024 | 0.1045 | 0.1009 | 1.083 | 2.208 | 0.000 | 0.000 | 1.70 | 1 | 4 | 19 | - | - | - | - |
| | 300 | 0.3000 | 0.0017 | 0.1187 | 0.1129 | 1.090 | 2.224 | 0.000 | 0.000 | 1.72 | 1 | 4 | 12 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9093 | 0.3775 | 0.8836 | 0.8191 | 1.137 | 2.437 | 0.669 | 0.000 | 39.88 | 29 | 50 | 56 | - | - | - | - |
| | 200 | 0.8973 | 0.3132 | 0.9302 | 0.8960 | 1.192 | 2.766 | 0.627 | 0.000 | 64.98 | 58 | 72 | 80 | - | - | - | - |
| | 300 | 0.8695 | 0.2426 | 0.9411 | 0.9187 | 1.204 | 2.732 | 0.553 | 0.000 | 75.29 | 68 | 83 | 90 | - | - | - | - |
| $v = 1$ | 100 | 0.6300 | 0.2102 | 0.8379 | 0.7774 | 1.245 | 3.463 | 0.082 | 0.000 | 22.70 | 12 | 38 | 57 | - | - | - | - |
| | 200 | 0.6176 | 0.2529 | 0.9293 | 0.8958 | 1.401 | 4.342 | 0.080 | 0.000 | 52.05 | 29 | 82 | 113 | - | - | - | - |
| | 300 | 0.5963 | 0.2581 | 0.9556 | 0.9332 | 1.465 | 4.543 | 0.059 | 0.000 | 78.77 | 50 | 110 | 143 | - | - | - | - |

Notes: See notes to Table 1.

## Table 62: MC findings for DGPII(b)

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9996 | 0.0063 | 0.0955 | 0.0177 | 1.003 | 1.148 | 0.999 | 0.491 | 4.60 | 4 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9995 | 0.0026 | 0.0824 | 0.0168 | 1.003 | 1.152 | 0.998 | 0.559 | 4.52 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0017 | 0.0808 | 0.0191 | 1.003 | 1.167 | 0.997 | 0.569 | 4.51 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9993 | 0.0048 | 0.0746 | 0.0097 | 1.002 | 1.107 | 0.997 | 0.586 | 4.46 | 4 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0020 | 0.0625 | 0.0093 | 1.002 | 1.112 | 0.996 | 0.651 | 4.38 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9985 | 0.0013 | 0.0607 | 0.0114 | 1.002 | 1.125 | 0.994 | 0.660 | 4.37 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9975 | 0.0028 | 0.0437 | 0.0022 | 1.001 | 1.062 | 0.990 | 0.738 | 4.26 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9973 | 0.0010 | 0.0335 | 0.0018 | 1.001 | 1.064 | 0.989 | 0.795 | 4.19 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9961 | 0.0006 | 0.0311 | 0.0021 | 1.001 | 1.066 | 0.985 | 0.803 | 4.17 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9996 | 0.0062 | 0.0946 | 0.0168 | 1.003 | 1.140 | 0.999 | 0.493 | 4.59 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9995 | 0.0026 | 0.0820 | 0.0165 | 1.003 | 1.148 | 0.998 | 0.560 | 4.51 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0017 | 0.0806 | 0.0189 | 1.003 | 1.164 | 0.997 | 0.570 | 4.51 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9993 | 0.0048 | 0.0741 | 0.0093 | 1.002 | 1.102 | 0.997 | 0.589 | 4.46 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9990 | 0.0020 | 0.0622 | 0.0090 | 1.002 | 1.109 | 0.996 | 0.652 | 4.38 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9985 | 0.0013 | 0.0605 | 0.0113 | 1.002 | 1.124 | 0.994 | 0.661 | 4.37 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9975 | 0.0028 | 0.0435 | 0.0019 | 1.001 | 1.060 | 0.990 | 0.739 | 4.25 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9973 | 0.0010 | 0.0334 | 0.0018 | 1.001 | 1.063 | 0.989 | 0.795 | 4.19 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9961 | 0.0006 | 0.0311 | 0.0021 | 1.001 | 1.066 | 0.985 | 0.803 | 4.17 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9873 | 0.0609 | 0.4551 | 0.4137 | 1.017 | 1.439 | 0.951 | 0.073 | 9.80 | 4 | 19 | 37 | - | - | - | - |
| | 200 | 0.9861 | 0.0395 | 0.5135 | 0.4894 | 1.020 | 1.526 | 0.945 | 0.051 | 11.68 | 4 | 24 | 47 | - | - | - | - |
| | 300 | 0.9840 | 0.0312 | 0.5505 | 0.5301 | 1.022 | 1.587 | 0.937 | 0.036 | 13.16 | 5 | 29 | 53 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8936 | 0.0163 | 0.1634 | 0.1486 | 1.018 | 1.821 | 0.649 | 0.253 | 5.14 | 2 | 11 | 35 | - | - | - | - |
| | 200 | 0.9036 | 0.0153 | 0.2467 | 0.2335 | 1.025 | 2.019 | 0.687 | 0.192 | 6.61 | 2 | 17 | 41 | - | - | - | - |
| | 300 | 0.9095 | 0.0156 | 0.3108 | 0.2994 | 1.035 | 2.264 | 0.709 | 0.165 | 8.25 | 2 | 23 | 49 | - | - | - | - |
| SICA | 100 | 0.5464 | 0.0040 | 0.0652 | 0.0584 | 1.037 | 2.798 | 0.028 | 0.008 | 2.57 | 1 | 5 | 19 | - | - | - | - |
| | 200 | 0.4938 | 0.0013 | 0.0458 | 0.0426 | 1.042 | 2.926 | 0.007 | 0.001 | 2.22 | 1 | 4 | 11 | - | - | - | - |
| | 300 | 0.4745 | 0.0007 | 0.0405 | 0.0385 | 1.043 | 3.009 | 0.002 | 0.001 | 2.11 | 1 | 4 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.5633 | 0.0018 | 0.0292 | 0.0253 | 1.034 | 2.709 | 0.071 | 0.040 | 2.43 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.5119 | 0.0007 | 0.0250 | 0.0223 | 1.039 | 2.845 | 0.025 | 0.014 | 2.18 | 1 | 4 | 10 | - | - | - | - |
| | 300 | 0.4950 | 0.0004 | 0.0227 | 0.0211 | 1.041 | 2.924 | 0.020 | 0.007 | 2.11 | 1 | 4 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9961 | 0.3660 | 0.8728 | 0.8089 | 1.040 | 2.347 | 0.985 | 0.000 | 39.12 | 29 | 49.5 | 60 | - | - | - | - |
| | 200 | 0.9951 | 0.3465 | 0.9313 | 0.8974 | 1.076 | 2.978 | 0.981 | 0.000 | 71.90 | 62.5 | 80 | 88 | - | - | - | - |
| | 300 | 0.9948 | 0.2845 | 0.9440 | 0.9211 | 1.086 | 3.120 | 0.980 | 0.000 | 88.20 | 81 | 96 | 107 | - | - | - | - |
| $v = 1$ | 100 | 0.9250 | 0.1867 | 0.7781 | 0.7213 | 1.085 | 3.555 | 0.722 | 0.000 | 21.63 | 13 | 33 | 50 | - | - | - | - |
| | 200 | 0.8884 | 0.1918 | 0.8864 | 0.8534 | 1.163 | 4.706 | 0.601 | 0.000 | 41.14 | 27 | 59 | 82 | - | - | - | - |
| | 300 | 0.8721 | 0.2080 | 0.9288 | 0.9064 | 1.237 | 5.643 | 0.551 | 0.000 | 65.05 | 44 | 94 | 136 | - | - | - | - |

Notes: See notes to Table 1.

## Table 63: MC findings for DGPII(b)

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0104 | 0.1567 | 0.0124 | 1.002 | 1.185 | 1.000 | 0.193 | 5.00 | 4 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0046 | 0.1419 | 0.0167 | 1.002 | 1.187 | 1.000 | 0.262 | 4.90 | 4 | 6 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.1327 | 0.0166 | 1.002 | 1.180 | 1.000 | 0.299 | 4.84 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0089 | 0.1366 | 0.0061 | 1.001 | 1.145 | 1.000 | 0.264 | 4.85 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0039 | 0.1224 | 0.0095 | 1.001 | 1.143 | 1.000 | 0.333 | 4.76 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0023 | 0.1108 | 0.0086 | 1.001 | 1.133 | 1.000 | 0.387 | 4.69 | 4 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0065 | 0.1012 | 0.0016 | 1.001 | 1.098 | 1.000 | 0.424 | 4.62 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0895 | 0.0018 | 1.001 | 1.086 | 1.000 | 0.487 | 4.55 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0768 | 0.0012 | 1.001 | 1.072 | 1.000 | 0.555 | 4.47 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0103 | 0.1559 | 0.0116 | 1.002 | 1.178 | 1.000 | 0.195 | 4.99 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0046 | 0.1414 | 0.0160 | 1.002 | 1.182 | 1.000 | 0.264 | 4.90 | 4 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.1323 | 0.0162 | 1.002 | 1.176 | 1.000 | 0.301 | 4.84 | 4 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0089 | 0.1362 | 0.0057 | 1.001 | 1.141 | 1.000 | 0.265 | 4.85 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0039 | 0.1220 | 0.0091 | 1.001 | 1.139 | 1.000 | 0.334 | 4.76 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0023 | 0.1105 | 0.0083 | 1.001 | 1.130 | 1.000 | 0.388 | 4.69 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0065 | 0.1012 | 0.0016 | 1.001 | 1.097 | 1.000 | 0.424 | 4.62 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0028 | 0.0894 | 0.0017 | 1.001 | 1.086 | 1.000 | 0.487 | 4.55 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0768 | 0.0012 | 1.001 | 1.072 | 1.000 | 0.555 | 4.47 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9995 | 0.0648 | 0.4784 | 0.4355 | 1.009 | 1.433 | 0.998 | 0.049 | 10.22 | 5 | 19 | 48 | - | - | - | - |
| | 200 | 0.9999 | 0.0407 | 0.5247 | 0.4990 | 1.012 | 1.519 | 1.000 | 0.048 | 11.99 | 5 | 24 | 50 | - | - | - | - |
| | 300 | 0.9993 | 0.0311 | 0.5553 | 0.5360 | 1.013 | 1.556 | 0.997 | 0.039 | 13.21 | 5 | 27 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9748 | 0.0160 | 0.1495 | 0.1351 | 1.009 | 1.710 | 0.907 | 0.463 | 5.43 | 3 | 12 | 41 | - | - | - | - |
| | 200 | 0.9768 | 0.0152 | 0.2250 | 0.2147 | 1.014 | 1.944 | 0.915 | 0.376 | 6.88 | 3 | 18.5 | 46 | - | - | - | - |
| | 300 | 0.9788 | 0.0144 | 0.2868 | 0.2777 | 1.019 | 2.115 | 0.920 | 0.310 | 8.17 | 3 | 22.5 | 50 | - | - | - | - |
| SICA | 100 | 0.7091 | 0.0042 | 0.0607 | 0.0548 | 1.022 | 2.836 | 0.190 | 0.082 | 3.24 | 2 | 6 | 12 | - | - | - | - |
| | 200 | 0.6470 | 0.0014 | 0.0450 | 0.0422 | 1.026 | 3.132 | 0.095 | 0.045 | 2.87 | 2 | 5 | 20 | - | - | - | - |
| | 300 | 0.6133 | 0.0008 | 0.0404 | 0.0388 | 1.028 | 3.273 | 0.052 | 0.023 | 2.69 | 2 | 5 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.7531 | 0.0016 | 0.0219 | 0.0193 | 1.017 | 2.608 | 0.353 | 0.282 | 3.16 | 2 | 5 | 12 | - | - | - | - |
| | 200 | 0.7188 | 0.0005 | 0.0165 | 0.0156 | 1.019 | 2.782 | 0.279 | 0.227 | 2.98 | 2 | 5 | 9 | - | - | - | - |
| | 300 | 0.6889 | 0.0003 | 0.0142 | 0.0135 | 1.022 | 2.914 | 0.225 | 0.178 | 2.84 | 2 | 5 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9999 | 0.3661 | 0.8727 | 0.8088 | 1.024 | 2.308 | 1.000 | 0.000 | 39.15 | 29 | 49 | 60 | - | - | - | - |
| | 200 | 0.9996 | 0.3503 | 0.9316 | 0.8979 | 1.045 | 2.996 | 0.999 | 0.000 | 72.65 | 62 | 82 | 91 | - | - | - | - |
| | 300 | 0.9999 | 0.2948 | 0.9457 | 0.9225 | 1.052 | 3.184 | 1.000 | 0.000 | 91.25 | 83 | 99 | 107 | - | - | - | - |
| $v = 1$ | 100 | 0.9891 | 0.1865 | 0.7698 | 0.7124 | 1.052 | 3.531 | 0.957 | 0.000 | 21.87 | 14 | 32 | 43 | - | - | - | - |
| | 200 | 0.9854 | 0.1811 | 0.8724 | 0.8399 | 1.096 | 4.720 | 0.942 | 0.000 | 39.43 | 27 | 54 | 73 | - | - | - | - |
| | 300 | 0.9786 | 0.1857 | 0.9149 | 0.8922 | 1.139 | 5.632 | 0.916 | 0.000 | 58.88 | 42 | 80 | 109 | - | - | - | - |

Notes: See notes to Table 1.

### 3.1.3 Findings for designs featuring hidden signals

**Table 64: MC findings for DGPIII**

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9999 | 0.0021 | 0.0314 | 0.0314 | 1.006 | 1.094 | 1.000 | 0.833 | 4.20 | 4 | 5 | 7 | 2.026 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9988 | 0.0011 | 0.0341 | 0.0341 | 1.009 | 1.138 | 0.995 | 0.810 | 4.21 | 4 | 5 | 7 | 2.033 | 1.00 | 0.04 | 0.00 |
| | 300 | 0.9981 | 0.0007 | 0.0323 | 0.0323 | 1.008 | 1.141 | 0.993 | 0.813 | 4.19 | 4 | 5 | 7 | 2.028 | 1.00 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9991 | 0.0012 | 0.0183 | 0.0183 | 1.004 | 1.075 | 0.997 | 0.894 | 4.11 | 4 | 5 | 6 | 2.023 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9978 | 0.0006 | 0.0194 | 0.0194 | 1.006 | 1.111 | 0.991 | 0.885 | 4.11 | 4 | 5 | 7 | 2.028 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9971 | 0.0004 | 0.0179 | 0.0179 | 1.006 | 1.122 | 0.989 | 0.886 | 4.10 | 4 | 5 | 7 | 2.025 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.9960 | 0.0003 | 0.0051 | 0.0051 | 1.004 | 1.093 | 0.986 | 0.956 | 4.02 | 4 | 4 | 6 | 2.024 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9924 | 0.0002 | 0.0059 | 0.0059 | 1.007 | 1.163 | 0.973 | 0.940 | 4.01 | 4 | 4 | 6 | 2.028 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9905 | 0.0001 | 0.0047 | 0.0047 | 1.008 | 1.205 | 0.967 | 0.940 | 3.99 | 4 | 4 | 6 | 2.029 | 1.00 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.9995 | 0.0017 | 0.0259 | 0.0259 | 1.004 | 1.068 | 0.998 | 0.858 | 4.16 | 4 | 5 | 7 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9979 | 0.0009 | 0.0280 | 0.0280 | 1.006 | 1.113 | 0.992 | 0.838 | 4.17 | 4 | 5 | 7 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9971 | 0.0006 | 0.0278 | 0.0278 | 1.007 | 1.132 | 0.990 | 0.834 | 4.16 | 4 | 5 | 7 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9983 | 0.0010 | 0.0149 | 0.0149 | 1.004 | 1.069 | 0.994 | 0.911 | 4.08 | 4 | 5 | 6 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9964 | 0.0005 | 0.0161 | 0.0161 | 1.005 | 1.114 | 0.987 | 0.898 | 4.08 | 4 | 5 | 7 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9946 | 0.0003 | 0.0146 | 0.0146 | 1.007 | 1.152 | 0.982 | 0.898 | 4.07 | 4 | 5 | 7 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9934 | 0.0003 | 0.0040 | 0.0040 | 1.006 | 1.139 | 0.979 | 0.955 | 4.00 | 4 | 4 | 6 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9894 | 0.0001 | 0.0047 | 0.0047 | 1.009 | 1.212 | 0.965 | 0.940 | 3.99 | 4 | 4 | 6 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9861 | 0.0001 | 0.0036 | 0.0036 | 1.011 | 1.284 | 0.955 | 0.934 | 3.97 | 4 | 4 | 6 | 2.009 | 0.99 | 0.02 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9993 | 0.1449 | 0.6942 | 0.6942 | 1.118 | 2.702 | 0.997 | 0.002 | 17.91 | 8 | 30 | 50 | - | - | - | - |
| | 200 | 0.9969 | 0.1044 | 0.7656 | 0.7656 | 1.160 | 3.100 | 0.988 | 0.001 | 24.44 | 10 | 44 | 66 | - | - | - | - |
| | 300 | 0.9939 | 0.0819 | 0.7930 | 0.7930 | 1.193 | 3.488 | 0.978 | 0.000 | 28.23 | 11 | 50 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9954 | 0.0366 | 0.2818 | 0.2818 | 1.061 | 1.918 | 0.984 | 0.279 | 7.50 | 4 | 20 | 39 | - | - | - | - |
| | 200 | 0.9896 | 0.0442 | 0.4491 | 0.4491 | 1.125 | 2.456 | 0.970 | 0.148 | 12.62 | 4 | 33 | 50 | - | - | - | - |
| | 300 | 0.9853 | 0.0426 | 0.5455 | 0.5455 | 1.171 | 2.899 | 0.961 | 0.092 | 16.55 | 4 | 39 | 63 | - | - | - | - |
| SICA | 100 | 0.9426 | 0.0047 | 0.0651 | 0.0651 | 1.064 | 2.071 | 0.819 | 0.578 | 4.23 | 3 | 6 | 16 | - | - | - | - |
| | 200 | 0.9028 | 0.0026 | 0.0741 | 0.0741 | 1.101 | 2.547 | 0.737 | 0.513 | 4.11 | 2 | 6 | 17 | - | - | - | - |
| | 300 | 0.8513 | 0.0017 | 0.0755 | 0.0755 | 1.143 | 3.003 | 0.641 | 0.450 | 3.90 | 1 | 6 | 22 | - | - | - | - |
| Hard thresholding | 100 | 0.9871 | 0.0017 | 0.0213 | 0.0213 | 1.017 | 1.352 | 0.955 | 0.861 | 4.11 | 4 | 5 | 21 | - | - | - | - |
| | 200 | 0.9815 | 0.0011 | 0.0277 | 0.0277 | 1.026 | 1.503 | 0.945 | 0.832 | 4.14 | 3 | 5 | 17 | - | - | - | - |
| | 300 | 0.9796 | 0.0007 | 0.0288 | 0.0288 | 1.029 | 1.521 | 0.935 | 0.819 | 4.13 | 3 | 5 | 16 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3621 | 0.8720 | 0.8720 | 1.159 | 2.605 | 1.000 | 0.000 | 38.76 | 30 | 47 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.2944 | 0.9199 | 0.9199 | 1.238 | 3.187 | 1.000 | 0.000 | 61.71 | 55 | 69 | 78 | - | - | - | - |
| | 300 | 1.0000 | 0.2296 | 0.9312 | 0.9312 | 1.267 | 3.407 | 1.000 | 0.000 | 71.96 | 64 | 80 | 89 | - | - | - | - |
| $v = 1$ | 100 | 0.9996 | 0.1748 | 0.7531 | 0.7531 | 1.249 | 3.307 | 0.999 | 0.000 | 20.78 | 13 | 32 | 70 | - | - | - | - |
| | 200 | 0.9974 | 0.2089 | 0.8830 | 0.8830 | 1.431 | 4.343 | 0.990 | 0.000 | 44.93 | 28 | 69 | 96 | - | - | - | - |
| | 300 | 0.9929 | 0.2271 | 0.9271 | 0.9271 | 1.531 | 4.789 | 0.972 | 0.000 | 71.20 | 46 | 102 | 120 | - | - | - | - |

Notes: See notes to Table 1.

## Table 65: MC findings for DGPIII

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0228 | 0.0228 | 1.001 | 1.063 | 1.000 | 0.870 | 4.14 | 4 | 5 | 7 | 2.014 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0208 | 0.0208 | 1.001 | 1.059 | 1.000 | 0.885 | 4.13 | 4 | 5 | 7 | 2.010 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0260 | 0.0260 | 1.002 | 1.076 | 1.000 | 0.855 | 4.16 | 4 | 5 | 7 | 2.011 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0121 | 0.0121 | 1.001 | 1.037 | 1.000 | 0.930 | 4.07 | 4 | 5 | 6 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0100 | 0.0100 | 1.001 | 1.033 | 1.000 | 0.943 | 4.06 | 4 | 5 | 7 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0131 | 0.0131 | 1.001 | 1.040 | 1.000 | 0.927 | 4.08 | 4 | 5 | 7 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.007 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0024 | 0.0024 | 1.000 | 1.010 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0022 | 0.0022 | 1.000 | 1.007 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0187 | 0.0187 | 1.001 | 1.038 | 1.000 | 0.894 | 4.11 | 4 | 5 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0186 | 0.0186 | 1.001 | 1.043 | 1.000 | 0.896 | 4.11 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0235 | 0.0235 | 1.001 | 1.057 | 1.000 | 0.869 | 4.15 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0094 | 0.0094 | 1.000 | 1.021 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0086 | 0.0086 | 1.000 | 1.022 | 1.000 | 0.951 | 4.05 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0117 | 0.0117 | 1.001 | 1.029 | 1.000 | 0.935 | 4.07 | 4 | 5 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0024 | 0.0024 | 1.000 | 1.007 | 1.000 | 0.986 | 4.01 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.006 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.007 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1547 | 0.7179 | 0.7179 | 1.032 | 2.385 | 1.000 | 0.000 | 18.85 | 9 | 30 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.0993 | 0.7656 | 0.7656 | 1.042 | 2.773 | 1.000 | 0.001 | 23.47 | 11 | 40 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.0759 | 0.7902 | 0.7902 | 1.049 | 2.982 | 1.000 | 0.000 | 26.46 | 12 | 45 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0281 | 0.1654 | 0.1654 | 1.013 | 1.554 | 1.000 | 0.663 | 6.70 | 4 | 19 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0318 | 0.2992 | 0.2992 | 1.027 | 1.965 | 1.000 | 0.496 | 10.24 | 4 | 28 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0302 | 0.3858 | 0.3858 | 1.041 | 2.252 | 1.000 | 0.404 | 12.93 | 4 | 32 | 55 | - | - | - | - |
| SICA | 100 | 0.9990 | 0.0007 | 0.0104 | 0.0104 | 1.002 | 1.123 | 0.996 | 0.944 | 4.07 | 4 | 5 | 10 | - | - | - | - |
| | 200 | 0.9984 | 0.0003 | 0.0081 | 0.0081 | 1.002 | 1.167 | 0.996 | 0.955 | 4.05 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 0.9973 | 0.0002 | 0.0083 | 0.0083 | 1.003 | 1.231 | 0.990 | 0.953 | 4.05 | 4 | 4 | 10 | - | - | - | - |
| Hard thresholding | 100 | 1.0000 | 0.0005 | 0.0072 | 0.0072 | 1.001 | 1.044 | 1.000 | 0.966 | 4.05 | 4 | 4 | 8 | - | - | - | - |
| | 200 | 1.0000 | 0.0002 | 0.0051 | 0.0051 | 1.001 | 1.037 | 1.000 | 0.975 | 4.04 | 4 | 4 | 15 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0056 | 0.0056 | 1.001 | 1.044 | 1.000 | 0.974 | 4.04 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3603 | 0.8716 | 0.8716 | 1.046 | 2.413 | 1.000 | 0.000 | 38.58 | 30.5 | 47 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3171 | 0.9252 | 0.9252 | 1.076 | 2.967 | 1.000 | 0.000 | 66.15 | 59 | 73 | 81 | - | - | - | - |
| | 300 | 1.0000 | 0.2549 | 0.9376 | 0.9376 | 1.085 | 3.199 | 1.000 | 0.000 | 79.46 | 72 | 87 | 94 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1542 | 0.7345 | 0.7345 | 1.082 | 3.201 | 1.000 | 0.000 | 18.80 | 12 | 27 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.1576 | 0.8554 | 0.8554 | 1.154 | 4.297 | 1.000 | 0.000 | 34.89 | 25 | 48 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.1655 | 0.9041 | 0.9041 | 1.218 | 5.116 | 1.000 | 0.000 | 52.99 | 39 | 72 | 111 | - | - | - | - |

Notes: See notes to Table 1.

## Table 66: MC findings for DGPIII

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0200 | 0.0200 | 1.001 | 1.051 | 1.000 | 0.889 | 4.12 | 4 | 5 | 7 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0222 | 0.0222 | 1.001 | 1.060 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0192 | 0.0192 | 1.001 | 1.054 | 1.000 | 0.892 | 4.12 | 4 | 5 | 6 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0087 | 0.0087 | 1.000 | 1.025 | 1.000 | 0.951 | 4.05 | 4 | 4 | 7 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0110 | 0.0110 | 1.000 | 1.033 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0097 | 0.0097 | 1.000 | 1.030 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.009 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.007 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.009 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0176 | 0.0176 | 1.000 | 1.036 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0200 | 0.0200 | 1.001 | 1.046 | 1.000 | 0.887 | 4.12 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0175 | 0.0175 | 1.001 | 1.043 | 1.000 | 0.901 | 4.11 | 4 | 5 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0077 | 0.0077 | 1.000 | 1.019 | 1.000 | 0.956 | 4.05 | 4 | 4 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0097 | 0.0097 | 1.000 | 1.024 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0088 | 0.0088 | 1.000 | 1.024 | 1.000 | 0.950 | 4.05 | 4 | 5 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.007 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0014 | 0.0014 | 1.000 | 1.004 | 1.000 | 0.992 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.007 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1489 | 0.7083 | 0.7083 | 1.020 | 2.388 | 1.000 | 0.000 | 18.30 | 10 | 31 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0974 | 0.7571 | 0.7571 | 1.025 | 2.707 | 1.000 | 0.001 | 23.10 | 10 | 37.5 | 66 | - | - | - | - |
| | 300 | 1.0000 | 0.0746 | 0.7804 | 0.7804 | 1.030 | 2.869 | 1.000 | 0.000 | 26.07 | 12 | 45 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0259 | 0.1545 | 0.1545 | 1.007 | 1.528 | 1.000 | 0.749 | 6.49 | 4 | 18 | 30 | - | - | - | - |
| | 200 | 1.0000 | 0.0278 | 0.2799 | 0.2799 | 1.015 | 1.851 | 1.000 | 0.594 | 9.44 | 4 | 24 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0274 | 0.3739 | 0.3739 | 1.023 | 2.089 | 1.000 | 0.477 | 12.11 | 4 | 29 | 51 | - | - | - | - |
| SICA | 100 | 0.9999 | 0.0003 | 0.0047 | 0.0047 | 1.000 | 1.043 | 1.000 | 0.977 | 4.03 | 4 | 4 | 13 | - | - | - | - |
| | 200 | 0.9989 | 0.0001 | 0.0036 | 0.0036 | 1.001 | 1.141 | 0.996 | 0.977 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 0.9988 | 0.0001 | 0.0026 | 0.0026 | 1.001 | 1.151 | 0.995 | 0.983 | 4.01 | 4 | 4 | 8 | - | - | - | - |
| Hard thresholding | 100 | 1.0000 | 0.0002 | 0.0033 | 0.0033 | 1.000 | 1.019 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | - | - | - | - |
| | 200 | 1.0000 | 0.0002 | 0.0046 | 0.0046 | 1.000 | 1.030 | 1.000 | 0.979 | 4.03 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.027 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3588 | 0.8712 | 0.8712 | 1.025 | 2.360 | 1.000 | 0.000 | 38.45 | 30 | 47 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3172 | 0.9252 | 0.9252 | 1.044 | 2.889 | 1.000 | 0.000 | 66.17 | 59 | 73 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2590 | 0.9386 | 0.9386 | 1.051 | 3.081 | 1.000 | 0.000 | 80.67 | 73 | 88 | 95 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1504 | 0.7297 | 0.7297 | 1.048 | 3.172 | 1.000 | 0.000 | 18.44 | 12 | 26 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.1496 | 0.8491 | 0.8491 | 1.093 | 4.231 | 1.000 | 0.000 | 33.32 | 24 | 45 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.1511 | 0.8965 | 0.8965 | 1.134 | 5.020 | 1.000 | 0.000 | 48.73 | 36 | 64 | 90 | - | - | - | - |

Notes: See notes to Table 1.

## Table 67: MC findings for DGPIII

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9583 | 0.0020 | 0.0315 | 0.0315 | 1.022 | 1.410 | 0.867 | 0.728 | 4.02 | 3 | 5 | 7 | 1.981 | 0.96 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9413 | 0.0010 | 0.0316 | 0.0316 | 1.031 | 1.563 | 0.829 | 0.685 | 3.96 | 3 | 5 | 7 | 1.949 | 0.93 | 0.02 | 0.00 |
| | 300 | 0.9130 | 0.0006 | 0.0336 | 0.0336 | 1.043 | 1.766 | 0.758 | 0.634 | 3.84 | 2 | 5 | 7 | 1.925 | 0.90 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9409 | 0.0010 | 0.0174 | 0.0174 | 1.025 | 1.512 | 0.819 | 0.748 | 3.86 | 3 | 5 | 7 | 1.957 | 0.94 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9165 | 0.0005 | 0.0177 | 0.0177 | 1.037 | 1.696 | 0.768 | 0.688 | 3.77 | 2 | 5 | 6 | 1.918 | 0.90 | 0.02 | 0.00 |
| | 300 | 0.8831 | 0.0004 | 0.0203 | 0.0203 | 1.051 | 1.921 | 0.691 | 0.624 | 3.64 | 2 | 5 | 6 | 1.874 | 0.86 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.8745 | 0.0003 | 0.0050 | 0.0050 | 1.048 | 1.908 | 0.668 | 0.653 | 3.52 | 1 | 4 | 5 | 1.870 | 0.86 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8288 | 0.0001 | 0.0050 | 0.0050 | 1.067 | 2.169 | 0.599 | 0.582 | 3.34 | 1 | 4 | 5 | 1.787 | 0.78 | 0.01 | 0.00 |
| | 300 | 0.7894 | 0.0001 | 0.0056 | 0.0056 | 1.082 | 2.378 | 0.522 | 0.510 | 3.18 | 1 | 4 | 6 | 1.735 | 0.73 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9424 | 0.0017 | 0.0284 | 0.0284 | 1.030 | 1.587 | 0.819 | 0.710 | 3.94 | 3 | 5 | 7 | 1.907 | 0.90 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9174 | 0.0009 | 0.0296 | 0.0296 | 1.044 | 1.811 | 0.758 | 0.637 | 3.84 | 2 | 5 | 6 | 1.844 | 0.84 | 0.00 | 0.00 |
| | 300 | 0.8841 | 0.0006 | 0.0300 | 0.0300 | 1.058 | 2.029 | 0.679 | 0.580 | 3.70 | 2 | 5 | 7 | 1.793 | 0.79 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9215 | 0.0009 | 0.0157 | 0.0157 | 1.036 | 1.714 | 0.767 | 0.712 | 3.77 | 2 | 5 | 7 | 1.876 | 0.87 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8885 | 0.0005 | 0.0166 | 0.0166 | 1.053 | 1.962 | 0.687 | 0.624 | 3.65 | 2 | 5 | 6 | 1.801 | 0.80 | 0.00 | 0.00 |
| | 300 | 0.8526 | 0.0003 | 0.0181 | 0.0181 | 1.068 | 2.182 | 0.617 | 0.568 | 3.50 | 1 | 4.5 | 6 | 1.744 | 0.74 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8478 | 0.0002 | 0.0043 | 0.0043 | 1.063 | 2.132 | 0.610 | 0.597 | 3.41 | 1 | 4 | 5 | 1.761 | 0.76 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7966 | 0.0001 | 0.0045 | 0.0045 | 1.085 | 2.412 | 0.515 | 0.504 | 3.21 | 1 | 4 | 5 | 1.658 | 0.66 | 0.00 | 0.00 |
| | 300 | 0.7544 | 0.0001 | 0.0049 | 0.0049 | 1.101 | 2.625 | 0.449 | 0.440 | 3.04 | 1 | 4 | 6 | 1.593 | 0.59 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9389 | 0.1097 | 0.6175 | 0.6175 | 1.128 | 2.813 | 0.790 | 0.004 | 14.29 | 4 | 27.5 | 53 | - | - | - | - |
| | 200 | 0.9020 | 0.0727 | 0.6799 | 0.6799 | 1.159 | 3.115 | 0.684 | 0.002 | 17.86 | 5 | 36 | 70 | - | - | - | - |
| | 300 | 0.8685 | 0.0540 | 0.6968 | 0.6968 | 1.181 | 3.341 | 0.589 | 0.000 | 19.47 | 4 | 43 | 96 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8579 | 0.0352 | 0.3112 | 0.3112 | 1.105 | 2.534 | 0.643 | 0.092 | 6.81 | 2 | 15 | 45 | - | - | - | - |
| | 200 | 0.8245 | 0.0333 | 0.4338 | 0.4338 | 1.154 | 2.908 | 0.574 | 0.032 | 9.83 | 2 | 27 | 53 | - | - | - | - |
| | 300 | 0.7875 | 0.0285 | 0.4797 | 0.4797 | 1.190 | 3.219 | 0.498 | 0.024 | 11.57 | 2 | 34 | 67 | - | - | - | - |
| SICA | 100 | 0.6451 | 0.0085 | 0.1287 | 0.1287 | 1.150 | 3.071 | 0.232 | 0.104 | 3.40 | 1 | 7 | 27 | - | - | - | - |
| | 200 | 0.5413 | 0.0034 | 0.1191 | 0.1191 | 1.182 | 3.446 | 0.125 | 0.059 | 2.82 | 1 | 6 | 14 | - | - | - | - |
| | 300 | 0.4646 | 0.0020 | 0.1170 | 0.1170 | 1.209 | 3.726 | 0.074 | 0.032 | 2.46 | 1 | 6 | 17 | - | - | - | - |
| Hard thresholding | 100 | 0.8136 | 0.0042 | 0.0594 | 0.0594 | 1.080 | 2.297 | 0.523 | 0.369 | 3.66 | 1 | 6 | 17 | - | - | - | - |
| | 200 | 0.7496 | 0.0027 | 0.0802 | 0.0802 | 1.108 | 2.643 | 0.404 | 0.263 | 3.53 | 1 | 6 | 25 | - | - | - | - |
| | 300 | 0.6893 | 0.0021 | 0.0970 | 0.0970 | 1.139 | 2.961 | 0.316 | 0.196 | 3.39 | 1 | 7 | 15 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9976 | 0.3650 | 0.8730 | 0.8730 | 1.162 | 2.614 | 0.992 | 0.000 | 39.03 | 30 | 47 | 55 | - | - | - | - |
| | 200 | 0.9938 | 0.3026 | 0.9223 | 0.9223 | 1.238 | 3.178 | 0.976 | 0.000 | 63.29 | 56 | 70 | 76 | - | - | - | - |
| | 300 | 0.9836 | 0.2362 | 0.9338 | 0.9338 | 1.270 | 3.458 | 0.939 | 0.000 | 73.84 | 66 | 81 | 93 | - | - | - | - |
| $v = 1$ | 100 | 0.9725 | 0.1768 | 0.7599 | 0.7599 | 1.252 | 3.305 | 0.893 | 0.000 | 20.86 | 13 | 32 | 62 | - | - | - | - |
| | 200 | 0.9356 | 0.2077 | 0.8877 | 0.8877 | 1.429 | 4.335 | 0.765 | 0.000 | 44.44 | 27 | 68 | 94 | - | - | - | - |
| | 300 | 0.8913 | 0.2269 | 0.9329 | 0.9329 | 1.535 | 4.910 | 0.626 | 0.000 | 70.73 | 46 | 100 | 138 | - | - | - | - |

Notes: See notes to Table 1.

## Table 68: MC findings for DGPIII

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0218 | 0.0218 | 1.002 | 1.071 | 1.000 | 0.879 | 4.14 | 4 | 5 | 7 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0215 | 0.0215 | 1.002 | 1.078 | 1.000 | 0.880 | 4.13 | 4 | 5 | 7 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0243 | 0.0243 | 1.002 | 1.094 | 1.000 | 0.866 | 4.15 | 4 | 5 | 7 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0125 | 0.0125 | 1.001 | 1.045 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0112 | 0.0112 | 1.001 | 1.044 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0124 | 0.0124 | 1.001 | 1.053 | 1.000 | 0.931 | 4.08 | 4 | 5 | 7 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0024 | 0.0024 | 1.000 | 1.012 | 1.000 | 0.986 | 4.01 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.009 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0030 | 0.0030 | 1.000 | 1.015 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0206 | 0.0206 | 1.001 | 1.062 | 1.000 | 0.886 | 4.13 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0192 | 0.0192 | 1.001 | 1.062 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0223 | 0.0223 | 1.002 | 1.079 | 1.000 | 0.877 | 4.14 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0118 | 0.0118 | 1.001 | 1.040 | 1.000 | 0.931 | 4.07 | 4 | 5 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0100 | 0.0100 | 1.001 | 1.035 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0112 | 0.0112 | 1.001 | 1.043 | 1.000 | 0.938 | 4.07 | 4 | 5 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.009 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.007 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.013 | 1.000 | 0.984 | 4.02 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1507 | 0.7099 | 0.7099 | 1.032 | 2.428 | 1.000 | 0.001 | 18.47 | 9 | 30 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.1004 | 0.7651 | 0.7651 | 1.044 | 2.744 | 1.000 | 0.003 | 23.68 | 11 | 41 | 61 | - | - | - | - |
| | 300 | 1.0000 | 0.0775 | 0.7893 | 0.7893 | 1.051 | 2.978 | 1.000 | 0.001 | 26.95 | 11 | 46 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0319 | 0.2418 | 0.2418 | 1.015 | 1.625 | 0.998 | 0.344 | 7.06 | 4 | 20 | 35 | - | - | - | - |
| | 200 | 0.9999 | 0.0378 | 0.3964 | 0.3964 | 1.036 | 2.111 | 1.000 | 0.202 | 11.41 | 4 | 32 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0374 | 0.4927 | 0.4927 | 1.054 | 2.516 | 1.000 | 0.149 | 15.06 | 4 | 37 | 62 | - | - | - | - |
| SICA | 100 | 0.9889 | 0.0025 | 0.0354 | 0.0354 | 1.008 | 1.417 | 0.959 | 0.792 | 4.20 | 4 | 5 | 11 | - | - | - | - |
| | 200 | 0.9783 | 0.0010 | 0.0292 | 0.0292 | 1.011 | 1.607 | 0.926 | 0.791 | 4.11 | 3 | 5 | 11 | - | - | - | - |
| | 300 | 0.9768 | 0.0007 | 0.0312 | 0.0312 | 1.012 | 1.658 | 0.913 | 0.769 | 4.11 | 3 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.9990 | 0.0008 | 0.0118 | 0.0118 | 1.002 | 1.094 | 0.996 | 0.943 | 4.08 | 4 | 5 | 9 | - | - | - | - |
| | 200 | 0.9974 | 0.0004 | 0.0111 | 0.0111 | 1.002 | 1.132 | 0.990 | 0.937 | 4.06 | 4 | 5 | 10 | - | - | - | - |
| | 300 | 0.9988 | 0.0003 | 0.0113 | 0.0113 | 1.002 | 1.112 | 0.995 | 0.940 | 4.07 | 4 | 5 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3586 | 0.8710 | 0.8710 | 1.046 | 2.395 | 1.000 | 0.000 | 38.42 | 30 | 47 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3248 | 0.9268 | 0.9268 | 1.078 | 2.951 | 1.000 | 0.000 | 67.67 | 59 | 75 | 84 | - | - | - | - |
| | 300 | 1.0000 | 0.2637 | 0.9396 | 0.9396 | 1.090 | 3.239 | 1.000 | 0.000 | 82.06 | 74 | 90 | 100 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1501 | 0.7288 | 0.7288 | 1.081 | 3.164 | 1.000 | 0.000 | 18.41 | 12 | 26 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.1553 | 0.8535 | 0.8535 | 1.152 | 4.185 | 1.000 | 0.000 | 34.43 | 24 | 47 | 70 | - | - | - | - |
| | 300 | 1.0000 | 0.1659 | 0.9044 | 0.9044 | 1.218 | 5.070 | 1.000 | 0.000 | 53.10 | 38 | 71.5 | 104 | - | - | - | - |

Notes: See notes to Table 1.

## Table 69: MC findings for DGPIII

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0184 | 0.0184 | 1.001 | 1.061 | 1.000 | 0.896 | 4.11 | 4 | 5 | 6 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0192 | 0.0192 | 1.001 | 1.069 | 1.000 | 0.891 | 4.12 | 4 | 5 | 6 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0212 | 0.0212 | 1.001 | 1.080 | 1.000 | 0.883 | 4.13 | 4 | 5 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0086 | 0.0086 | 1.000 | 1.031 | 1.000 | 0.950 | 4.05 | 4 | 4.5 | 6 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0100 | 0.0100 | 1.000 | 1.041 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0094 | 0.0094 | 1.000 | 1.041 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0013 | 0.0013 | 1.000 | 1.007 | 1.000 | 0.992 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.008 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.011 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0159 | 0.0159 | 1.001 | 1.044 | 1.000 | 0.910 | 4.10 | 4 | 5 | 6 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0174 | 0.0174 | 1.001 | 1.055 | 1.000 | 0.901 | 4.11 | 4 | 5 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0196 | 0.0196 | 1.001 | 1.069 | 1.000 | 0.891 | 4.12 | 4 | 5 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0074 | 0.0074 | 1.000 | 1.023 | 1.000 | 0.957 | 4.05 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0091 | 0.0091 | 1.000 | 1.033 | 1.000 | 0.947 | 4.06 | 4 | 5 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0084 | 0.0084 | 1.000 | 1.034 | 1.000 | 0.952 | 4.05 | 4 | 4 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0012 | 0.0012 | 1.000 | 1.006 | 1.000 | 0.993 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.006 | 1.000 | 0.992 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.008 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1519 | 0.7145 | 0.7145 | 1.019 | 2.370 | 1.000 | 0.000 | 18.58 | 9 | 31 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0979 | 0.7628 | 0.7628 | 1.024 | 2.673 | 1.000 | 0.001 | 23.19 | 11 | 40 | 72 | - | - | - | - |
| | 300 | 1.0000 | 0.0757 | 0.7883 | 0.7883 | 1.027 | 2.941 | 1.000 | 0.000 | 26.39 | 12 | 46.5 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0253 | 0.1697 | 0.1697 | 1.007 | 1.511 | 1.000 | 0.549 | 6.43 | 4 | 20 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0322 | 0.3158 | 0.3158 | 1.018 | 1.977 | 1.000 | 0.386 | 10.32 | 4 | 29 | 46 | - | - | - | - |
| | 300 | 1.0000 | 0.0332 | 0.4228 | 0.4228 | 1.028 | 2.399 | 1.000 | 0.272 | 13.83 | 4 | 36 | 53 | - | - | - | - |
| SICA | 100 | 0.9970 | 0.0012 | 0.0171 | 0.0171 | 1.002 | 1.220 | 0.990 | 0.910 | 4.10 | 4 | 5 | 8 | - | - | - | - |
| | 200 | 0.9978 | 0.0004 | 0.0129 | 0.0129 | 1.002 | 1.173 | 0.991 | 0.924 | 4.07 | 4 | 5 | 8 | - | - | - | - |
| | 300 | 0.9970 | 0.0002 | 0.0093 | 0.0093 | 1.002 | 1.196 | 0.989 | 0.940 | 4.05 | 4 | 4 | 8 | - | - | - | - |
| Hard thresholding | 100 | 1.0000 | 0.0006 | 0.0081 | 0.0081 | 1.001 | 1.050 | 1.000 | 0.964 | 4.06 | 4 | 4 | 9 | - | - | - | - |
| | 200 | 0.9999 | 0.0002 | 0.0065 | 0.0065 | 1.000 | 1.049 | 1.000 | 0.968 | 4.04 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0057 | 0.0057 | 1.000 | 1.041 | 1.000 | 0.973 | 4.04 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3568 | 0.8706 | 0.8706 | 1.026 | 2.353 | 1.000 | 0.000 | 38.25 | 30.5 | 47 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.3265 | 0.9272 | 0.9272 | 1.045 | 2.885 | 1.000 | 0.000 | 67.99 | 60 | 76 | 82 | - | - | - | - |
| | 300 | 1.0000 | 0.2685 | 0.9406 | 0.9406 | 1.055 | 3.131 | 1.000 | 0.000 | 83.47 | 76 | 91 | 100 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1470 | 0.7258 | 0.7258 | 1.048 | 3.141 | 1.000 | 0.000 | 18.12 | 12 | 25 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.1492 | 0.8490 | 0.8490 | 1.093 | 4.178 | 1.000 | 0.000 | 33.25 | 24 | 44 | 62 | - | - | - | - |
| | 300 | 1.0000 | 0.1525 | 0.8973 | 0.8973 | 1.137 | 5.021 | 1.000 | 0.000 | 49.15 | 36 | 64 | 96 | - | - | - | - |

Notes: See notes to Table 1.

## Table 70: MC findings for DGPIII

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6115 | 0.0016 | 0.0356 | 0.0356 | 1.071 | 2.216 | 0.230 | 0.198 | 2.60 | 0 | 4 | 7 | 1.387 | 0.38 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5220 | 0.0009 | 0.0443 | 0.0443 | 1.087 | 2.382 | 0.142 | 0.122 | 2.27 | 0 | 4 | 7 | 1.260 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.4911 | 0.0006 | 0.0467 | 0.0467 | 1.094 | 2.469 | 0.125 | 0.107 | 2.14 | 0 | 4 | 6 | 1.221 | 0.22 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5383 | 0.0008 | 0.0188 | 0.0188 | 1.080 | 2.332 | 0.164 | 0.151 | 2.23 | 0 | 4 | 6 | 1.295 | 0.29 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4500 | 0.0005 | 0.0286 | 0.0286 | 1.096 | 2.480 | 0.096 | 0.089 | 1.90 | 0 | 4 | 7 | 1.180 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.4271 | 0.0003 | 0.0292 | 0.0292 | 1.101 | 2.545 | 0.089 | 0.081 | 1.81 | 0 | 4 | 6 | 1.163 | 0.16 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3888 | 0.0002 | 0.0061 | 0.0061 | 1.102 | 2.558 | 0.071 | 0.070 | 1.57 | 0 | 4 | 5 | 1.138 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3101 | 0.0001 | 0.0075 | 0.0075 | 1.114 | 2.649 | 0.034 | 0.034 | 1.26 | 0 | 3 | 4 | 1.072 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.3034 | 0.0001 | 0.0086 | 0.0086 | 1.117 | 2.697 | 0.037 | 0.036 | 1.24 | 0 | 3 | 5 | 1.074 | 0.07 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5755 | 0.0015 | 0.0342 | 0.0342 | 1.079 | 2.329 | 0.151 | 0.133 | 2.44 | 0 | 4 | 6 | 1.233 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4903 | 0.0009 | 0.0435 | 0.0435 | 1.094 | 2.469 | 0.080 | 0.069 | 2.13 | 0 | 4 | 6 | 1.127 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.4633 | 0.0006 | 0.0462 | 0.0462 | 1.100 | 2.546 | 0.068 | 0.060 | 2.02 | 0 | 4 | 6 | 1.104 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5091 | 0.0007 | 0.0178 | 0.0178 | 1.086 | 2.417 | 0.103 | 0.096 | 2.10 | 0 | 4 | 6 | 1.172 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4266 | 0.0005 | 0.0277 | 0.0277 | 1.100 | 2.538 | 0.050 | 0.044 | 1.81 | 0 | 4 | 6 | 1.082 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.4060 | 0.0003 | 0.0287 | 0.0287 | 1.105 | 2.599 | 0.048 | 0.046 | 1.72 | 0 | 4 | 5 | 1.075 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3739 | 0.0002 | 0.0058 | 0.0058 | 1.105 | 2.594 | 0.044 | 0.044 | 1.51 | 0 | 3 | 4 | 1.078 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3009 | 0.0001 | 0.0075 | 0.0075 | 1.116 | 2.670 | 0.018 | 0.018 | 1.23 | 0 | 3 | 4 | 1.035 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.2930 | 0.0001 | 0.0085 | 0.0085 | 1.119 | 2.720 | 0.017 | 0.017 | 1.20 | 0 | 3 | 4 | 1.031 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7098 | 0.0776 | 0.5737 | 0.5737 | 1.093 | 2.470 | 0.251 | 0.001 | 10.29 | 3 | 22 | 40 | - | - | - | - |
| | 200 | 0.6318 | 0.0513 | 0.6470 | 0.6470 | 1.108 | 2.601 | 0.137 | 0.000 | 12.58 | 3 | 29 | 60 | - | - | - | - |
| | 300 | 0.6008 | 0.0392 | 0.6687 | 0.6687 | 1.117 | 2.695 | 0.107 | 0.000 | 14.00 | 3 | 34 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5746 | 0.0312 | 0.3454 | 0.3454 | 1.100 | 2.516 | 0.152 | 0.006 | 5.29 | 1 | 13 | 37 | - | - | - | - |
| | 200 | 0.5151 | 0.0261 | 0.4680 | 0.4680 | 1.137 | 2.772 | 0.089 | 0.000 | 7.18 | 1 | 19 | 45 | - | - | - | - |
| | 300 | 0.4895 | 0.0218 | 0.5091 | 0.5091 | 1.158 | 2.956 | 0.064 | 0.001 | 8.42 | 1 | 24.5 | 65 | - | - | - | - |
| SICA | 100 | 0.3720 | 0.0102 | 0.1900 | 0.1900 | 1.128 | 2.780 | 0.015 | 0.003 | 2.47 | 1 | 6 | 15 | - | - | - | - |
| | 200 | 0.3070 | 0.0048 | 0.1922 | 0.1922 | 1.143 | 2.887 | 0.003 | 0.001 | 2.17 | 1 | 6 | 17 | - | - | - | - |
| | 300 | 0.2779 | 0.0033 | 0.2096 | 0.2096 | 1.153 | 3.023 | 0.001 | 0.001 | 2.08 | 1 | 5 | 14 | - | - | - | - |
| Hard thresholding | 100 | 0.4350 | 0.0088 | 0.1643 | 0.1643 | 1.115 | 2.648 | 0.046 | 0.016 | 2.59 | 1 | 6 | 17 | - | - | - | - |
| | 200 | 0.3505 | 0.0054 | 0.1985 | 0.1985 | 1.142 | 2.847 | 0.014 | 0.002 | 2.46 | 1 | 7 | 21 | - | - | - | - |
| | 300 | 0.3159 | 0.0039 | 0.2244 | 0.2244 | 1.155 | 3.019 | 0.007 | 0.002 | 2.43 | 1 | 7 | 16 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9440 | 0.3619 | 0.8999 | 0.8999 | 1.156 | 2.546 | 0.797 | 0.000 | 38.52 | 29 | 48 | 55 | - | - | - | - |
| | 200 | 0.9015 | 0.3096 | 0.9437 | 0.9437 | 1.240 | 3.050 | 0.664 | 0.000 | 64.28 | 57 | 71 | 77 | - | - | - | - |
| | 300 | 0.8568 | 0.2413 | 0.9540 | 0.9540 | 1.255 | 3.280 | 0.539 | 0.000 | 74.85 | 68 | 82 | 93 | - | - | - | - |
| $v = 1$ | 100 | 0.8260 | 0.1757 | 0.8239 | 0.8239 | 1.245 | 3.217 | 0.450 | 0.000 | 20.17 | 12 | 31.5 | 52 | - | - | - | - |
| | 200 | 0.7485 | 0.2092 | 0.9274 | 0.9274 | 1.424 | 4.136 | 0.295 | 0.000 | 43.99 | 27 | 67 | 94 | - | - | - | - |
| | 300 | 0.6940 | 0.2288 | 0.9588 | 0.9588 | 1.602 | 5.226 | 0.216 | 0.000 | 70.49 | 46 | 99.5 | 127 | - | - | - | - |

Notes: See notes to Table 1.

**Table 71: MC findings for DGPIII**

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9990 | 0.0011 | 0.0176 | 0.0176 | 1.002 | 1.082 | 0.996 | 0.897 | 4.10 | 4 | 5 | 6 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9975 | 0.0007 | 0.0217 | 0.0217 | 1.003 | 1.135 | 0.991 | 0.871 | 4.12 | 4 | 5 | 7 | 1.999 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9969 | 0.0004 | 0.0195 | 0.0195 | 1.003 | 1.141 | 0.988 | 0.879 | 4.11 | 4 | 5 | 7 | 2.001 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9983 | 0.0006 | 0.0090 | 0.0090 | 1.001 | 1.062 | 0.993 | 0.941 | 4.05 | 4 | 5 | 6 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9960 | 0.0003 | 0.0104 | 0.0104 | 1.002 | 1.110 | 0.985 | 0.928 | 4.05 | 4 | 5 | 6 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9945 | 0.0002 | 0.0095 | 0.0095 | 1.002 | 1.123 | 0.980 | 0.927 | 4.04 | 4 | 5 | 7 | 1.996 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9935 | 0.0001 | 0.0016 | 0.0016 | 1.001 | 1.094 | 0.976 | 0.967 | 3.98 | 4 | 4 | 5 | 1.993 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9894 | 0.0001 | 0.0023 | 0.0023 | 1.002 | 1.169 | 0.962 | 0.948 | 3.97 | 4 | 4 | 5 | 1.983 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9853 | 0.0000 | 0.0018 | 0.0018 | 1.003 | 1.212 | 0.948 | 0.939 | 3.95 | 3 | 4 | 6 | 1.977 | 0.98 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9974 | 0.0011 | 0.0166 | 0.0166 | 1.002 | 1.113 | 0.990 | 0.897 | 4.09 | 4 | 5 | 6 | 1.992 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9936 | 0.0006 | 0.0206 | 0.0206 | 1.003 | 1.211 | 0.975 | 0.865 | 4.10 | 4 | 5 | 7 | 1.980 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9905 | 0.0004 | 0.0182 | 0.0182 | 1.004 | 1.264 | 0.964 | 0.868 | 4.07 | 4 | 5 | 7 | 1.969 | 0.97 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9966 | 0.0005 | 0.0085 | 0.0085 | 1.002 | 1.096 | 0.987 | 0.938 | 4.04 | 4 | 4 | 6 | 1.991 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9909 | 0.0003 | 0.0096 | 0.0096 | 1.003 | 1.218 | 0.964 | 0.913 | 4.02 | 4 | 5 | 6 | 1.972 | 0.97 | 0.00 | 0.00 |
| | 300 | 0.9849 | 0.0002 | 0.0090 | 0.0090 | 1.004 | 1.318 | 0.943 | 0.897 | 3.99 | 3 | 4 | 7 | 1.954 | 0.95 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9894 | 0.0001 | 0.0014 | 0.0014 | 1.003 | 1.186 | 0.961 | 0.952 | 3.97 | 4 | 4 | 5 | 1.976 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9801 | 0.0001 | 0.0021 | 0.0021 | 1.005 | 1.357 | 0.926 | 0.915 | 3.93 | 3 | 4 | 5 | 1.945 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9718 | 0.0000 | 0.0018 | 0.0018 | 1.007 | 1.473 | 0.896 | 0.888 | 3.90 | 3 | 4 | 6 | 1.923 | 0.92 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9955 | 0.1362 | 0.6753 | 0.6753 | 1.034 | 2.549 | 0.983 | 0.006 | 17.06 | 7 | 30 | 46 | - | - | - | - |
| | 200 | 0.9863 | 0.0816 | 0.7070 | 0.7070 | 1.046 | 2.910 | 0.952 | 0.005 | 19.93 | 7 | 37 | 61 | - | - | - | - |
| | 300 | 0.9789 | 0.0611 | 0.7209 | 0.7209 | 1.054 | 3.107 | 0.923 | 0.004 | 22.00 | 6 | 43 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9749 | 0.0383 | 0.3240 | 0.3240 | 1.022 | 2.003 | 0.917 | 0.172 | 7.58 | 3 | 15 | 39 | - | - | - | - |
| | 200 | 0.9574 | 0.0343 | 0.4314 | 0.4314 | 1.041 | 2.459 | 0.877 | 0.099 | 10.55 | 3 | 27 | 48 | - | - | - | - |
| | 300 | 0.9485 | 0.0321 | 0.4924 | 0.4924 | 1.058 | 2.793 | 0.855 | 0.067 | 13.29 | 3 | 35 | 73 | - | - | - | - |
| SICA | 100 | 0.8328 | 0.0067 | 0.0901 | 0.0901 | 1.032 | 2.460 | 0.516 | 0.277 | 3.97 | 1 | 7 | 15 | - | - | - | - |
| | 200 | 0.7528 | 0.0027 | 0.0794 | 0.0794 | 1.044 | 2.900 | 0.371 | 0.202 | 3.54 | 1 | 6 | 15 | - | - | - | - |
| | 300 | 0.6895 | 0.0016 | 0.0750 | 0.0750 | 1.055 | 3.245 | 0.284 | 0.155 | 3.23 | 1 | 6 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.9336 | 0.0023 | 0.0332 | 0.0332 | 1.013 | 1.712 | 0.790 | 0.647 | 3.95 | 3 | 5 | 10 | - | - | - | - |
| | 200 | 0.9166 | 0.0011 | 0.0328 | 0.0328 | 1.015 | 1.853 | 0.740 | 0.609 | 3.89 | 3 | 5 | 14 | - | - | - | - |
| | 300 | 0.8933 | 0.0007 | 0.0294 | 0.0294 | 1.020 | 2.040 | 0.687 | 0.564 | 3.77 | 2 | 5 | 13 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9998 | 0.3572 | 0.8706 | 0.8706 | 1.047 | 2.381 | 0.999 | 0.000 | 38.29 | 30 | 47 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3315 | 0.9282 | 0.9282 | 1.080 | 3.005 | 1.000 | 0.000 | 68.98 | 60 | 77 | 84 | - | - | - | - |
| | 300 | 1.0000 | 0.2730 | 0.9415 | 0.9415 | 1.093 | 3.283 | 1.000 | 0.000 | 84.80 | 77 | 92 | 100 | - | - | - | - |
| $v = 1$ | 100 | 0.9990 | 0.1508 | 0.7300 | 0.7300 | 1.081 | 3.113 | 0.996 | 0.000 | 18.47 | 12 | 26 | 43 | - | - | - | - |
| | 200 | 0.9968 | 0.1545 | 0.8534 | 0.8534 | 1.151 | 4.194 | 0.987 | 0.000 | 34.26 | 24 | 46 | 63 | - | - | - | - |
| | 300 | 0.9949 | 0.1663 | 0.9049 | 0.9049 | 1.219 | 5.076 | 0.980 | 0.000 | 53.20 | 38 | 72 | 105 | - | - | - | - |

Notes: See notes to Table 1.

## Table 72: MC findings for DGPIII

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0170 | 0.0170 | 1.001 | 1.072 | 1.000 | 0.903 | 4.10 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0170 | 0.0170 | 1.001 | 1.077 | 1.000 | 0.905 | 4.10 | 4 | 5 | 7 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0168 | 0.0168 | 1.001 | 1.081 | 1.000 | 0.905 | 4.10 | 4 | 5 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0083 | 0.0083 | 1.001 | 1.041 | 1.000 | 0.953 | 4.05 | 4 | 4 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0002 | 0.0074 | 0.0074 | 1.001 | 1.040 | 1.000 | 0.956 | 4.04 | 4 | 4 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0085 | 0.0085 | 1.001 | 1.047 | 1.000 | 0.951 | 4.05 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.015 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0000 | 0.0010 | 0.0010 | 1.000 | 1.009 | 1.000 | 0.994 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.013 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0010 | 0.0164 | 0.0164 | 1.001 | 1.067 | 1.000 | 0.907 | 4.10 | 4 | 5 | 7 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0162 | 0.0162 | 1.001 | 1.071 | 1.000 | 0.909 | 4.10 | 4 | 5 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0164 | 0.0164 | 1.001 | 1.077 | 1.000 | 0.906 | 4.10 | 4 | 5 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0005 | 0.0080 | 0.0080 | 1.001 | 1.039 | 1.000 | 0.954 | 4.05 | 4 | 4 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0002 | 0.0070 | 0.0070 | 1.001 | 1.036 | 1.000 | 0.959 | 4.04 | 4 | 4 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0081 | 0.0081 | 1.001 | 1.043 | 1.000 | 0.952 | 4.05 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.012 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0000 | 0.0009 | 0.0009 | 1.000 | 1.008 | 1.000 | 0.994 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.011 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1522 | 0.7096 | 0.7096 | 1.020 | 2.405 | 1.000 | 0.003 | 18.61 | 9 | 31 | 46 | - | - | - | - |
| | 200 | 0.9999 | 0.0959 | 0.7526 | 0.7526 | 1.025 | 2.745 | 1.000 | 0.003 | 22.79 | 10 | 39 | 62 | - | - | - | - |
| | 300 | 0.9998 | 0.0727 | 0.7765 | 0.7765 | 1.029 | 2.936 | 0.999 | 0.001 | 25.52 | 10 | 44 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9981 | 0.0340 | 0.2842 | 0.2842 | 1.009 | 1.675 | 0.993 | 0.268 | 7.26 | 4 | 17 | 38 | - | - | - | - |
| | 200 | 0.9983 | 0.0374 | 0.4194 | 0.4194 | 1.021 | 2.153 | 0.994 | 0.166 | 11.33 | 4 | 31 | 60 | - | - | - | - |
| | 300 | 0.9983 | 0.0354 | 0.5077 | 0.5077 | 1.033 | 2.523 | 0.994 | 0.112 | 14.47 | 4 | 36.5 | 69 | - | - | - | - |
| SICA | 100 | 0.9591 | 0.0044 | 0.0590 | 0.0590 | 1.009 | 1.808 | 0.859 | 0.617 | 4.25 | 3 | 6 | 12 | - | - | - | - |
| | 200 | 0.9368 | 0.0017 | 0.0490 | 0.0490 | 1.012 | 2.020 | 0.785 | 0.581 | 4.08 | 3 | 6 | 11 | - | - | - | - |
| | 300 | 0.9225 | 0.0010 | 0.0430 | 0.0430 | 1.015 | 2.176 | 0.743 | 0.570 | 3.98 | 3 | 6 | 14 | - | - | - | - |
| Hard thresholding | 100 | 0.9911 | 0.0013 | 0.0189 | 0.0189 | 1.002 | 1.253 | 0.970 | 0.879 | 4.09 | 4 | 5 | 9 | - | - | - | - |
| | 200 | 0.9879 | 0.0005 | 0.0157 | 0.0157 | 1.003 | 1.284 | 0.956 | 0.880 | 4.06 | 4 | 5 | 9 | - | - | - | - |
| | 300 | 0.9880 | 0.0003 | 0.0152 | 0.0152 | 1.003 | 1.295 | 0.956 | 0.883 | 4.05 | 4 | 5 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3590 | 0.8712 | 0.8712 | 1.026 | 2.369 | 1.000 | 0.000 | 38.46 | 30 | 47 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.3334 | 0.9285 | 0.9285 | 1.047 | 2.895 | 1.000 | 0.000 | 69.34 | 60 | 77 | 86 | - | - | - | - |
| | 300 | 1.0000 | 0.2780 | 0.9426 | 0.9426 | 1.057 | 3.168 | 1.000 | 0.000 | 86.29 | 79 | 94 | 105 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1467 | 0.7252 | 0.7252 | 1.048 | 3.147 | 1.000 | 0.000 | 18.09 | 12 | 26 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.1473 | 0.8473 | 0.8473 | 1.093 | 4.127 | 1.000 | 0.000 | 32.87 | 24 | 44 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.1508 | 0.8964 | 0.8964 | 1.135 | 4.972 | 1.000 | 0.000 | 48.62 | 36 | 63 | 89 | - | - | - | - |

Notes: See notes to Table 1.

### 3.1.4 Findings for designs featuring hidden signals and pseudo-signals

**Table 73: MC findings for DGPIV(a)**

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR$^*$ | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9990 | 0.0211 | 0.2832 | 0.0221 | 1.016 | 1.433 | 0.996 | 0.011 | 0.861 | 0.722 | 6.02 | 5 | 7 | 9 | 2.026 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9983 | 0.0103 | 0.2808 | 0.0278 | 1.019 | 1.448 | 0.995 | 0.014 | 0.808 | 0.651 | 6.01 | 5 | 7 | 9 | 2.038 | 1.00 | 0.04 | 0.00 |
| | 300 | 0.9971 | 0.0065 | 0.2707 | 0.0253 | 1.017 | 1.457 | 0.990 | 0.030 | 0.760 | 0.627 | 5.92 | 5 | 7 | 9 | 2.033 | 1.00 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9989 | 0.0195 | 0.2674 | 0.0123 | 1.013 | 1.402 | 0.996 | 0.022 | 0.805 | 0.726 | 5.87 | 5 | 7 | 8 | 2.024 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9966 | 0.0094 | 0.2628 | 0.0150 | 1.016 | 1.418 | 0.989 | 0.022 | 0.752 | 0.669 | 5.82 | 5 | 7 | 8 | 2.026 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9955 | 0.0059 | 0.2515 | 0.0138 | 1.015 | 1.435 | 0.984 | 0.046 | 0.695 | 0.626 | 5.73 | 4 | 7 | 9 | 2.028 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.9955 | 0.0168 | 0.2369 | 0.0033 | 1.012 | 1.386 | 0.982 | 0.063 | 0.655 | 0.638 | 5.60 | 4 | 6 | 8 | 2.024 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9910 | 0.0080 | 0.2303 | 0.0042 | 1.016 | 1.435 | 0.972 | 0.061 | 0.602 | 0.586 | 5.52 | 4 | 6 | 8 | 2.026 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9876 | 0.0049 | 0.2152 | 0.0032 | 1.017 | 1.481 | 0.960 | 0.102 | 0.536 | 0.523 | 5.40 | 4 | 6 | 8 | 2.031 | 1.00 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.9988 | 0.0207 | 0.2799 | 0.0179 | 1.014 | 1.409 | 0.995 | 0.011 | 0.860 | 0.748 | 5.98 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9974 | 0.0100 | 0.2760 | 0.0214 | 1.016 | 1.421 | 0.991 | 0.014 | 0.808 | 0.687 | 5.95 | 5 | 7 | 9 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9951 | 0.0064 | 0.2679 | 0.0215 | 1.016 | 1.457 | 0.984 | 0.027 | 0.758 | 0.646 | 5.87 | 5 | 7 | 9 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9979 | 0.0193 | 0.2652 | 0.0094 | 1.013 | 1.396 | 0.992 | 0.022 | 0.804 | 0.744 | 5.84 | 5 | 7 | 8 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9956 | 0.0092 | 0.2601 | 0.0116 | 1.015 | 1.409 | 0.985 | 0.023 | 0.750 | 0.685 | 5.79 | 5 | 7 | 8 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9931 | 0.0058 | 0.2498 | 0.0114 | 1.015 | 1.450 | 0.977 | 0.042 | 0.693 | 0.639 | 5.70 | 4 | 7 | 8 | 2.009 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9931 | 0.0168 | 0.2365 | 0.0028 | 1.013 | 1.417 | 0.973 | 0.061 | 0.655 | 0.641 | 5.58 | 4 | 6 | 7 | 2.014 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9881 | 0.0079 | 0.2293 | 0.0030 | 1.018 | 1.467 | 0.962 | 0.061 | 0.599 | 0.587 | 5.50 | 4 | 6 | 7 | 2.013 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9833 | 0.0049 | 0.2145 | 0.0025 | 1.020 | 1.542 | 0.948 | 0.098 | 0.535 | 0.526 | 5.37 | 4 | 6 | 8 | 2.011 | 0.99 | 0.02 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9983 | 0.1465 | 0.6998 | 0.6640 | 1.123 | 2.859 | 0.994 | 0.002 | 0.099 | 0.001 | 18.06 | 8 | 30 | 41 | - | - | - | - |
| | 200 | 0.9971 | 0.1026 | 0.7630 | 0.7369 | 1.163 | 3.174 | 0.989 | 0.001 | 0.088 | 0.000 | 24.10 | 9 | 41 | 65 | - | - | - | - |
| | 300 | 0.9925 | 0.0821 | 0.7931 | 0.7717 | 1.194 | 3.485 | 0.974 | 0.001 | 0.069 | 0.000 | 28.27 | 10 | 50 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9866 | 0.0353 | 0.2771 | 0.2576 | 1.067 | 2.086 | 0.955 | 0.275 | 0.013 | 0.000 | 7.33 | 4 | 20 | 36 | - | - | - | - |
| | 200 | 0.9871 | 0.0413 | 0.4432 | 0.4242 | 1.118 | 2.436 | 0.958 | 0.135 | 0.021 | 0.001 | 12.04 | 4 | 32 | 48 | - | - | - | - |
| | 300 | 0.9799 | 0.0420 | 0.5406 | 0.5232 | 1.169 | 2.889 | 0.941 | 0.092 | 0.025 | 0.000 | 16.34 | 4 | 39 | 57 | - | - | - | - |
| SICA | 100 | 0.8954 | 0.0061 | 0.0932 | 0.0603 | 1.083 | 2.575 | 0.667 | 0.494 | 0.000 | 0.000 | 4.17 | 3 | 6 | 13 | - | - | - | - |
| | 200 | 0.8596 | 0.0034 | 0.1065 | 0.0739 | 1.117 | 2.933 | 0.604 | 0.424 | 0.000 | 0.000 | 4.10 | 2 | 6 | 12 | - | - | - | - |
| | 300 | 0.8206 | 0.0022 | 0.1038 | 0.0756 | 1.150 | 3.269 | 0.534 | 0.375 | 0.000 | 0.000 | 3.93 | 1 | 6 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.9708 | 0.0020 | 0.0311 | 0.0186 | 1.023 | 1.620 | 0.900 | 0.819 | 0.000 | 0.000 | 4.08 | 4 | 5 | 12 | - | - | - | - |
| | 200 | 0.9624 | 0.0014 | 0.0417 | 0.0278 | 1.033 | 1.764 | 0.872 | 0.761 | 0.000 | 0.000 | 4.12 | 3 | 5 | 13 | - | - | - | - |
| | 300 | 0.9589 | 0.0010 | 0.0433 | 0.0297 | 1.036 | 1.821 | 0.864 | 0.747 | 0.000 | 0.000 | 4.12 | 3 | 5 | 12 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9996 | 0.3646 | 0.8727 | 0.8499 | 1.160 | 2.749 | 0.999 | 0.000 | 0.216 | 0.000 | 39.00 | 30 | 47 | 59 | - | - | - | - |
| | 200 | 0.9988 | 0.2971 | 0.9206 | 0.9076 | 1.242 | 3.312 | 0.995 | 0.000 | 0.162 | 0.000 | 62.23 | 55 | 69 | 80 | - | - | - | - |
| | 300 | 0.9993 | 0.2297 | 0.9313 | 0.9207 | 1.264 | 3.525 | 0.997 | 0.000 | 0.146 | 0.000 | 71.98 | 65 | 80 | 89 | - | - | - | - |
| $v = 1$ | 100 | 0.9901 | 0.1752 | 0.7554 | 0.7320 | 1.250 | 3.486 | 0.961 | 0.000 | 0.060 | 0.000 | 20.78 | 13 | 33 | 53 | - | - | - | - |
| | 200 | 0.9815 | 0.2078 | 0.8843 | 0.8724 | 1.436 | 4.480 | 0.926 | 0.000 | 0.058 | 0.000 | 44.66 | 28 | 68 | 100 | - | - | - | - |
| | 300 | 0.9768 | 0.2283 | 0.9285 | 0.9213 | 1.523 | 4.914 | 0.912 | 0.000 | 0.059 | 0.000 | 71.48 | 47 | 102 | 134 | - | - | - | - |

Notes: See notes to Table 46.

## Table 74: MC findings for DGPIV(a)

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0223 | 0.2978 | 0.0169 | 1.005 | 1.432 | 1.000 | 0.000 | 1.000 | 0.873 | 6.14 | 6 | 7 | 9 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0109 | 0.2981 | 0.0173 | 1.005 | 1.405 | 1.000 | 0.000 | 1.000 | 0.871 | 6.14 | 6 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2969 | 0.0156 | 1.005 | 1.424 | 1.000 | 0.000 | 1.000 | 0.882 | 6.13 | 6 | 7 | 9 | 2.011 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0216 | 0.2922 | 0.0091 | 1.005 | 1.416 | 1.000 | 0.000 | 1.000 | 0.930 | 6.07 | 6 | 7 | 9 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2924 | 0.0094 | 1.004 | 1.385 | 1.000 | 0.000 | 1.000 | 0.928 | 6.08 | 6 | 7 | 8 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2912 | 0.0077 | 1.004 | 1.401 | 1.000 | 0.000 | 1.000 | 0.942 | 6.06 | 6 | 7 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2869 | 0.0016 | 1.004 | 1.393 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2872 | 0.0021 | 1.004 | 1.362 | 1.000 | 0.000 | 1.000 | 0.984 | 6.02 | 6 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2871 | 0.0020 | 1.004 | 1.383 | 1.000 | 0.000 | 1.000 | 0.984 | 6.02 | 6 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2965 | 0.0150 | 1.005 | 1.420 | 1.000 | 0.000 | 1.000 | 0.886 | 6.12 | 6 | 7 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2967 | 0.0153 | 1.004 | 1.392 | 1.000 | 0.000 | 1.000 | 0.886 | 6.13 | 6 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2955 | 0.0137 | 1.004 | 1.408 | 1.000 | 0.000 | 1.000 | 0.896 | 6.11 | 6 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2915 | 0.0080 | 1.005 | 1.407 | 1.000 | 0.000 | 1.000 | 0.938 | 6.07 | 6 | 7 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2916 | 0.0082 | 1.004 | 1.376 | 1.000 | 0.000 | 1.000 | 0.936 | 6.07 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2907 | 0.0070 | 1.004 | 1.394 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2866 | 0.0013 | 1.004 | 1.390 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2871 | 0.0019 | 1.004 | 1.360 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2869 | 0.0018 | 1.004 | 1.381 | 1.000 | 0.000 | 1.000 | 0.985 | 6.01 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1600 | 0.7273 | 0.6952 | 1.032 | 2.530 | 1.000 | 0.001 | 0.098 | 0.000 | 19.36 | 10 | 31 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.1009 | 0.7697 | 0.7435 | 1.043 | 2.803 | 1.000 | 0.000 | 0.100 | 0.000 | 23.77 | 12 | 40 | 71 | - | - | - | - |
| | 300 | 1.0000 | 0.0775 | 0.7920 | 0.7704 | 1.050 | 3.028 | 1.000 | 0.000 | 0.080 | 0.000 | 26.95 | 13 | 47 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0272 | 0.1568 | 0.1488 | 1.013 | 1.594 | 1.000 | 0.671 | 0.007 | 0.000 | 6.61 | 4 | 20 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0306 | 0.2869 | 0.2768 | 1.028 | 1.939 | 1.000 | 0.499 | 0.019 | 0.000 | 10.00 | 4 | 28 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0312 | 0.3886 | 0.3781 | 1.042 | 2.289 | 1.000 | 0.394 | 0.019 | 0.000 | 13.23 | 4 | 33.5 | 65 | - | - | - | - |
| SICA | 100 | 0.9756 | 0.0021 | 0.0337 | 0.0151 | 1.010 | 2.173 | 0.906 | 0.846 | 0.000 | 0.000 | 4.10 | 4 | 5 | 9 | - | - | - | - |
| | 200 | 0.9691 | 0.0010 | 0.0359 | 0.0121 | 1.013 | 2.359 | 0.879 | 0.827 | 0.000 | 0.000 | 4.08 | 4 | 5 | 12 | - | - | - | - |
| | 300 | 0.9719 | 0.0006 | 0.0317 | 0.0102 | 1.012 | 2.267 | 0.890 | 0.847 | 0.000 | 0.000 | 4.06 | 4 | 5 | 10 | - | - | - | - |
| Hard thresholding | 100 | 0.9999 | 0.0006 | 0.0080 | 0.0070 | 1.001 | 1.062 | 1.000 | 0.963 | 0.000 | 0.000 | 4.05 | 4 | 4 | 8 | - | - | - | - |
| | 200 | 0.9998 | 0.0002 | 0.0063 | 0.0059 | 1.001 | 1.060 | 0.999 | 0.969 | 0.000 | 0.000 | 4.04 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0051 | 0.0046 | 1.001 | 1.041 | 1.000 | 0.978 | 0.000 | 0.000 | 4.04 | 4 | 4 | 13 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3632 | 0.8726 | 0.8519 | 1.046 | 2.523 | 1.000 | 0.000 | 0.166 | 0.000 | 38.87 | 31 | 47 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.3188 | 0.9256 | 0.9136 | 1.077 | 3.044 | 1.000 | 0.000 | 0.159 | 0.000 | 66.49 | 59 | 74 | 84 | - | - | - | - |
| | 300 | 1.0000 | 0.2558 | 0.9378 | 0.9284 | 1.087 | 3.264 | 1.000 | 0.000 | 0.145 | 0.000 | 79.71 | 72 | 87 | 95 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1575 | 0.7387 | 0.7135 | 1.082 | 3.333 | 1.000 | 0.000 | 0.059 | 0.000 | 19.12 | 12 | 27 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.1578 | 0.8555 | 0.8418 | 1.155 | 4.358 | 1.000 | 0.000 | 0.057 | 0.000 | 34.93 | 25 | 47 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.1676 | 0.9051 | 0.8959 | 1.219 | 5.167 | 1.000 | 0.000 | 0.062 | 0.000 | 53.60 | 39 | 73 | 108 | - | - | - | - |

Notes: See notes to Table 46.

## Table 75: MC findings for DGPIV(a)

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2957 | 0.0140 | 1.003 | 1.393 | 1.000 | 0.000 | 1.000 | 0.898 | 6.11 | 6 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2965 | 0.0150 | 1.002 | 1.421 | 1.000 | 0.000 | 1.000 | 0.889 | 6.12 | 6 | 7 | 10 | 2.010 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2968 | 0.0155 | 1.003 | 1.419 | 1.000 | 0.000 | 1.000 | 0.886 | 6.13 | 6 | 7 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2914 | 0.0080 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.941 | 6.07 | 6 | 7 | 9 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2907 | 0.0070 | 1.002 | 1.398 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 8 | 2.005 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2914 | 0.0080 | 1.002 | 1.401 | 1.000 | 0.000 | 1.000 | 0.941 | 6.07 | 6 | 7 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2871 | 0.0019 | 1.002 | 1.362 | 1.000 | 0.000 | 1.000 | 0.986 | 6.02 | 6 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0014 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2868 | 0.0015 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2947 | 0.0125 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.908 | 6.10 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2952 | 0.0133 | 1.002 | 1.407 | 1.000 | 0.000 | 1.000 | 0.902 | 6.11 | 6 | 7 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2958 | 0.0142 | 1.003 | 1.410 | 1.000 | 0.000 | 1.000 | 0.895 | 6.12 | 6 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2908 | 0.0072 | 1.002 | 1.373 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2901 | 0.0061 | 1.002 | 1.390 | 1.000 | 0.000 | 1.000 | 0.953 | 6.05 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2911 | 0.0075 | 1.002 | 1.397 | 1.000 | 0.000 | 1.000 | 0.945 | 6.06 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2869 | 0.0016 | 1.002 | 1.360 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2866 | 0.0012 | 1.002 | 1.377 | 1.000 | 0.000 | 1.000 | 0.991 | 6.01 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2866 | 0.0013 | 1.002 | 1.383 | 1.000 | 0.000 | 1.000 | 0.991 | 6.01 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1539 | 0.7144 | 0.6795 | 1.019 | 2.505 | 1.000 | 0.000 | 0.097 | 0.000 | 18.78 | 9 | 32 | 51 | - | - | - | - |
| | 200 | 1.0000 | 0.0990 | 0.7620 | 0.7362 | 1.026 | 2.842 | 1.000 | 0.000 | 0.084 | 0.000 | 23.41 | 10 | 38 | 67 | - | - | - | - |
| | 300 | 1.0000 | 0.0748 | 0.7811 | 0.7582 | 1.030 | 2.991 | 1.000 | 0.000 | 0.083 | 0.000 | 26.13 | 11 | 45 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0266 | 0.1548 | 0.1485 | 1.007 | 1.568 | 1.000 | 0.749 | 0.009 | 0.000 | 6.56 | 4 | 19 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0282 | 0.2796 | 0.2718 | 1.015 | 1.893 | 1.000 | 0.595 | 0.013 | 0.000 | 9.52 | 4 | 24 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0262 | 0.3549 | 0.3460 | 1.021 | 2.102 | 1.000 | 0.506 | 0.015 | 0.000 | 11.75 | 4 | 29 | 47 | - | - | - | - |
| SICA | 100 | 0.9810 | 0.0012 | 0.0207 | 0.0056 | 1.007 | 2.366 | 0.924 | 0.899 | 0.000 | 0.000 | 4.04 | 4 | 4 | 8 | - | - | - | - |
| | 200 | 0.9810 | 0.0005 | 0.0197 | 0.0048 | 1.007 | 2.362 | 0.925 | 0.906 | 0.000 | 0.000 | 4.03 | 4 | 4 | 7 | - | - | - | - |
| | 300 | 0.9791 | 0.0003 | 0.0192 | 0.0029 | 1.008 | 2.479 | 0.917 | 0.904 | 0.000 | 0.000 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| Hard thresholding | 100 | 1.0000 | 0.0005 | 0.0066 | 0.0059 | 1.000 | 1.048 | 1.000 | 0.971 | 0.000 | 0.000 | 4.05 | 4 | 4 | 10 | - | - | - | - |
| | 200 | 1.0000 | 0.0001 | 0.0031 | 0.0029 | 1.000 | 1.023 | 1.000 | 0.984 | 0.000 | 0.000 | 4.02 | 4 | 4 | 7 | - | - | - | - |
| | 300 | 1.0000 | 0.0001 | 0.0031 | 0.0030 | 1.000 | 1.025 | 1.000 | 0.984 | 0.000 | 0.000 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3608 | 0.8718 | 0.8507 | 1.026 | 2.467 | 1.000 | 0.000 | 0.170 | 0.000 | 38.64 | 30 | 46 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.3192 | 0.9256 | 0.9139 | 1.044 | 2.963 | 1.000 | 0.000 | 0.149 | 0.000 | 66.55 | 59 | 74 | 82 | - | - | - | - |
| | 300 | 1.0000 | 0.2607 | 0.9389 | 0.9302 | 1.051 | 3.250 | 1.000 | 0.000 | 0.128 | 0.000 | 81.15 | 73 | 89 | 98 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1522 | 0.7316 | 0.7067 | 1.048 | 3.295 | 1.000 | 0.000 | 0.066 | 0.000 | 18.61 | 12 | 26 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.1490 | 0.8486 | 0.8337 | 1.093 | 4.310 | 1.000 | 0.000 | 0.065 | 0.000 | 33.20 | 24 | 44 | 67 | - | - | - | - |
| | 300 | 1.0000 | 0.1537 | 0.8981 | 0.8885 | 1.135 | 5.243 | 1.000 | 0.000 | 0.064 | 0.000 | 49.51 | 36 | 65 | 85 | - | - | - | - |

Notes: See notes to Table 46.

## Table 76: MC findings for DGPIV(a)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9575 | 0.0167 | 0.2362 | 0.0239 | 1.030 | 1.659 | 0.868 | 0.053 | 0.503 | 0.419 | 5.44 | 4 | 7 | 8 | 1.986 | 0.96 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9359 | 0.0078 | 0.2283 | 0.0286 | 1.039 | 1.793 | 0.803 | 0.063 | 0.427 | 0.356 | 5.27 | 3 | 7 | 9 | 1.962 | 0.93 | 0.03 | 0.00 |
| | 300 | 0.9219 | 0.0050 | 0.2240 | 0.0300 | 1.044 | 1.853 | 0.767 | 0.070 | 0.391 | 0.321 | 5.18 | 3 | 7 | 10 | 1.938 | 0.91 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9376 | 0.0148 | 0.2152 | 0.0151 | 1.034 | 1.741 | 0.818 | 0.071 | 0.431 | 0.382 | 5.17 | 3 | 7 | 8 | 1.962 | 0.94 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9105 | 0.0067 | 0.2011 | 0.0163 | 1.045 | 1.900 | 0.746 | 0.088 | 0.354 | 0.319 | 4.95 | 3 | 6 | 8 | 1.918 | 0.90 | 0.02 | 0.00 |
| | 300 | 0.8949 | 0.0043 | 0.2001 | 0.0186 | 1.050 | 1.963 | 0.709 | 0.095 | 0.320 | 0.280 | 4.87 | 2 | 6 | 9 | 1.893 | 0.87 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.8661 | 0.0108 | 0.1678 | 0.0045 | 1.057 | 2.096 | 0.672 | 0.112 | 0.248 | 0.242 | 4.50 | 2 | 6 | 7 | 1.866 | 0.85 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8345 | 0.0047 | 0.1536 | 0.0045 | 1.066 | 2.238 | 0.603 | 0.137 | 0.201 | 0.197 | 4.26 | 1 | 6 | 7 | 1.809 | 0.79 | 0.02 | 0.00 |
| | 300 | 0.8066 | 0.0030 | 0.1516 | 0.0054 | 1.079 | 2.351 | 0.549 | 0.131 | 0.171 | 0.164 | 4.12 | 1 | 6 | 7 | 1.755 | 0.74 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9433 | 0.0164 | 0.2354 | 0.0207 | 1.037 | 1.797 | 0.825 | 0.050 | 0.483 | 0.417 | 5.35 | 3 | 7 | 8 | 1.914 | 0.91 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9141 | 0.0076 | 0.2279 | 0.0240 | 1.050 | 1.994 | 0.734 | 0.060 | 0.390 | 0.345 | 5.14 | 3 | 7 | 8 | 1.852 | 0.85 | 0.00 | 0.00 |
| | 300 | 0.8961 | 0.0049 | 0.2250 | 0.0268 | 1.057 | 2.081 | 0.694 | 0.068 | 0.353 | 0.298 | 5.05 | 3 | 7 | 10 | 1.817 | 0.81 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9193 | 0.0146 | 0.2160 | 0.0129 | 1.044 | 1.919 | 0.766 | 0.067 | 0.401 | 0.366 | 5.08 | 3 | 6 | 8 | 1.882 | 0.88 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8848 | 0.0065 | 0.2028 | 0.0138 | 1.058 | 2.131 | 0.673 | 0.083 | 0.317 | 0.297 | 4.82 | 2 | 6 | 8 | 1.803 | 0.80 | 0.00 | 0.00 |
| | 300 | 0.8660 | 0.0043 | 0.2021 | 0.0165 | 1.065 | 2.207 | 0.631 | 0.089 | 0.282 | 0.255 | 4.73 | 2 | 6 | 8 | 1.768 | 0.76 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8396 | 0.0107 | 0.1709 | 0.0041 | 1.072 | 2.324 | 0.606 | 0.101 | 0.222 | 0.219 | 4.39 | 1 | 6 | 7 | 1.760 | 0.76 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7996 | 0.0047 | 0.1569 | 0.0039 | 1.086 | 2.507 | 0.522 | 0.119 | 0.170 | 0.168 | 4.12 | 1 | 6 | 7 | 1.667 | 0.67 | 0.00 | 0.00 |
| | 300 | 0.7741 | 0.0030 | 0.1548 | 0.0052 | 1.097 | 2.586 | 0.470 | 0.112 | 0.147 | 0.142 | 3.99 | 1 | 6 | 7 | 1.625 | 0.62 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9319 | 0.1141 | 0.6373 | 0.5953 | 1.131 | 2.947 | 0.775 | 0.002 | 0.071 | 0.000 | 14.68 | 5 | 27 | 62 | - | - | - | - |
| | 200 | 0.8863 | 0.0739 | 0.6884 | 0.6558 | 1.161 | 3.221 | 0.634 | 0.001 | 0.047 | 0.000 | 18.02 | 5 | 38 | 64 | - | - | - | - |
| | 300 | 0.8613 | 0.0566 | 0.7147 | 0.6863 | 1.178 | 3.311 | 0.573 | 0.000 | 0.031 | 0.000 | 20.21 | 5 | 43 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8419 | 0.0383 | 0.3459 | 0.3110 | 1.109 | 2.656 | 0.592 | 0.064 | 0.012 | 0.000 | 7.04 | 2 | 15 | 36 | - | - | - | - |
| | 200 | 0.7994 | 0.0342 | 0.4476 | 0.4190 | 1.158 | 3.031 | 0.503 | 0.031 | 0.010 | 0.000 | 9.91 | 2 | 28 | 55 | - | - | - | - |
| | 300 | 0.7779 | 0.0304 | 0.5112 | 0.4842 | 1.191 | 3.206 | 0.462 | 0.020 | 0.011 | 0.000 | 12.11 | 2 | 34 | 63 | - | - | - | - |
| SICA | 100 | 0.6111 | 0.0099 | 0.1602 | 0.1245 | 1.153 | 3.198 | 0.159 | 0.075 | 0.000 | 0.000 | 3.39 | 1 | 7 | 21 | - | - | - | - |
| | 200 | 0.5005 | 0.0041 | 0.1469 | 0.1220 | 1.196 | 3.549 | 0.080 | 0.040 | 0.000 | 0.000 | 2.81 | 1 | 6 | 17 | - | - | - | - |
| | 300 | 0.4401 | 0.0025 | 0.1476 | 0.1233 | 1.216 | 3.735 | 0.047 | 0.022 | 0.000 | 0.000 | 2.50 | 1 | 6 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.7726 | 0.0053 | 0.0864 | 0.0559 | 1.085 | 2.478 | 0.414 | 0.303 | 0.000 | 0.000 | 3.60 | 1 | 6 | 18 | - | - | - | - |
| | 200 | 0.7029 | 0.0033 | 0.1084 | 0.0783 | 1.119 | 2.802 | 0.314 | 0.208 | 0.000 | 0.000 | 3.47 | 1 | 6 | 16 | - | - | - | - |
| | 300 | 0.6495 | 0.0027 | 0.1338 | 0.1056 | 1.150 | 3.053 | 0.250 | 0.150 | 0.000 | 0.000 | 3.41 | 1 | 7 | 16 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9904 | 0.3670 | 0.8743 | 0.8523 | 1.163 | 2.711 | 0.962 | 0.000 | 0.174 | 0.000 | 39.20 | 31 | 48 | 55 | - | - | - | - |
| | 200 | 0.9785 | 0.3048 | 0.9237 | 0.9110 | 1.243 | 3.260 | 0.916 | 0.000 | 0.144 | 0.000 | 63.65 | 57 | 71 | 79 | - | - | - | - |
| | 300 | 0.9715 | 0.2372 | 0.9347 | 0.9239 | 1.271 | 3.467 | 0.889 | 0.000 | 0.133 | 0.000 | 74.09 | 67 | 82 | 93 | - | - | - | - |
| $v = 1$ | 100 | 0.9330 | 0.1792 | 0.7687 | 0.7456 | 1.254 | 3.426 | 0.745 | 0.000 | 0.033 | 0.000 | 20.94 | 13 | 32 | 56 | - | - | - | - |
| | 200 | 0.8889 | 0.2114 | 0.8932 | 0.8818 | 1.438 | 4.407 | 0.610 | 0.000 | 0.031 | 0.000 | 44.98 | 27 | 70.5 | 97 | - | - | - | - |
| | 300 | 0.8501 | 0.2280 | 0.9355 | 0.9280 | 1.529 | 4.853 | 0.508 | 0.000 | 0.026 | 0.000 | 70.90 | 46 | 100 | 132 | - | - | - | - |

Notes: See notes to Table 46.

## Table 77: MC findings for DGPIV(a)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2952 | 0.0133 | 1.005 | 1.420 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 8 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2965 | 0.0154 | 1.005 | 1.419 | 1.000 | 0.000 | 0.998 | 0.885 | 6.12 | 6 | 7 | 9 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2968 | 0.0159 | 1.006 | 1.425 | 1.000 | 0.000 | 0.998 | 0.879 | 6.13 | 6 | 7 | 8 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2908 | 0.0072 | 1.004 | 1.403 | 1.000 | 0.000 | 0.999 | 0.943 | 6.06 | 6 | 7 | 8 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2909 | 0.0080 | 1.004 | 1.393 | 1.000 | 0.001 | 0.997 | 0.936 | 6.06 | 6 | 7 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2913 | 0.0086 | 1.005 | 1.402 | 1.000 | 0.000 | 0.996 | 0.929 | 6.07 | 6 | 7 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2861 | 0.0016 | 1.003 | 1.377 | 1.000 | 0.000 | 0.994 | 0.982 | 6.01 | 6 | 6 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2864 | 0.0023 | 1.004 | 1.372 | 1.000 | 0.001 | 0.993 | 0.975 | 6.01 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0068 | 0.2854 | 0.0021 | 1.004 | 1.377 | 1.000 | 0.000 | 0.984 | 0.968 | 6.00 | 6 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0218 | 0.2941 | 0.0118 | 1.004 | 1.409 | 1.000 | 0.000 | 1.000 | 0.911 | 6.10 | 6 | 7 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2951 | 0.0134 | 1.005 | 1.406 | 1.000 | 0.000 | 0.998 | 0.900 | 6.11 | 6 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2959 | 0.0147 | 1.005 | 1.417 | 1.000 | 0.000 | 0.998 | 0.888 | 6.12 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0213 | 0.2900 | 0.0062 | 1.004 | 1.395 | 1.000 | 0.000 | 0.999 | 0.952 | 6.05 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2902 | 0.0070 | 1.004 | 1.386 | 1.000 | 0.001 | 0.997 | 0.944 | 6.05 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2909 | 0.0080 | 1.005 | 1.398 | 1.000 | 0.000 | 0.996 | 0.934 | 6.06 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2859 | 0.0013 | 1.003 | 1.375 | 1.000 | 0.000 | 0.994 | 0.984 | 6.00 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2863 | 0.0022 | 1.004 | 1.371 | 1.000 | 0.001 | 0.993 | 0.976 | 6.01 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0068 | 0.2852 | 0.0019 | 1.004 | 1.376 | 1.000 | 0.000 | 0.984 | 0.969 | 6.00 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1571 | 0.7221 | 0.6876 | 1.033 | 2.532 | 1.000 | 0.001 | 0.112 | 0.001 | 19.08 | 9 | 30 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.1009 | 0.7704 | 0.7449 | 1.043 | 2.843 | 1.000 | 0.001 | 0.093 | 0.000 | 23.79 | 12 | 40 | 66 | - | - | - | - |
| | 300 | 0.9999 | 0.0764 | 0.7869 | 0.7643 | 1.049 | 3.001 | 1.000 | 0.001 | 0.079 | 0.000 | 26.62 | 12 | 46.5 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0311 | 0.2445 | 0.2287 | 1.014 | 1.658 | 0.998 | 0.342 | 0.013 | 0.002 | 6.98 | 4 | 19 | 39 | - | - | - | - |
| | 200 | 0.9994 | 0.0347 | 0.3879 | 0.3729 | 1.032 | 2.098 | 0.998 | 0.181 | 0.021 | 0.001 | 10.80 | 4 | 30 | 51 | - | - | - | - |
| | 300 | 0.9991 | 0.0364 | 0.4870 | 0.4721 | 1.050 | 2.478 | 0.997 | 0.136 | 0.023 | 0.000 | 14.77 | 4 | 38 | 61 | - | - | - | - |
| SICA | 100 | 0.9514 | 0.0049 | 0.0739 | 0.0445 | 1.014 | 2.109 | 0.818 | 0.659 | 0.000 | 0.000 | 4.27 | 4 | 6 | 11 | - | - | - | - |
| | 200 | 0.9408 | 0.0020 | 0.0636 | 0.0348 | 1.018 | 2.233 | 0.786 | 0.654 | 0.000 | 0.000 | 4.15 | 3 | 5 | 11 | - | - | - | - |
| | 300 | 0.9400 | 0.0011 | 0.0568 | 0.0302 | 1.018 | 2.239 | 0.781 | 0.660 | 0.000 | 0.000 | 4.10 | 3 | 5 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.9933 | 0.0013 | 0.0183 | 0.0126 | 1.003 | 1.263 | 0.974 | 0.911 | 0.001 | 0.001 | 4.09 | 4 | 5 | 13 | - | - | - | - |
| | 200 | 0.9904 | 0.0005 | 0.0168 | 0.0116 | 1.004 | 1.320 | 0.965 | 0.907 | 0.000 | 0.000 | 4.07 | 4 | 5 | 10 | - | - | - | - |
| | 300 | 0.9900 | 0.0003 | 0.0143 | 0.0090 | 1.004 | 1.315 | 0.963 | 0.916 | 0.000 | 0.000 | 4.05 | 4 | 4 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3614 | 0.8720 | 0.8506 | 1.047 | 2.527 | 1.000 | 0.000 | 0.191 | 0.000 | 38.70 | 31 | 47 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.3261 | 0.9270 | 0.9152 | 1.080 | 3.070 | 1.000 | 0.000 | 0.167 | 0.000 | 67.91 | 60 | 76 | 85 | - | - | - | - |
| | 300 | 1.0000 | 0.2650 | 0.9399 | 0.9311 | 1.091 | 3.308 | 1.000 | 0.000 | 0.138 | 0.000 | 82.45 | 75 | 90 | 101 | - | - | - | - |
| $v = 1$ | 100 | 0.9988 | 0.1557 | 0.7369 | 0.7130 | 1.082 | 3.306 | 0.995 | 0.000 | 0.066 | 0.000 | 18.94 | 13 | 27 | 40 | - | - | - | - |
| | 200 | 0.9985 | 0.1577 | 0.8552 | 0.8426 | 1.152 | 4.299 | 0.994 | 0.000 | 0.047 | 0.000 | 34.90 | 24 | 48 | 81 | - | - | - | - |
| | 300 | 0.9985 | 0.1652 | 0.9041 | 0.8966 | 1.218 | 5.101 | 0.994 | 0.000 | 0.041 | 0.000 | 52.89 | 38 | 71.5 | 104 | - | - | - | - |

Notes: See notes to Table 46.

## Table 78: MC findings for DGPIV(a)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2960 | 0.0144 | 1.003 | 1.400 | 1.000 | 0.000 | 1.000 | 0.892 | 6.12 | 6 | 7 | 9 | 2.010 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2965 | 0.0151 | 1.003 | 1.427 | 1.000 | 0.000 | 1.000 | 0.885 | 6.12 | 6 | 7 | 8 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2955 | 0.0137 | 1.003 | 1.404 | 1.000 | 0.000 | 1.000 | 0.896 | 6.11 | 6 | 7 | 9 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2914 | 0.0079 | 1.003 | 1.378 | 1.000 | 0.000 | 1.000 | 0.940 | 6.06 | 6 | 7 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2910 | 0.0073 | 1.003 | 1.404 | 1.000 | 0.000 | 1.000 | 0.942 | 6.06 | 6 | 7 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2903 | 0.0065 | 1.003 | 1.381 | 1.000 | 0.000 | 1.000 | 0.949 | 6.05 | 6 | 7 | 8 | 2.005 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2869 | 0.0017 | 1.002 | 1.357 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0014 | 1.002 | 1.380 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2864 | 0.0009 | 1.002 | 1.356 | 1.000 | 0.000 | 1.000 | 0.993 | 6.01 | 6 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2947 | 0.0126 | 1.003 | 1.388 | 1.000 | 0.000 | 1.000 | 0.905 | 6.10 | 6 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2956 | 0.0139 | 1.003 | 1.418 | 1.000 | 0.000 | 1.000 | 0.894 | 6.11 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2947 | 0.0125 | 1.003 | 1.395 | 1.000 | 0.000 | 1.000 | 0.905 | 6.10 | 6 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2907 | 0.0070 | 1.003 | 1.372 | 1.000 | 0.000 | 1.000 | 0.947 | 6.06 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2906 | 0.0068 | 1.003 | 1.399 | 1.000 | 0.000 | 1.000 | 0.947 | 6.05 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2897 | 0.0055 | 1.002 | 1.373 | 1.000 | 0.000 | 1.000 | 0.956 | 6.04 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2868 | 0.0015 | 1.002 | 1.355 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0014 | 1.002 | 1.380 | 1.000 | 0.000 | 1.000 | 0.989 | 6.01 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2862 | 0.0008 | 1.002 | 1.355 | 1.000 | 0.000 | 1.000 | 0.994 | 6.01 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1587 | 0.7247 | 0.6928 | 1.020 | 2.426 | 1.000 | 0.000 | 0.103 | 0.000 | 19.24 | 10 | 31 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.0997 | 0.7679 | 0.7425 | 1.025 | 2.797 | 1.000 | 0.000 | 0.084 | 0.000 | 23.53 | 11 | 39 | 68 | - | - | - | - |
| | 300 | 1.0000 | 0.0758 | 0.7878 | 0.7652 | 1.029 | 2.984 | 1.000 | 0.000 | 0.076 | 0.000 | 26.44 | 12 | 46 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0273 | 0.1794 | 0.1698 | 1.007 | 1.540 | 1.000 | 0.532 | 0.008 | 0.000 | 6.62 | 4 | 20 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0327 | 0.3209 | 0.3093 | 1.019 | 2.010 | 1.000 | 0.362 | 0.018 | 0.000 | 10.41 | 4 | 29 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.0325 | 0.4166 | 0.4047 | 1.028 | 2.381 | 1.000 | 0.279 | 0.021 | 0.000 | 13.63 | 4 | 35 | 68 | - | - | - | - |
| SICA | 100 | 0.9709 | 0.0027 | 0.0427 | 0.0220 | 1.006 | 2.035 | 0.887 | 0.800 | 0.000 | 0.000 | 4.14 | 4 | 5 | 12 | - | - | - | - |
| | 200 | 0.9711 | 0.0011 | 0.0370 | 0.0158 | 1.006 | 2.027 | 0.887 | 0.824 | 0.000 | 0.000 | 4.10 | 4 | 5 | 8 | - | - | - | - |
| | 300 | 0.9675 | 0.0008 | 0.0388 | 0.0157 | 1.007 | 2.106 | 0.872 | 0.809 | 0.000 | 0.000 | 4.09 | 4 | 5 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.9999 | 0.0007 | 0.0091 | 0.0084 | 1.001 | 1.064 | 1.000 | 0.959 | 0.000 | 0.000 | 4.06 | 4 | 4 | 9 | - | - | - | - |
| | 200 | 0.9995 | 0.0002 | 0.0074 | 0.0066 | 1.001 | 1.073 | 0.998 | 0.963 | 0.000 | 0.000 | 4.05 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 0.9995 | 0.0002 | 0.0076 | 0.0070 | 1.001 | 1.076 | 0.998 | 0.963 | 0.000 | 0.000 | 4.05 | 4 | 4 | 10 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3600 | 0.8715 | 0.8504 | 1.027 | 2.436 | 1.000 | 0.000 | 0.172 | 0.000 | 38.56 | 30 | 47 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.3273 | 0.9273 | 0.9158 | 1.046 | 2.988 | 1.000 | 0.000 | 0.155 | 0.000 | 68.16 | 59 | 76 | 85 | - | - | - | - |
| | 300 | 1.0000 | 0.2696 | 0.9408 | 0.9321 | 1.053 | 3.208 | 1.000 | 0.000 | 0.138 | 0.000 | 83.79 | 76 | 91 | 101 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1509 | 0.7308 | 0.7062 | 1.049 | 3.235 | 1.000 | 0.000 | 0.058 | 0.000 | 18.49 | 12 | 26 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.1484 | 0.8482 | 0.8348 | 1.093 | 4.273 | 1.000 | 0.000 | 0.054 | 0.000 | 33.09 | 24 | 44 | 60 | - | - | - | - |
| | 300 | 1.0000 | 0.1531 | 0.8979 | 0.8890 | 1.135 | 5.081 | 1.000 | 0.000 | 0.051 | 0.000 | 49.32 | 37 | 64 | 94 | - | - | - | - |

Notes: See notes to Table 46.

## Table 79: MC findings for DGPIV(a)

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6133 | 0.0095 | 0.1738 | 0.0333 | 1.076 | 2.310 | 0.211 | 0.033 | 0.079 | 0.065 | 3.37 | 0 | 6 | 9 | 1.393 | 0.38 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5290 | 0.0041 | 0.1685 | 0.0418 | 1.092 | 2.426 | 0.155 | 0.031 | 0.050 | 0.043 | 2.92 | 0 | 6 | 8 | 1.284 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.4908 | 0.0026 | 0.1645 | 0.0479 | 1.097 | 2.531 | 0.110 | 0.028 | 0.030 | 0.024 | 2.74 | 0 | 6 | 8 | 1.215 | 0.21 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5396 | 0.0073 | 0.1425 | 0.0192 | 1.083 | 2.405 | 0.145 | 0.032 | 0.047 | 0.041 | 2.86 | 0 | 6 | 8 | 1.295 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4593 | 0.0031 | 0.1353 | 0.0257 | 1.098 | 2.503 | 0.104 | 0.030 | 0.029 | 0.028 | 2.45 | 0 | 5 | 7 | 1.202 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.4268 | 0.0020 | 0.1309 | 0.0306 | 1.103 | 2.588 | 0.075 | 0.022 | 0.018 | 0.017 | 2.29 | 0 | 5 | 8 | 1.155 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3846 | 0.0043 | 0.0952 | 0.0062 | 1.104 | 2.611 | 0.059 | 0.019 | 0.013 | 0.012 | 1.95 | 0 | 5 | 7 | 1.138 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3249 | 0.0017 | 0.0816 | 0.0077 | 1.116 | 2.648 | 0.050 | 0.017 | 0.009 | 0.009 | 1.64 | 0 | 5 | 7 | 1.091 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.3039 | 0.0010 | 0.0738 | 0.0086 | 1.118 | 2.705 | 0.030 | 0.014 | 0.004 | 0.004 | 1.52 | 0 | 4 | 6 | 1.063 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5766 | 0.0094 | 0.1765 | 0.0317 | 1.083 | 2.423 | 0.138 | 0.025 | 0.051 | 0.042 | 3.21 | 0 | 6 | 8 | 1.237 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4959 | 0.0041 | 0.1721 | 0.0415 | 1.098 | 2.523 | 0.087 | 0.019 | 0.032 | 0.029 | 2.78 | 0 | 6 | 7 | 1.146 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.4629 | 0.0026 | 0.1670 | 0.0468 | 1.103 | 2.608 | 0.059 | 0.016 | 0.015 | 0.013 | 2.62 | 0 | 5 | 7 | 1.097 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5106 | 0.0073 | 0.1450 | 0.0185 | 1.089 | 2.491 | 0.094 | 0.024 | 0.030 | 0.025 | 2.74 | 0 | 5 | 8 | 1.175 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4356 | 0.0031 | 0.1375 | 0.0252 | 1.103 | 2.566 | 0.064 | 0.020 | 0.019 | 0.018 | 2.35 | 0 | 5 | 7 | 1.104 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.4070 | 0.0020 | 0.1329 | 0.0301 | 1.107 | 2.640 | 0.041 | 0.014 | 0.009 | 0.008 | 2.21 | 0 | 5 | 7 | 1.072 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3683 | 0.0043 | 0.0960 | 0.0056 | 1.107 | 2.650 | 0.035 | 0.010 | 0.007 | 0.007 | 1.88 | 0 | 5 | 7 | 1.070 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3134 | 0.0017 | 0.0827 | 0.0074 | 1.118 | 2.678 | 0.025 | 0.010 | 0.005 | 0.005 | 1.59 | 0 | 4 | 7 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.2954 | 0.0010 | 0.0742 | 0.0081 | 1.120 | 2.723 | 0.016 | 0.007 | 0.002 | 0.002 | 1.48 | 0 | 4 | 6 | 1.027 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6786 | 0.0792 | 0.5955 | 0.5467 | 1.094 | 2.521 | 0.210 | 0.001 | 0.014 | 0.000 | 10.32 | 3 | 21 | 37 | - | - | - | - |
| | 200 | 0.6074 | 0.0520 | 0.6594 | 0.6195 | 1.110 | 2.625 | 0.119 | 0.000 | 0.006 | 0.000 | 12.62 | 3 | 29 | 70 | - | - | - | - |
| | 300 | 0.5730 | 0.0412 | 0.6943 | 0.6595 | 1.115 | 2.709 | 0.077 | 0.000 | 0.006 | 0.000 | 14.48 | 3 | 35 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5265 | 0.0324 | 0.3764 | 0.3324 | 1.103 | 2.579 | 0.101 | 0.005 | 0.002 | 0.000 | 5.21 | 1 | 13 | 29 | - | - | - | - |
| | 200 | 0.4806 | 0.0263 | 0.4853 | 0.4472 | 1.138 | 2.801 | 0.079 | 0.001 | 0.002 | 0.000 | 7.08 | 1 | 19 | 64 | - | - | - | - |
| | 300 | 0.4619 | 0.0235 | 0.5441 | 0.5113 | 1.161 | 2.990 | 0.047 | 0.001 | 0.003 | 0.000 | 8.81 | 1 | 25 | 62 | - | - | - | - |
| SICA | 100 | 0.3443 | 0.0116 | 0.2306 | 0.1929 | 1.131 | 2.874 | 0.006 | 0.002 | 0.000 | 0.000 | 2.49 | 1 | 6 | 16 | - | - | - | - |
| | 200 | 0.2944 | 0.0050 | 0.2112 | 0.1803 | 1.142 | 2.904 | 0.002 | 0.001 | 0.000 | 0.000 | 2.15 | 1 | 5.5 | 21 | - | - | - | - |
| | 300 | 0.2629 | 0.0032 | 0.2161 | 0.1875 | 1.148 | 3.026 | 0.001 | 0.000 | 0.000 | 0.000 | 2.01 | 1 | 5 | 14 | - | - | - | - |
| Hard thresholding | 100 | 0.4003 | 0.0103 | 0.2021 | 0.1590 | 1.119 | 2.748 | 0.023 | 0.008 | 0.000 | 0.000 | 2.59 | 1 | 6 | 22 | - | - | - | - |
| | 200 | 0.3313 | 0.0057 | 0.2211 | 0.1871 | 1.141 | 2.876 | 0.009 | 0.002 | 0.000 | 0.000 | 2.45 | 1 | 7 | 20 | - | - | - | - |
| | 300 | 0.2910 | 0.0040 | 0.2375 | 0.2080 | 1.155 | 3.039 | 0.004 | 0.001 | 0.000 | 0.000 | 2.34 | 1 | 6.5 | 19 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9204 | 0.3627 | 0.8791 | 0.8576 | 1.155 | 2.632 | 0.711 | 0.000 | 0.109 | 0.000 | 38.50 | 29 | 48 | 58 | - | - | - | - |
| | 200 | 0.8788 | 0.3107 | 0.9307 | 0.9185 | 1.231 | 3.077 | 0.590 | 0.000 | 0.080 | 0.000 | 64.40 | 57 | 71 | 79 | - | - | - | - |
| | 300 | 0.8306 | 0.2432 | 0.9431 | 0.9338 | 1.252 | 3.300 | 0.475 | 0.000 | 0.043 | 0.000 | 75.30 | 68 | 83 | 94 | - | - | - | - |
| $v = 1$ | 100 | 0.7698 | 0.1755 | 0.7920 | 0.7680 | 1.244 | 3.321 | 0.334 | 0.000 | 0.007 | 0.000 | 19.93 | 12 | 31 | 51 | - | - | - | - |
| | 200 | 0.7105 | 0.2103 | 0.9088 | 0.8975 | 1.414 | 4.190 | 0.222 | 0.000 | 0.011 | 0.000 | 44.05 | 27 | 68 | 100 | - | - | - | - |
| | 300 | 0.6515 | 0.2297 | 0.9473 | 0.9401 | 1.505 | 4.706 | 0.147 | 0.000 | 0.008 | 0.000 | 70.59 | 46 | 100 | 129 | - | - | - | - |

Notes: See notes to Table 46.

## Table 80: MC findings for DGPIV(a)

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR$^*$ | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9990 | 0.0214 | 0.2884 | 0.0160 | 1.005 | 1.425 | 0.996 | 0.004 | 0.928 | 0.819 | 6.05 | 5 | 7 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9974 | 0.0102 | 0.2828 | 0.0148 | 1.006 | 1.442 | 0.992 | 0.007 | 0.889 | 0.789 | 6.00 | 5 | 7 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9971 | 0.0067 | 0.2800 | 0.0173 | 1.006 | 1.456 | 0.989 | 0.013 | 0.863 | 0.750 | 5.98 | 5 | 7 | 9 | 2.000 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9981 | 0.0205 | 0.2797 | 0.0082 | 1.005 | 1.405 | 0.993 | 0.005 | 0.901 | 0.850 | 5.96 | 5 | 7 | 8 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9958 | 0.0097 | 0.2729 | 0.0081 | 1.005 | 1.427 | 0.985 | 0.013 | 0.852 | 0.803 | 5.89 | 5 | 6.5 | 8 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9951 | 0.0063 | 0.2674 | 0.0096 | 1.005 | 1.435 | 0.983 | 0.021 | 0.812 | 0.752 | 5.85 | 5 | 7 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9949 | 0.0186 | 0.2596 | 0.0019 | 1.004 | 1.395 | 0.981 | 0.024 | 0.793 | 0.785 | 5.77 | 5 | 6 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9896 | 0.0088 | 0.2513 | 0.0015 | 1.005 | 1.439 | 0.963 | 0.029 | 0.734 | 0.727 | 5.68 | 4 | 6 | 8 | 1.988 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9863 | 0.0056 | 0.2429 | 0.0025 | 1.005 | 1.474 | 0.953 | 0.044 | 0.676 | 0.662 | 5.60 | 4 | 6 | 8 | 1.983 | 0.98 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9974 | 0.0213 | 0.2881 | 0.0152 | 1.006 | 1.447 | 0.990 | 0.004 | 0.921 | 0.819 | 6.04 | 5 | 7 | 8 | 1.990 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9938 | 0.0102 | 0.2832 | 0.0144 | 1.006 | 1.503 | 0.978 | 0.007 | 0.875 | 0.782 | 5.98 | 5 | 7 | 8 | 1.983 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9930 | 0.0067 | 0.2802 | 0.0165 | 1.006 | 1.522 | 0.973 | 0.013 | 0.847 | 0.741 | 5.95 | 5 | 7 | 8 | 1.980 | 0.98 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9959 | 0.0204 | 0.2797 | 0.0077 | 1.005 | 1.442 | 0.984 | 0.005 | 0.893 | 0.846 | 5.94 | 5 | 6 | 8 | 1.987 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9916 | 0.0097 | 0.2735 | 0.0077 | 1.006 | 1.499 | 0.969 | 0.013 | 0.836 | 0.791 | 5.87 | 5 | 6 | 8 | 1.978 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9893 | 0.0063 | 0.2680 | 0.0089 | 1.006 | 1.536 | 0.960 | 0.021 | 0.791 | 0.737 | 5.82 | 5 | 7 | 8 | 1.970 | 0.97 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9896 | 0.0186 | 0.2603 | 0.0017 | 1.006 | 1.485 | 0.960 | 0.023 | 0.775 | 0.768 | 5.74 | 5 | 6 | 8 | 1.972 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9811 | 0.0088 | 0.2528 | 0.0015 | 1.007 | 1.589 | 0.932 | 0.029 | 0.708 | 0.701 | 5.64 | 4 | 6 | 8 | 1.954 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9766 | 0.0056 | 0.2444 | 0.0022 | 1.008 | 1.638 | 0.917 | 0.042 | 0.649 | 0.637 | 5.56 | 4 | 6 | 8 | 1.943 | 0.94 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9915 | 0.1362 | 0.6775 | 0.6403 | 1.037 | 2.641 | 0.968 | 0.003 | 0.100 | 0.001 | 17.04 | 7 | 29 | 44 | - | - | - | - |
| | 200 | 0.9819 | 0.0842 | 0.7139 | 0.6831 | 1.047 | 2.994 | 0.931 | 0.002 | 0.072 | 0.000 | 20.43 | 7 | 38 | 63 | - | - | - | - |
| | 300 | 0.9749 | 0.0637 | 0.7370 | 0.7102 | 1.052 | 3.127 | 0.909 | 0.001 | 0.056 | 0.000 | 22.77 | 7 | 43 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9563 | 0.0395 | 0.3374 | 0.3108 | 1.024 | 2.127 | 0.859 | 0.148 | 0.012 | 0.001 | 7.62 | 3 | 16 | 33 | - | - | - | - |
| | 200 | 0.9464 | 0.0355 | 0.4436 | 0.4214 | 1.042 | 2.541 | 0.838 | 0.086 | 0.015 | 0.000 | 10.74 | 3 | 27 | 47 | - | - | - | - |
| | 300 | 0.9429 | 0.0332 | 0.5145 | 0.4938 | 1.058 | 2.811 | 0.833 | 0.052 | 0.021 | 0.000 | 13.60 | 3 | 36 | 66 | - | - | - | - |
| SICA | 100 | 0.7984 | 0.0083 | 0.1236 | 0.0900 | 1.034 | 2.667 | 0.422 | 0.229 | 0.000 | 0.000 | 3.99 | 1 | 7 | 13 | - | - | - | - |
| | 200 | 0.7156 | 0.0032 | 0.1029 | 0.0728 | 1.047 | 3.102 | 0.289 | 0.163 | 0.000 | 0.000 | 3.48 | 1 | 6 | 16 | - | - | - | - |
| | 300 | 0.6673 | 0.0019 | 0.0971 | 0.0712 | 1.055 | 3.279 | 0.220 | 0.115 | 0.000 | 0.000 | 3.24 | 1 | 6 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.9081 | 0.0032 | 0.0517 | 0.0290 | 1.014 | 1.900 | 0.699 | 0.586 | 0.000 | 0.000 | 3.94 | 3 | 5 | 9 | - | - | - | - |
| | 200 | 0.8814 | 0.0016 | 0.0526 | 0.0298 | 1.018 | 2.108 | 0.625 | 0.514 | 0.000 | 0.000 | 3.83 | 3 | 5 | 13 | - | - | - | - |
| | 300 | 0.8656 | 0.0010 | 0.0516 | 0.0299 | 1.022 | 2.184 | 0.592 | 0.498 | 0.000 | 0.000 | 3.77 | 2 | 5 | 18 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9988 | 0.3602 | 0.8715 | 0.8501 | 1.047 | 2.497 | 0.995 | 0.000 | 0.174 | 0.000 | 38.57 | 30 | 47 | 59 | - | - | - | - |
| | 200 | 0.9968 | 0.3320 | 0.9284 | 0.9169 | 1.080 | 3.124 | 0.987 | 0.000 | 0.155 | 0.000 | 69.06 | 60 | 77 | 86 | - | - | - | - |
| | 300 | 0.9970 | 0.2740 | 0.9419 | 0.9330 | 1.095 | 3.312 | 0.988 | 0.000 | 0.139 | 0.000 | 85.09 | 77 | 93 | 101 | - | - | - | - |
| $v = 1$ | 100 | 0.9781 | 0.1530 | 0.7353 | 0.7150 | 1.082 | 3.240 | 0.914 | 0.000 | 0.028 | 0.000 | 18.60 | 12 | 27 | 43 | - | - | - | - |
| | 200 | 0.9723 | 0.1557 | 0.8566 | 0.8452 | 1.151 | 4.315 | 0.892 | 0.000 | 0.026 | 0.000 | 34.40 | 24 | 47 | 63 | - | - | - | - |
| | 300 | 0.9679 | 0.1653 | 0.9063 | 0.8991 | 1.219 | 5.042 | 0.875 | 0.000 | 0.028 | 0.000 | 52.81 | 38 | 71 | 104 | - | - | - | - |

Notes: See notes to Table 46.

## Table 81: MC findings for DGPIV(a)

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2952 | 0.0134 | 1.003 | 1.419 | 1.000 | 0.000 | 0.999 | 0.899 | 6.11 | 6 | 7 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0107 | 0.2949 | 0.0131 | 1.003 | 1.419 | 1.000 | 0.000 | 0.999 | 0.901 | 6.10 | 6 | 7 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2941 | 0.0125 | 1.003 | 1.428 | 1.000 | 0.000 | 0.996 | 0.902 | 6.10 | 6 | 7 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2909 | 0.0077 | 1.003 | 1.398 | 1.000 | 0.000 | 0.998 | 0.940 | 6.06 | 6 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0104 | 0.2896 | 0.0060 | 1.003 | 1.392 | 1.000 | 0.000 | 0.997 | 0.951 | 6.05 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2892 | 0.0059 | 1.002 | 1.401 | 1.000 | 0.001 | 0.995 | 0.950 | 6.04 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2857 | 0.0017 | 1.002 | 1.373 | 1.000 | 0.001 | 0.991 | 0.978 | 6.00 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0102 | 0.2854 | 0.0017 | 1.002 | 1.368 | 1.000 | 0.000 | 0.987 | 0.974 | 6.00 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2845 | 0.0014 | 1.002 | 1.377 | 1.000 | 0.002 | 0.984 | 0.973 | 5.99 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2947 | 0.0127 | 1.003 | 1.414 | 1.000 | 0.000 | 0.999 | 0.904 | 6.10 | 6 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2944 | 0.0124 | 1.003 | 1.415 | 1.000 | 0.000 | 0.999 | 0.906 | 6.10 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2938 | 0.0121 | 1.003 | 1.423 | 1.000 | 0.000 | 0.996 | 0.904 | 6.09 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2907 | 0.0074 | 1.003 | 1.396 | 1.000 | 0.000 | 0.998 | 0.942 | 6.06 | 6 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0104 | 0.2895 | 0.0058 | 1.003 | 1.390 | 1.000 | 0.000 | 0.997 | 0.952 | 6.04 | 6 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2890 | 0.0057 | 1.002 | 1.399 | 1.000 | 0.001 | 0.995 | 0.951 | 6.04 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0208 | 0.2855 | 0.0014 | 1.002 | 1.367 | 1.000 | 0.001 | 0.991 | 0.980 | 6.00 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0102 | 0.2853 | 0.0016 | 1.002 | 1.367 | 1.000 | 0.000 | 0.987 | 0.975 | 6.00 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2845 | 0.0014 | 1.002 | 1.377 | 1.000 | 0.002 | 0.984 | 0.973 | 5.99 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.1527 | 0.7152 | 0.6801 | 1.019 | 2.507 | 0.999 | 0.002 | 0.109 | 0.001 | 18.66 | 9 | 30 | 40 | - | - | - | - |
| | 200 | 0.9996 | 0.0995 | 0.7619 | 0.7351 | 1.025 | 2.784 | 0.999 | 0.001 | 0.086 | 0.000 | 23.49 | 10 | 40 | 73 | - | - | - | - |
| | 300 | 0.9995 | 0.0747 | 0.7803 | 0.7576 | 1.029 | 3.029 | 0.998 | 0.001 | 0.082 | 0.000 | 26.11 | 11 | 45 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9966 | 0.0324 | 0.2823 | 0.2627 | 1.009 | 1.725 | 0.987 | 0.245 | 0.010 | 0.001 | 7.10 | 4 | 16 | 35 | - | - | - | - |
| | 200 | 0.9965 | 0.0397 | 0.4438 | 0.4263 | 1.022 | 2.197 | 0.987 | 0.133 | 0.025 | 0.000 | 11.76 | 4 | 32 | 66 | - | - | - | - |
| | 300 | 0.9964 | 0.0385 | 0.5318 | 0.5150 | 1.035 | 2.651 | 0.987 | 0.096 | 0.030 | 0.000 | 15.39 | 4 | 38 | 70 | - | - | - | - |
| SICA | 100 | 0.9305 | 0.0058 | 0.0853 | 0.0603 | 1.011 | 2.121 | 0.751 | 0.542 | 0.000 | 0.000 | 4.28 | 3 | 6 | 12 | - | - | - | - |
| | 200 | 0.9018 | 0.0025 | 0.0779 | 0.0471 | 1.014 | 2.384 | 0.664 | 0.501 | 0.000 | 0.000 | 4.09 | 3 | 6 | 12 | - | - | - | - |
| | 300 | 0.8875 | 0.0015 | 0.0731 | 0.0430 | 1.016 | 2.523 | 0.629 | 0.488 | 0.000 | 0.000 | 4.00 | 3 | 6 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.9833 | 0.0020 | 0.0295 | 0.0207 | 1.003 | 1.393 | 0.935 | 0.838 | 0.000 | 0.000 | 4.13 | 4 | 5 | 12 | - | - | - | - |
| | 200 | 0.9744 | 0.0008 | 0.0259 | 0.0148 | 1.004 | 1.501 | 0.904 | 0.832 | 0.000 | 0.000 | 4.05 | 4 | 5 | 10 | - | - | - | - |
| | 300 | 0.9696 | 0.0005 | 0.0264 | 0.0155 | 1.005 | 1.581 | 0.892 | 0.818 | 0.000 | 0.000 | 4.04 | 3 | 5 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9998 | 0.3603 | 0.8716 | 0.8508 | 1.027 | 2.449 | 0.999 | 0.000 | 0.177 | 0.000 | 38.59 | 30 | 47 | 54 | - | - | - | - |
| | 200 | 0.9998 | 0.3340 | 0.9286 | 0.9172 | 1.047 | 3.008 | 0.999 | 0.000 | 0.163 | 0.000 | 69.46 | 60 | 78 | 84 | - | - | - | - |
| | 300 | 0.9998 | 0.2795 | 0.9428 | 0.9344 | 1.053 | 3.260 | 0.999 | 0.000 | 0.143 | 0.000 | 86.72 | 79 | 94 | 104 | - | - | - | - |
| $v = 1$ | 100 | 0.9969 | 0.1486 | 0.7280 | 0.7062 | 1.049 | 3.214 | 0.988 | 0.000 | 0.039 | 0.000 | 18.25 | 12 | 26 | 36 | - | - | - | - |
| | 200 | 0.9956 | 0.1485 | 0.8489 | 0.8370 | 1.092 | 4.231 | 0.983 | 0.000 | 0.037 | 0.000 | 33.10 | 24 | 44 | 61 | - | - | - | - |
| | 300 | 0.9944 | 0.1519 | 0.8974 | 0.8897 | 1.129 | 5.046 | 0.978 | 0.000 | 0.035 | 0.000 | 48.95 | 36 | 64 | 94 | - | - | - | - |

Notes: See notes to Table 46.

## Table 82: MC findings for DGPIV(b)

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9718 | 0.0081 | 0.1225 | 0.0250 | 1.023 | 1.476 | 0.891 | 0.352 | 4.66 | 4 | 6 | 10 | 1.911 | 0.89 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9556 | 0.0035 | 0.1115 | 0.0268 | 1.031 | 1.603 | 0.832 | 0.368 | 4.51 | 3 | 6 | 8 | 1.852 | 0.84 | 0.02 | 0.00 |
| | 300 | 0.9455 | 0.0022 | 0.1073 | 0.0342 | 1.036 | 1.718 | 0.798 | 0.391 | 4.44 | 3 | 6 | 8 | 1.818 | 0.80 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9624 | 0.0063 | 0.0986 | 0.0144 | 1.025 | 1.531 | 0.857 | 0.420 | 4.45 | 3 | 6 | 9 | 1.872 | 0.86 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9443 | 0.0027 | 0.0875 | 0.0158 | 1.034 | 1.668 | 0.795 | 0.429 | 4.30 | 3 | 5 | 8 | 1.813 | 0.80 | 0.01 | 0.00 |
| | 300 | 0.9326 | 0.0016 | 0.0813 | 0.0198 | 1.039 | 1.792 | 0.753 | 0.452 | 4.21 | 3 | 5 | 8 | 1.774 | 0.76 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9300 | 0.0037 | 0.0611 | 0.0040 | 1.038 | 1.775 | 0.746 | 0.496 | 4.07 | 3 | 5 | 7 | 1.758 | 0.75 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9114 | 0.0016 | 0.0546 | 0.0049 | 1.046 | 1.894 | 0.692 | 0.498 | 3.95 | 3 | 5 | 6 | 1.705 | 0.70 | 0.01 | 0.00 |
| | 300 | 0.8985 | 0.0009 | 0.0478 | 0.0064 | 1.051 | 2.010 | 0.648 | 0.493 | 3.86 | 3 | 5 | 7 | 1.659 | 0.65 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9391 | 0.0077 | 0.1206 | 0.0207 | 1.038 | 1.758 | 0.761 | 0.308 | 4.50 | 3 | 6 | 9 | 1.766 | 0.76 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9218 | 0.0034 | 0.1109 | 0.0236 | 1.048 | 1.875 | 0.701 | 0.329 | 4.35 | 3 | 6 | 8 | 1.704 | 0.70 | 0.00 | 0.00 |
| | 300 | 0.9028 | 0.0021 | 0.1068 | 0.0309 | 1.057 | 2.048 | 0.630 | 0.327 | 4.24 | 3 | 6 | 8 | 1.632 | 0.63 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9259 | 0.0061 | 0.0982 | 0.0117 | 1.043 | 1.845 | 0.713 | 0.352 | 4.29 | 3 | 6 | 8 | 1.717 | 0.71 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9099 | 0.0026 | 0.0879 | 0.0139 | 1.051 | 1.942 | 0.661 | 0.377 | 4.15 | 3 | 5 | 8 | 1.666 | 0.66 | 0.00 | 0.00 |
| | 300 | 0.8881 | 0.0016 | 0.0809 | 0.0170 | 1.062 | 2.126 | 0.578 | 0.360 | 4.01 | 3 | 5 | 8 | 1.582 | 0.58 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8946 | 0.0036 | 0.0614 | 0.0027 | 1.055 | 2.048 | 0.608 | 0.406 | 3.92 | 3 | 5 | 7 | 1.612 | 0.61 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8706 | 0.0015 | 0.0553 | 0.0043 | 1.066 | 2.181 | 0.534 | 0.385 | 3.79 | 3 | 5 | 6 | 1.538 | 0.54 | 0.00 | 0.00 |
| | 300 | 0.8545 | 0.0009 | 0.0485 | 0.0057 | 1.073 | 2.313 | 0.476 | 0.367 | 3.68 | 3 | 5 | 7 | 1.479 | 0.48 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9684 | 0.0993 | 0.5807 | 0.5317 | 1.103 | 2.492 | 0.878 | 0.013 | 13.41 | 4 | 26 | 53 | - | - | - | - |
| | 200 | 0.9564 | 0.0666 | 0.6473 | 0.6184 | 1.126 | 2.687 | 0.836 | 0.004 | 16.88 | 5 | 35 | 67 | - | - | - | - |
| | 300 | 0.9394 | 0.0523 | 0.6792 | 0.6576 | 1.143 | 2.875 | 0.773 | 0.003 | 19.25 | 5 | 41 | 83 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9018 | 0.0310 | 0.2265 | 0.2071 | 1.098 | 2.553 | 0.727 | 0.227 | 6.58 | 2 | 19 | 37 | - | - | - | - |
| | 200 | 0.8923 | 0.0289 | 0.3345 | 0.3186 | 1.135 | 2.776 | 0.688 | 0.132 | 9.22 | 2 | 27 | 48 | - | - | - | - |
| | 300 | 0.8784 | 0.0266 | 0.4007 | 0.3885 | 1.164 | 3.029 | 0.652 | 0.082 | 11.39 | 2 | 32 | 56 | - | - | - | - |
| SICA | 100 | 0.7398 | 0.0055 | 0.0771 | 0.0713 | 1.133 | 3.146 | 0.482 | 0.300 | 3.49 | 1 | 6 | 18 | - | - | - | - |
| | 200 | 0.6525 | 0.0024 | 0.0760 | 0.0728 | 1.169 | 3.573 | 0.347 | 0.212 | 3.09 | 1 | 6 | 16 | - | - | - | - |
| | 300 | 0.5951 | 0.0016 | 0.0761 | 0.0735 | 1.193 | 3.876 | 0.263 | 0.154 | 2.85 | 1 | 6 | 16 | - | - | - | - |
| Hard thresholding | 100 | 0.8258 | 0.0016 | 0.0214 | 0.0196 | 1.080 | 2.542 | 0.652 | 0.573 | 3.45 | 1 | 5 | 14 | - | - | - | - |
| | 200 | 0.8038 | 0.0012 | 0.0315 | 0.0296 | 1.095 | 2.722 | 0.614 | 0.510 | 3.44 | 1 | 5 | 14 | - | - | - | - |
| | 300 | 0.7679 | 0.0008 | 0.0345 | 0.0333 | 1.109 | 2.934 | 0.551 | 0.448 | 3.31 | 1 | 5 | 14 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9991 | 0.3839 | 0.8783 | 0.8138 | 1.159 | 2.698 | 0.997 | 0.000 | 40.85 | 31 | 49 | 55 | - | - | - | - |
| | 200 | 0.9985 | 0.3022 | 0.9219 | 0.8881 | 1.220 | 3.082 | 0.994 | 0.000 | 63.23 | 56 | 70 | 78 | - | - | - | - |
| | 300 | 0.9961 | 0.2341 | 0.9326 | 0.9099 | 1.240 | 3.272 | 0.985 | 0.000 | 73.26 | 66 | 81 | 92 | - | - | - | - |
| $v = 1$ | 100 | 0.9925 | 0.2205 | 0.7919 | 0.7347 | 1.278 | 3.772 | 0.973 | 0.000 | 25.14 | 14.5 | 41 | 61 | - | - | - | - |
| | 200 | 0.9790 | 0.2505 | 0.9011 | 0.8684 | 1.460 | 4.818 | 0.924 | 0.000 | 53.00 | 31 | 81 | 113 | - | - | - | - |
| | 300 | 0.9415 | 0.2566 | 0.9379 | 0.9158 | 1.545 | 5.354 | 0.809 | 0.000 | 79.72 | 53 | 111 | 134 | - | - | - | - |

Notes: See notes to Table 1.

## Table 83: MC findings for DGPIV(b)

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0153 | 0.2193 | 0.0163 | 1.004 | 1.241 | 1.000 | 0.007 | 5.47 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0071 | 0.2109 | 0.0177 | 1.004 | 1.222 | 1.000 | 0.010 | 5.39 | 5 | 7 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.2069 | 0.0177 | 1.004 | 1.227 | 1.000 | 0.015 | 5.36 | 5 | 6 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0139 | 0.2042 | 0.0086 | 1.003 | 1.207 | 1.000 | 0.013 | 5.33 | 5 | 6 | 9 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0064 | 0.1951 | 0.0090 | 1.003 | 1.188 | 1.000 | 0.021 | 5.26 | 5 | 6 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1916 | 0.0087 | 1.003 | 1.188 | 1.000 | 0.023 | 5.22 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0118 | 0.1803 | 0.0025 | 1.002 | 1.165 | 1.000 | 0.034 | 5.13 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0055 | 0.1726 | 0.0023 | 1.002 | 1.149 | 1.000 | 0.050 | 5.07 | 4.5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0036 | 0.1716 | 0.0025 | 1.002 | 1.152 | 1.000 | 0.050 | 5.06 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0151 | 0.2172 | 0.0140 | 1.004 | 1.221 | 1.000 | 0.008 | 5.45 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0070 | 0.2094 | 0.0158 | 1.003 | 1.207 | 1.000 | 0.011 | 5.38 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0045 | 0.2057 | 0.0161 | 1.003 | 1.213 | 1.000 | 0.015 | 5.35 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0138 | 0.2031 | 0.0075 | 1.003 | 1.196 | 1.000 | 0.014 | 5.32 | 5 | 6 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0064 | 0.1944 | 0.0082 | 1.003 | 1.181 | 1.000 | 0.022 | 5.25 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1909 | 0.0078 | 1.003 | 1.180 | 1.000 | 0.023 | 5.22 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0117 | 0.1798 | 0.0020 | 1.002 | 1.160 | 1.000 | 0.034 | 5.13 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0055 | 0.1725 | 0.0022 | 1.002 | 1.147 | 1.000 | 0.050 | 5.07 | 4.5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0036 | 0.1713 | 0.0021 | 1.002 | 1.149 | 1.000 | 0.050 | 5.06 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1207 | 0.6510 | 0.5979 | 1.027 | 2.221 | 1.000 | 0.006 | 15.58 | 7 | 27 | 55 | - | - | - | - |
| | 200 | 1.0000 | 0.0772 | 0.7054 | 0.6739 | 1.034 | 2.443 | 1.000 | 0.003 | 19.13 | 8 | 34 | 65 | - | - | - | - |
| | 300 | 1.0000 | 0.0597 | 0.7303 | 0.7083 | 1.040 | 2.627 | 1.000 | 0.004 | 21.68 | 8.5 | 41 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0336 | 0.2143 | 0.1979 | 1.018 | 1.817 | 1.000 | 0.609 | 7.23 | 4 | 18 | 32 | - | - | - | - |
| | 200 | 0.9996 | 0.0313 | 0.3391 | 0.3246 | 1.030 | 2.096 | 0.999 | 0.459 | 10.14 | 4 | 24 | 47 | - | - | - | - |
| | 300 | 0.9996 | 0.0284 | 0.4151 | 0.4034 | 1.042 | 2.369 | 0.999 | 0.374 | 12.40 | 4 | 30 | 50 | - | - | - | - |
| SICA | 100 | 0.9865 | 0.0020 | 0.0280 | 0.0267 | 1.009 | 1.599 | 0.972 | 0.843 | 4.14 | 4 | 5 | 13 | - | - | - | - |
| | 200 | 0.9793 | 0.0007 | 0.0205 | 0.0196 | 1.011 | 1.781 | 0.959 | 0.855 | 4.05 | 4 | 5 | 10 | - | - | - | - |
| | 300 | 0.9784 | 0.0004 | 0.0168 | 0.0165 | 1.011 | 1.785 | 0.956 | 0.875 | 4.03 | 4 | 5 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.9845 | 0.0005 | 0.0064 | 0.0060 | 1.007 | 1.583 | 0.970 | 0.941 | 3.99 | 4 | 4 | 14 | - | - | - | - |
| | 200 | 0.9888 | 0.0002 | 0.0057 | 0.0055 | 1.005 | 1.444 | 0.978 | 0.953 | 4.00 | 4 | 4 | 11 | - | - | - | - |
| | 300 | 0.9861 | 0.0001 | 0.0051 | 0.0050 | 1.006 | 1.533 | 0.973 | 0.948 | 3.98 | 4 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3831 | 0.8781 | 0.8130 | 1.046 | 2.528 | 1.000 | 0.000 | 40.78 | 31 | 50 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.3329 | 0.9285 | 0.8948 | 1.074 | 3.047 | 1.000 | 0.000 | 69.24 | 62 | 76 | 83 | - | - | - | - |
| | 300 | 1.0000 | 0.2672 | 0.9403 | 0.9177 | 1.086 | 3.220 | 1.000 | 0.000 | 83.09 | 75 | 91 | 100 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1902 | 0.7712 | 0.7130 | 1.086 | 3.531 | 1.000 | 0.000 | 22.26 | 14 | 33 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.1967 | 0.8792 | 0.8464 | 1.163 | 4.728 | 1.000 | 0.000 | 42.55 | 29 | 60.5 | 91 | - | - | - | - |
| | 300 | 1.0000 | 0.2068 | 0.9208 | 0.8981 | 1.235 | 5.664 | 1.000 | 0.000 | 65.20 | 44 | 91 | 147 | - | - | - | - |

Notes: See notes to Table 1.

## Table 84: MC findings for DGPIV(b)

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0183 | 0.2530 | 0.0137 | 1.003 | 1.254 | 1.000 | 0.001 | 5.76 | 5 | 7 | 10 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0087 | 0.2455 | 0.0151 | 1.002 | 1.251 | 1.000 | 0.000 | 5.70 | 5 | 7 | 9 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2432 | 0.0168 | 1.002 | 1.256 | 1.000 | 0.000 | 5.67 | 5 | 7 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0168 | 0.2373 | 0.0074 | 1.002 | 1.225 | 1.000 | 0.001 | 5.61 | 5 | 7 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0079 | 0.2300 | 0.0075 | 1.002 | 1.220 | 1.000 | 0.000 | 5.55 | 5 | 7 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0051 | 0.2272 | 0.0090 | 1.002 | 1.224 | 1.000 | 0.000 | 5.52 | 5 | 6 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0143 | 0.2109 | 0.0016 | 1.002 | 1.186 | 1.000 | 0.001 | 5.38 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0068 | 0.2064 | 0.0015 | 1.002 | 1.183 | 1.000 | 0.000 | 5.34 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2013 | 0.0023 | 1.001 | 1.184 | 1.000 | 0.001 | 5.29 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0182 | 0.2519 | 0.0124 | 1.002 | 1.243 | 1.000 | 0.001 | 5.75 | 5 | 7 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0086 | 0.2439 | 0.0131 | 1.002 | 1.235 | 1.000 | 0.000 | 5.68 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2420 | 0.0153 | 1.002 | 1.244 | 1.000 | 0.000 | 5.66 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0168 | 0.2367 | 0.0067 | 1.002 | 1.218 | 1.000 | 0.001 | 5.61 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0079 | 0.2293 | 0.0065 | 1.002 | 1.212 | 1.000 | 0.000 | 5.54 | 5 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0051 | 0.2266 | 0.0083 | 1.002 | 1.218 | 1.000 | 0.000 | 5.52 | 5 | 6 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0143 | 0.2105 | 0.0013 | 1.002 | 1.183 | 1.000 | 0.001 | 5.37 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0068 | 0.2063 | 0.0014 | 1.002 | 1.182 | 1.000 | 0.000 | 5.34 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2012 | 0.0022 | 1.001 | 1.183 | 1.000 | 0.001 | 5.29 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1189 | 0.6351 | 0.5831 | 1.016 | 2.186 | 1.000 | 0.005 | 15.42 | 7 | 27 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.0765 | 0.7015 | 0.6713 | 1.020 | 2.422 | 1.000 | 0.004 | 19.00 | 8 | 39 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0579 | 0.7200 | 0.6976 | 1.023 | 2.562 | 1.000 | 0.003 | 21.14 | 7 | 38 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0330 | 0.2194 | 0.2022 | 1.009 | 1.706 | 1.000 | 0.616 | 7.17 | 4 | 17 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0296 | 0.3568 | 0.3417 | 1.016 | 1.987 | 1.000 | 0.429 | 9.80 | 4 | 24 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0249 | 0.4138 | 0.4017 | 1.021 | 2.151 | 1.000 | 0.370 | 11.37 | 4 | 24 | 48 | - | - | - | - |
| SICA | 100 | 0.9985 | 0.0013 | 0.0183 | 0.0174 | 1.002 | 1.201 | 0.997 | 0.911 | 4.12 | 4 | 5 | 9 | - | - | - | - |
| | 200 | 0.9990 | 0.0004 | 0.0121 | 0.0120 | 1.001 | 1.149 | 0.998 | 0.939 | 4.08 | 4 | 5 | 10 | - | - | - | - |
| | 300 | 0.9969 | 0.0002 | 0.0094 | 0.0092 | 1.002 | 1.265 | 0.994 | 0.943 | 4.05 | 4 | 5 | 7 | - | - | - | - |
| Hard thresholding | 100 | 0.9985 | 0.0004 | 0.0062 | 0.0055 | 1.001 | 1.145 | 0.997 | 0.969 | 4.04 | 4 | 4 | 10 | - | - | - | - |
| | 200 | 0.9993 | 0.0001 | 0.0032 | 0.0028 | 1.000 | 1.078 | 0.999 | 0.982 | 4.02 | 4 | 4 | 8 | - | - | - | - |
| | 300 | 0.9993 | 0.0001 | 0.0035 | 0.0035 | 1.001 | 1.079 | 0.999 | 0.982 | 4.02 | 4 | 4 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3824 | 0.8778 | 0.8132 | 1.027 | 2.488 | 1.000 | 0.000 | 40.72 | 32 | 50 | 60 | - | - | - | - |
| | 200 | 1.0000 | 0.3375 | 0.9294 | 0.8957 | 1.044 | 3.022 | 1.000 | 0.000 | 70.15 | 63 | 77 | 87 | - | - | - | - |
| | 300 | 1.0000 | 0.2731 | 0.9416 | 0.9188 | 1.051 | 3.151 | 1.000 | 0.000 | 84.83 | 77 | 93 | 102 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1880 | 0.7691 | 0.7096 | 1.051 | 3.486 | 1.000 | 0.000 | 22.05 | 14 | 32 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.1854 | 0.8734 | 0.8406 | 1.097 | 4.670 | 1.000 | 0.000 | 40.33 | 27 | 57 | 87 | - | - | - | - |
| | 300 | 1.0000 | 0.1887 | 0.9147 | 0.8922 | 1.142 | 5.527 | 1.000 | 0.000 | 59.85 | 43 | 81 | 109 | - | - | - | - |

Notes: See notes to Table 1.

## Table 85: MC findings for DGPIV(b)

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8084 | 0.0056 | 0.0965 | 0.0271 | 1.047 | 1.889 | 0.322 | 0.189 | 3.77 | 2 | 5 | 7 | 1.346 | 0.34 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7808 | 0.0024 | 0.0881 | 0.0352 | 1.054 | 1.987 | 0.249 | 0.153 | 3.60 | 2 | 5 | 8 | 1.272 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.7635 | 0.0015 | 0.0842 | 0.0375 | 1.059 | 2.018 | 0.198 | 0.128 | 3.50 | 2 | 5 | 8 | 1.224 | 0.22 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7854 | 0.0039 | 0.0706 | 0.0144 | 1.047 | 1.920 | 0.264 | 0.177 | 3.52 | 2 | 5 | 7 | 1.281 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7559 | 0.0016 | 0.0606 | 0.0192 | 1.053 | 2.017 | 0.191 | 0.137 | 3.34 | 2 | 5 | 7 | 1.207 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.7419 | 0.0010 | 0.0579 | 0.0223 | 1.058 | 2.035 | 0.152 | 0.111 | 3.27 | 2 | 5 | 7 | 1.170 | 0.17 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7306 | 0.0020 | 0.0378 | 0.0039 | 1.052 | 2.028 | 0.156 | 0.126 | 3.11 | 2 | 4 | 6 | 1.167 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6998 | 0.0007 | 0.0293 | 0.0048 | 1.056 | 2.118 | 0.105 | 0.087 | 2.94 | 2 | 4 | 6 | 1.112 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.6904 | 0.0004 | 0.0273 | 0.0069 | 1.061 | 2.118 | 0.084 | 0.072 | 2.89 | 2 | 4 | 5 | 1.094 | 0.09 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7698 | 0.0053 | 0.0957 | 0.0245 | 1.053 | 1.997 | 0.175 | 0.105 | 3.59 | 2 | 5 | 7 | 1.179 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7456 | 0.0023 | 0.0869 | 0.0329 | 1.059 | 2.077 | 0.113 | 0.063 | 3.44 | 2 | 5 | 7 | 1.116 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.7330 | 0.0015 | 0.0823 | 0.0345 | 1.064 | 2.089 | 0.080 | 0.049 | 3.36 | 2 | 5 | 7 | 1.084 | 0.08 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7554 | 0.0038 | 0.0697 | 0.0124 | 1.052 | 2.001 | 0.148 | 0.103 | 3.38 | 2 | 5 | 7 | 1.151 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7296 | 0.0016 | 0.0597 | 0.0178 | 1.058 | 2.080 | 0.090 | 0.056 | 3.22 | 2 | 5 | 7 | 1.093 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.7185 | 0.0010 | 0.0567 | 0.0205 | 1.062 | 2.088 | 0.062 | 0.044 | 3.16 | 2 | 4 | 6 | 1.067 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7098 | 0.0019 | 0.0375 | 0.0031 | 1.056 | 2.079 | 0.079 | 0.064 | 3.02 | 2 | 4 | 5 | 1.080 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6848 | 0.0007 | 0.0294 | 0.0046 | 1.059 | 2.151 | 0.048 | 0.038 | 2.88 | 2 | 4 | 6 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.6775 | 0.0004 | 0.0267 | 0.0061 | 1.063 | 2.142 | 0.037 | 0.031 | 2.84 | 2 | 4 | 5 | 1.038 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8290 | 0.0712 | 0.5147 | 0.4671 | 1.085 | 2.243 | 0.429 | 0.003 | 10.15 | 3 | 22 | 48 | - | - | - | - |
| | 200 | 0.7939 | 0.0477 | 0.5781 | 0.5492 | 1.099 | 2.388 | 0.335 | 0.002 | 12.53 | 3 | 29 | 69 | - | - | - | - |
| | 300 | 0.7729 | 0.0399 | 0.6317 | 0.6095 | 1.112 | 2.428 | 0.278 | 0.001 | 14.90 | 3 | 34 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6885 | 0.0215 | 0.2101 | 0.1910 | 1.088 | 2.435 | 0.262 | 0.039 | 4.82 | 1 | 12 | 36 | - | - | - | - |
| | 200 | 0.6698 | 0.0201 | 0.2993 | 0.2855 | 1.113 | 2.655 | 0.218 | 0.013 | 6.62 | 1 | 22 | 56 | - | - | - | - |
| | 300 | 0.6720 | 0.0198 | 0.3767 | 0.3642 | 1.139 | 2.751 | 0.200 | 0.007 | 8.55 | 1 | 28 | 58 | - | - | - | - |
| SICA | 100 | 0.4280 | 0.0052 | 0.0886 | 0.0802 | 1.131 | 3.119 | 0.055 | 0.018 | 2.21 | 1 | 5 | 16 | - | - | - | - |
| | 200 | 0.3605 | 0.0018 | 0.0705 | 0.0672 | 1.142 | 3.269 | 0.018 | 0.007 | 1.80 | 1 | 4 | 17 | - | - | - | - |
| | 300 | 0.3326 | 0.0010 | 0.0624 | 0.0592 | 1.145 | 3.307 | 0.008 | 0.004 | 1.64 | 1 | 4 | 12 | - | - | - | - |
| Hard thresholding | 100 | 0.5195 | 0.0033 | 0.0532 | 0.0475 | 1.104 | 2.830 | 0.157 | 0.097 | 2.40 | 1 | 5 | 13 | - | - | - | - |
| | 200 | 0.4436 | 0.0021 | 0.0693 | 0.0658 | 1.127 | 3.071 | 0.074 | 0.036 | 2.18 | 1 | 5 | 18 | - | - | - | - |
| | 300 | 0.4121 | 0.0013 | 0.0683 | 0.0652 | 1.132 | 3.121 | 0.053 | 0.028 | 2.04 | 1 | 5 | 19 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9849 | 0.3846 | 0.8793 | 0.8138 | 1.153 | 2.686 | 0.942 | 0.000 | 40.86 | 30 | 50 | 56 | - | - | - | - |
| | 200 | 0.9581 | 0.3087 | 0.9257 | 0.8924 | 1.223 | 3.131 | 0.844 | 0.000 | 64.33 | 58 | 71 | 79 | - | - | - | - |
| | 300 | 0.9369 | 0.2385 | 0.9368 | 0.9141 | 1.231 | 3.159 | 0.767 | 0.000 | 74.35 | 67 | 82 | 88 | - | - | - | - |
| $v = 1$ | 100 | 0.9009 | 0.2166 | 0.8020 | 0.7439 | 1.264 | 3.719 | 0.689 | 0.000 | 24.40 | 14 | 39 | 73 | - | - | - | - |
| | 200 | 0.8293 | 0.2542 | 0.9143 | 0.8811 | 1.451 | 4.804 | 0.490 | 0.000 | 53.14 | 31 | 82 | 107 | - | - | - | - |
| | 300 | 0.7875 | 0.2583 | 0.9461 | 0.9236 | 1.512 | 5.071 | 0.392 | 0.000 | 79.60 | 52 | 110 | 135 | - | - | - | - |

Notes: See notes to Table 1.

## Table 86: MC findings for DGPIV(b)

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9959 | 0.0129 | 0.1910 | 0.0160 | 1.004 | 1.258 | 0.984 | 0.059 | 5.22 | 4 | 6 | 8 | 1.985 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9904 | 0.0059 | 0.1818 | 0.0153 | 1.005 | 1.325 | 0.962 | 0.082 | 5.12 | 4 | 6 | 9 | 1.965 | 0.96 | 0.00 | 0.00 |
| | 300 | 0.9889 | 0.0038 | 0.1783 | 0.0188 | 1.006 | 1.360 | 0.956 | 0.104 | 5.09 | 4 | 6 | 9 | 1.960 | 0.96 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9934 | 0.0114 | 0.1736 | 0.0081 | 1.004 | 1.257 | 0.974 | 0.094 | 5.07 | 4 | 6 | 8 | 1.977 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9869 | 0.0052 | 0.1647 | 0.0075 | 1.005 | 1.333 | 0.948 | 0.124 | 4.97 | 4 | 6 | 8 | 1.949 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9850 | 0.0034 | 0.1612 | 0.0108 | 1.006 | 1.375 | 0.940 | 0.142 | 4.94 | 4 | 6 | 8 | 1.944 | 0.94 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9860 | 0.0093 | 0.1476 | 0.0016 | 1.004 | 1.320 | 0.944 | 0.166 | 4.84 | 4 | 6 | 7 | 1.944 | 0.94 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9759 | 0.0042 | 0.1361 | 0.0012 | 1.007 | 1.438 | 0.904 | 0.218 | 4.72 | 4 | 5 | 8 | 1.904 | 0.90 | 0.00 | 0.00 |
| | 300 | 0.9740 | 0.0026 | 0.1297 | 0.0020 | 1.008 | 1.477 | 0.897 | 0.246 | 4.67 | 4 | 5 | 7 | 1.898 | 0.90 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9860 | 0.0127 | 0.1909 | 0.0142 | 1.006 | 1.381 | 0.944 | 0.058 | 5.16 | 4 | 6 | 8 | 1.941 | 0.94 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9726 | 0.0058 | 0.1830 | 0.0143 | 1.009 | 1.539 | 0.891 | 0.077 | 5.04 | 4 | 6 | 8 | 1.890 | 0.89 | 0.00 | 0.00 |
| | 300 | 0.9689 | 0.0038 | 0.1796 | 0.0174 | 1.011 | 1.607 | 0.876 | 0.098 | 5.00 | 4 | 6 | 9 | 1.876 | 0.88 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9829 | 0.0113 | 0.1742 | 0.0070 | 1.006 | 1.394 | 0.932 | 0.092 | 5.02 | 4 | 6 | 8 | 1.931 | 0.93 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9653 | 0.0052 | 0.1670 | 0.0071 | 1.010 | 1.600 | 0.861 | 0.114 | 4.88 | 4 | 6 | 8 | 1.861 | 0.86 | 0.00 | 0.00 |
| | 300 | 0.9619 | 0.0034 | 0.1628 | 0.0095 | 1.011 | 1.658 | 0.848 | 0.132 | 4.84 | 4 | 6 | 8 | 1.848 | 0.85 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9690 | 0.0093 | 0.1493 | 0.0014 | 1.008 | 1.543 | 0.876 | 0.156 | 4.77 | 4 | 6 | 7 | 1.875 | 0.88 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9465 | 0.0042 | 0.1390 | 0.0011 | 1.013 | 1.780 | 0.786 | 0.190 | 4.60 | 3 | 5 | 8 | 1.786 | 0.79 | 0.00 | 0.00 |
| | 300 | 0.9410 | 0.0026 | 0.1326 | 0.0015 | 1.015 | 1.861 | 0.765 | 0.209 | 4.54 | 3 | 5 | 7 | 1.765 | 0.76 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9976 | 0.1123 | 0.6272 | 0.5770 | 1.028 | 2.231 | 0.991 | 0.009 | 14.77 | 6 | 26 | 44 | - | - | - | - |
| | 200 | 0.9926 | 0.0668 | 0.6613 | 0.6322 | 1.036 | 2.479 | 0.972 | 0.006 | 17.07 | 6 | 32 | 59 | - | - | - | - |
| | 300 | 0.9906 | 0.0539 | 0.6965 | 0.6752 | 1.042 | 2.659 | 0.963 | 0.003 | 19.91 | 6 | 40 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9783 | 0.0303 | 0.2211 | 0.2035 | 1.023 | 2.086 | 0.932 | 0.386 | 6.83 | 3 | 19 | 37 | - | - | - | - |
| | 200 | 0.9681 | 0.0289 | 0.3324 | 0.3182 | 1.040 | 2.441 | 0.900 | 0.254 | 9.54 | 3 | 26 | 49 | - | - | - | - |
| | 300 | 0.9681 | 0.0294 | 0.4262 | 0.4140 | 1.054 | 2.759 | 0.901 | 0.183 | 12.58 | 3 | 33 | 60 | - | - | - | - |
| SICA | 100 | 0.8601 | 0.0042 | 0.0575 | 0.0523 | 1.031 | 2.667 | 0.708 | 0.485 | 3.85 | 2 | 6 | 16 | - | - | - | - |
| | 200 | 0.8279 | 0.0019 | 0.0558 | 0.0534 | 1.037 | 2.947 | 0.639 | 0.439 | 3.69 | 2 | 6 | 13 | - | - | - | - |
| | 300 | 0.7885 | 0.0011 | 0.0497 | 0.0485 | 1.045 | 3.221 | 0.569 | 0.402 | 3.48 | 1 | 6 | 16 | - | - | - | - |
| Hard thresholding | 100 | 0.9183 | 0.0010 | 0.0138 | 0.0125 | 1.016 | 2.081 | 0.834 | 0.772 | 3.77 | 2 | 5 | 13 | - | - | - | - |
| | 200 | 0.9044 | 0.0005 | 0.0143 | 0.0135 | 1.019 | 2.224 | 0.807 | 0.737 | 3.71 | 2 | 5 | 9 | - | - | - | - |
| | 300 | 0.8930 | 0.0003 | 0.0110 | 0.0106 | 1.021 | 2.332 | 0.783 | 0.732 | 3.65 | 2 | 5 | 15 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3825 | 0.8779 | 0.8134 | 1.045 | 2.493 | 1.000 | 0.000 | 40.72 | 32 | 50 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.3397 | 0.9298 | 0.8962 | 1.076 | 3.076 | 1.000 | 0.000 | 70.58 | 63 | 78 | 89 | - | - | - | - |
| | 300 | 1.0000 | 0.2730 | 0.9415 | 0.9194 | 1.089 | 3.294 | 1.000 | 0.000 | 84.80 | 77 | 93 | 101 | - | - | - | - |
| $v = 1$ | 100 | 0.9999 | 0.1900 | 0.7702 | 0.7116 | 1.085 | 3.490 | 1.000 | 0.000 | 22.24 | 14 | 33 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.1949 | 0.8781 | 0.8454 | 1.161 | 4.708 | 1.000 | 0.000 | 42.20 | 28 | 60 | 95 | - | - | - | - |
| | 300 | 0.9996 | 0.2095 | 0.9216 | 0.9003 | 1.233 | 5.690 | 0.999 | 0.000 | 66.01 | 44 | 93 | 133 | - | - | - | - |

Notes: See notes to Table 1.

## Table 87: MC findings for DGPIV(b)

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0161 | 0.2287 | 0.0153 | 1.003 | 1.249 | 1.000 | 0.003 | 5.55 | 5 | 7 | 9 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0075 | 0.2194 | 0.0144 | 1.002 | 1.241 | 1.000 | 0.003 | 5.46 | 5 | 7 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0048 | 0.2147 | 0.0162 | 1.003 | 1.242 | 1.000 | 0.005 | 5.42 | 5 | 7 | 9 | 2.005 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0146 | 0.2129 | 0.0080 | 1.002 | 1.215 | 1.000 | 0.006 | 5.40 | 5 | 6 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0068 | 0.2059 | 0.0078 | 1.002 | 1.211 | 1.000 | 0.004 | 5.34 | 5 | 6 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0044 | 0.2011 | 0.0085 | 1.002 | 1.208 | 1.000 | 0.006 | 5.30 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0124 | 0.1886 | 0.0019 | 1.001 | 1.171 | 1.000 | 0.015 | 5.19 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0059 | 0.1853 | 0.0016 | 1.001 | 1.162 | 1.000 | 0.013 | 5.16 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0038 | 0.1809 | 0.0016 | 1.002 | 1.164 | 0.999 | 0.023 | 5.13 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9999 | 0.0160 | 0.2271 | 0.0136 | 1.002 | 1.238 | 1.000 | 0.004 | 5.53 | 5 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0074 | 0.2185 | 0.0133 | 1.002 | 1.233 | 1.000 | 0.003 | 5.45 | 5 | 7 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0048 | 0.2138 | 0.0149 | 1.002 | 1.242 | 0.998 | 0.005 | 5.41 | 5 | 6 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0145 | 0.2119 | 0.0068 | 1.002 | 1.209 | 1.000 | 0.007 | 5.39 | 5 | 6 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0068 | 0.2052 | 0.0069 | 1.002 | 1.211 | 0.999 | 0.004 | 5.33 | 5 | 6 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0044 | 0.2007 | 0.0080 | 1.002 | 1.224 | 0.996 | 0.006 | 5.29 | 5 | 6 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9990 | 0.0124 | 0.1885 | 0.0017 | 1.002 | 1.188 | 0.996 | 0.015 | 5.19 | 5 | 6 | 7 | 1.996 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9990 | 0.0059 | 0.1852 | 0.0014 | 1.001 | 1.185 | 0.996 | 0.013 | 5.16 | 5 | 6 | 7 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9981 | 0.0038 | 0.1811 | 0.0016 | 1.002 | 1.203 | 0.993 | 0.023 | 5.12 | 5 | 6 | 8 | 1.993 | 0.99 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1215 | 0.6515 | 0.5991 | 1.016 | 2.162 | 1.000 | 0.005 | 15.67 | 7 | 27 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0765 | 0.7028 | 0.6703 | 1.021 | 2.441 | 1.000 | 0.002 | 19.00 | 8 | 34 | 60 | - | - | - | - |
| | 300 | 1.0000 | 0.0579 | 0.7205 | 0.6988 | 1.023 | 2.554 | 1.000 | 0.008 | 21.14 | 8 | 39 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9981 | 0.0340 | 0.2137 | 0.1963 | 1.012 | 1.859 | 0.994 | 0.553 | 7.25 | 4 | 20 | 34 | - | - | - | - |
| | 200 | 0.9983 | 0.0345 | 0.3631 | 0.3464 | 1.022 | 2.275 | 0.995 | 0.371 | 10.75 | 4 | 26 | 47 | - | - | - | - |
| | 300 | 0.9990 | 0.0305 | 0.4310 | 0.4187 | 1.030 | 2.501 | 0.997 | 0.316 | 13.02 | 4 | 31 | 55 | - | - | - | - |
| SICA | 100 | 0.9705 | 0.0027 | 0.0383 | 0.0356 | 1.007 | 1.853 | 0.937 | 0.758 | 4.14 | 2 | 6 | 11 | - | - | - | - |
| | 200 | 0.9545 | 0.0010 | 0.0276 | 0.0270 | 1.010 | 2.075 | 0.907 | 0.775 | 4.01 | 2 | 5 | 15 | - | - | - | - |
| | 300 | 0.9439 | 0.0005 | 0.0255 | 0.0246 | 1.011 | 2.225 | 0.883 | 0.758 | 3.94 | 2 | 5 | 8 | - | - | - | - |
| Hard thresholding | 100 | 0.9795 | 0.0007 | 0.0097 | 0.0090 | 1.004 | 1.581 | 0.959 | 0.913 | 3.98 | 4 | 4 | 11 | - | - | - | - |
| | 200 | 0.9776 | 0.0002 | 0.0069 | 0.0068 | 1.004 | 1.594 | 0.956 | 0.925 | 3.96 | 4 | 4 | 9 | - | - | - | - |
| | 300 | 0.9678 | 0.0002 | 0.0077 | 0.0072 | 1.006 | 1.779 | 0.937 | 0.898 | 3.92 | 2 | 4 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3820 | 0.8779 | 0.8134 | 1.026 | 2.514 | 1.000 | 0.000 | 40.67 | 32 | 50 | 59 | - | - | - | - |
| | 200 | 1.0000 | 0.3426 | 0.9304 | 0.8969 | 1.044 | 3.024 | 1.000 | 0.000 | 71.16 | 63 | 79 | 87 | - | - | - | - |
| | 300 | 1.0000 | 0.2802 | 0.9430 | 0.9202 | 1.051 | 3.190 | 1.000 | 0.000 | 86.93 | 79 | 95 | 106 | - | - | - | - |
| $v = 1$ | 100 | 1.0000 | 0.1890 | 0.7702 | 0.7111 | 1.051 | 3.530 | 1.000 | 0.000 | 22.14 | 14 | 32 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.1830 | 0.8720 | 0.8401 | 1.096 | 4.638 | 1.000 | 0.000 | 39.87 | 27 | 55 | 74 | - | - | - | - |
| | 300 | 1.0000 | 0.1890 | 0.9148 | 0.8924 | 1.141 | 5.538 | 1.000 | 0.000 | 59.93 | 42 | 82 | 111 | - | - | - | - |

Notes: See notes to Table 1.

### Table 88: MC findings for DGPIV(b)

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6088 | 0.0031 | 0.0641 | 0.0318 | 1.036 | 1.684 | 0.033 | 0.024 | 2.73 | 1 | 4 | 7 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5724 | 0.0014 | 0.0613 | 0.0359 | 1.040 | 1.715 | 0.019 | 0.015 | 2.56 | 1 | 4 | 6 | 1.033 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.5506 | 0.0009 | 0.0590 | 0.0382 | 1.043 | 1.747 | 0.014 | 0.012 | 2.46 | 1 | 4 | 6 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5731 | 0.0020 | 0.0422 | 0.0188 | 1.036 | 1.700 | 0.020 | 0.018 | 2.48 | 1 | 4 | 6 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5340 | 0.0009 | 0.0404 | 0.0212 | 1.040 | 1.736 | 0.012 | 0.011 | 2.31 | 1 | 4 | 6 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.5123 | 0.0005 | 0.0390 | 0.0227 | 1.044 | 1.769 | 0.010 | 0.008 | 2.21 | 1 | 4 | 5 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4901 | 0.0007 | 0.0173 | 0.0064 | 1.042 | 1.790 | 0.008 | 0.008 | 2.03 | 0 | 3 | 5 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4520 | 0.0003 | 0.0157 | 0.0067 | 1.048 | 1.828 | 0.005 | 0.005 | 1.87 | 0 | 3 | 5 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4238 | 0.0002 | 0.0143 | 0.0062 | 1.054 | 1.868 | 0.002 | 0.002 | 1.75 | 0 | 3 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.6023 | 0.0030 | 0.0620 | 0.0301 | 1.035 | 1.677 | 0.012 | 0.010 | 2.70 | 1 | 4 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5688 | 0.0014 | 0.0599 | 0.0344 | 1.039 | 1.709 | 0.009 | 0.006 | 2.54 | 1 | 4 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5468 | 0.0009 | 0.0578 | 0.0369 | 1.042 | 1.741 | 0.003 | 0.002 | 2.44 | 1 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5685 | 0.0018 | 0.0403 | 0.0170 | 1.036 | 1.694 | 0.007 | 0.007 | 2.45 | 1 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5310 | 0.0008 | 0.0395 | 0.0202 | 1.040 | 1.733 | 0.006 | 0.006 | 2.29 | 1 | 4 | 5 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5093 | 0.0005 | 0.0383 | 0.0219 | 1.044 | 1.764 | 0.001 | 0.001 | 2.19 | 1 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4880 | 0.0007 | 0.0171 | 0.0061 | 1.042 | 1.789 | 0.002 | 0.002 | 2.02 | 0 | 3 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4506 | 0.0003 | 0.0154 | 0.0063 | 1.048 | 1.826 | 0.001 | 0.001 | 1.86 | 0 | 3 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4234 | 0.0002 | 0.0142 | 0.0061 | 1.054 | 1.867 | 0.001 | 0.001 | 1.75 | 0 | 3 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6516 | 0.0602 | 0.5088 | 0.4657 | 1.056 | 1.789 | 0.100 | 0.000 | 8.38 | 2 | 19 | 47 | - | - | - | - |
| | 200 | 0.6229 | 0.0429 | 0.5913 | 0.5635 | 1.064 | 1.841 | 0.069 | 0.000 | 10.90 | 2 | 26 | 81 | - | - | - | - |
| | 300 | 0.6076 | 0.0342 | 0.6314 | 0.6087 | 1.072 | 1.887 | 0.050 | 0.000 | 12.54 | 2 | 30 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5046 | 0.0213 | 0.2592 | 0.2360 | 1.061 | 2.016 | 0.048 | 0.004 | 4.06 | 1 | 11 | 33 | - | - | - | - |
| | 200 | 0.4971 | 0.0193 | 0.3597 | 0.3437 | 1.084 | 2.170 | 0.031 | 0.001 | 5.78 | 1 | 17 | 66 | - | - | - | - |
| | 300 | 0.4939 | 0.0171 | 0.4247 | 0.4067 | 1.099 | 2.287 | 0.025 | 0.001 | 7.05 | 1 | 21 | 51 | - | - | - | - |
| SICA | 100 | 0.2970 | 0.0058 | 0.1206 | 0.1094 | 1.083 | 2.404 | 0.003 | 0.001 | 1.74 | 1 | 4 | 17 | - | - | - | - |
| | 200 | 0.2743 | 0.0025 | 0.1168 | 0.1114 | 1.082 | 2.418 | 0.000 | 0.000 | 1.59 | 1 | 4 | 13 | - | - | - | - |
| | 300 | 0.2669 | 0.0016 | 0.1137 | 0.1107 | 1.088 | 2.456 | 0.000 | 0.000 | 1.55 | 1 | 4 | 13 | - | - | - | - |
| Hard thresholding | 100 | 0.3145 | 0.0054 | 0.1135 | 0.1030 | 1.080 | 2.371 | 0.006 | 0.001 | 1.78 | 1 | 4 | 13 | - | - | - | - |
| | 200 | 0.2883 | 0.0031 | 0.1277 | 0.1211 | 1.086 | 2.438 | 0.001 | 0.000 | 1.76 | 1 | 5 | 13 | - | - | - | - |
| | 300 | 0.2760 | 0.0021 | 0.1322 | 0.1289 | 1.094 | 2.482 | 0.001 | 0.000 | 1.73 | 1 | 4 | 16 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.8901 | 0.3831 | 0.8872 | 0.8215 | 1.150 | 2.597 | 0.610 | 0.000 | 40.34 | 30 | 50 | 56 | - | - | - | - |
| | 200 | 0.8574 | 0.3123 | 0.9323 | 0.8994 | 1.208 | 2.935 | 0.520 | 0.000 | 64.63 | 58 | 72 | 80 | - | - | - | - |
| | 300 | 0.8039 | 0.2419 | 0.9442 | 0.9215 | 1.216 | 2.977 | 0.378 | 0.000 | 74.83 | 67.5 | 83 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.6956 | 0.2131 | 0.8304 | 0.7690 | 1.251 | 3.514 | 0.228 | 0.000 | 23.24 | 13 | 38 | 66 | - | - | - | - |
| | 200 | 0.6524 | 0.2514 | 0.9265 | 0.8940 | 1.411 | 4.400 | 0.173 | 0.000 | 51.89 | 29 | 82 | 108 | - | - | - | - |
| | 300 | 0.6161 | 0.2581 | 0.9547 | 0.9320 | 1.474 | 4.708 | 0.128 | 0.000 | 78.88 | 50 | 110 | 135 | - | - | - | - |

Notes: See notes to Table 1.

## Table 89: MC findings for DGPIV(b)

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8853 | 0.0091 | 0.1476 | 0.0175 | 1.014 | 1.793 | 0.543 | 0.161 | 4.41 | 3 | 6 | 8 | 1.548 | 0.54 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8606 | 0.0039 | 0.1319 | 0.0185 | 1.017 | 1.891 | 0.447 | 0.173 | 4.20 | 3 | 6 | 8 | 1.453 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.8436 | 0.0024 | 0.1266 | 0.0201 | 1.019 | 1.991 | 0.384 | 0.152 | 4.09 | 3 | 5 | 8 | 1.388 | 0.39 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8669 | 0.0074 | 0.1249 | 0.0091 | 1.015 | 1.846 | 0.474 | 0.181 | 4.18 | 3 | 5 | 8 | 1.477 | 0.48 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8456 | 0.0031 | 0.1105 | 0.0097 | 1.018 | 1.928 | 0.390 | 0.179 | 4.00 | 3 | 5 | 7 | 1.393 | 0.39 | 0.00 | 0.00 |
| | 300 | 0.8290 | 0.0019 | 0.1042 | 0.0105 | 1.019 | 2.021 | 0.329 | 0.160 | 3.89 | 3 | 5 | 7 | 1.332 | 0.33 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8326 | 0.0048 | 0.0866 | 0.0018 | 1.017 | 1.955 | 0.350 | 0.202 | 3.80 | 3 | 5 | 6 | 1.352 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8066 | 0.0020 | 0.0758 | 0.0020 | 1.020 | 2.049 | 0.254 | 0.159 | 3.63 | 3 | 5 | 6 | 1.257 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.7988 | 0.0012 | 0.0654 | 0.0018 | 1.021 | 2.099 | 0.226 | 0.155 | 3.54 | 3 | 5 | 6 | 1.230 | 0.23 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8374 | 0.0089 | 0.1512 | 0.0166 | 1.019 | 2.003 | 0.352 | 0.111 | 4.21 | 3 | 6 | 8 | 1.351 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8093 | 0.0038 | 0.1355 | 0.0181 | 1.022 | 2.104 | 0.242 | 0.095 | 3.99 | 3 | 5 | 8 | 1.243 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.7984 | 0.0024 | 0.1301 | 0.0203 | 1.024 | 2.171 | 0.204 | 0.081 | 3.91 | 3 | 5 | 7 | 1.205 | 0.20 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8240 | 0.0073 | 0.1278 | 0.0085 | 1.019 | 2.029 | 0.303 | 0.125 | 4.00 | 3 | 5 | 7 | 1.303 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7999 | 0.0031 | 0.1136 | 0.0093 | 1.022 | 2.113 | 0.208 | 0.101 | 3.81 | 3 | 5 | 7 | 1.208 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.7889 | 0.0019 | 0.1069 | 0.0106 | 1.023 | 2.178 | 0.170 | 0.082 | 3.73 | 3 | 5 | 7 | 1.171 | 0.17 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7931 | 0.0048 | 0.0889 | 0.0018 | 1.020 | 2.111 | 0.193 | 0.116 | 3.64 | 3 | 5 | 6 | 1.194 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7755 | 0.0020 | 0.0773 | 0.0018 | 1.023 | 2.163 | 0.132 | 0.084 | 3.50 | 3 | 5 | 6 | 1.132 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.7676 | 0.0012 | 0.0668 | 0.0019 | 1.024 | 2.212 | 0.104 | 0.074 | 3.42 | 3 | 4 | 6 | 1.105 | 0.11 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9131 | 0.0793 | 0.5303 | 0.4811 | 1.029 | 2.241 | 0.687 | 0.011 | 11.27 | 3 | 23 | 40 | - | - | - | - |
| | 200 | 0.8751 | 0.0486 | 0.5718 | 0.5435 | 1.034 | 2.408 | 0.561 | 0.004 | 13.02 | 3 | 29 | 50 | - | - | - | - |
| | 300 | 0.8604 | 0.0358 | 0.5979 | 0.5774 | 1.037 | 2.521 | 0.506 | 0.003 | 14.04 | 3 | 31 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8049 | 0.0219 | 0.2018 | 0.1815 | 1.028 | 2.391 | 0.481 | 0.107 | 5.33 | 2 | 13 | 33 | - | - | - | - |
| | 200 | 0.7779 | 0.0207 | 0.2967 | 0.2837 | 1.041 | 2.638 | 0.405 | 0.041 | 7.17 | 2 | 21 | 43 | - | - | - | - |
| | 300 | 0.7705 | 0.0182 | 0.3434 | 0.3314 | 1.050 | 2.848 | 0.381 | 0.023 | 8.46 | 2 | 26 | 58 | - | - | - | - |
| SICA | 100 | 0.5434 | 0.0046 | 0.0735 | 0.0655 | 1.043 | 3.185 | 0.166 | 0.072 | 2.62 | 1 | 6 | 14 | - | - | - | - |
| | 200 | 0.4486 | 0.0014 | 0.0492 | 0.0471 | 1.052 | 3.385 | 0.075 | 0.036 | 2.07 | 1 | 5 | 14 | - | - | - | - |
| | 300 | 0.4116 | 0.0008 | 0.0475 | 0.0447 | 1.055 | 3.581 | 0.045 | 0.027 | 1.89 | 1 | 4 | 15 | - | - | - | - |
| Hard thresholding | 100 | 0.6560 | 0.0020 | 0.0303 | 0.0272 | 1.031 | 2.734 | 0.340 | 0.256 | 2.81 | 1 | 5 | 9 | - | - | - | - |
| | 200 | 0.5878 | 0.0009 | 0.0293 | 0.0279 | 1.037 | 2.909 | 0.248 | 0.176 | 2.53 | 1 | 5 | 11 | - | - | - | - |
| | 300 | 0.5501 | 0.0006 | 0.0291 | 0.0276 | 1.040 | 3.110 | 0.198 | 0.143 | 2.37 | 1 | 5 | 11 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.9976 | 0.3804 | 0.8772 | 0.8125 | 1.045 | 2.549 | 0.991 | 0.000 | 40.51 | 31 | 51 | 59 | - | - | - | - |
| | 200 | 0.9953 | 0.3431 | 0.9307 | 0.8975 | 1.077 | 3.103 | 0.981 | 0.000 | 71.24 | 63 | 79 | 87 | - | - | - | - |
| | 300 | 0.9941 | 0.2796 | 0.9431 | 0.9207 | 1.090 | 3.351 | 0.977 | 0.000 | 86.74 | 79 | 95 | 105 | - | - | - | - |
| $v = 1$ | 100 | 0.9850 | 0.1888 | 0.7715 | 0.7132 | 1.085 | 3.566 | 0.946 | 0.000 | 22.06 | 13 | 33 | 48 | - | - | - | - |
| | 200 | 0.9686 | 0.1913 | 0.8794 | 0.8480 | 1.160 | 4.675 | 0.894 | 0.000 | 41.38 | 28 | 59 | 93 | - | - | - | - |
| | 300 | 0.9573 | 0.2063 | 0.9233 | 0.9009 | 1.232 | 5.739 | 0.852 | 0.000 | 64.90 | 45 | 92 | 144 | - | - | - | - |

Notes: See notes to Table 1.

## Table 90: MC findings for DGPIV(b)

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9704 | 0.0128 | 0.1937 | 0.0148 | 1.005 | 1.491 | 0.882 | 0.060 | 5.12 | 4 | 6 | 9 | 1.885 | 0.88 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9589 | 0.0058 | 0.1831 | 0.0162 | 1.006 | 1.592 | 0.836 | 0.086 | 4.98 | 4 | 6 | 9 | 1.837 | 0.84 | 0.00 | 0.00 |
| | 300 | 0.9479 | 0.0038 | 0.1810 | 0.0187 | 1.008 | 1.699 | 0.792 | 0.094 | 4.91 | 4 | 6 | 9 | 1.794 | 0.79 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9610 | 0.0114 | 0.1771 | 0.0080 | 1.006 | 1.546 | 0.844 | 0.087 | 4.94 | 4 | 6 | 8 | 1.847 | 0.84 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9474 | 0.0051 | 0.1670 | 0.0076 | 1.007 | 1.656 | 0.790 | 0.113 | 4.80 | 4 | 6 | 7 | 1.792 | 0.79 | 0.00 | 0.00 |
| | 300 | 0.9380 | 0.0033 | 0.1643 | 0.0096 | 1.008 | 1.745 | 0.752 | 0.120 | 4.73 | 4 | 6 | 8 | 1.753 | 0.75 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9341 | 0.0091 | 0.1492 | 0.0019 | 1.008 | 1.738 | 0.737 | 0.148 | 4.61 | 3 | 6 | 7 | 1.737 | 0.74 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9198 | 0.0041 | 0.1385 | 0.0020 | 1.009 | 1.842 | 0.680 | 0.184 | 4.47 | 3 | 5 | 7 | 1.681 | 0.68 | 0.00 | 0.00 |
| | 300 | 0.9093 | 0.0026 | 0.1349 | 0.0019 | 1.010 | 1.929 | 0.637 | 0.178 | 4.40 | 3 | 5 | 7 | 1.637 | 0.64 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9339 | 0.0128 | 0.1977 | 0.0140 | 1.009 | 1.793 | 0.736 | 0.051 | 4.96 | 4 | 6 | 9 | 1.735 | 0.73 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9130 | 0.0058 | 0.1884 | 0.0158 | 1.011 | 1.952 | 0.652 | 0.068 | 4.79 | 4 | 6 | 8 | 1.652 | 0.65 | 0.00 | 0.00 |
| | 300 | 0.8985 | 0.0038 | 0.1868 | 0.0188 | 1.013 | 2.072 | 0.594 | 0.067 | 4.70 | 4 | 6 | 9 | 1.594 | 0.59 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9216 | 0.0113 | 0.1817 | 0.0075 | 1.010 | 1.864 | 0.687 | 0.073 | 4.77 | 4 | 6 | 8 | 1.687 | 0.69 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9000 | 0.0051 | 0.1724 | 0.0074 | 1.011 | 2.016 | 0.600 | 0.085 | 4.60 | 3 | 6 | 7 | 1.600 | 0.60 | 0.00 | 0.00 |
| | 300 | 0.8848 | 0.0033 | 0.1705 | 0.0098 | 1.014 | 2.140 | 0.539 | 0.086 | 4.52 | 3 | 6 | 8 | 1.539 | 0.54 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8926 | 0.0091 | 0.1538 | 0.0018 | 1.012 | 2.046 | 0.571 | 0.119 | 4.44 | 3 | 5 | 7 | 1.571 | 0.57 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8700 | 0.0041 | 0.1435 | 0.0019 | 1.014 | 2.193 | 0.481 | 0.137 | 4.27 | 3 | 5 | 7 | 1.481 | 0.48 | 0.00 | 0.00 |
| | 300 | 0.8598 | 0.0026 | 0.1398 | 0.0020 | 1.016 | 2.270 | 0.439 | 0.124 | 4.21 | 3 | 5 | 7 | 1.439 | 0.44 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9845 | 0.1019 | 0.5954 | 0.5457 | 1.017 | 2.268 | 0.940 | 0.011 | 13.72 | 5 | 25 | 40 | - | - | - | - |
| | 200 | 0.9730 | 0.0619 | 0.6284 | 0.6004 | 1.022 | 2.503 | 0.896 | 0.011 | 16.02 | 5 | 32 | 58 | - | - | - | - |
| | 300 | 0.9601 | 0.0461 | 0.6552 | 0.6351 | 1.025 | 2.630 | 0.848 | 0.004 | 17.49 | 5 | 36 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9368 | 0.0276 | 0.2216 | 0.2034 | 1.015 | 2.244 | 0.805 | 0.266 | 6.39 | 2 | 17 | 36 | - | - | - | - |
| | 200 | 0.9255 | 0.0279 | 0.3350 | 0.3201 | 1.026 | 2.605 | 0.773 | 0.154 | 9.17 | 2 | 26 | 56 | - | - | - | - |
| | 300 | 0.9105 | 0.0253 | 0.3932 | 0.3819 | 1.035 | 2.904 | 0.732 | 0.108 | 11.12 | 2 | 31 | 56 | - | - | - | - |
| SICA | 100 | 0.7581 | 0.0048 | 0.0669 | 0.0618 | 1.023 | 2.942 | 0.507 | 0.295 | 3.50 | 1 | 6 | 14 | - | - | - | - |
| | 200 | 0.6850 | 0.0018 | 0.0528 | 0.0509 | 1.029 | 3.320 | 0.380 | 0.238 | 3.09 | 1 | 6 | 15 | - | - | - | - |
| | 300 | 0.6428 | 0.0011 | 0.0509 | 0.0497 | 1.032 | 3.539 | 0.318 | 0.190 | 2.89 | 1 | 6 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.8389 | 0.0013 | 0.0184 | 0.0162 | 1.014 | 2.391 | 0.674 | 0.593 | 3.48 | 1 | 5 | 11 | - | - | - | - |
| | 200 | 0.8191 | 0.0005 | 0.0141 | 0.0133 | 1.015 | 2.524 | 0.638 | 0.573 | 3.37 | 1 | 5 | 9 | - | - | - | - |
| | 300 | 0.7945 | 0.0004 | 0.0162 | 0.0154 | 1.017 | 2.690 | 0.597 | 0.523 | 3.28 | 1 | 5 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 1.0000 | 0.3822 | 0.8776 | 0.8136 | 1.027 | 2.504 | 1.000 | 0.000 | 40.69 | 31 | 50 | 60 | - | - | - | - |
| | 200 | 0.9999 | 0.3487 | 0.9315 | 0.8977 | 1.046 | 3.089 | 1.000 | 0.000 | 72.35 | 64 | 80 | 86 | - | - | - | - |
| | 300 | 0.9999 | 0.2869 | 0.9442 | 0.9216 | 1.054 | 3.328 | 1.000 | 0.000 | 88.92 | 81 | 97 | 108 | - | - | - | - |
| $v = 1$ | 100 | 0.9998 | 0.1858 | 0.7675 | 0.7107 | 1.050 | 3.500 | 0.999 | 0.000 | 21.84 | 14 | 32 | 40 | - | - | - | - |
| | 200 | 0.9980 | 0.1833 | 0.8725 | 0.8401 | 1.097 | 4.673 | 0.992 | 0.000 | 39.91 | 27 | 55 | 76 | - | - | - | - |
| | 300 | 0.9990 | 0.1898 | 0.9150 | 0.8930 | 1.142 | 5.685 | 0.996 | 0.000 | 60.19 | 42 | 83 | 110 | - | - | - | - |

Notes: See notes to Table 1.

### 3.1.5 Findings for designs featuring many signals

## Table 91: MC findings for DGPV

$T = 100$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2719 | 0.0019 | 0.0321 | 0.0321 | 0.973 | 0.625 | 0.000 | 3.16 | 2 | 5 | 8 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2639 | 0.0009 | 0.0350 | 0.0350 | 0.975 | 0.624 | 0.000 | 3.08 | 2 | 5 | 8 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2552 | 0.0007 | 0.0385 | 0.0385 | 0.975 | 0.635 | 0.000 | 3.00 | 2 | 4 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2592 | 0.0011 | 0.0195 | 0.0195 | 0.971 | 0.605 | 0.000 | 2.95 | 2 | 4 | 6 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2526 | 0.0005 | 0.0201 | 0.0201 | 0.974 | 0.607 | 0.000 | 2.88 | 2 | 4 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2450 | 0.0004 | 0.0228 | 0.0228 | 0.973 | 0.613 | 0.000 | 2.81 | 2 | 4 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2360 | 0.0002 | 0.0044 | 0.0044 | 0.970 | 0.581 | 0.000 | 2.62 | 2 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2321 | 0.0001 | 0.0054 | 0.0054 | 0.973 | 0.593 | 0.000 | 2.58 | 2 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2272 | 0.0001 | 0.0064 | 0.0064 | 0.972 | 0.592 | 0.000 | 2.53 | 2 | 4 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2709 | 0.0016 | 0.0277 | 0.0277 | 0.971 | 0.606 | 0.000 | 3.12 | 2 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2635 | 0.0008 | 0.0318 | 0.0318 | 0.974 | 0.611 | 0.000 | 3.06 | 2 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2550 | 0.0006 | 0.0352 | 0.0352 | 0.974 | 0.620 | 0.000 | 2.98 | 2 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2586 | 0.0009 | 0.0167 | 0.0167 | 0.970 | 0.592 | 0.000 | 2.93 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2523 | 0.0005 | 0.0182 | 0.0182 | 0.973 | 0.600 | 0.000 | 2.86 | 2 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2449 | 0.0003 | 0.0207 | 0.0207 | 0.972 | 0.604 | 0.000 | 2.79 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2357 | 0.0002 | 0.0039 | 0.0039 | 0.970 | 0.577 | 0.000 | 2.61 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2319 | 0.0001 | 0.0048 | 0.0048 | 0.973 | 0.590 | 0.000 | 2.57 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2271 | 0.0001 | 0.0059 | 0.0059 | 0.972 | 0.589 | 0.000 | 2.52 | 2 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3281 | 0.0530 | 0.3969 | 0.3969 | 1.005 | 0.715 | 0.000 | 8.33 | 2 | 19 | 54 | - | - | - | - |
| | 200 | 0.3075 | 0.0366 | 0.4889 | 0.4889 | 1.012 | 0.750 | 0.000 | 10.30 | 3 | 24 | 59 | - | - | - | - |
| | 300 | 0.3009 | 0.0319 | 0.5577 | 0.5577 | 1.016 | 0.781 | 0.000 | 12.54 | 3 | 32 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1785 | 0.0134 | 0.1021 | 0.1021 | 1.021 | 0.859 | 0.000 | 3.15 | 1 | 13 | 39 | - | - | - | - |
| | 200 | 0.1856 | 0.0130 | 0.1739 | 0.1739 | 1.033 | 0.947 | 0.000 | 4.50 | 1 | 18 | 41 | - | - | - | - |
| | 300 | 0.1944 | 0.0129 | 0.2353 | 0.2353 | 1.043 | 1.023 | 0.000 | 5.86 | 1 | 22 | 43 | - | - | - | - |
| SICA | 100 | 0.1087 | 0.0009 | 0.0138 | 0.0138 | 1.029 | 1.005 | 0.000 | 1.27 | 1 | 2 | 12 | - | - | - | - |
| | 200 | 0.1022 | 0.0003 | 0.0106 | 0.0106 | 1.028 | 0.980 | 0.000 | 1.18 | 1 | 2 | 14 | - | - | - | - |
| | 300 | 0.1013 | 0.0002 | 0.0133 | 0.0133 | 1.029 | 0.981 | 0.000 | 1.18 | 1 | 2 | 11 | - | - | - | - |
| Hard thresholding | 100 | 0.1189 | 0.0009 | 0.0155 | 0.0155 | 1.024 | 0.978 | 0.000 | 1.39 | 1 | 3 | 9 | - | - | - | - |
| | 200 | 0.1145 | 0.0009 | 0.0279 | 0.0279 | 1.028 | 0.988 | 0.000 | 1.43 | 1 | 3 | 18 | - | - | - | - |
| | 300 | 0.1145 | 0.0006 | 0.0290 | 0.0290 | 1.027 | 0.987 | 0.000 | 1.43 | 1 | 3 | 20 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.5645 | 0.3778 | 0.8208 | 0.8208 | 1.091 | 1.371 | 0.001 | 39.83 | 29 | 50 | 59 | - | - | - | - |
| | 200 | 0.5250 | 0.3094 | 0.8960 | 0.8960 | 1.148 | 1.535 | 0.001 | 64.24 | 58 | 71 | 79 | - | - | - | - |
| | 300 | 0.4727 | 0.2401 | 0.9179 | 0.9179 | 1.152 | 1.523 | 0.000 | 74.59 | 67 | 82 | 91 | - | - | - | - |
| $v = 1$ | 100 | 0.3826 | 0.2104 | 0.7682 | 0.7682 | 1.185 | 1.891 | 0.000 | 22.93 | 12 | 39 | 60 | - | - | - | - |
| | 200 | 0.4067 | 0.2508 | 0.8905 | 0.8905 | 1.343 | 2.375 | 0.000 | 51.88 | 29 | 82 | 110 | - | - | - | - |
| | 300 | 0.4035 | 0.2578 | 0.9296 | 0.9296 | 1.399 | 2.506 | 0.000 | 78.95 | 49 | 110 | 141 | - | - | - | - |

Notes: TPR is computed assuming that variables $i = 1, 2, ..., 11$ are the signal variables , FPR, FDR and FDR$^*$ are computed assuming variables $i > 11$ are the noise variables, rRMSFE is an out-of-sample root mean square forecast error relative to the benchmark model containing first 11 covariates, rRMSE$_{\tilde{\beta}}$ is the root mean square error of $\tilde{\boldsymbol{\beta}}$ relative to the benchmark model featuring the first 11 covariates, and $\hat{\pi}_{11}$ is the probability that variables $i = 1, 2, ..., 11$ are among the selected variables. $\bar{\hat{\kappa}}$, $\hat{\kappa}_5$, $\hat{\kappa}_{95}$ and $\hat{\kappa}_{\max}$ are, respectively, the average , 5-the quantile, 95-th quantile and the maximum of the number of selected regressors. $A_j$ is the frequency of event $\hat{P} > j$, for $j = 1, 2, 3$. Slope coefficients in DGPV are set to $\beta_i = 1/i^2$, for $i = 1, 2, ..., n$. See CKP for details of the MC design.

# Table 92: MC findings for DGPV

$T = 300$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3766 | 0.0013 | 0.0180 | 0.0180 | 0.995 | 0.724 | 0.000 | 4.25 | 3 | 6 | 8 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3643 | 0.0007 | 0.0215 | 0.0215 | 0.995 | 0.731 | 0.000 | 4.14 | 3 | 5.5 | 7 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3551 | 0.0004 | 0.0204 | 0.0204 | 0.996 | 0.724 | 0.000 | 4.03 | 3 | 5 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3632 | 0.0007 | 0.0104 | 0.0104 | 0.994 | 0.711 | 0.000 | 4.06 | 3 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3526 | 0.0004 | 0.0113 | 0.0113 | 0.995 | 0.715 | 0.000 | 3.95 | 3 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3441 | 0.0002 | 0.0098 | 0.0098 | 0.996 | 0.710 | 0.000 | 3.84 | 3 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3388 | 0.0002 | 0.0025 | 0.0025 | 0.994 | 0.699 | 0.000 | 3.74 | 3 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3295 | 0.0001 | 0.0029 | 0.0029 | 0.995 | 0.700 | 0.000 | 3.64 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3229 | 0.0001 | 0.0028 | 0.0028 | 0.996 | 0.700 | 0.000 | 3.57 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3758 | 0.0011 | 0.0160 | 0.0160 | 0.994 | 0.712 | 0.000 | 4.23 | 3 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3637 | 0.0006 | 0.0192 | 0.0192 | 0.995 | 0.720 | 0.000 | 4.12 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3548 | 0.0004 | 0.0185 | 0.0185 | 0.996 | 0.715 | 0.000 | 4.01 | 3 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3628 | 0.0007 | 0.0096 | 0.0096 | 0.994 | 0.705 | 0.000 | 4.05 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3523 | 0.0003 | 0.0103 | 0.0103 | 0.995 | 0.709 | 0.000 | 3.94 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3439 | 0.0002 | 0.0090 | 0.0090 | 0.996 | 0.706 | 0.000 | 3.84 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3386 | 0.0001 | 0.0022 | 0.0022 | 0.994 | 0.696 | 0.000 | 3.74 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3293 | 0.0001 | 0.0026 | 0.0026 | 0.995 | 0.697 | 0.000 | 3.64 | 3 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3227 | 0.0000 | 0.0024 | 0.0024 | 0.996 | 0.697 | 0.000 | 3.56 | 3 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4384 | 0.0568 | 0.3833 | 0.3833 | 1.006 | 0.803 | 0.000 | 9.88 | 4 | 19 | 35 | - | - | - | - |
| | 200 | 0.4139 | 0.0349 | 0.4460 | 0.4460 | 1.009 | 0.827 | 0.000 | 11.14 | 4 | 24 | 48 | - | - | - | - |
| | 300 | 0.3963 | 0.0273 | 0.4845 | 0.4845 | 1.012 | 0.849 | 0.000 | 12.24 | 4 | 29 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2778 | 0.0192 | 0.1601 | 0.1601 | 1.021 | 1.108 | 0.000 | 4.76 | 1 | 12 | 23 | - | - | - | - |
| | 200 | 0.2818 | 0.0135 | 0.2176 | 0.2176 | 1.025 | 1.150 | 0.000 | 5.65 | 1 | 15 | 31 | - | - | - | - |
| | 300 | 0.2803 | 0.0111 | 0.2492 | 0.2492 | 1.028 | 1.193 | 0.000 | 6.28 | 1 | 18 | 42 | - | - | - | - |
| SICA | 100 | 0.1532 | 0.0014 | 0.0209 | 0.0209 | 1.041 | 1.545 | 0.000 | 1.81 | 1 | 4 | 12 | - | - | - | - |
| | 200 | 0.1376 | 0.0004 | 0.0123 | 0.0123 | 1.047 | 1.587 | 0.000 | 1.59 | 1 | 3 | 10 | - | - | - | - |
| | 300 | 0.1316 | 0.0002 | 0.0127 | 0.0127 | 1.049 | 1.605 | 0.000 | 1.51 | 1 | 3 | 6 | - | - | - | - |
| Hard thresholding | 100 | 0.1589 | 0.0005 | 0.0084 | 0.0084 | 1.036 | 1.397 | 0.000 | 1.79 | 1 | 3 | 7 | - | - | - | - |
| | 200 | 0.1511 | 0.0001 | 0.0050 | 0.0050 | 1.038 | 1.418 | 0.000 | 1.69 | 1 | 3 | 7 | - | - | - | - |
| | 300 | 0.1478 | 0.0001 | 0.0040 | 0.0040 | 1.039 | 1.434 | 0.000 | 1.65 | 1 | 3 | 7 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.6346 | 0.3661 | 0.8005 | 0.8005 | 1.029 | 1.350 | 0.002 | 39.56 | 30 | 49 | 61 | - | - | - | - |
| | 200 | 0.6237 | 0.3450 | 0.8921 | 0.8921 | 1.063 | 1.714 | 0.000 | 72.07 | 63 | 80 | 88 | - | - | - | - |
| | 300 | 0.5859 | 0.2803 | 0.9157 | 0.9157 | 1.072 | 1.777 | 0.001 | 87.45 | 80 | 95 | 110 | - | - | - | - |
| $v = 1$ | 100 | 0.4448 | 0.1798 | 0.7184 | 0.7184 | 1.069 | 1.984 | 0.000 | 20.90 | 13 | 31 | 45 | - | - | - | - |
| | 200 | 0.4464 | 0.1889 | 0.8524 | 0.8524 | 1.147 | 2.656 | 0.000 | 40.62 | 27 | 58 | 99 | - | - | - | - |
| | 300 | 0.4482 | 0.2048 | 0.9057 | 0.9057 | 1.214 | 3.167 | 0.000 | 64.11 | 43 | 91 | 130 | - | - | - | - |

Notes: See notes to Table 91.

## Table 93: MC findings for DGPV

$T = 500$, $R^2 = 70\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4322 | 0.0014 | 0.0178 | 0.0178 | 0.998 | 0.780 | 0.000 | 4.88 | 4 | 6 | 8 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4149 | 0.0007 | 0.0187 | 0.0187 | 0.998 | 0.780 | 0.000 | 4.69 | 4 | 6 | 8 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.4081 | 0.0004 | 0.0179 | 0.0179 | 0.999 | 0.776 | 0.000 | 4.61 | 4 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4196 | 0.0007 | 0.0091 | 0.0091 | 0.998 | 0.770 | 0.000 | 4.68 | 4 | 6 | 8 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4030 | 0.0003 | 0.0092 | 0.0092 | 0.998 | 0.764 | 0.000 | 4.49 | 4 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3971 | 0.0002 | 0.0086 | 0.0086 | 0.999 | 0.760 | 0.000 | 4.42 | 3 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3919 | 0.0001 | 0.0017 | 0.0017 | 0.998 | 0.752 | 0.000 | 4.32 | 3 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3790 | 0.0001 | 0.0021 | 0.0021 | 0.998 | 0.753 | 0.000 | 4.18 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3751 | 0.0000 | 0.0019 | 0.0019 | 0.999 | 0.754 | 0.000 | 4.14 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4309 | 0.0013 | 0.0164 | 0.0164 | 0.998 | 0.770 | 0.000 | 4.85 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4143 | 0.0006 | 0.0172 | 0.0172 | 0.998 | 0.771 | 0.000 | 4.67 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4077 | 0.0004 | 0.0172 | 0.0172 | 0.999 | 0.770 | 0.000 | 4.60 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4186 | 0.0006 | 0.0080 | 0.0080 | 0.998 | 0.760 | 0.000 | 4.66 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4026 | 0.0003 | 0.0082 | 0.0082 | 0.998 | 0.758 | 0.000 | 4.48 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3969 | 0.0002 | 0.0085 | 0.0085 | 0.999 | 0.758 | 0.000 | 4.42 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3917 | 0.0001 | 0.0016 | 0.0016 | 0.998 | 0.750 | 0.000 | 4.32 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3789 | 0.0001 | 0.0019 | 0.0019 | 0.998 | 0.751 | 0.000 | 4.18 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3750 | 0.0000 | 0.0018 | 0.0018 | 0.999 | 0.752 | 0.000 | 4.14 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4976 | 0.0613 | 0.3728 | 0.3728 | 1.005 | 0.852 | 0.000 | 10.93 | 4 | 22 | 43 | - | - | - | - |
| | 200 | 0.4709 | 0.0377 | 0.4459 | 0.4459 | 1.007 | 0.874 | 0.000 | 12.30 | 4 | 29 | 46 | - | - | - | - |
| | 300 | 0.4614 | 0.0291 | 0.4770 | 0.4770 | 1.009 | 0.902 | 0.000 | 13.48 | 4 | 26 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3603 | 0.0210 | 0.1882 | 0.1882 | 1.011 | 1.082 | 0.000 | 5.84 | 2 | 12 | 23 | - | - | - | - |
| | 200 | 0.3505 | 0.0129 | 0.2329 | 0.2329 | 1.013 | 1.126 | 0.000 | 6.29 | 2 | 14 | 24 | - | - | - | - |
| | 300 | 0.3499 | 0.0102 | 0.2659 | 0.2659 | 1.014 | 1.164 | 0.000 | 6.79 | 2 | 15 | 28 | - | - | - | - |
| SICA | 100 | 0.2086 | 0.0019 | 0.0271 | 0.0271 | 1.028 | 1.666 | 0.000 | 2.46 | 1 | 5 | 11 | - | - | - | - |
| | 200 | 0.1885 | 0.0005 | 0.0157 | 0.0157 | 1.034 | 1.753 | 0.000 | 2.17 | 1 | 4 | 10 | - | - | - | - |
| | 300 | 0.1782 | 0.0003 | 0.0147 | 0.0147 | 1.036 | 1.789 | 0.000 | 2.04 | 1 | 4 | 7 | - | - | - | - |
| Hard thresholding | 100 | 0.1992 | 0.0005 | 0.0066 | 0.0066 | 1.029 | 1.519 | 0.000 | 2.24 | 1 | 4 | 12 | - | - | - | - |
| | 200 | 0.1862 | 0.0001 | 0.0043 | 0.0043 | 1.031 | 1.559 | 0.000 | 2.07 | 1 | 3 | 7 | - | - | - | - |
| | 300 | 0.1837 | 0.0001 | 0.0039 | 0.0039 | 1.031 | 1.547 | 0.000 | 2.04 | 1 | 3 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.6734 | 0.3660 | 0.7920 | 0.7920 | 1.017 | 1.360 | 0.005 | 39.98 | 31 | 50 | 58 | - | - | - | - |
| | 200 | 0.6613 | 0.3486 | 0.8880 | 0.8880 | 1.037 | 1.725 | 0.003 | 73.15 | 63 | 82 | 90 | - | - | - | - |
| | 300 | 0.6365 | 0.2906 | 0.9129 | 0.9129 | 1.047 | 1.807 | 0.000 | 90.99 | 83 | 99 | 107 | - | - | - | - |
| $v = 1$ | 100 | 0.4781 | 0.1769 | 0.7029 | 0.7029 | 1.043 | 2.020 | 0.000 | 21.00 | 13 | 31 | 42 | - | - | - | - |
| | 200 | 0.4762 | 0.1797 | 0.8389 | 0.8389 | 1.088 | 2.684 | 0.000 | 39.20 | 26 | 56 | 76 | - | - | - | - |
| | 300 | 0.4782 | 0.1859 | 0.8927 | 0.8927 | 1.136 | 3.176 | 0.000 | 58.98 | 42 | 79 | 118 | - | - | - | - |

Notes: See notes to Table 91.

## Table 94: MC findings for DGPV

$T = 100$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2410 | 0.0017 | 0.0314 | 0.0314 | 0.968 | 0.568 | 0.000 | 2.80 | 2 | 4 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2279 | 0.0009 | 0.0363 | 0.0363 | 0.970 | 0.580 | 0.000 | 2.68 | 2 | 4 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2233 | 0.0006 | 0.0392 | 0.0392 | 0.971 | 0.584 | 0.000 | 2.64 | 2 | 4 | 6 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2280 | 0.0009 | 0.0186 | 0.0186 | 0.967 | 0.547 | 0.000 | 2.59 | 2 | 4 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2176 | 0.0005 | 0.0213 | 0.0213 | 0.968 | 0.557 | 0.000 | 2.49 | 2 | 4 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2125 | 0.0003 | 0.0224 | 0.0224 | 0.969 | 0.556 | 0.000 | 2.44 | 2 | 4 | 6 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2061 | 0.0003 | 0.0058 | 0.0058 | 0.965 | 0.518 | 0.000 | 2.29 | 1 | 3 | 5 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1986 | 0.0001 | 0.0059 | 0.0059 | 0.965 | 0.527 | 0.000 | 2.21 | 1 | 3 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.1931 | 0.0001 | 0.0081 | 0.0081 | 0.967 | 0.532 | 0.000 | 2.16 | 1 | 3 | 5 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2408 | 0.0015 | 0.0285 | 0.0285 | 0.967 | 0.558 | 0.000 | 2.78 | 2 | 4 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2279 | 0.0008 | 0.0329 | 0.0329 | 0.968 | 0.569 | 0.000 | 2.66 | 2 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2232 | 0.0006 | 0.0361 | 0.0361 | 0.970 | 0.572 | 0.000 | 2.62 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2277 | 0.0008 | 0.0164 | 0.0164 | 0.966 | 0.537 | 0.000 | 2.58 | 2 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2175 | 0.0004 | 0.0190 | 0.0190 | 0.967 | 0.549 | 0.000 | 2.48 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2125 | 0.0003 | 0.0204 | 0.0204 | 0.968 | 0.550 | 0.000 | 2.43 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2060 | 0.0002 | 0.0050 | 0.0050 | 0.965 | 0.514 | 0.000 | 2.29 | 1 | 3 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1985 | 0.0001 | 0.0050 | 0.0050 | 0.965 | 0.523 | 0.000 | 2.21 | 1 | 3 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1931 | 0.0001 | 0.0071 | 0.0071 | 0.967 | 0.528 | 0.000 | 2.15 | 1 | 3 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2605 | 0.0454 | 0.3954 | 0.3954 | 0.996 | 0.650 | 0.000 | 6.91 | 2 | 16 | 41 | - | - | - | - |
| | 200 | 0.2437 | 0.0355 | 0.5185 | 0.5185 | 1.002 | 0.687 | 0.000 | 9.39 | 2 | 23 | 51 | - | - | - | - |
| | 300 | 0.2382 | 0.0303 | 0.5689 | 0.5689 | 1.009 | 0.730 | 0.000 | 11.39 | 2 | 30 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1465 | 0.0091 | 0.1036 | 0.1036 | 0.992 | 0.664 | 0.000 | 2.42 | 1 | 8 | 37 | - | - | - | - |
| | 200 | 0.1533 | 0.0118 | 0.1929 | 0.1929 | 1.008 | 0.798 | 0.000 | 3.92 | 1 | 16 | 38 | - | - | - | - |
| | 300 | 0.1599 | 0.0130 | 0.2601 | 0.2601 | 1.024 | 0.908 | 0.000 | 5.52 | 1 | 23 | 49 | - | - | - | - |
| SICA | 100 | 0.0990 | 0.0010 | 0.0220 | 0.0220 | 0.989 | 0.718 | 0.000 | 1.18 | 1 | 2 | 8 | - | - | - | - |
| | 200 | 0.0967 | 0.0004 | 0.0197 | 0.0197 | 0.990 | 0.728 | 0.000 | 1.15 | 1 | 2 | 9 | - | - | - | - |
| | 300 | 0.0953 | 0.0003 | 0.0201 | 0.0201 | 0.989 | 0.722 | 0.000 | 1.13 | 1 | 2 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.1057 | 0.0013 | 0.0229 | 0.0229 | 0.989 | 0.728 | 0.000 | 1.28 | 1 | 2 | 12 | - | - | - | - |
| | 200 | 0.1037 | 0.0009 | 0.0294 | 0.0294 | 0.993 | 0.756 | 0.000 | 1.30 | 1 | 3 | 14 | - | - | - | - |
| | 300 | 0.1030 | 0.0006 | 0.0311 | 0.0311 | 0.991 | 0.746 | 0.000 | 1.30 | 1 | 3 | 13 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.5275 | 0.3773 | 0.8295 | 0.8295 | 1.087 | 1.324 | 0.000 | 39.39 | 28 | 49 | 55 | - | - | - | - |
| | 200 | 0.4801 | 0.3134 | 0.9040 | 0.9040 | 1.149 | 1.539 | 0.000 | 64.52 | 57.5 | 71 | 81 | - | - | - | - |
| | 300 | 0.4298 | 0.2417 | 0.9241 | 0.9241 | 1.148 | 1.513 | 0.000 | 74.58 | 67 | 82 | 89 | - | - | - | - |
| $v = 1$ | 100 | 0.3373 | 0.2059 | 0.7826 | 0.7826 | 1.175 | 1.783 | 0.000 | 22.03 | 12 | 37 | 57 | - | - | - | - |
| | 200 | 0.3677 | 0.2510 | 0.8990 | 0.8990 | 1.332 | 2.328 | 0.000 | 51.48 | 29 | 81 | 114 | - | - | - | - |
| | 300 | 0.3715 | 0.2582 | 0.9344 | 0.9344 | 1.381 | 2.445 | 0.000 | 78.71 | 51 | 109 | 139 | - | - | - | - |

Notes: See notes to Table 91.

## Table 95: MC findings for DGPV

$T = 300$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3438 | 0.0012 | 0.0188 | 0.0188 | 0.993 | 0.663 | 0.000 | 3.89 | 3 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3284 | 0.0006 | 0.0214 | 0.0214 | 0.992 | 0.654 | 0.000 | 3.73 | 3 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3224 | 0.0004 | 0.0220 | 0.0220 | 0.993 | 0.662 | 0.000 | 3.67 | 3 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3302 | 0.0006 | 0.0092 | 0.0092 | 0.992 | 0.643 | 0.000 | 3.68 | 3 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3175 | 0.0003 | 0.0118 | 0.0118 | 0.992 | 0.635 | 0.000 | 3.56 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3126 | 0.0002 | 0.0122 | 0.0122 | 0.992 | 0.639 | 0.000 | 3.51 | 3 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3055 | 0.0001 | 0.0021 | 0.0021 | 0.992 | 0.620 | 0.000 | 3.37 | 3 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2965 | 0.0001 | 0.0030 | 0.0030 | 0.991 | 0.612 | 0.000 | 3.28 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2933 | 0.0001 | 0.0028 | 0.0028 | 0.991 | 0.615 | 0.000 | 3.24 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3436 | 0.0012 | 0.0177 | 0.0177 | 0.993 | 0.657 | 0.000 | 3.88 | 3 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3284 | 0.0006 | 0.0203 | 0.0203 | 0.992 | 0.649 | 0.000 | 3.73 | 3 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3223 | 0.0004 | 0.0205 | 0.0205 | 0.992 | 0.655 | 0.000 | 3.66 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3301 | 0.0005 | 0.0083 | 0.0083 | 0.992 | 0.639 | 0.000 | 3.68 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3174 | 0.0003 | 0.0113 | 0.0113 | 0.991 | 0.632 | 0.000 | 3.55 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3126 | 0.0002 | 0.0115 | 0.0115 | 0.992 | 0.636 | 0.000 | 3.50 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3055 | 0.0001 | 0.0020 | 0.0020 | 0.992 | 0.620 | 0.000 | 3.37 | 3 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2965 | 0.0001 | 0.0029 | 0.0029 | 0.991 | 0.612 | 0.000 | 3.28 | 2 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2933 | 0.0000 | 0.0026 | 0.0026 | 0.991 | 0.614 | 0.000 | 3.24 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3496 | 0.0503 | 0.3854 | 0.3854 | 1.004 | 0.741 | 0.000 | 8.32 | 3 | 18 | 37 | - | - | - | - |
| | 200 | 0.3254 | 0.0320 | 0.4531 | 0.4531 | 1.006 | 0.761 | 0.000 | 9.63 | 3 | 23 | 49 | - | - | - | - |
| | 300 | 0.3233 | 0.0243 | 0.4833 | 0.4833 | 1.007 | 0.790 | 0.000 | 10.58 | 3 | 26 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1986 | 0.0131 | 0.1005 | 0.1005 | 1.013 | 0.957 | 0.000 | 3.35 | 1 | 12 | 29 | - | - | - | - |
| | 200 | 0.2030 | 0.0115 | 0.1599 | 0.1599 | 1.017 | 1.025 | 0.000 | 4.41 | 1 | 16 | 37 | - | - | - | - |
| | 300 | 0.2065 | 0.0092 | 0.1814 | 0.1814 | 1.020 | 1.091 | 0.000 | 4.94 | 1 | 19 | 48 | - | - | - | - |
| SICA | 100 | 0.1103 | 0.0007 | 0.0114 | 0.0114 | 1.017 | 1.140 | 0.000 | 1.28 | 1 | 2 | 11 | - | - | - | - |
| | 200 | 0.1039 | 0.0002 | 0.0062 | 0.0062 | 1.019 | 1.143 | 0.000 | 1.17 | 1 | 2 | 7 | - | - | - | - |
| | 300 | 0.1015 | 0.0001 | 0.0050 | 0.0050 | 1.018 | 1.135 | 0.000 | 1.14 | 1 | 2 | 7 | - | - | - | - |
| Hard thresholding | 100 | 0.1229 | 0.0009 | 0.0148 | 0.0148 | 1.015 | 1.091 | 0.000 | 1.43 | 1 | 3 | 10 | - | - | - | - |
| | 200 | 0.1188 | 0.0002 | 0.0086 | 0.0086 | 1.015 | 1.099 | 0.000 | 1.35 | 1 | 2 | 11 | - | - | - | - |
| | 300 | 0.1148 | 0.0002 | 0.0110 | 0.0110 | 1.015 | 1.099 | 0.000 | 1.32 | 1 | 2 | 10 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.5800 | 0.3679 | 0.8136 | 0.8136 | 1.030 | 1.330 | 0.001 | 39.12 | 29 | 50 | 58 | - | - | - | - |
| | 200 | 0.5658 | 0.3466 | 0.9003 | 0.9003 | 1.060 | 1.711 | 0.000 | 71.74 | 62 | 80 | 87 | - | - | - | - |
| | 300 | 0.5279 | 0.2839 | 0.9233 | 0.9233 | 1.073 | 1.771 | 0.001 | 87.85 | 80 | 96 | 108 | - | - | - | - |
| $v = 1$ | 100 | 0.3843 | 0.1792 | 0.7417 | 0.7417 | 1.070 | 1.933 | 0.000 | 20.18 | 12 | 31 | 48 | - | - | - | - |
| | 200 | 0.3844 | 0.1891 | 0.8679 | 0.8679 | 1.140 | 2.615 | 0.000 | 39.98 | 26 | 57 | 81 | - | - | - | - |
| | 300 | 0.3957 | 0.2047 | 0.9143 | 0.9143 | 1.212 | 3.115 | 0.000 | 63.52 | 42 | 91 | 129 | - | - | - | - |

Notes: See notes to Table 91.

## Table 96: MC findings for DGPV

$T = 500$, $R^2 = 50\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3930 | 0.0013 | 0.0179 | 0.0179 | 0.996 | 0.706 | 0.000 | 4.43 | 3 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3768 | 0.0006 | 0.0192 | 0.0192 | 0.997 | 0.705 | 0.000 | 4.26 | 3 | 6 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3724 | 0.0003 | 0.0162 | 0.0162 | 0.996 | 0.700 | 0.000 | 4.20 | 3 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3799 | 0.0007 | 0.0104 | 0.0104 | 0.996 | 0.689 | 0.000 | 4.24 | 3 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3660 | 0.0003 | 0.0102 | 0.0102 | 0.996 | 0.683 | 0.000 | 4.09 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3627 | 0.0002 | 0.0077 | 0.0077 | 0.996 | 0.682 | 0.000 | 4.03 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3543 | 0.0002 | 0.0025 | 0.0025 | 0.995 | 0.664 | 0.000 | 3.91 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3435 | 0.0001 | 0.0022 | 0.0022 | 0.996 | 0.661 | 0.000 | 3.79 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3405 | 0.0000 | 0.0021 | 0.0021 | 0.996 | 0.667 | 0.000 | 3.76 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3928 | 0.0012 | 0.0164 | 0.0164 | 0.996 | 0.700 | 0.000 | 4.42 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3768 | 0.0006 | 0.0179 | 0.0179 | 0.997 | 0.699 | 0.000 | 4.26 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3723 | 0.0003 | 0.0155 | 0.0155 | 0.996 | 0.696 | 0.000 | 4.19 | 3 | 5.5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3799 | 0.0007 | 0.0096 | 0.0096 | 0.996 | 0.685 | 0.000 | 4.24 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3660 | 0.0003 | 0.0097 | 0.0097 | 0.996 | 0.680 | 0.000 | 4.08 | 3 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3626 | 0.0001 | 0.0072 | 0.0072 | 0.996 | 0.679 | 0.000 | 4.03 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3542 | 0.0001 | 0.0022 | 0.0022 | 0.995 | 0.662 | 0.000 | 3.91 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3435 | 0.0001 | 0.0021 | 0.0021 | 0.996 | 0.660 | 0.000 | 3.79 | 3 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3405 | 0.0000 | 0.0020 | 0.0020 | 0.996 | 0.666 | 0.000 | 3.76 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4032 | 0.0555 | 0.3885 | 0.3885 | 1.003 | 0.772 | 0.000 | 9.37 | 3 | 20 | 42 | - | - | - | - |
| | 200 | 0.3763 | 0.0326 | 0.4392 | 0.4392 | 1.005 | 0.809 | 0.000 | 10.30 | 3 | 22 | 47 | - | - | - | - |
| | 300 | 0.3650 | 0.0251 | 0.4775 | 0.4775 | 1.006 | 0.822 | 0.000 | 11.26 | 3 | 26 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2440 | 0.0169 | 0.1310 | 0.1310 | 1.011 | 1.051 | 0.000 | 4.19 | 1 | 13 | 30 | - | - | - | - |
| | 200 | 0.2450 | 0.0118 | 0.1799 | 0.1799 | 1.014 | 1.130 | 0.000 | 4.93 | 1 | 15 | 34 | - | - | - | - |
| | 300 | 0.2472 | 0.0105 | 0.2194 | 0.2194 | 1.015 | 1.177 | 0.000 | 5.74 | 1 | 18 | 36 | - | - | - | - |
| SICA | 100 | 0.1320 | 0.0011 | 0.0162 | 0.0162 | 1.020 | 1.397 | 0.000 | 1.55 | 1 | 3 | 13 | - | - | - | - |
| | 200 | 0.1177 | 0.0003 | 0.0099 | 0.0099 | 1.023 | 1.430 | 0.000 | 1.35 | 1 | 2 | 11 | - | - | - | - |
| | 300 | 0.1130 | 0.0001 | 0.0085 | 0.0085 | 1.023 | 1.425 | 0.000 | 1.29 | 1 | 2 | 6 | - | - | - | - |
| Hard thresholding | 100 | 0.1453 | 0.0007 | 0.0114 | 0.0114 | 1.017 | 1.278 | 0.000 | 1.66 | 1 | 3 | 8 | - | - | - | - |
| | 200 | 0.1339 | 0.0002 | 0.0071 | 0.0071 | 1.019 | 1.303 | 0.000 | 1.51 | 1 | 3 | 7 | - | - | - | - |
| | 300 | 0.1318 | 0.0001 | 0.0075 | 0.0075 | 1.017 | 1.305 | 0.000 | 1.49 | 1 | 3 | 6 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.6085 | 0.3646 | 0.8055 | 0.8055 | 1.018 | 1.329 | 0.001 | 39.14 | 29 | 49 | 60 | - | - | - | - |
| | 200 | 0.6006 | 0.3500 | 0.8964 | 0.8964 | 1.037 | 1.720 | 0.001 | 72.76 | 62 | 82 | 90 | - | - | - | - |
| | 300 | 0.5702 | 0.2941 | 0.9211 | 0.9211 | 1.046 | 1.810 | 0.001 | 91.26 | 84 | 99.5 | 109 | - | - | - | - |
| $v = 1$ | 100 | 0.4238 | 0.1743 | 0.7204 | 0.7204 | 1.043 | 1.962 | 0.000 | 20.17 | 12 | 30.5 | 42 | - | - | - | - |
| | 200 | 0.4170 | 0.1766 | 0.8517 | 0.8517 | 1.087 | 2.641 | 0.000 | 37.97 | 26 | 54 | 73 | - | - | - | - |
| | 300 | 0.4193 | 0.1829 | 0.9015 | 0.9015 | 1.132 | 3.154 | 0.000 | 57.47 | 41 | 77 | 105 | - | - | - | - |

Notes: See notes to Table 91.

## Table 97: MC findings for DGPV

$T = 100$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.1885 | 0.0016 | 0.0355 | 0.0355 | 0.966 | 0.530 | 0.000 | 2.22 | 1 | 4 | 6 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1752 | 0.0009 | 0.0419 | 0.0419 | 0.969 | 0.545 | 0.000 | 2.10 | 1 | 4 | 5 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.1696 | 0.0006 | 0.0465 | 0.0465 | 0.969 | 0.551 | 0.000 | 2.05 | 1 | 3 | 6 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.1756 | 0.0009 | 0.0216 | 0.0216 | 0.964 | 0.509 | 0.000 | 2.02 | 1 | 3 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1641 | 0.0005 | 0.0228 | 0.0228 | 0.966 | 0.517 | 0.000 | 1.89 | 1 | 3 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1592 | 0.0003 | 0.0269 | 0.0269 | 0.966 | 0.522 | 0.000 | 1.85 | 1 | 3 | 5 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1502 | 0.0003 | 0.0068 | 0.0068 | 0.964 | 0.499 | 0.000 | 1.68 | 1 | 3 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1412 | 0.0001 | 0.0050 | 0.0050 | 0.966 | 0.506 | 0.000 | 1.57 | 1 | 3 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1389 | 0.0001 | 0.0079 | 0.0079 | 0.966 | 0.513 | 0.000 | 1.56 | 1 | 3 | 4 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.1884 | 0.0015 | 0.0333 | 0.0333 | 0.965 | 0.523 | 0.000 | 2.21 | 1 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1752 | 0.0008 | 0.0398 | 0.0398 | 0.968 | 0.538 | 0.000 | 2.09 | 1 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1696 | 0.0006 | 0.0436 | 0.0436 | 0.968 | 0.542 | 0.000 | 2.04 | 1 | 3 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.1756 | 0.0009 | 0.0204 | 0.0204 | 0.964 | 0.505 | 0.000 | 2.01 | 1 | 3 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1641 | 0.0004 | 0.0216 | 0.0216 | 0.966 | 0.513 | 0.000 | 1.89 | 1 | 3 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1591 | 0.0003 | 0.0259 | 0.0259 | 0.966 | 0.517 | 0.000 | 1.85 | 1 | 3 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1502 | 0.0002 | 0.0062 | 0.0062 | 0.964 | 0.497 | 0.000 | 1.67 | 1 | 3 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1412 | 0.0001 | 0.0048 | 0.0048 | 0.966 | 0.505 | 0.000 | 1.57 | 1 | 3 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1389 | 0.0001 | 0.0074 | 0.0074 | 0.966 | 0.511 | 0.000 | 1.55 | 1 | 3 | 4 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.2164 | 0.0493 | 0.4472 | 0.4472 | 0.986 | 0.607 | 0.000 | 6.77 | 1 | 16 | 40 | - | - | - | - |
| | 200 | 0.1979 | 0.0362 | 0.5549 | 0.5549 | 0.994 | 0.650 | 0.000 | 9.02 | 2 | 23.5 | 56 | - | - | - | - |
| | 300 | 0.1943 | 0.0315 | 0.6160 | 0.6160 | 0.998 | 0.676 | 0.000 | 11.24 | 2 | 30 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1355 | 0.0137 | 0.1775 | 0.1775 | 0.979 | 0.615 | 0.000 | 2.71 | 1 | 9 | 37 | - | - | - | - |
| | 200 | 0.1392 | 0.0135 | 0.2674 | 0.2674 | 0.995 | 0.732 | 0.000 | 4.08 | 1 | 14 | 51 | - | - | - | - |
| | 300 | 0.1450 | 0.0146 | 0.3583 | 0.3583 | 1.014 | 0.862 | 0.000 | 5.82 | 1 | 21 | 49 | - | - | - | - |
| SICA | 100 | 0.0983 | 0.0031 | 0.0658 | 0.0658 | 0.982 | 0.685 | 0.000 | 1.35 | 1 | 3 | 11 | - | - | - | - |
| | 200 | 0.0946 | 0.0013 | 0.0613 | 0.0613 | 0.981 | 0.679 | 0.000 | 1.29 | 1 | 3 | 8 | - | - | - | - |
| | 300 | 0.0928 | 0.0011 | 0.0735 | 0.0735 | 0.985 | 0.716 | 0.000 | 1.33 | 1 | 3 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.1026 | 0.0033 | 0.0639 | 0.0639 | 0.982 | 0.685 | 0.000 | 1.42 | 1 | 3 | 17 | - | - | - | - |
| | 200 | 0.0991 | 0.0020 | 0.0747 | 0.0747 | 0.986 | 0.728 | 0.000 | 1.47 | 1 | 4 | 21 | - | - | - | - |
| | 300 | 0.0968 | 0.0014 | 0.0841 | 0.0841 | 0.991 | 0.755 | 0.000 | 1.47 | 1 | 4 | 20 | - | - | - | - |
| | | | | | | **Boosting methods** | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.4974 | 0.3775 | 0.8366 | 0.8366 | 1.088 | 1.319 | 0.000 | 39.07 | 28 | 49 | 56 | - | - | - | - |
| | 200 | 0.4416 | 0.3150 | 0.9103 | 0.9103 | 1.145 | 1.525 | 0.000 | 64.40 | 58 | 71 | 78 | - | - | - | - |
| | 300 | 0.3913 | 0.2439 | 0.9299 | 0.9299 | 1.147 | 1.503 | 0.000 | 74.78 | 67 | 82 | 90 | - | - | - | - |
| $v = 1$ | 100 | 0.3120 | 0.2052 | 0.7941 | 0.7941 | 1.171 | 1.749 | 0.000 | 21.70 | 12 | 37 | 56 | - | - | - | - |
| | 200 | 0.3430 | 0.2522 | 0.9045 | 0.9045 | 1.323 | 2.288 | 0.000 | 51.45 | 28 | 82 | 118 | - | - | - | - |
| | 300 | 0.3460 | 0.2574 | 0.9377 | 0.9377 | 1.376 | 2.411 | 0.000 | 78.18 | 50 | 110 | 135 | - | - | - | - |

Notes: See notes to Table 91.

## Table 98: MC findings for DGPV

$T = 300$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2920 | 0.0011 | 0.0191 | 0.0191 | 0.991 | 0.601 | 0.000 | 3.31 | 2 | 5 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2783 | 0.0006 | 0.0230 | 0.0230 | 0.991 | 0.609 | 0.000 | 3.18 | 2 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2702 | 0.0004 | 0.0247 | 0.0247 | 0.991 | 0.607 | 0.000 | 3.10 | 2 | 4 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2770 | 0.0006 | 0.0101 | 0.0101 | 0.990 | 0.574 | 0.000 | 3.10 | 2 | 4 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2664 | 0.0003 | 0.0130 | 0.0130 | 0.990 | 0.582 | 0.000 | 2.99 | 2 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2592 | 0.0002 | 0.0130 | 0.0130 | 0.990 | 0.579 | 0.000 | 2.91 | 2 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2531 | 0.0001 | 0.0027 | 0.0027 | 0.990 | 0.545 | 0.000 | 2.80 | 2 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2444 | 0.0001 | 0.0043 | 0.0043 | 0.989 | 0.552 | 0.000 | 2.71 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2384 | 0.0000 | 0.0026 | 0.0026 | 0.989 | 0.546 | 0.000 | 2.63 | 2 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2920 | 0.0011 | 0.0184 | 0.0184 | 0.991 | 0.598 | 0.000 | 3.31 | 2 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2783 | 0.0006 | 0.0223 | 0.0223 | 0.991 | 0.606 | 0.000 | 3.17 | 2 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2702 | 0.0004 | 0.0240 | 0.0240 | 0.990 | 0.604 | 0.000 | 3.09 | 2 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2770 | 0.0006 | 0.0098 | 0.0098 | 0.990 | 0.573 | 0.000 | 3.10 | 2 | 4 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2664 | 0.0003 | 0.0124 | 0.0124 | 0.990 | 0.579 | 0.000 | 2.99 | 2 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2592 | 0.0002 | 0.0125 | 0.0125 | 0.990 | 0.577 | 0.000 | 2.91 | 2 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2531 | 0.0001 | 0.0027 | 0.0027 | 0.990 | 0.545 | 0.000 | 2.80 | 2 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2444 | 0.0001 | 0.0043 | 0.0043 | 0.989 | 0.552 | 0.000 | 2.71 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2384 | 0.0000 | 0.0026 | 0.0026 | 0.989 | 0.546 | 0.000 | 2.63 | 2 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2849 | 0.0451 | 0.3871 | 0.3871 | 1.001 | 0.669 | 0.000 | 7.15 | 2 | 16 | 42 | - | - | - | - |
| | 200 | 0.2603 | 0.0285 | 0.4560 | 0.4560 | 1.003 | 0.709 | 0.000 | 8.25 | 2 | 20 | 54 | - | - | - | - |
| | 300 | 0.2484 | 0.0213 | 0.4807 | 0.4807 | 1.004 | 0.727 | 0.000 | 8.88 | 2 | 22.5 | 46 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1573 | 0.0091 | 0.0910 | 0.0910 | 1.001 | 0.732 | 0.000 | 2.54 | 1 | 8 | 32 | - | - | - | - |
| | 200 | 0.1590 | 0.0091 | 0.1527 | 0.1527 | 1.006 | 0.857 | 0.000 | 3.47 | 1 | 15 | 45 | - | - | - | - |
| | 300 | 0.1620 | 0.0084 | 0.1845 | 0.1845 | 1.010 | 0.943 | 0.000 | 4.22 | 1 | 18 | 40 | - | - | - | - |
| SICA | 100 | 0.0992 | 0.0006 | 0.0116 | 0.0116 | 1.001 | 0.809 | 0.000 | 1.14 | 1 | 2 | 7 | - | - | - | - |
| | 200 | 0.0955 | 0.0002 | 0.0093 | 0.0093 | 1.000 | 0.795 | 0.000 | 1.09 | 1 | 2 | 8 | - | - | - | - |
| | 300 | 0.0943 | 0.0001 | 0.0072 | 0.0072 | 1.000 | 0.780 | 0.000 | 1.07 | 1 | 1 | 9 | - | - | - | - |
| Hard thresholding | 100 | 0.1083 | 0.0010 | 0.0177 | 0.0177 | 1.001 | 0.819 | 0.000 | 1.28 | 1 | 2 | 8 | - | - | - | - |
| | 200 | 0.1028 | 0.0004 | 0.0172 | 0.0172 | 1.001 | 0.812 | 0.000 | 1.21 | 1 | 2 | 10 | - | - | - | - |
| | 300 | 0.1010 | 0.0002 | 0.0131 | 0.0131 | 0.999 | 0.789 | 0.000 | 1.17 | 1 | 2 | 8 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.5322 | 0.3685 | 0.8249 | 0.8249 | 1.027 | 1.314 | 0.001 | 38.65 | 29 | 49 | 57 | - | - | - | - |
| | 200 | 0.5194 | 0.3490 | 0.9073 | 0.9073 | 1.061 | 1.709 | 0.000 | 71.67 | 62 | 80 | 88 | - | - | - | - |
| | 300 | 0.4830 | 0.2872 | 0.9292 | 0.9292 | 1.071 | 1.753 | 0.000 | 88.32 | 81 | 96 | 103 | - | - | - | - |
| $v = 1$ | 100 | 0.3286 | 0.1783 | 0.7633 | 0.7633 | 1.064 | 1.886 | 0.000 | 19.48 | 11 | 30 | 45 | - | - | - | - |
| | 200 | 0.3341 | 0.1873 | 0.8793 | 0.8793 | 1.137 | 2.567 | 0.000 | 39.07 | 25 | 56 | 83 | - | - | - | - |
| | 300 | 0.3495 | 0.2022 | 0.9211 | 0.9211 | 1.204 | 3.041 | 0.000 | 62.27 | 42 | 89 | 130 | - | - | - | - |

Notes: See notes to Table 91.

## Table 99: MC findings for DGPV

$T = 500$, $R^2 = 30\%$, G, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3390 | 0.0012 | 0.0184 | 0.0184 | 0.995 | 0.653 | 0.000 | 3.84 | 3 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3275 | 0.0006 | 0.0192 | 0.0192 | 0.995 | 0.646 | 0.000 | 3.71 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3215 | 0.0004 | 0.0203 | 0.0203 | 0.995 | 0.653 | 0.000 | 3.65 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3267 | 0.0007 | 0.0113 | 0.0113 | 0.994 | 0.631 | 0.000 | 3.66 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3160 | 0.0003 | 0.0101 | 0.0101 | 0.994 | 0.618 | 0.000 | 3.53 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3101 | 0.0002 | 0.0110 | 0.0110 | 0.995 | 0.626 | 0.000 | 3.47 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3021 | 0.0002 | 0.0028 | 0.0028 | 0.994 | 0.600 | 0.000 | 3.34 | 2.5 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2942 | 0.0001 | 0.0021 | 0.0021 | 0.994 | 0.584 | 0.000 | 3.25 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2882 | 0.0000 | 0.0023 | 0.0023 | 0.994 | 0.591 | 0.000 | 3.18 | 2 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3390 | 0.0012 | 0.0179 | 0.0179 | 0.995 | 0.651 | 0.000 | 3.83 | 3 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3275 | 0.0005 | 0.0186 | 0.0186 | 0.995 | 0.644 | 0.000 | 3.71 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3215 | 0.0004 | 0.0198 | 0.0198 | 0.995 | 0.652 | 0.000 | 3.65 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3267 | 0.0007 | 0.0112 | 0.0112 | 0.994 | 0.631 | 0.000 | 3.66 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3160 | 0.0003 | 0.0096 | 0.0096 | 0.994 | 0.616 | 0.000 | 3.53 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3101 | 0.0002 | 0.0109 | 0.0109 | 0.995 | 0.625 | 0.000 | 3.47 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3021 | 0.0002 | 0.0028 | 0.0028 | 0.994 | 0.600 | 0.000 | 3.34 | 2.5 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2942 | 0.0001 | 0.0020 | 0.0020 | 0.994 | 0.584 | 0.000 | 3.25 | 2 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2882 | 0.0000 | 0.0023 | 0.0023 | 0.994 | 0.591 | 0.000 | 3.18 | 2 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3199 | 0.0459 | 0.3745 | 0.3745 | 1.001 | 0.712 | 0.000 | 7.61 | 2 | 16 | 27 | - | - | - | - |
| | 200 | 0.3017 | 0.0289 | 0.4380 | 0.4380 | 1.003 | 0.736 | 0.000 | 8.78 | 2 | 20 | 47 | - | - | - | - |
| | 300 | 0.2899 | 0.0223 | 0.4730 | 0.4730 | 1.004 | 0.766 | 0.000 | 9.62 | 2 | 24 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1742 | 0.0103 | 0.0875 | 0.0875 | 1.004 | 0.862 | 0.000 | 2.83 | 1 | 11 | 23 | - | - | - | - |
| | 200 | 0.1853 | 0.0103 | 0.1486 | 0.1486 | 1.007 | 0.966 | 0.000 | 3.99 | 1 | 16 | 42 | - | - | - | - |
| | 300 | 0.1860 | 0.0088 | 0.1830 | 0.1830 | 1.010 | 1.057 | 0.000 | 4.60 | 1 | 18 | 45 | - | - | - | - |
| SICA | 100 | 0.1045 | 0.0004 | 0.0070 | 0.0070 | 1.005 | 0.988 | 0.000 | 1.18 | 1 | 2 | 8 | - | - | - | - |
| | 200 | 0.0996 | 0.0002 | 0.0068 | 0.0068 | 1.006 | 0.993 | 0.000 | 1.13 | 1 | 2 | 9 | - | - | - | - |
| | 300 | 0.0962 | 0.0001 | 0.0040 | 0.0040 | 1.006 | 0.984 | 0.000 | 1.08 | 1 | 2 | 6 | - | - | - | - |
| Hard thresholding | 100 | 0.1151 | 0.0008 | 0.0144 | 0.0144 | 1.005 | 0.972 | 0.000 | 1.34 | 1 | 3 | 11 | - | - | - | - |
| | 200 | 0.1106 | 0.0003 | 0.0127 | 0.0127 | 1.005 | 0.978 | 0.000 | 1.28 | 1 | 2 | 7 | - | - | - | - |
| | 300 | 0.1078 | 0.0001 | 0.0093 | 0.0093 | 1.005 | 0.968 | 0.000 | 1.23 | 1 | 2 | 9 | - | - | - | - |
| **Boosting methods** | | | | | | | | | | | | | | | | |
| $v = 0.1$ | 100 | 0.5604 | 0.3651 | 0.8170 | 0.8170 | 1.016 | 1.310 | 0.001 | 38.66 | 29 | 49 | 60 | - | - | - | - |
| | 200 | 0.5506 | 0.3517 | 0.9036 | 0.9036 | 1.036 | 1.710 | 0.000 | 72.53 | 61 | 82 | 89 | - | - | - | - |
| | 300 | 0.5151 | 0.2965 | 0.9277 | 0.9277 | 1.045 | 1.808 | 0.000 | 91.35 | 84 | 99 | 108 | - | - | - | - |
| $v = 1$ | 100 | 0.3577 | 0.1744 | 0.7478 | 0.7478 | 1.041 | 1.921 | 0.000 | 19.45 | 12 | 29 | 43 | - | - | - | - |
| | 200 | 0.3572 | 0.1776 | 0.8676 | 0.8676 | 1.084 | 2.603 | 0.000 | 37.49 | 24 | 53 | 84 | - | - | - | - |
| | 300 | 0.3630 | 0.1824 | 0.9114 | 0.9114 | 1.127 | 3.104 | 0.000 | 56.70 | 40 | 77 | 104 | - | - | - | - |

Notes: See notes to Table 91.

### 3.2 Dynamic specifications with $\lambda_y = 0.4$

We ordered and numbered individual tables as follows:

**Summary table for experiments with Gaussian innovations (G), and dynamic specifications with $\lambda_y = 0.4$: List of experiments.**

| Table No. | DGP | $\omega$ | $R^2$ | T | Table No. | DGP | $R^2$ | T | Table No. | DGP | $R^2$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | I(a) | - | 70% | 100 | 145 | II(a) | 70% | 100 | 190 | V | 70% | 100 |
| 101 | I(a) | - | 70% | 300 | 146 | II(a) | 70% | 300 | 191 | V | 70% | 300 |
| 102 | I(a) | - | 70% | 500 | 147 | II(a) | 70% | 500 | 192 | V | 70% | 500 |
| 103 | I(a) | - | 50% | 100 | 148 | II(a) | 50% | 100 | 193 | V | 50% | 100 |
| 104 | I(a) | - | 50% | 300 | 149 | II(a) | 50% | 300 | 194 | V | 50% | 300 |
| 105 | I(a) | - | 50% | 500 | 150 | II(a) | 50% | 500 | 195 | V | 50% | 500 |
| 106 | I(a) | - | 30% | 100 | 151 | II(a) | 30% | 100 | 196 | V | 30% | 100 |
| 107 | I(a) | - | 30% | 300 | 152 | II(a) | 30% | 300 | 197 | V | 30% | 300 |
| 108 | I(a) | - | 30% | 500 | 153 | II(a) | 30% | 500 | 198 | V | 30% | 500 |
| 109 | I(b) | - | 70% | 100 | 154 | II(b) | 70% | 100 | | | | |
| 110 | I(b) | - | 70% | 300 | 155 | II(b) | 70% | 300 | | | | |
| 111 | I(b) | - | 70% | 500 | 156 | II(b) | 70% | 500 | | | | |
| 112 | I(b) | - | 50% | 100 | 157 | II(b) | 50% | 100 | | | | |
| 113 | I(b) | - | 50% | 300 | 158 | II(b) | 50% | 300 | | | | |
| 114 | I(b) | - | 50% | 500 | 159 | II(b) | 50% | 500 | | | | |
| 115 | I(b) | - | 30% | 100 | 160 | II(b) | 30% | 100 | | | | |
| 116 | I(b) | - | 30% | 300 | 161 | II(b) | 30% | 300 | | | | |
| 117 | I(b) | - | 30% | 500 | 162 | II(b) | 30% | 500 | | | | |
| 118 | I(c) | - | 70% | 100 | 163 | III | 70% | 100 | | | | |
| 119 | I(c) | - | 70% | 300 | 164 | III | 70% | 300 | | | | |
| 120 | I(c) | - | 70% | 500 | 165 | III | 70% | 500 | | | | |
| 121 | I(c) | - | 50% | 100 | 166 | III | 50% | 100 | | | | |
| 122 | I(c) | - | 50% | 300 | 167 | III | 50% | 300 | | | | |
| 123 | I(c) | - | 50% | 500 | 168 | III | 50% | 500 | | | | |
| 124 | I(c) | - | 30% | 100 | 169 | III | 30% | 100 | | | | |
| 125 | I(c) | - | 30% | 300 | 170 | III | 30% | 300 | | | | |
| 126 | I(c) | - | 30% | 500 | 171 | III | 30% | 500 | | | | |
| 127 | I(d) | low | 70% | 100 | 172 | IV(a) | 70% | 100 | | | | |
| 128 | I(d) | low | 70% | 300 | 173 | IV(a) | 70% | 300 | | | | |
| 129 | I(d) | low | 70% | 500 | 174 | IV(a) | 70% | 500 | | | | |
| 130 | I(d) | low | 50% | 100 | 175 | IV(a) | 50% | 100 | | | | |
| 131 | I(d) | low | 50% | 300 | 176 | IV(a) | 50% | 300 | | | | |
| 132 | I(d) | low | 50% | 500 | 177 | IV(a) | 50% | 500 | | | | |
| 133 | I(d) | low | 30% | 100 | 178 | IV(a) | 30% | 100 | | | | |
| 134 | I(d) | low | 30% | 300 | 179 | IV(a) | 30% | 300 | | | | |
| 135 | I(d) | low | 30% | 500 | 180 | IV(a) | 30% | 500 | | | | |
| 136 | I(d) | high | 70% | 100 | 181 | IV(b) | 70% | 100 | | | | |
| 137 | I(d) | high | 70% | 300 | 182 | IV(b) | 70% | 300 | | | | |
| 138 | I(d) | high | 70% | 500 | 183 | IV(b) | 70% | 500 | | | | |
| 139 | I(d) | high | 50% | 100 | 184 | IV(b) | 50% | 100 | | | | |
| 140 | I(d) | high | 50% | 300 | 185 | IV(b) | 50% | 300 | | | | |
| 141 | I(d) | high | 50% | 500 | 186 | IV(b) | 50% | 500 | | | | |
| 142 | I(d) | high | 30% | 100 | 187 | IV(b) | 30% | 100 | | | | |
| 143 | I(d) | high | 30% | 300 | 188 | IV(b) | 30% | 300 | | | | |
| 144 | I(d) | high | 30% | 500 | 189 | IV(b) | 30% | 500 | | | | |

Notes: $\omega$ is the average pair-wise correlation of the signal variables. The low value is $\omega = 0.2$ and the high value is $\omega = 0.8$. See Section 5 of CKP for a full description of MC design.

#### 3.2.1 Findings for designs featuring no hidden signals and no pseudo-signals

## Table 100: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.0024 | 0.0322 | 0.0236 | 1.006 | 1.070 | 1.000 | 0.848 | 0.999 | 0.049 | 0.007 | 0.007 | 5.23 | 5 | 6 | 9 | 1.257 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0012 | 0.0332 | 0.0274 | 1.008 | 1.091 | 1.000 | 0.829 | 0.995 | 0.036 | 0.004 | 0.003 | 5.24 | 5 | 6 | 8 | 1.284 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.9991 | 0.0008 | 0.0332 | 0.0284 | 1.009 | 1.101 | 1.000 | 0.819 | 0.996 | 0.027 | 0.005 | 0.004 | 5.24 | 5 | 6 | 8 | 1.338 | 0.33 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0014 | 0.0196 | 0.0135 | 1.004 | 1.047 | 1.000 | 0.908 | 0.998 | 0.036 | 0.005 | 0.004 | 5.14 | 5 | 6 | 8 | 1.293 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9987 | 0.0007 | 0.0205 | 0.0161 | 1.006 | 1.062 | 1.000 | 0.896 | 0.994 | 0.028 | 0.003 | 0.002 | 5.14 | 5 | 6 | 8 | 1.331 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.9986 | 0.0005 | 0.0208 | 0.0172 | 1.006 | 1.070 | 1.000 | 0.889 | 0.994 | 0.021 | 0.003 | 0.002 | 5.14 | 5 | 6 | 8 | 1.371 | 0.37 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9988 | 0.0005 | 0.0067 | 0.0036 | 1.003 | 1.018 | 1.000 | 0.975 | 0.995 | 0.018 | 0.003 | 0.002 | 5.04 | 5 | 5 | 7 | 1.416 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9973 | 0.0002 | 0.0061 | 0.0040 | 1.005 | 1.024 | 0.998 | 0.971 | 0.989 | 0.013 | 0.002 | 0.000 | 5.03 | 5 | 5 | 7 | 1.438 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9966 | 0.0002 | 0.0066 | 0.0048 | 1.006 | 1.038 | 0.997 | 0.965 | 0.987 | 0.011 | 0.002 | 0.001 | 5.03 | 5 | 5 | 7 | 1.485 | 0.48 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9989 | 0.0021 | 0.0293 | 0.0207 | 1.006 | 1.052 | 1.000 | 0.864 | 0.995 | 0.048 | 0.007 | 0.007 | 5.21 | 5 | 6 | 8 | 1.234 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9975 | 0.0011 | 0.0293 | 0.0235 | 1.008 | 1.065 | 1.000 | 0.852 | 0.988 | 0.035 | 0.004 | 0.003 | 5.20 | 5 | 6 | 8 | 1.254 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.9965 | 0.0007 | 0.0294 | 0.0246 | 1.010 | 1.076 | 1.000 | 0.842 | 0.983 | 0.027 | 0.005 | 0.004 | 5.19 | 5 | 6 | 8 | 1.302 | 0.30 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9986 | 0.0013 | 0.0177 | 0.0116 | 1.005 | 1.035 | 1.000 | 0.922 | 0.993 | 0.036 | 0.005 | 0.004 | 5.12 | 5 | 6 | 8 | 1.276 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9973 | 0.0006 | 0.0177 | 0.0134 | 1.007 | 1.043 | 1.000 | 0.913 | 0.987 | 0.027 | 0.003 | 0.002 | 5.11 | 5 | 6 | 8 | 1.308 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.9955 | 0.0004 | 0.0180 | 0.0145 | 1.009 | 1.056 | 1.000 | 0.905 | 0.978 | 0.021 | 0.003 | 0.002 | 5.11 | 5 | 6 | 8 | 1.341 | 0.34 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9966 | 0.0004 | 0.0060 | 0.0029 | 1.005 | 1.017 | 1.000 | 0.980 | 0.984 | 0.018 | 0.002 | 0.002 | 5.03 | 5 | 5 | 7 | 1.401 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9948 | 0.0002 | 0.0055 | 0.0036 | 1.009 | 1.025 | 0.998 | 0.975 | 0.976 | 0.012 | 0.002 | 0.000 | 5.01 | 5 | 5 | 7 | 1.422 | 0.42 | 0.00 | 0.00 |
| | 300 | 0.9935 | 0.0001 | 0.0055 | 0.0038 | 1.010 | 1.038 | 0.997 | 0.971 | 0.971 | 0.011 | 0.002 | 0.001 | 5.01 | 5 | 5 | 7 | 1.464 | 0.46 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9984 | 0.0752 | 0.4828 | 0.4635 | 1.072 | 1.388 | 0.992 | 0.045 | 1.000 | 0.094 | 0.094 | 0.088 | 12.44 | 6 | 23 | 42 | - | - | - | - |
| | 200 | 0.9975 | 0.0555 | 0.5680 | 0.5572 | 1.086 | 1.483 | 0.988 | 0.025 | 1.000 | 0.081 | 0.061 | 0.065 | 16.03 | 6 | 32 | 64 | - | - | - | - |
| | 300 | 0.9972 | 0.0457 | 0.6137 | 0.6048 | 1.097 | 1.562 | 0.987 | 0.016 | 0.999 | 0.082 | 0.053 | 0.059 | 18.64 | 7 | 37 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9615 | 0.0201 | 0.1610 | 0.1550 | 1.062 | 1.749 | 0.824 | 0.378 | 0.999 | 0.024 | 0.025 | 0.027 | 6.80 | 4 | 15 | 37 | - | - | - | - |
| | 200 | 0.9627 | 0.0223 | 0.2645 | 0.2596 | 1.090 | 1.960 | 0.834 | 0.263 | 0.998 | 0.034 | 0.025 | 0.029 | 9.26 | 4 | 25 | 50 | - | - | - | - |
| | 300 | 0.9697 | 0.0222 | 0.3397 | 0.3353 | 1.114 | 2.152 | 0.866 | 0.219 | 0.997 | 0.034 | 0.028 | 0.034 | 11.49 | 4 | 30 | 52 | - | - | - | - |

Notes: The vector of covariates $\boldsymbol{x}_{nt} = (x_{1t}, x_{2t}, ..., x_{nt})'$ is augmented with four lags of the dependent variable. The number of variables in the augmented set of covariates, $\boldsymbol{x}^*_{nt} = (\boldsymbol{x}'_{nt}, y_{t-1}, ..., y_{t-4})'$, is thus $n + 4$. TPR is the true positive rate, FPR is the false positive rate, FDR is the false discovery rater of the true model, FDR$^*$ is the false discovery rater of the approximating model, rRMSFE is the root mean square forecast error relative to the true benchmark model, rRMSE$_{\tilde{\beta}}$ is the root mean square error of $\hat{\boldsymbol{\beta}}$ relative to the true benchmark model, $\hat{\pi}_4$ is the probability that signal variables $x_{it}$, for $i = 1, 2, ..., 4$, are among the selected variables, $\hat{\pi}$ is the probability of selecting $x_{it}$ for $i = 1, 2, ..., 4$ while none of the remaining variables in $\boldsymbol{x}_{nt}$ are selected. $\hat{\pi}_{lag,j}$, for $j = 1, 2, ..., 4$, is the probability of selecting lag $j$ of the dependent variable. $\overline{\hat{\kappa}}$ is the average number of selected variables, $\hat{\kappa}_5$ and $\hat{\kappa}_{95}$, respectively, are the 5th and the 95th quantiles of the distribution of the number of selected variables, and $\hat{\kappa}_{\max}$ is the largest number of selected variables. $\overline{\hat{P}}$ is the average number of OCMT stages. $A_j$ is the frequency of event $\hat{P} > j$, for $j = 1, 2, 3$. See Section 5 of CKP for a description of the design.

## Table 101: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0607 | 0.0163 | 1.002 | 1.053 | 1.000 | 0.893 | 1.000 | 0.293 | 0.024 | 0.006 | 5.44 | 5 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0020 | 0.0551 | 0.0182 | 1.002 | 1.053 | 1.000 | 0.875 | 1.000 | 0.244 | 0.019 | 0.005 | 5.40 | 5 | 7 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0487 | 0.0178 | 1.002 | 1.056 | 1.000 | 0.880 | 1.000 | 0.208 | 0.013 | 0.003 | 5.35 | 5 | 6 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0032 | 0.0436 | 0.0077 | 1.001 | 1.031 | 1.000 | 0.948 | 1.000 | 0.238 | 0.018 | 0.002 | 5.31 | 5 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0399 | 0.0098 | 1.001 | 1.030 | 1.000 | 0.932 | 1.000 | 0.199 | 0.015 | 0.003 | 5.29 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0340 | 0.0092 | 1.001 | 1.034 | 1.000 | 0.938 | 1.000 | 0.167 | 0.010 | 0.002 | 5.24 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0234 | 0.0021 | 1.001 | 1.008 | 1.000 | 0.986 | 1.000 | 0.143 | 0.008 | 0.001 | 5.17 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0190 | 0.0016 | 1.000 | 1.007 | 1.000 | 0.989 | 1.000 | 0.117 | 0.007 | 0.001 | 5.14 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0165 | 0.0022 | 1.000 | 1.011 | 1.000 | 0.985 | 1.000 | 0.097 | 0.004 | 0.001 | 5.12 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0588 | 0.0144 | 1.002 | 1.035 | 1.000 | 0.905 | 1.000 | 0.292 | 0.024 | 0.006 | 5.43 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0020 | 0.0540 | 0.0171 | 1.001 | 1.042 | 1.000 | 0.883 | 1.000 | 0.244 | 0.019 | 0.005 | 5.39 | 5 | 6.5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0475 | 0.0166 | 1.001 | 1.044 | 1.000 | 0.887 | 1.000 | 0.207 | 0.013 | 0.003 | 5.34 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0031 | 0.0422 | 0.0064 | 1.001 | 1.018 | 1.000 | 0.957 | 1.000 | 0.237 | 0.018 | 0.002 | 5.30 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0391 | 0.0090 | 1.001 | 1.022 | 1.000 | 0.938 | 1.000 | 0.199 | 0.015 | 0.003 | 5.28 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0333 | 0.0085 | 1.001 | 1.027 | 1.000 | 0.942 | 1.000 | 0.166 | 0.010 | 0.002 | 5.24 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0232 | 0.0018 | 1.001 | 1.005 | 1.000 | 0.988 | 1.000 | 0.143 | 0.008 | 0.001 | 5.16 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0188 | 0.0013 | 1.000 | 1.004 | 1.000 | 0.991 | 1.000 | 0.117 | 0.007 | 0.001 | 5.13 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0163 | 0.0020 | 1.000 | 1.008 | 1.000 | 0.987 | 1.000 | 0.097 | 0.004 | 0.001 | 5.12 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0760 | 0.4862 | 0.4671 | 1.021 | 1.343 | 1.000 | 0.033 | 1.000 | 0.113 | 0.091 | 0.097 | 12.52 | 6 | 23 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0469 | 0.5300 | 0.5183 | 1.025 | 1.388 | 1.000 | 0.025 | 1.000 | 0.084 | 0.057 | 0.055 | 14.33 | 6 | 29 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0366 | 0.5656 | 0.5562 | 1.028 | 1.436 | 1.000 | 0.022 | 1.000 | 0.070 | 0.045 | 0.042 | 15.95 | 6 | 31 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0163 | 0.1100 | 0.1062 | 1.012 | 1.456 | 1.000 | 0.735 | 1.000 | 0.018 | 0.017 | 0.018 | 6.61 | 5 | 16 | 37 | - | - | - | - |
| | 200 | 0.9996 | 0.0159 | 0.1850 | 0.1813 | 1.020 | 1.689 | 0.998 | 0.618 | 1.000 | 0.024 | 0.022 | 0.015 | 8.16 | 5 | 21 | 37 | - | - | - | - |
| | 300 | 0.9999 | 0.0147 | 0.2355 | 0.2326 | 1.026 | 1.876 | 1.000 | 0.562 | 1.000 | 0.023 | 0.019 | 0.020 | 9.40 | 5 | 24 | 43 | - | - | - | - |

Notes: See notes to Table 100.

## Table 102: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0074 | 0.0999 | 0.0150 | 1.001 | 1.045 | 1.000 | 0.895 | 1.000 | 0.566 | 0.045 | 0.005 | 5.73 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0910 | 0.0153 | 1.001 | 1.047 | 1.000 | 0.893 | 1.000 | 0.506 | 0.035 | 0.008 | 5.67 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0853 | 0.0155 | 1.001 | 1.045 | 1.000 | 0.890 | 1.000 | 0.471 | 0.028 | 0.006 | 5.62 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0815 | 0.0075 | 1.001 | 1.025 | 1.000 | 0.944 | 1.000 | 0.497 | 0.031 | 0.003 | 5.59 | 5 | 7 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0744 | 0.0075 | 1.001 | 1.027 | 1.000 | 0.946 | 1.000 | 0.450 | 0.025 | 0.004 | 5.54 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0685 | 0.0080 | 1.001 | 1.027 | 1.000 | 0.942 | 1.000 | 0.406 | 0.024 | 0.004 | 5.49 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0553 | 0.0017 | 1.001 | 1.009 | 1.000 | 0.988 | 1.000 | 0.364 | 0.015 | 0.002 | 5.39 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0014 | 1.000 | 1.007 | 1.000 | 0.990 | 1.000 | 0.308 | 0.012 | 0.002 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0430 | 0.0018 | 1.000 | 1.008 | 1.000 | 0.987 | 1.000 | 0.282 | 0.009 | 0.003 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0989 | 0.0139 | 1.001 | 1.036 | 1.000 | 0.902 | 1.000 | 0.566 | 0.045 | 0.005 | 5.72 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0905 | 0.0148 | 1.001 | 1.041 | 1.000 | 0.897 | 1.000 | 0.506 | 0.035 | 0.008 | 5.66 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0846 | 0.0147 | 1.001 | 1.038 | 1.000 | 0.895 | 1.000 | 0.471 | 0.028 | 0.006 | 5.62 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0811 | 0.0071 | 1.001 | 1.021 | 1.000 | 0.948 | 1.000 | 0.497 | 0.031 | 0.003 | 5.58 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0740 | 0.0071 | 1.001 | 1.022 | 1.000 | 0.949 | 1.000 | 0.450 | 0.025 | 0.004 | 5.53 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0680 | 0.0076 | 1.001 | 1.023 | 1.000 | 0.945 | 1.000 | 0.406 | 0.024 | 0.004 | 5.49 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0552 | 0.0016 | 1.001 | 1.008 | 1.000 | 0.988 | 1.000 | 0.364 | 0.015 | 0.002 | 5.39 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0014 | 1.000 | 1.006 | 1.000 | 0.990 | 1.000 | 0.308 | 0.012 | 0.002 | 5.33 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0429 | 0.0016 | 1.000 | 1.007 | 1.000 | 0.988 | 1.000 | 0.282 | 0.009 | 0.003 | 5.30 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0738 | 0.4765 | 0.4561 | 1.012 | 1.340 | 1.000 | 0.043 | 1.000 | 0.112 | 0.091 | 0.084 | 12.31 | 6 | 24.5 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0465 | 0.5229 | 0.5108 | 1.014 | 1.391 | 1.000 | 0.032 | 1.000 | 0.078 | 0.054 | 0.066 | 14.25 | 6 | 26 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0354 | 0.5472 | 0.5389 | 1.016 | 1.415 | 1.000 | 0.022 | 1.000 | 0.076 | 0.045 | 0.032 | 15.58 | 6 | 30 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0140 | 0.0924 | 0.0887 | 1.006 | 1.396 | 1.000 | 0.817 | 1.000 | 0.018 | 0.017 | 0.013 | 6.38 | 5 | 15 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0138 | 0.1666 | 0.1638 | 1.010 | 1.588 | 1.000 | 0.699 | 1.000 | 0.018 | 0.015 | 0.015 | 7.75 | 5 | 18 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0124 | 0.2061 | 0.2031 | 1.013 | 1.722 | 1.000 | 0.642 | 1.000 | 0.029 | 0.014 | 0.011 | 8.71 | 5 | 21 | 47 | - | - | - | - |

Notes: See notes to Table 100.

## Table 103: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9858 | 0.0023 | 0.0314 | 0.0232 | 1.015 | 1.107 | 0.977 | 0.832 | 0.954 | 0.049 | 0.007 | 0.004 | 5.15 | 4 | 6 | 8 | 1.210 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9801 | 0.0012 | 0.0332 | 0.0254 | 1.019 | 1.132 | 0.966 | 0.814 | 0.939 | 0.046 | 0.008 | 0.003 | 5.14 | 4 | 6 | 9 | 1.264 | 0.26 | 0.01 | 0.00 |
| | 300 | 0.9715 | 0.0007 | 0.0314 | 0.0263 | 1.024 | 1.136 | 0.951 | 0.793 | 0.912 | 0.029 | 0.005 | 0.004 | 5.08 | 4 | 6 | 9 | 1.260 | 0.26 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9798 | 0.0014 | 0.0196 | 0.0135 | 1.015 | 1.083 | 0.961 | 0.877 | 0.942 | 0.037 | 0.005 | 0.002 | 5.04 | 4 | 6 | 8 | 1.252 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9707 | 0.0007 | 0.0198 | 0.0141 | 1.020 | 1.108 | 0.943 | 0.858 | 0.919 | 0.034 | 0.007 | 0.001 | 4.99 | 4 | 6 | 8 | 1.288 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9613 | 0.0004 | 0.0193 | 0.0155 | 1.026 | 1.117 | 0.928 | 0.833 | 0.891 | 0.023 | 0.003 | 0.002 | 4.94 | 4 | 6 | 9 | 1.295 | 0.29 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9545 | 0.0004 | 0.0054 | 0.0032 | 1.023 | 1.093 | 0.901 | 0.881 | 0.891 | 0.015 | 0.000 | 0.001 | 4.81 | 4 | 5 | 7 | 1.313 | 0.31 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9426 | 0.0002 | 0.0065 | 0.0038 | 1.028 | 1.124 | 0.876 | 0.855 | 0.869 | 0.017 | 0.002 | 0.001 | 4.76 | 4 | 5 | 8 | 1.354 | 0.35 | 0.00 | 0.00 |
| | 300 | 0.9294 | 0.0001 | 0.0060 | 0.0041 | 1.035 | 1.133 | 0.854 | 0.829 | 0.832 | 0.011 | 0.001 | 0.001 | 4.69 | 3 | 5 | 7 | 1.340 | 0.34 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9773 | 0.0020 | 0.0283 | 0.0202 | 1.021 | 1.092 | 0.977 | 0.852 | 0.911 | 0.049 | 0.007 | 0.004 | 5.09 | 4 | 6 | 8 | 1.150 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9679 | 0.0011 | 0.0302 | 0.0225 | 1.029 | 1.124 | 0.966 | 0.832 | 0.878 | 0.045 | 0.008 | 0.003 | 5.05 | 4 | 6 | 9 | 1.184 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.9558 | 0.0007 | 0.0289 | 0.0238 | 1.037 | 1.130 | 0.951 | 0.810 | 0.833 | 0.029 | 0.005 | 0.004 | 4.98 | 4 | 6 | 9 | 1.166 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9691 | 0.0013 | 0.0178 | 0.0117 | 1.024 | 1.080 | 0.961 | 0.889 | 0.888 | 0.037 | 0.005 | 0.002 | 4.97 | 4 | 6 | 8 | 1.187 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9566 | 0.0006 | 0.0178 | 0.0123 | 1.033 | 1.111 | 0.943 | 0.870 | 0.849 | 0.033 | 0.007 | 0.001 | 4.91 | 4 | 6 | 8 | 1.208 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.9437 | 0.0004 | 0.0176 | 0.0138 | 1.041 | 1.117 | 0.928 | 0.844 | 0.803 | 0.022 | 0.003 | 0.002 | 4.84 | 4 | 6 | 8 | 1.196 | 0.20 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9408 | 0.0003 | 0.0049 | 0.0026 | 1.035 | 1.101 | 0.901 | 0.885 | 0.822 | 0.015 | 0.000 | 0.001 | 4.74 | 4 | 5 | 7 | 1.241 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9234 | 0.0002 | 0.0057 | 0.0032 | 1.045 | 1.138 | 0.875 | 0.858 | 0.774 | 0.017 | 0.001 | 0.001 | 4.66 | 3 | 5 | 8 | 1.257 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.9077 | 0.0001 | 0.0059 | 0.0040 | 1.055 | 1.154 | 0.854 | 0.830 | 0.724 | 0.011 | 0.001 | 0.001 | 4.58 | 3 | 5 | 7 | 1.231 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9634 | 0.0724 | 0.4700 | 0.4517 | 1.074 | 1.365 | 0.830 | 0.039 | 0.997 | 0.087 | 0.083 | 0.086 | 11.98 | 5 | 23 | 43 | - | - | - | - |
| | 200 | 0.9615 | 0.0519 | 0.5512 | 0.5401 | 1.088 | 1.446 | 0.819 | 0.023 | 0.994 | 0.068 | 0.055 | 0.069 | 15.13 | 6 | 31 | 54 | - | - | - | - |
| | 300 | 0.9559 | 0.0454 | 0.6168 | 0.6082 | 1.096 | 1.493 | 0.792 | 0.016 | 0.996 | 0.066 | 0.053 | 0.050 | 18.36 | 6 | 37 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8277 | 0.0215 | 0.1920 | 0.1860 | 1.073 | 1.791 | 0.373 | 0.102 | 0.978 | 0.023 | 0.031 | 0.025 | 6.27 | 3 | 14 | 36 | - | - | - | - |
| | 200 | 0.8467 | 0.0214 | 0.2869 | 0.2811 | 1.097 | 1.993 | 0.437 | 0.070 | 0.976 | 0.025 | 0.024 | 0.031 | 8.50 | 3 | 23 | 48 | - | - | - | - |
| | 300 | 0.8530 | 0.0225 | 0.3747 | 0.3696 | 1.119 | 2.139 | 0.457 | 0.031 | 0.979 | 0.029 | 0.025 | 0.024 | 10.98 | 3 | 31 | 56 | - | - | - | - |

Notes: See notes to Table 100.

**Table 104: Monte Carlo findings for DGPI(a)**

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0597 | 0.0155 | 1.002 | 1.062 | 1.000 | 0.895 | 1.000 | 0.290 | 0.023 | 0.008 | 5.44 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0019 | 0.0528 | 0.0171 | 1.002 | 1.064 | 1.000 | 0.886 | 1.000 | 0.235 | 0.020 | 0.005 | 5.39 | 5 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0490 | 0.0182 | 1.002 | 1.082 | 1.000 | 0.879 | 1.000 | 0.206 | 0.015 | 0.003 | 5.36 | 5 | 6 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0031 | 0.0429 | 0.0077 | 1.001 | 1.031 | 1.000 | 0.946 | 1.000 | 0.235 | 0.013 | 0.005 | 5.31 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0377 | 0.0086 | 1.001 | 1.036 | 1.000 | 0.941 | 1.000 | 0.194 | 0.012 | 0.003 | 5.27 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0339 | 0.0086 | 1.001 | 1.044 | 1.000 | 0.940 | 1.000 | 0.170 | 0.008 | 0.003 | 5.24 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0226 | 0.0015 | 1.001 | 1.010 | 1.000 | 0.990 | 1.000 | 0.143 | 0.005 | 0.003 | 5.16 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0194 | 0.0019 | 1.000 | 1.009 | 1.000 | 0.987 | 1.000 | 0.119 | 0.005 | 0.001 | 5.14 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0158 | 0.0022 | 1.001 | 1.013 | 1.000 | 0.985 | 1.000 | 0.093 | 0.003 | 0.000 | 5.11 | 5 | 6 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0581 | 0.0140 | 1.002 | 1.048 | 1.000 | 0.904 | 1.000 | 0.290 | 0.023 | 0.008 | 5.42 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0521 | 0.0164 | 1.002 | 1.057 | 1.000 | 0.891 | 1.000 | 0.235 | 0.020 | 0.005 | 5.38 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0478 | 0.0169 | 1.002 | 1.068 | 1.000 | 0.887 | 1.000 | 0.206 | 0.015 | 0.003 | 5.35 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0031 | 0.0423 | 0.0070 | 1.001 | 1.025 | 1.000 | 0.950 | 1.000 | 0.235 | 0.013 | 0.005 | 5.30 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0374 | 0.0084 | 1.001 | 1.033 | 1.000 | 0.942 | 1.000 | 0.194 | 0.012 | 0.002 | 5.27 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0333 | 0.0080 | 1.001 | 1.036 | 1.000 | 0.945 | 1.000 | 0.170 | 0.008 | 0.003 | 5.24 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0224 | 0.0013 | 1.000 | 1.008 | 1.000 | 0.991 | 1.000 | 0.143 | 0.005 | 0.003 | 5.16 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0193 | 0.0018 | 1.000 | 1.009 | 1.000 | 0.987 | 1.000 | 0.119 | 0.005 | 0.001 | 5.14 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0156 | 0.0020 | 1.000 | 1.011 | 1.000 | 0.986 | 1.000 | 0.093 | 0.003 | 0.000 | 5.11 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0764 | 0.4900 | 0.4709 | 1.020 | 1.335 | 1.000 | 0.036 | 1.000 | 0.105 | 0.088 | 0.091 | 12.57 | 6 | 23 | 36 | - | - | - | - |
| | 200 | 0.9997 | 0.0486 | 0.5415 | 0.5307 | 1.025 | 1.388 | 0.999 | 0.022 | 1.000 | 0.089 | 0.063 | 0.064 | 14.66 | 6 | 28 | 54 | - | - | - | - |
| | 300 | 0.9999 | 0.0377 | 0.5773 | 0.5684 | 1.028 | 1.448 | 1.000 | 0.016 | 1.000 | 0.063 | 0.036 | 0.042 | 16.28 | 7 | 31 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9892 | 0.0195 | 0.1484 | 0.1425 | 1.016 | 1.631 | 0.947 | 0.518 | 1.000 | 0.028 | 0.022 | 0.018 | 6.87 | 5 | 16 | 31 | - | - | - | - |
| | 200 | 0.9897 | 0.0190 | 0.2296 | 0.2250 | 1.026 | 1.878 | 0.950 | 0.411 | 1.000 | 0.028 | 0.023 | 0.027 | 8.72 | 5 | 23 | 48 | - | - | - | - |
| | 300 | 0.9930 | 0.0170 | 0.2836 | 0.2799 | 1.034 | 2.081 | 0.966 | 0.358 | 1.000 | 0.026 | 0.018 | 0.020 | 10.05 | 5 | 26 | 53 | - | - | - | - |

Notes: See notes to Table 100.

**Table 105: Monte Carlo findings for DGPI(a)**

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0985 | 0.0136 | 1.001 | 1.053 | 1.000 | 0.903 | 1.000 | 0.552 | 0.056 | 0.012 | 5.72 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0909 | 0.0151 | 1.001 | 1.060 | 1.000 | 0.896 | 1.000 | 0.508 | 0.036 | 0.007 | 5.67 | 5 | 7 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0888 | 0.0149 | 1.001 | 1.065 | 1.000 | 0.897 | 1.000 | 0.500 | 0.028 | 0.005 | 5.65 | 5 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0824 | 0.0075 | 1.001 | 1.034 | 1.000 | 0.946 | 1.000 | 0.494 | 0.039 | 0.007 | 5.60 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0756 | 0.0083 | 1.001 | 1.038 | 1.000 | 0.941 | 1.000 | 0.451 | 0.030 | 0.004 | 5.55 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0717 | 0.0078 | 1.001 | 1.036 | 1.000 | 0.945 | 1.000 | 0.432 | 0.021 | 0.003 | 5.51 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0541 | 0.0016 | 1.001 | 1.009 | 1.000 | 0.988 | 1.000 | 0.356 | 0.014 | 0.002 | 5.38 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0018 | 0.0496 | 0.0018 | 1.001 | 1.011 | 1.000 | 0.988 | 1.000 | 0.323 | 0.015 | 0.002 | 5.35 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0462 | 0.0013 | 1.000 | 1.010 | 1.000 | 0.990 | 1.000 | 0.306 | 0.011 | 0.001 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0072 | 0.0978 | 0.0129 | 1.001 | 1.046 | 1.000 | 0.908 | 1.000 | 0.552 | 0.056 | 0.012 | 5.72 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0903 | 0.0144 | 1.001 | 1.054 | 1.000 | 0.900 | 1.000 | 0.508 | 0.036 | 0.007 | 5.66 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0882 | 0.0143 | 1.001 | 1.058 | 1.000 | 0.902 | 1.000 | 0.500 | 0.028 | 0.005 | 5.64 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0818 | 0.0069 | 1.001 | 1.026 | 1.000 | 0.951 | 1.000 | 0.494 | 0.039 | 0.007 | 5.59 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0754 | 0.0081 | 1.001 | 1.035 | 1.000 | 0.943 | 1.000 | 0.451 | 0.030 | 0.004 | 5.55 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0715 | 0.0076 | 1.001 | 1.033 | 1.000 | 0.947 | 1.000 | 0.432 | 0.021 | 0.003 | 5.51 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0540 | 0.0014 | 1.001 | 1.007 | 1.000 | 0.990 | 1.000 | 0.356 | 0.014 | 0.002 | 5.38 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0495 | 0.0017 | 1.001 | 1.010 | 1.000 | 0.988 | 1.000 | 0.323 | 0.015 | 0.002 | 5.35 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0461 | 0.0012 | 1.000 | 1.008 | 1.000 | 0.991 | 1.000 | 0.306 | 0.011 | 0.001 | 5.33 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0758 | 0.4892 | 0.4696 | 1.012 | 1.331 | 1.000 | 0.030 | 1.000 | 0.118 | 0.099 | 0.082 | 12.50 | 6 | 23 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0482 | 0.5398 | 0.5270 | 1.014 | 1.374 | 1.000 | 0.029 | 1.000 | 0.084 | 0.060 | 0.056 | 14.58 | 6 | 28 | 47 | - | - | - | - |
| | 300 | 1.0000 | 0.0370 | 0.5646 | 0.5561 | 1.016 | 1.415 | 1.000 | 0.029 | 1.000 | 0.067 | 0.046 | 0.039 | 16.06 | 6 | 33 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0166 | 0.1185 | 0.1137 | 1.007 | 1.519 | 0.998 | 0.678 | 1.000 | 0.023 | 0.021 | 0.022 | 6.64 | 5 | 15 | 35 | - | - | - | - |
| | 200 | 0.9992 | 0.0168 | 0.1975 | 0.1932 | 1.013 | 1.756 | 0.996 | 0.575 | 1.000 | 0.020 | 0.018 | 0.020 | 8.35 | 5 | 21 | 39 | - | - | - | - |
| | 300 | 0.9996 | 0.0160 | 0.2514 | 0.2479 | 1.018 | 1.966 | 0.998 | 0.503 | 1.000 | 0.022 | 0.022 | 0.017 | 9.78 | 5 | 25 | 54 | - | - | - | - |

Notes: See notes to Table 100.

## Table 106: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8407 | 0.0025 | 0.0385 | 0.0267 | 1.030 | 1.198 | 0.582 | 0.501 | 0.862 | 0.062 | 0.013 | 0.004 | 4.45 | 2 | 6 | 8 | 1.106 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7980 | 0.0011 | 0.0368 | 0.0300 | 1.040 | 1.255 | 0.522 | 0.439 | 0.808 | 0.034 | 0.005 | 0.004 | 4.21 | 2 | 6 | 9 | 1.105 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.7664 | 0.0008 | 0.0403 | 0.0341 | 1.053 | 1.295 | 0.464 | 0.383 | 0.759 | 0.029 | 0.007 | 0.002 | 4.07 | 2 | 6 | 8 | 1.100 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7898 | 0.0015 | 0.0250 | 0.0153 | 1.035 | 1.222 | 0.486 | 0.447 | 0.832 | 0.048 | 0.010 | 0.003 | 4.10 | 2 | 6 | 8 | 1.120 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7473 | 0.0006 | 0.0228 | 0.0175 | 1.047 | 1.272 | 0.433 | 0.394 | 0.760 | 0.027 | 0.002 | 0.003 | 3.87 | 1 | 5 | 9 | 1.109 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.7132 | 0.0004 | 0.0241 | 0.0202 | 1.060 | 1.313 | 0.382 | 0.344 | 0.712 | 0.017 | 0.003 | 0.001 | 3.69 | 1 | 5 | 7 | 1.117 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6663 | 0.0005 | 0.0092 | 0.0041 | 1.059 | 1.339 | 0.309 | 0.303 | 0.715 | 0.025 | 0.003 | 0.001 | 3.38 | 1 | 5 | 7 | 1.135 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6206 | 0.0002 | 0.0071 | 0.0052 | 1.073 | 1.393 | 0.279 | 0.271 | 0.645 | 0.008 | 0.002 | 0.001 | 3.14 | 1 | 5 | 7 | 1.127 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.5801 | 0.0001 | 0.0083 | 0.0066 | 1.087 | 1.432 | 0.233 | 0.224 | 0.599 | 0.007 | 0.001 | 0.001 | 2.94 | 0 | 5 | 6 | 1.125 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8303 | 0.0023 | 0.0360 | 0.0242 | 1.035 | 1.186 | 0.582 | 0.507 | 0.813 | 0.062 | 0.013 | 0.004 | 4.38 | 2 | 6 | 8 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7861 | 0.0010 | 0.0347 | 0.0278 | 1.046 | 1.240 | 0.521 | 0.447 | 0.758 | 0.034 | 0.005 | 0.004 | 4.13 | 2 | 6 | 9 | 1.033 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.7556 | 0.0007 | 0.0387 | 0.0324 | 1.059 | 1.284 | 0.464 | 0.388 | 0.713 | 0.029 | 0.007 | 0.002 | 4.00 | 2 | 6 | 8 | 1.037 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7764 | 0.0014 | 0.0237 | 0.0140 | 1.043 | 1.218 | 0.486 | 0.449 | 0.773 | 0.048 | 0.010 | 0.003 | 4.02 | 2 | 6 | 8 | 1.046 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7346 | 0.0006 | 0.0216 | 0.0163 | 1.055 | 1.267 | 0.433 | 0.396 | 0.705 | 0.027 | 0.002 | 0.003 | 3.79 | 1 | 5 | 9 | 1.040 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.6999 | 0.0004 | 0.0227 | 0.0187 | 1.067 | 1.303 | 0.382 | 0.348 | 0.657 | 0.017 | 0.003 | 0.001 | 3.62 | 1 | 5 | 7 | 1.044 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6506 | 0.0005 | 0.0088 | 0.0036 | 1.068 | 1.337 | 0.308 | 0.302 | 0.650 | 0.025 | 0.003 | 0.001 | 3.30 | 1 | 5 | 7 | 1.058 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6039 | 0.0002 | 0.0070 | 0.0050 | 1.083 | 1.393 | 0.279 | 0.271 | 0.584 | 0.008 | 0.002 | 0.001 | 3.05 | 1 | 5 | 7 | 1.049 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.5634 | 0.0001 | 0.0078 | 0.0061 | 1.097 | 1.427 | 0.232 | 0.225 | 0.534 | 0.007 | 0.001 | 0.001 | 2.85 | 0 | 5 | 6 | 1.044 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8400 | 0.0699 | 0.4942 | 0.4741 | 1.065 | 1.234 | 0.382 | 0.011 | 0.988 | 0.077 | 0.083 | 0.079 | 11.12 | 4 | 22 | 40 | - | - | - | - |
| | 200 | 0.8287 | 0.0515 | 0.5740 | 0.5627 | 1.077 | 1.312 | 0.359 | 0.008 | 0.985 | 0.068 | 0.061 | 0.061 | 14.40 | 5 | 31 | 67 | - | - | - | - |
| | 300 | 0.8181 | 0.0422 | 0.6257 | 0.6183 | 1.090 | 1.365 | 0.319 | 0.005 | 0.974 | 0.064 | 0.055 | 0.052 | 16.72 | 5 | 37 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6560 | 0.0234 | 0.2398 | 0.2306 | 1.066 | 1.635 | 0.076 | 0.008 | 0.955 | 0.019 | 0.022 | 0.031 | 5.59 | 2 | 13 | 30 | - | - | - | - |
| | 200 | 0.6710 | 0.0228 | 0.3513 | 0.3446 | 1.088 | 1.850 | 0.099 | 0.005 | 0.950 | 0.028 | 0.030 | 0.027 | 7.89 | 2 | 21 | 55 | - | - | - | - |
| | 300 | 0.6797 | 0.0213 | 0.4192 | 0.4146 | 1.114 | 2.012 | 0.109 | 0.002 | 0.940 | 0.025 | 0.031 | 0.028 | 9.78 | 2 | 29 | 55 | - | - | - | - |

Notes: See notes to Table 100.

## Table 107: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0598 | 0.0155 | 1.002 | 1.073 | 1.000 | 0.895 | 1.000 | 0.288 | 0.028 | 0.006 | 5.44 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0019 | 0.0527 | 0.0150 | 1.002 | 1.071 | 1.000 | 0.900 | 1.000 | 0.249 | 0.020 | 0.005 | 5.39 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0472 | 0.0164 | 1.002 | 1.076 | 1.000 | 0.890 | 1.000 | 0.210 | 0.010 | 0.002 | 5.34 | 5 | 6 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0032 | 0.0438 | 0.0081 | 1.002 | 1.042 | 1.000 | 0.945 | 1.000 | 0.235 | 0.020 | 0.003 | 5.32 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0014 | 0.0391 | 0.0076 | 1.001 | 1.040 | 1.000 | 0.948 | 1.000 | 0.210 | 0.014 | 0.003 | 5.28 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0338 | 0.0087 | 1.001 | 1.046 | 1.000 | 0.940 | 1.000 | 0.170 | 0.008 | 0.001 | 5.24 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0018 | 0.0245 | 0.0020 | 1.001 | 1.012 | 0.998 | 0.984 | 1.000 | 0.150 | 0.009 | 0.002 | 5.17 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0008 | 0.0210 | 0.0020 | 1.001 | 1.015 | 0.999 | 0.985 | 1.000 | 0.128 | 0.007 | 0.001 | 5.15 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9992 | 0.0004 | 0.0165 | 0.0024 | 1.001 | 1.016 | 0.997 | 0.980 | 1.000 | 0.096 | 0.003 | 0.001 | 5.11 | 5 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0586 | 0.0143 | 1.002 | 1.062 | 1.000 | 0.904 | 1.000 | 0.288 | 0.028 | 0.006 | 5.43 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0019 | 0.0520 | 0.0143 | 1.002 | 1.064 | 1.000 | 0.905 | 1.000 | 0.249 | 0.020 | 0.005 | 5.38 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0465 | 0.0157 | 1.002 | 1.069 | 1.000 | 0.895 | 1.000 | 0.210 | 0.010 | 0.002 | 5.34 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0031 | 0.0431 | 0.0074 | 1.001 | 1.035 | 1.000 | 0.950 | 1.000 | 0.235 | 0.020 | 0.003 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0014 | 0.0387 | 0.0072 | 1.001 | 1.036 | 1.000 | 0.951 | 1.000 | 0.210 | 0.014 | 0.003 | 5.28 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0008 | 0.0333 | 0.0083 | 1.001 | 1.041 | 1.000 | 0.943 | 1.000 | 0.170 | 0.008 | 0.001 | 5.24 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0018 | 0.0245 | 0.0020 | 1.001 | 1.011 | 0.998 | 0.984 | 1.000 | 0.150 | 0.009 | 0.002 | 5.17 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9994 | 0.0007 | 0.0209 | 0.0019 | 1.001 | 1.013 | 0.999 | 0.986 | 0.999 | 0.128 | 0.007 | 0.001 | 5.15 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9989 | 0.0004 | 0.0163 | 0.0022 | 1.001 | 1.015 | 0.997 | 0.981 | 0.998 | 0.096 | 0.003 | 0.001 | 5.11 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9875 | 0.0740 | 0.4862 | 0.4666 | 1.020 | 1.313 | 0.938 | 0.031 | 1.000 | 0.098 | 0.089 | 0.093 | 12.27 | 6 | 22 | 45 | - | - | - | - |
| | 200 | 0.9845 | 0.0480 | 0.5409 | 0.5286 | 1.024 | 1.360 | 0.923 | 0.025 | 1.000 | 0.075 | 0.049 | 0.058 | 14.48 | 6 | 29 | 52 | - | - | - | - |
| | 300 | 0.9823 | 0.0373 | 0.5726 | 0.5640 | 1.028 | 1.409 | 0.914 | 0.020 | 1.000 | 0.067 | 0.041 | 0.048 | 16.05 | 6 | 32 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9027 | 0.0187 | 0.1651 | 0.1583 | 1.018 | 1.733 | 0.573 | 0.203 | 1.000 | 0.023 | 0.027 | 0.026 | 6.36 | 4 | 13.5 | 37 | - | - | - | - |
| | 200 | 0.9094 | 0.0189 | 0.2484 | 0.2436 | 1.029 | 1.954 | 0.606 | 0.141 | 1.000 | 0.021 | 0.017 | 0.024 | 8.30 | 4 | 23 | 47 | - | - | - | - |
| | 300 | 0.9125 | 0.0179 | 0.3086 | 0.3046 | 1.039 | 2.158 | 0.622 | 0.126 | 1.000 | 0.025 | 0.019 | 0.021 | 9.90 | 4 | 27 | 46 | - | - | - | - |

Notes: See notes to Table 100.

**Table 108: Monte Carlo findings for DGPI(a)**

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0074 | 0.0995 | 0.0148 | 1.002 | 1.069 | 1.000 | 0.896 | 1.000 | 0.566 | 0.039 | 0.010 | 5.73 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0916 | 0.0159 | 1.002 | 1.080 | 1.000 | 0.888 | 1.000 | 0.513 | 0.030 | 0.004 | 5.67 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0822 | 0.0141 | 1.002 | 1.069 | 1.000 | 0.903 | 1.000 | 0.455 | 0.032 | 0.005 | 5.60 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0820 | 0.0072 | 1.001 | 1.036 | 1.000 | 0.948 | 1.000 | 0.503 | 0.026 | 0.008 | 5.59 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0744 | 0.0076 | 1.001 | 1.041 | 1.000 | 0.946 | 1.000 | 0.452 | 0.022 | 0.004 | 5.53 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0662 | 0.0078 | 1.001 | 1.042 | 1.000 | 0.945 | 1.000 | 0.394 | 0.020 | 0.003 | 5.48 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0547 | 0.0020 | 1.001 | 1.013 | 1.000 | 0.986 | 1.000 | 0.358 | 0.012 | 0.003 | 5.39 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0018 | 0.0494 | 0.0016 | 1.001 | 1.011 | 1.000 | 0.989 | 1.000 | 0.324 | 0.013 | 0.002 | 5.35 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0421 | 0.0015 | 1.000 | 1.010 | 1.000 | 0.990 | 1.000 | 0.280 | 0.006 | 0.001 | 5.30 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0987 | 0.0139 | 1.002 | 1.061 | 1.000 | 0.902 | 1.000 | 0.566 | 0.039 | 0.010 | 5.72 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0907 | 0.0149 | 1.002 | 1.070 | 1.000 | 0.895 | 1.000 | 0.513 | 0.030 | 0.004 | 5.66 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0820 | 0.0139 | 1.002 | 1.066 | 1.000 | 0.904 | 1.000 | 0.455 | 0.032 | 0.005 | 5.60 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0818 | 0.0070 | 1.001 | 1.035 | 1.000 | 0.950 | 1.000 | 0.503 | 0.026 | 0.008 | 5.59 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0742 | 0.0073 | 1.001 | 1.038 | 1.000 | 0.947 | 1.000 | 0.452 | 0.022 | 0.004 | 5.53 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0660 | 0.0076 | 1.001 | 1.040 | 1.000 | 0.946 | 1.000 | 0.394 | 0.020 | 0.003 | 5.47 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0545 | 0.0019 | 1.001 | 1.012 | 1.000 | 0.987 | 1.000 | 0.358 | 0.012 | 0.003 | 5.39 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0494 | 0.0016 | 1.001 | 1.010 | 1.000 | 0.989 | 1.000 | 0.324 | 0.013 | 0.002 | 5.35 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0421 | 0.0015 | 1.000 | 1.010 | 1.000 | 0.990 | 1.000 | 0.280 | 0.006 | 0.001 | 5.30 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9987 | 0.0790 | 0.5019 | 0.4826 | 1.012 | 1.329 | 0.994 | 0.034 | 1.000 | 0.108 | 0.091 | 0.092 | 12.81 | 6 | 23 | 33 | - | - | - | - |
| | 200 | 0.9986 | 0.0482 | 0.5437 | 0.5315 | 1.014 | 1.373 | 0.993 | 0.029 | 1.000 | 0.085 | 0.052 | 0.060 | 14.59 | 6 | 28 | 48 | - | - | - | - |
| | 300 | 0.9987 | 0.0367 | 0.5659 | 0.5573 | 1.017 | 1.405 | 0.994 | 0.019 | 1.000 | 0.065 | 0.037 | 0.037 | 15.98 | 6 | 32 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9676 | 0.0200 | 0.1529 | 0.1475 | 1.011 | 1.725 | 0.846 | 0.442 | 1.000 | 0.033 | 0.023 | 0.025 | 6.82 | 4 | 16 | 29 | - | - | - | - |
| | 200 | 0.9720 | 0.0196 | 0.2373 | 0.2325 | 1.017 | 1.966 | 0.866 | 0.341 | 1.000 | 0.029 | 0.019 | 0.029 | 8.76 | 4 | 23 | 43 | - | - | - | - |
| | 300 | 0.9726 | 0.0173 | 0.2861 | 0.2822 | 1.022 | 2.135 | 0.870 | 0.290 | 1.000 | 0.027 | 0.019 | 0.017 | 10.05 | 4 | 26.5 | 62 | - | - | - | - |

Notes: See notes to Table 100.

**Table 109: Monte Carlo findings for DGPI(b)**

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9996 | 0.0128 | 0.1496 | 0.1309 | 1.022 | 1.238 | 1.000 | 0.394 | 0.999 | 0.137 | 0.021 | 0.008 | 6.27 | 5 | 9 | 13 | 1.110 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9984 | 0.0084 | 0.1904 | 0.1758 | 1.035 | 1.333 | 0.998 | 0.266 | 0.995 | 0.116 | 0.016 | 0.006 | 6.67 | 5 | 10 | 14 | 1.125 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0067 | 0.2185 | 0.2067 | 1.041 | 1.397 | 0.999 | 0.207 | 0.996 | 0.099 | 0.014 | 0.005 | 7.00 | 5 | 10 | 18 | 1.132 | 0.13 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9995 | 0.0089 | 0.1092 | 0.0935 | 1.016 | 1.183 | 0.999 | 0.519 | 0.999 | 0.110 | 0.014 | 0.007 | 5.88 | 5 | 8 | 12 | 1.129 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9979 | 0.0057 | 0.1373 | 0.1255 | 1.025 | 1.249 | 0.996 | 0.402 | 0.994 | 0.089 | 0.009 | 0.003 | 6.12 | 5 | 9 | 13 | 1.142 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.9982 | 0.0045 | 0.1593 | 0.1493 | 1.030 | 1.301 | 0.997 | 0.338 | 0.994 | 0.077 | 0.012 | 0.003 | 6.35 | 5 | 9 | 15 | 1.152 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9974 | 0.0036 | 0.0478 | 0.0389 | 1.010 | 1.098 | 0.994 | 0.761 | 0.993 | 0.059 | 0.008 | 0.003 | 5.35 | 5 | 7 | 10 | 1.188 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9965 | 0.0023 | 0.0616 | 0.0545 | 1.014 | 1.139 | 0.991 | 0.684 | 0.992 | 0.050 | 0.004 | 0.002 | 5.45 | 5 | 7 | 11 | 1.207 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.9954 | 0.0018 | 0.0692 | 0.0636 | 1.018 | 1.173 | 0.990 | 0.636 | 0.988 | 0.040 | 0.005 | 0.000 | 5.51 | 5 | 7 | 11 | 1.219 | 0.22 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9987 | 0.0125 | 0.1461 | 0.1275 | 1.021 | 1.215 | 1.000 | 0.407 | 0.994 | 0.136 | 0.021 | 0.008 | 6.23 | 5 | 9 | 13 | 1.087 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9974 | 0.0083 | 0.1873 | 0.1730 | 1.034 | 1.309 | 0.998 | 0.272 | 0.990 | 0.116 | 0.015 | 0.005 | 6.63 | 5 | 10 | 14 | 1.097 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.9964 | 0.0066 | 0.2149 | 0.2032 | 1.042 | 1.372 | 0.999 | 0.218 | 0.983 | 0.098 | 0.014 | 0.004 | 6.94 | 5 | 10 | 18 | 1.096 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9984 | 0.0087 | 0.1064 | 0.0908 | 1.016 | 1.166 | 0.999 | 0.530 | 0.993 | 0.109 | 0.014 | 0.007 | 5.85 | 5 | 8 | 12 | 1.109 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9958 | 0.0056 | 0.1350 | 0.1234 | 1.027 | 1.239 | 0.996 | 0.411 | 0.983 | 0.089 | 0.008 | 0.003 | 6.09 | 5 | 8 | 13 | 1.120 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.9960 | 0.0045 | 0.1569 | 0.1470 | 1.032 | 1.288 | 0.997 | 0.349 | 0.983 | 0.077 | 0.012 | 0.002 | 6.32 | 5 | 9 | 15 | 1.132 | 0.13 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9956 | 0.0036 | 0.0468 | 0.0380 | 1.012 | 1.097 | 0.994 | 0.766 | 0.984 | 0.059 | 0.008 | 0.003 | 5.33 | 5 | 7 | 10 | 1.176 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9937 | 0.0023 | 0.0605 | 0.0535 | 1.018 | 1.141 | 0.991 | 0.691 | 0.978 | 0.050 | 0.004 | 0.002 | 5.43 | 5 | 7 | 11 | 1.189 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.9927 | 0.0017 | 0.0678 | 0.0621 | 1.021 | 1.172 | 0.990 | 0.645 | 0.974 | 0.040 | 0.005 | 0.000 | 5.48 | 5 | 7 | 11 | 1.203 | 0.20 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9949 | 0.0782 | 0.4991 | 0.4829 | 1.091 | 1.480 | 0.975 | 0.023 | 1.000 | 0.091 | 0.079 | 0.086 | 12.72 | 6 | 23 | 44 | - | - | - | - |
| | 200 | 0.9943 | 0.0577 | 0.5897 | 0.5797 | 1.118 | 1.597 | 0.972 | 0.012 | 1.000 | 0.076 | 0.062 | 0.065 | 16.45 | 7 | 32 | 55 | - | - | - | - |
| | 300 | 0.9938 | 0.0467 | 0.6389 | 0.6319 | 1.132 | 1.682 | 0.970 | 0.006 | 1.000 | 0.057 | 0.043 | 0.048 | 18.93 | 8 | 35 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9453 | 0.0209 | 0.1657 | 0.1605 | 1.083 | 1.874 | 0.758 | 0.324 | 0.997 | 0.021 | 0.023 | 0.027 | 6.79 | 4 | 16 | 32 | - | - | - | - |
| | 200 | 0.9449 | 0.0216 | 0.2713 | 0.2672 | 1.120 | 2.082 | 0.762 | 0.202 | 0.999 | 0.026 | 0.026 | 0.024 | 9.03 | 4 | 24 | 46 | - | - | - | - |
| | 300 | 0.9523 | 0.0207 | 0.3443 | 0.3409 | 1.146 | 2.249 | 0.792 | 0.164 | 0.996 | 0.027 | 0.019 | 0.023 | 10.96 | 4 | 27 | 58 | - | - | - | - |

Notes: See notes to Table 100.

## Table 110: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0174 | 0.2017 | 0.1095 | 1.006 | 1.196 | 1.000 | 0.414 | 1.000 | 0.640 | 0.099 | 0.024 | 6.73 | 5 | 9 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0099 | 0.2224 | 0.1432 | 1.008 | 1.267 | 1.000 | 0.305 | 1.000 | 0.593 | 0.072 | 0.015 | 6.97 | 5 | 10 | 14 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.2383 | 0.1674 | 1.010 | 1.311 | 1.000 | 0.249 | 1.000 | 0.556 | 0.062 | 0.012 | 7.18 | 5 | 10 | 17 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0131 | 0.1597 | 0.0755 | 1.005 | 1.141 | 1.000 | 0.553 | 1.000 | 0.576 | 0.073 | 0.017 | 6.30 | 5 | 8 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0072 | 0.1724 | 0.0979 | 1.006 | 1.192 | 1.000 | 0.461 | 1.000 | 0.541 | 0.052 | 0.010 | 6.44 | 5 | 9 | 13 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0052 | 0.1820 | 0.1154 | 1.007 | 1.222 | 1.000 | 0.410 | 1.000 | 0.496 | 0.049 | 0.009 | 6.56 | 5 | 9 | 15 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0073 | 0.0958 | 0.0294 | 1.003 | 1.063 | 1.000 | 0.805 | 1.000 | 0.449 | 0.037 | 0.007 | 5.72 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0037 | 0.0964 | 0.0386 | 1.003 | 1.084 | 1.000 | 0.752 | 1.000 | 0.401 | 0.028 | 0.005 | 5.74 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.0990 | 0.0466 | 1.003 | 1.100 | 1.000 | 0.708 | 1.000 | 0.368 | 0.025 | 0.003 | 5.76 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0173 | 0.2009 | 0.1086 | 1.006 | 1.187 | 1.000 | 0.417 | 1.000 | 0.640 | 0.099 | 0.024 | 6.72 | 5 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0098 | 0.2212 | 0.1420 | 1.008 | 1.255 | 1.000 | 0.312 | 1.000 | 0.593 | 0.071 | 0.015 | 6.96 | 5 | 10 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.2377 | 0.1668 | 1.009 | 1.304 | 1.000 | 0.250 | 1.000 | 0.556 | 0.062 | 0.012 | 7.18 | 5 | 10 | 17 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0131 | 0.1592 | 0.0750 | 1.005 | 1.135 | 1.000 | 0.555 | 1.000 | 0.576 | 0.073 | 0.017 | 6.29 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0072 | 0.1718 | 0.0972 | 1.006 | 1.185 | 1.000 | 0.465 | 1.000 | 0.541 | 0.052 | 0.010 | 6.43 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0052 | 0.1819 | 0.1153 | 1.007 | 1.220 | 1.000 | 0.411 | 1.000 | 0.496 | 0.049 | 0.009 | 6.56 | 5 | 9 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0073 | 0.0957 | 0.0293 | 1.002 | 1.062 | 1.000 | 0.806 | 1.000 | 0.449 | 0.037 | 0.007 | 5.72 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0037 | 0.0964 | 0.0386 | 1.003 | 1.084 | 1.000 | 0.752 | 1.000 | 0.401 | 0.028 | 0.005 | 5.74 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.0989 | 0.0465 | 1.003 | 1.099 | 1.000 | 0.708 | 1.000 | 0.368 | 0.025 | 0.003 | 5.76 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0717 | 0.4757 | 0.4572 | 1.023 | 1.361 | 1.000 | 0.042 | 1.000 | 0.103 | 0.072 | 0.075 | 12.10 | 6 | 21 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0444 | 0.5235 | 0.5132 | 1.028 | 1.421 | 1.000 | 0.024 | 1.000 | 0.076 | 0.051 | 0.047 | 13.83 | 6 | 26 | 47 | - | - | - | - |
| | 300 | 1.0000 | 0.0334 | 0.5502 | 0.5411 | 1.031 | 1.458 | 1.000 | 0.019 | 1.000 | 0.067 | 0.040 | 0.032 | 14.99 | 6 | 29 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0167 | 0.1157 | 0.1116 | 1.014 | 1.503 | 1.000 | 0.732 | 1.000 | 0.019 | 0.015 | 0.017 | 6.65 | 5 | 15 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0144 | 0.1815 | 0.1780 | 1.021 | 1.691 | 1.000 | 0.622 | 1.000 | 0.022 | 0.012 | 0.011 | 7.87 | 5 | 19 | 36 | - | - | - | - |
| | 300 | 0.9997 | 0.0129 | 0.2198 | 0.2169 | 1.026 | 1.838 | 0.999 | 0.584 | 1.000 | 0.017 | 0.013 | 0.010 | 8.85 | 5 | 22 | 46 | - | - | - | - |

Notes: See notes to Table 100.

## Table 111: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0216 | 0.2453 | 0.1072 | 1.004 | 1.205 | 1.000 | 0.405 | 1.000 | 0.913 | 0.199 | 0.038 | 7.13 | 6 | 10 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0116 | 0.2572 | 0.1335 | 1.005 | 1.243 | 1.000 | 0.322 | 1.000 | 0.878 | 0.153 | 0.020 | 7.31 | 5 | 10 | 15 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2732 | 0.1539 | 1.006 | 1.297 | 1.000 | 0.276 | 1.000 | 0.867 | 0.150 | 0.022 | 7.52 | 6 | 10 | 15 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0174 | 0.2091 | 0.0739 | 1.003 | 1.150 | 1.000 | 0.548 | 1.000 | 0.887 | 0.164 | 0.024 | 6.73 | 5 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0089 | 0.2121 | 0.0893 | 1.003 | 1.172 | 1.000 | 0.485 | 1.000 | 0.844 | 0.126 | 0.014 | 6.77 | 5 | 9 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0064 | 0.2246 | 0.1065 | 1.004 | 1.215 | 1.000 | 0.423 | 1.000 | 0.833 | 0.119 | 0.014 | 6.93 | 5 | 9 | 14 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0116 | 0.1510 | 0.0278 | 1.002 | 1.070 | 1.000 | 0.803 | 1.000 | 0.812 | 0.096 | 0.008 | 6.14 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0057 | 0.1478 | 0.0358 | 1.002 | 1.080 | 1.000 | 0.759 | 1.000 | 0.757 | 0.071 | 0.007 | 6.13 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0040 | 0.1530 | 0.0454 | 1.002 | 1.101 | 1.000 | 0.700 | 1.000 | 0.739 | 0.066 | 0.006 | 6.19 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0215 | 0.2447 | 0.1065 | 1.004 | 1.197 | 1.000 | 0.408 | 1.000 | 0.913 | 0.199 | 0.038 | 7.13 | 6 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0116 | 0.2570 | 0.1332 | 1.005 | 1.239 | 1.000 | 0.323 | 1.000 | 0.878 | 0.153 | 0.020 | 7.30 | 5 | 10 | 15 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2727 | 0.1533 | 1.006 | 1.289 | 1.000 | 0.278 | 1.000 | 0.867 | 0.150 | 0.022 | 7.51 | 6 | 10 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0174 | 0.2089 | 0.0737 | 1.003 | 1.148 | 1.000 | 0.550 | 1.000 | 0.887 | 0.164 | 0.024 | 6.72 | 5 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0089 | 0.2116 | 0.0888 | 1.003 | 1.167 | 1.000 | 0.487 | 1.000 | 0.844 | 0.126 | 0.014 | 6.77 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0064 | 0.2244 | 0.1062 | 1.004 | 1.212 | 1.000 | 0.424 | 1.000 | 0.833 | 0.119 | 0.014 | 6.93 | 5 | 9 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0116 | 0.1509 | 0.0277 | 1.002 | 1.069 | 1.000 | 0.803 | 1.000 | 0.812 | 0.096 | 0.008 | 6.14 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0057 | 0.1476 | 0.0356 | 1.002 | 1.078 | 1.000 | 0.761 | 1.000 | 0.757 | 0.071 | 0.007 | 6.13 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0040 | 0.1530 | 0.0454 | 1.002 | 1.101 | 1.000 | 0.700 | 1.000 | 0.739 | 0.066 | 0.006 | 6.19 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0708 | 0.4717 | 0.4519 | 1.012 | 1.347 | 1.000 | 0.045 | 1.000 | 0.116 | 0.077 | 0.070 | 12.01 | 6 | 23 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0417 | 0.4974 | 0.4866 | 1.015 | 1.383 | 1.000 | 0.046 | 1.000 | 0.082 | 0.043 | 0.054 | 13.30 | 6 | 25 | 45 | - | - | - | - |
| | 300 | 1.0000 | 0.0324 | 0.5296 | 0.5216 | 1.018 | 1.429 | 1.000 | 0.030 | 1.000 | 0.085 | 0.034 | 0.032 | 14.68 | 6 | 28 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0149 | 0.1043 | 0.1002 | 1.007 | 1.424 | 1.000 | 0.786 | 1.000 | 0.021 | 0.018 | 0.013 | 6.47 | 5 | 15 | 27 | - | - | - | - |
| | 200 | 1.0000 | 0.0115 | 0.1505 | 0.1479 | 1.009 | 1.551 | 1.000 | 0.712 | 1.000 | 0.018 | 0.013 | 0.016 | 7.29 | 5 | 16.5 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0114 | 0.2045 | 0.2016 | 1.013 | 1.714 | 1.000 | 0.635 | 1.000 | 0.019 | 0.007 | 0.010 | 8.41 | 5 | 19 | 38 | - | - | - | - |

Notes: See notes to Table 100.

## Table 112: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9827 | 0.0119 | 0.1418 | 0.1262 | 1.036 | 1.315 | 0.963 | 0.389 | 0.953 | 0.110 | 0.017 | 0.011 | 6.09 | 5 | 9 | 13 | 1.083 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9691 | 0.0078 | 0.1793 | 0.1678 | 1.058 | 1.416 | 0.934 | 0.283 | 0.914 | 0.089 | 0.014 | 0.005 | 6.39 | 4 | 10 | 16 | 1.101 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.9622 | 0.0058 | 0.1976 | 0.1893 | 1.069 | 1.483 | 0.925 | 0.235 | 0.893 | 0.070 | 0.009 | 0.004 | 6.55 | 4 | 10 | 17 | 1.108 | 0.11 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9758 | 0.0079 | 0.0989 | 0.0861 | 1.032 | 1.254 | 0.944 | 0.524 | 0.940 | 0.085 | 0.011 | 0.010 | 5.67 | 4 | 8 | 12 | 1.100 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9600 | 0.0052 | 0.1274 | 0.1185 | 1.050 | 1.334 | 0.908 | 0.403 | 0.899 | 0.065 | 0.010 | 0.003 | 5.83 | 4 | 8 | 15 | 1.114 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.9522 | 0.0038 | 0.1399 | 0.1335 | 1.058 | 1.398 | 0.895 | 0.361 | 0.878 | 0.050 | 0.006 | 0.002 | 5.90 | 4 | 9 | 15 | 1.121 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9547 | 0.0031 | 0.0418 | 0.0346 | 1.029 | 1.178 | 0.885 | 0.716 | 0.904 | 0.045 | 0.005 | 0.005 | 5.08 | 4 | 7 | 10 | 1.149 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9331 | 0.0020 | 0.0557 | 0.0506 | 1.045 | 1.251 | 0.838 | 0.601 | 0.856 | 0.034 | 0.005 | 0.002 | 5.07 | 4 | 7 | 11 | 1.155 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.9223 | 0.0015 | 0.0614 | 0.0577 | 1.052 | 1.298 | 0.823 | 0.565 | 0.825 | 0.026 | 0.003 | 0.001 | 5.06 | 3.5 | 7 | 12 | 1.168 | 0.17 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9784 | 0.0116 | 0.1391 | 0.1235 | 1.039 | 1.298 | 0.963 | 0.399 | 0.932 | 0.110 | 0.017 | 0.011 | 6.04 | 4 | 9 | 13 | 1.042 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9617 | 0.0076 | 0.1763 | 0.1649 | 1.063 | 1.399 | 0.934 | 0.292 | 0.877 | 0.089 | 0.014 | 0.005 | 6.32 | 4 | 9 | 16 | 1.041 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9543 | 0.0057 | 0.1943 | 0.1861 | 1.074 | 1.473 | 0.925 | 0.243 | 0.854 | 0.070 | 0.009 | 0.004 | 6.47 | 4 | 10 | 17 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9700 | 0.0078 | 0.0969 | 0.0840 | 1.036 | 1.245 | 0.944 | 0.534 | 0.911 | 0.085 | 0.011 | 0.010 | 5.62 | 4 | 8 | 12 | 1.060 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9515 | 0.0051 | 0.1258 | 0.1170 | 1.058 | 1.335 | 0.908 | 0.410 | 0.857 | 0.065 | 0.010 | 0.003 | 5.77 | 4 | 8 | 15 | 1.059 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9420 | 0.0037 | 0.1372 | 0.1308 | 1.067 | 1.393 | 0.895 | 0.370 | 0.827 | 0.050 | 0.006 | 0.002 | 5.82 | 4 | 9 | 15 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9447 | 0.0031 | 0.0412 | 0.0341 | 1.038 | 1.189 | 0.885 | 0.719 | 0.854 | 0.045 | 0.005 | 0.005 | 5.03 | 4 | 7 | 10 | 1.096 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9203 | 0.0020 | 0.0545 | 0.0494 | 1.057 | 1.262 | 0.838 | 0.607 | 0.792 | 0.034 | 0.005 | 0.002 | 4.99 | 4 | 7 | 11 | 1.087 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.9080 | 0.0015 | 0.0598 | 0.0561 | 1.064 | 1.304 | 0.823 | 0.572 | 0.753 | 0.026 | 0.003 | 0.001 | 4.98 | 3 | 7 | 12 | 1.088 | 0.09 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9485 | 0.0757 | 0.4946 | 0.4812 | 1.095 | 1.445 | 0.761 | 0.026 | 0.997 | 0.086 | 0.072 | 0.081 | 12.24 | 5 | 23 | 42 | - | - | - | - |
| | 200 | 0.9337 | 0.0563 | 0.5940 | 0.5846 | 1.122 | 1.548 | 0.698 | 0.006 | 0.989 | 0.055 | 0.048 | 0.054 | 15.86 | 6 | 31 | 62 | - | - | - | - |
| | 300 | 0.9225 | 0.0506 | 0.6621 | 0.6556 | 1.145 | 1.649 | 0.672 | 0.005 | 0.981 | 0.049 | 0.043 | 0.044 | 19.74 | 7 | 39 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7976 | 0.0231 | 0.2115 | 0.2064 | 1.094 | 1.889 | 0.313 | 0.061 | 0.972 | 0.028 | 0.022 | 0.023 | 6.27 | 3 | 14 | 36 | - | - | - | - |
| | 200 | 0.8086 | 0.0231 | 0.3234 | 0.3185 | 1.134 | 2.087 | 0.324 | 0.037 | 0.955 | 0.019 | 0.022 | 0.021 | 8.65 | 3 | 22 | 55 | - | - | - | - |
| | 300 | 0.8052 | 0.0242 | 0.4151 | 0.4109 | 1.177 | 2.287 | 0.334 | 0.021 | 0.942 | 0.015 | 0.021 | 0.018 | 11.26 | 3 | 31 | 60 | - | - | - | - |

Notes: See notes to Table 100.

**Table 113: Monte Carlo findings for DGPI(b)**

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0156 | 0.1831 | 0.1066 | 1.008 | 1.238 | 1.000 | 0.430 | 1.000 | 0.549 | 0.060 | 0.013 | 6.54 | 5 | 9 | 14 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0083 | 0.1907 | 0.1304 | 1.010 | 1.303 | 1.000 | 0.366 | 1.000 | 0.451 | 0.048 | 0.009 | 6.65 | 5 | 9 | 13 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0063 | 0.2119 | 0.1541 | 1.011 | 1.378 | 1.000 | 0.294 | 1.000 | 0.450 | 0.045 | 0.009 | 6.89 | 5 | 10 | 14 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0116 | 0.1425 | 0.0742 | 1.006 | 1.176 | 1.000 | 0.577 | 1.000 | 0.481 | 0.047 | 0.006 | 6.15 | 5 | 8 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0060 | 0.1452 | 0.0902 | 1.007 | 1.225 | 1.000 | 0.502 | 1.000 | 0.396 | 0.037 | 0.007 | 6.19 | 5 | 8 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.1569 | 0.1045 | 1.008 | 1.274 | 1.000 | 0.455 | 1.000 | 0.385 | 0.036 | 0.007 | 6.31 | 5 | 9 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0060 | 0.0797 | 0.0278 | 1.002 | 1.075 | 1.000 | 0.818 | 1.000 | 0.357 | 0.023 | 0.002 | 5.59 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0748 | 0.0330 | 1.003 | 1.096 | 1.000 | 0.790 | 1.000 | 0.290 | 0.017 | 0.003 | 5.56 | 5 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0802 | 0.0409 | 1.004 | 1.130 | 1.000 | 0.744 | 1.000 | 0.275 | 0.018 | 0.002 | 5.61 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0155 | 0.1821 | 0.1057 | 1.007 | 1.231 | 1.000 | 0.435 | 1.000 | 0.549 | 0.060 | 0.012 | 6.54 | 5 | 9 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0083 | 0.1899 | 0.1296 | 1.009 | 1.296 | 1.000 | 0.370 | 1.000 | 0.451 | 0.048 | 0.009 | 6.64 | 5 | 9 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0063 | 0.2116 | 0.1537 | 1.011 | 1.374 | 1.000 | 0.295 | 1.000 | 0.450 | 0.045 | 0.009 | 6.88 | 5 | 10 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0116 | 0.1419 | 0.0736 | 1.005 | 1.171 | 1.000 | 0.580 | 1.000 | 0.481 | 0.047 | 0.005 | 6.15 | 5 | 8 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0059 | 0.1447 | 0.0897 | 1.007 | 1.220 | 1.000 | 0.505 | 1.000 | 0.396 | 0.037 | 0.007 | 6.18 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.1567 | 0.1043 | 1.008 | 1.272 | 1.000 | 0.456 | 1.000 | 0.385 | 0.036 | 0.007 | 6.31 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0060 | 0.0796 | 0.0276 | 1.002 | 1.074 | 1.000 | 0.819 | 1.000 | 0.357 | 0.023 | 0.002 | 5.59 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0028 | 0.0746 | 0.0328 | 1.003 | 1.094 | 1.000 | 0.791 | 1.000 | 0.290 | 0.017 | 0.003 | 5.56 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0801 | 0.0409 | 1.003 | 1.129 | 1.000 | 0.744 | 1.000 | 0.275 | 0.018 | 0.002 | 5.61 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0740 | 0.4877 | 0.4706 | 1.025 | 1.379 | 1.000 | 0.036 | 1.000 | 0.103 | 0.080 | 0.082 | 12.33 | 6 | 22 | 38 | - | - | - | - |
| | 200 | 0.9994 | 0.0436 | 0.5228 | 0.5132 | 1.030 | 1.429 | 0.997 | 0.024 | 1.000 | 0.076 | 0.055 | 0.050 | 13.68 | 6 | 26 | 47 | - | - | - | - |
| | 300 | 0.9992 | 0.0339 | 0.5539 | 0.5465 | 1.034 | 1.472 | 0.996 | 0.019 | 1.000 | 0.063 | 0.038 | 0.034 | 15.12 | 6 | 29 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9848 | 0.0190 | 0.1446 | 0.1398 | 1.019 | 1.697 | 0.924 | 0.507 | 1.000 | 0.021 | 0.018 | 0.017 | 6.81 | 4 | 16 | 33 | - | - | - | - |
| | 200 | 0.9847 | 0.0155 | 0.2053 | 0.2021 | 1.026 | 1.864 | 0.925 | 0.413 | 1.000 | 0.025 | 0.024 | 0.027 | 8.00 | 4 | 20 | 34 | - | - | - | - |
| | 300 | 0.9897 | 0.0149 | 0.2602 | 0.2569 | 1.035 | 2.057 | 0.949 | 0.373 | 1.000 | 0.027 | 0.020 | 0.013 | 9.42 | 5 | 24 | 61 | - | - | - | - |

Notes: See notes to Table 100.

## Table 114: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0190 | 0.2219 | 0.0969 | 1.005 | 1.238 | 1.000 | 0.440 | 1.000 | 0.859 | 0.131 | 0.025 | 6.88 | 5 | 9 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2386 | 0.1268 | 1.007 | 1.335 | 1.000 | 0.351 | 1.000 | 0.812 | 0.102 | 0.016 | 7.09 | 5 | 10 | 14 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2507 | 0.1463 | 1.008 | 1.381 | 1.000 | 0.285 | 1.000 | 0.786 | 0.089 | 0.014 | 7.24 | 5 | 10 | 14 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0152 | 0.1865 | 0.0659 | 1.003 | 1.174 | 1.000 | 0.590 | 1.000 | 0.822 | 0.100 | 0.015 | 6.50 | 5 | 8 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0080 | 0.1934 | 0.0859 | 1.005 | 1.245 | 1.000 | 0.503 | 1.000 | 0.760 | 0.081 | 0.010 | 6.60 | 5 | 9 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2014 | 0.0991 | 1.006 | 1.271 | 1.000 | 0.449 | 1.000 | 0.741 | 0.072 | 0.008 | 6.69 | 5 | 9 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0097 | 0.1292 | 0.0233 | 1.002 | 1.074 | 1.000 | 0.838 | 1.000 | 0.720 | 0.048 | 0.007 | 5.96 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0048 | 0.1259 | 0.0327 | 1.002 | 1.111 | 1.000 | 0.780 | 1.000 | 0.645 | 0.042 | 0.004 | 5.96 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.1263 | 0.0378 | 1.003 | 1.123 | 1.000 | 0.750 | 1.000 | 0.620 | 0.035 | 0.003 | 5.97 | 5 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0189 | 0.2212 | 0.0962 | 1.005 | 1.231 | 1.000 | 0.443 | 1.000 | 0.859 | 0.131 | 0.025 | 6.87 | 5 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2381 | 0.1264 | 1.006 | 1.330 | 1.000 | 0.353 | 1.000 | 0.812 | 0.101 | 0.016 | 7.09 | 5 | 10 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2502 | 0.1458 | 1.008 | 1.375 | 1.000 | 0.286 | 1.000 | 0.786 | 0.088 | 0.014 | 7.24 | 5 | 10 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0152 | 0.1862 | 0.0656 | 1.003 | 1.171 | 1.000 | 0.592 | 1.000 | 0.822 | 0.100 | 0.015 | 6.50 | 5 | 8 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0080 | 0.1931 | 0.0856 | 1.005 | 1.242 | 1.000 | 0.505 | 1.000 | 0.760 | 0.081 | 0.010 | 6.59 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2011 | 0.0988 | 1.006 | 1.268 | 1.000 | 0.450 | 1.000 | 0.741 | 0.072 | 0.008 | 6.69 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0097 | 0.1291 | 0.0232 | 1.002 | 1.072 | 1.000 | 0.839 | 1.000 | 0.720 | 0.048 | 0.007 | 5.96 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0048 | 0.1259 | 0.0327 | 1.002 | 1.111 | 1.000 | 0.780 | 1.000 | 0.645 | 0.042 | 0.004 | 5.96 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.1263 | 0.0377 | 1.003 | 1.122 | 1.000 | 0.750 | 1.000 | 0.620 | 0.035 | 0.003 | 5.96 | 5 | 7 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0725 | 0.4787 | 0.4613 | 1.013 | 1.350 | 1.000 | 0.036 | 1.000 | 0.114 | 0.067 | 0.078 | 12.18 | 6 | 22 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0455 | 0.5269 | 0.5166 | 1.017 | 1.419 | 1.000 | 0.026 | 1.000 | 0.083 | 0.046 | 0.040 | 14.06 | 6 | 27 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0330 | 0.5470 | 0.5392 | 1.019 | 1.447 | 1.000 | 0.021 | 1.000 | 0.069 | 0.038 | 0.034 | 14.85 | 6 | 29 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9992 | 0.0186 | 0.1302 | 0.1256 | 1.009 | 1.574 | 0.996 | 0.674 | 1.000 | 0.023 | 0.016 | 0.016 | 6.84 | 5 | 16 | 28 | - | - | - | - |
| | 200 | 0.9990 | 0.0156 | 0.1910 | 0.1877 | 1.014 | 1.785 | 0.995 | 0.571 | 1.000 | 0.027 | 0.014 | 0.013 | 8.10 | 5 | 21 | 43 | - | - | - | - |
| | 300 | 0.9991 | 0.0139 | 0.2363 | 0.2333 | 1.018 | 1.937 | 0.996 | 0.516 | 1.000 | 0.026 | 0.015 | 0.012 | 9.14 | 5 | 23 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 115: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8512 | 0.0108 | 0.1445 | 0.1314 | 1.049 | 1.363 | 0.579 | 0.256 | 0.873 | 0.086 | 0.014 | 0.005 | 5.33 | 3 | 8 | 12 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8121 | 0.0072 | 0.1888 | 0.1792 | 1.070 | 1.477 | 0.511 | 0.155 | 0.825 | 0.066 | 0.010 | 0.006 | 5.49 | 3 | 9 | 14 | 1.031 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.7844 | 0.0052 | 0.2066 | 0.1990 | 1.082 | 1.553 | 0.468 | 0.130 | 0.806 | 0.058 | 0.009 | 0.002 | 5.48 | 2 | 9 | 16 | 1.046 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8120 | 0.0072 | 0.1054 | 0.0948 | 1.049 | 1.335 | 0.502 | 0.292 | 0.840 | 0.065 | 0.011 | 0.003 | 4.78 | 2 | 7 | 11 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7661 | 0.0046 | 0.1344 | 0.1266 | 1.067 | 1.423 | 0.433 | 0.191 | 0.781 | 0.048 | 0.006 | 0.004 | 4.75 | 2 | 8 | 12 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.7400 | 0.0035 | 0.1550 | 0.1485 | 1.078 | 1.494 | 0.403 | 0.173 | 0.769 | 0.046 | 0.006 | 0.002 | 4.75 | 2 | 8 | 16 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7036 | 0.0030 | 0.0513 | 0.0442 | 1.061 | 1.343 | 0.336 | 0.266 | 0.732 | 0.038 | 0.007 | 0.000 | 3.82 | 1 | 6 | 9 | 1.053 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6609 | 0.0017 | 0.0601 | 0.0554 | 1.075 | 1.403 | 0.284 | 0.200 | 0.678 | 0.025 | 0.002 | 0.003 | 3.64 | 1 | 6 | 9 | 1.045 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.6315 | 0.0013 | 0.0688 | 0.0644 | 1.084 | 1.455 | 0.267 | 0.189 | 0.666 | 0.028 | 0.002 | 0.001 | 3.55 | 1 | 6 | 13 | 1.045 | 0.04 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8473 | 0.0106 | 0.1427 | 0.1295 | 1.050 | 1.350 | 0.579 | 0.259 | 0.856 | 0.086 | 0.014 | 0.005 | 5.29 | 3 | 8 | 12 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8099 | 0.0071 | 0.1874 | 0.1779 | 1.070 | 1.466 | 0.511 | 0.158 | 0.815 | 0.066 | 0.010 | 0.006 | 5.46 | 3 | 9 | 14 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7818 | 0.0051 | 0.2036 | 0.1960 | 1.081 | 1.530 | 0.468 | 0.135 | 0.796 | 0.058 | 0.009 | 0.002 | 5.44 | 2 | 9 | 16 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8068 | 0.0071 | 0.1035 | 0.0931 | 1.051 | 1.324 | 0.502 | 0.296 | 0.816 | 0.064 | 0.011 | 0.003 | 4.74 | 2 | 7 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7617 | 0.0046 | 0.1334 | 0.1256 | 1.069 | 1.417 | 0.433 | 0.194 | 0.763 | 0.048 | 0.006 | 0.004 | 4.72 | 2 | 8 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7357 | 0.0034 | 0.1531 | 0.1466 | 1.079 | 1.481 | 0.403 | 0.175 | 0.751 | 0.046 | 0.006 | 0.002 | 4.71 | 2 | 8 | 16 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6968 | 0.0030 | 0.0506 | 0.0435 | 1.065 | 1.340 | 0.336 | 0.268 | 0.708 | 0.038 | 0.007 | 0.000 | 3.78 | 1 | 6 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6547 | 0.0017 | 0.0597 | 0.0550 | 1.078 | 1.400 | 0.284 | 0.202 | 0.654 | 0.025 | 0.002 | 0.003 | 3.61 | 1 | 6 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.6256 | 0.0013 | 0.0680 | 0.0636 | 1.087 | 1.450 | 0.267 | 0.190 | 0.640 | 0.028 | 0.002 | 0.001 | 3.51 | 1 | 6 | 13 | 1.013 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8040 | 0.0742 | 0.5234 | 0.5089 | 1.086 | 1.286 | 0.292 | 0.006 | 0.975 | 0.063 | 0.069 | 0.059 | 11.36 | 5 | 22 | 43 | - | - | - | - |
| | 200 | 0.7781 | 0.0574 | 0.6282 | 0.6188 | 1.111 | 1.378 | 0.253 | 0.001 | 0.946 | 0.055 | 0.060 | 0.056 | 15.31 | 5 | 31 | 67 | - | - | - | - |
| | 300 | 0.7662 | 0.0488 | 0.6830 | 0.6759 | 1.126 | 1.461 | 0.242 | 0.002 | 0.903 | 0.043 | 0.047 | 0.054 | 18.41 | 6 | 38 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6184 | 0.0263 | 0.2689 | 0.2607 | 1.089 | 1.691 | 0.053 | 0.003 | 0.904 | 0.021 | 0.029 | 0.016 | 5.69 | 2 | 14 | 38 | - | - | - | - |
| | 200 | 0.6158 | 0.0253 | 0.4057 | 0.4000 | 1.131 | 1.921 | 0.058 | 0.001 | 0.867 | 0.020 | 0.029 | 0.025 | 8.11 | 2 | 20 | 54 | - | - | - | - |
| | 300 | 0.6225 | 0.0243 | 0.4832 | 0.4789 | 1.165 | 2.112 | 0.073 | 0.000 | 0.809 | 0.015 | 0.028 | 0.026 | 10.39 | 2 | 26.5 | 62 | - | - | - | - |

Notes: See notes to Table 100.

**Table 116: Monte Carlo findings for DGPI(b)**

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0137 | 0.1617 | 0.0981 | 1.008 | 1.274 | 1.000 | 0.484 | 1.000 | 0.455 | 0.052 | 0.010 | 6.35 | 5 | 9 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0077 | 0.1769 | 0.1258 | 1.011 | 1.382 | 1.000 | 0.384 | 1.000 | 0.382 | 0.044 | 0.007 | 6.53 | 5 | 9 | 13 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0054 | 0.1869 | 0.1428 | 1.014 | 1.444 | 0.997 | 0.331 | 1.000 | 0.343 | 0.027 | 0.007 | 6.62 | 5 | 9 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0099 | 0.1224 | 0.0665 | 1.006 | 1.203 | 1.000 | 0.616 | 1.000 | 0.390 | 0.040 | 0.004 | 5.98 | 5 | 8 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0054 | 0.1307 | 0.0858 | 1.008 | 1.278 | 1.000 | 0.527 | 1.000 | 0.326 | 0.031 | 0.005 | 6.07 | 5 | 8 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0037 | 0.1365 | 0.0982 | 1.010 | 1.335 | 0.997 | 0.477 | 1.000 | 0.288 | 0.018 | 0.005 | 6.12 | 5 | 8 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9997 | 0.0049 | 0.0655 | 0.0254 | 1.003 | 1.094 | 0.999 | 0.833 | 1.000 | 0.275 | 0.018 | 0.003 | 5.49 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0025 | 0.0659 | 0.0336 | 1.004 | 1.132 | 0.999 | 0.787 | 1.000 | 0.225 | 0.015 | 0.002 | 5.50 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9984 | 0.0016 | 0.0648 | 0.0390 | 1.005 | 1.158 | 0.992 | 0.749 | 1.000 | 0.185 | 0.005 | 0.003 | 5.48 | 5 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0136 | 0.1613 | 0.0977 | 1.008 | 1.271 | 1.000 | 0.485 | 1.000 | 0.455 | 0.052 | 0.010 | 6.35 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0076 | 0.1764 | 0.1252 | 1.011 | 1.376 | 1.000 | 0.385 | 1.000 | 0.382 | 0.044 | 0.007 | 6.52 | 5 | 9 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0054 | 0.1866 | 0.1426 | 1.014 | 1.440 | 0.997 | 0.331 | 1.000 | 0.343 | 0.027 | 0.007 | 6.62 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0098 | 0.1221 | 0.0662 | 1.006 | 1.201 | 1.000 | 0.617 | 1.000 | 0.390 | 0.040 | 0.004 | 5.97 | 5 | 8 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0054 | 0.1304 | 0.0855 | 1.008 | 1.275 | 1.000 | 0.527 | 1.000 | 0.326 | 0.031 | 0.005 | 6.07 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0037 | 0.1362 | 0.0979 | 1.010 | 1.330 | 0.997 | 0.478 | 1.000 | 0.288 | 0.018 | 0.005 | 6.11 | 5 | 8 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9997 | 0.0049 | 0.0654 | 0.0253 | 1.003 | 1.094 | 0.999 | 0.834 | 1.000 | 0.275 | 0.018 | 0.003 | 5.49 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0025 | 0.0658 | 0.0335 | 1.004 | 1.131 | 0.999 | 0.787 | 1.000 | 0.225 | 0.015 | 0.002 | 5.50 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9983 | 0.0016 | 0.0648 | 0.0390 | 1.005 | 1.157 | 0.992 | 0.749 | 1.000 | 0.185 | 0.005 | 0.003 | 5.48 | 5 | 7 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9827 | 0.0733 | 0.4854 | 0.4687 | 1.025 | 1.365 | 0.914 | 0.033 | 1.000 | 0.095 | 0.081 | 0.071 | 12.17 | 6 | 22 | 43 | - | - | - | - |
| | 200 | 0.9809 | 0.0442 | 0.5305 | 0.5205 | 1.031 | 1.429 | 0.907 | 0.020 | 1.000 | 0.063 | 0.043 | 0.047 | 13.71 | 6 | 25 | 49 | - | - | - | - |
| | 300 | 0.9769 | 0.0340 | 0.5575 | 0.5504 | 1.036 | 1.471 | 0.886 | 0.019 | 1.000 | 0.053 | 0.030 | 0.030 | 15.06 | 6 | 30 | 53 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8865 | 0.0208 | 0.1749 | 0.1695 | 1.024 | 1.824 | 0.523 | 0.168 | 1.000 | 0.022 | 0.026 | 0.022 | 6.50 | 3 | 15 | 38 | - | - | - | - |
| | 200 | 0.8907 | 0.0170 | 0.2482 | 0.2442 | 1.032 | 2.017 | 0.542 | 0.130 | 1.000 | 0.022 | 0.019 | 0.022 | 7.84 | 3 | 20 | 39 | - | - | - | - |
| | 300 | 0.8988 | 0.0166 | 0.3065 | 0.3038 | 1.043 | 2.209 | 0.575 | 0.098 | 1.000 | 0.018 | 0.014 | 0.013 | 9.47 | 3 | 25 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 117: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0169 | 0.1998 | 0.0934 | 1.005 | 1.278 | 1.000 | 0.480 | 1.000 | 0.754 | 0.084 | 0.014 | 6.67 | 5 | 9 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0093 | 0.2150 | 0.1173 | 1.007 | 1.354 | 1.000 | 0.391 | 1.000 | 0.716 | 0.075 | 0.014 | 6.85 | 5 | 9 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2276 | 0.1397 | 1.009 | 1.461 | 1.000 | 0.326 | 1.000 | 0.669 | 0.063 | 0.009 | 7.01 | 5 | 10 | 14 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0131 | 0.1633 | 0.0624 | 1.004 | 1.205 | 1.000 | 0.617 | 1.000 | 0.707 | 0.060 | 0.008 | 6.30 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0070 | 0.1716 | 0.0788 | 1.005 | 1.260 | 1.000 | 0.540 | 1.000 | 0.658 | 0.062 | 0.010 | 6.40 | 5 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1784 | 0.0952 | 1.007 | 1.339 | 1.000 | 0.473 | 1.000 | 0.609 | 0.048 | 0.007 | 6.48 | 5 | 9 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0082 | 0.1084 | 0.0246 | 1.002 | 1.096 | 1.000 | 0.829 | 1.000 | 0.580 | 0.029 | 0.004 | 5.81 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0040 | 0.1072 | 0.0295 | 1.002 | 1.118 | 1.000 | 0.796 | 1.000 | 0.532 | 0.035 | 0.005 | 5.80 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1058 | 0.0375 | 1.003 | 1.160 | 1.000 | 0.756 | 1.000 | 0.480 | 0.026 | 0.002 | 5.81 | 5 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0169 | 0.1996 | 0.0931 | 1.005 | 1.275 | 1.000 | 0.481 | 1.000 | 0.754 | 0.084 | 0.014 | 6.67 | 5 | 9 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0093 | 0.2147 | 0.1169 | 1.007 | 1.351 | 1.000 | 0.392 | 1.000 | 0.716 | 0.075 | 0.014 | 6.85 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2273 | 0.1394 | 1.009 | 1.457 | 1.000 | 0.327 | 1.000 | 0.669 | 0.063 | 0.009 | 7.01 | 5 | 10 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0131 | 0.1632 | 0.0623 | 1.004 | 1.204 | 1.000 | 0.618 | 1.000 | 0.707 | 0.060 | 0.008 | 6.30 | 5 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0070 | 0.1714 | 0.0786 | 1.005 | 1.257 | 1.000 | 0.540 | 1.000 | 0.658 | 0.062 | 0.010 | 6.40 | 5 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1783 | 0.0951 | 1.007 | 1.338 | 1.000 | 0.473 | 1.000 | 0.609 | 0.048 | 0.007 | 6.48 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0082 | 0.1083 | 0.0245 | 1.002 | 1.096 | 1.000 | 0.829 | 1.000 | 0.580 | 0.029 | 0.004 | 5.81 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0040 | 0.1071 | 0.0293 | 1.002 | 1.117 | 1.000 | 0.797 | 1.000 | 0.532 | 0.035 | 0.005 | 5.80 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1057 | 0.0374 | 1.003 | 1.159 | 1.000 | 0.756 | 1.000 | 0.480 | 0.026 | 0.002 | 5.81 | 5 | 7 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9990 | 0.0729 | 0.4832 | 0.4681 | 1.014 | 1.361 | 0.995 | 0.035 | 1.000 | 0.115 | 0.067 | 0.074 | 12.21 | 6 | 22 | 36 | - | - | - | - |
| | 200 | 0.9976 | 0.0430 | 0.5183 | 0.5072 | 1.017 | 1.396 | 0.988 | 0.024 | 1.000 | 0.073 | 0.059 | 0.041 | 13.54 | 6 | 25 | 44 | - | - | - | - |
| | 300 | 0.9979 | 0.0342 | 0.5581 | 0.5500 | 1.020 | 1.459 | 0.990 | 0.020 | 1.000 | 0.057 | 0.037 | 0.041 | 15.21 | 6 | 29 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9606 | 0.0191 | 0.1485 | 0.1450 | 1.012 | 1.785 | 0.815 | 0.414 | 1.000 | 0.028 | 0.021 | 0.019 | 6.70 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9617 | 0.0163 | 0.2125 | 0.2081 | 1.017 | 1.949 | 0.821 | 0.344 | 1.000 | 0.026 | 0.027 | 0.012 | 8.04 | 4 | 20 | 41 | - | - | - | - |
| | 300 | 0.9666 | 0.0163 | 0.2859 | 0.2823 | 1.025 | 2.198 | 0.844 | 0.271 | 1.000 | 0.025 | 0.015 | 0.017 | 9.71 | 4 | 23 | 46 | - | - | - | - |

Notes: See notes to Table 100.

## Table 118: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9994 | 0.0106 | 0.0693 | 0.0602 | 1.016 | 1.413 | 1.000 | 0.803 | 0.997 | 0.059 | 0.010 | 0.007 | 6.05 | 5 | 9 | 63 | 1.273 | 0.27 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9993 | 0.0094 | 0.0702 | 0.0653 | 1.045 | 2.237 | 1.000 | 0.793 | 0.997 | 0.038 | 0.008 | 0.006 | 6.88 | 5 | 11 | 204 | 1.346 | 0.31 | 0.01 | 0.01 |
| | 300 | 0.9984 | 0.0089 | 0.0706 | 0.0662 | 1.048 | 2.157 | 1.000 | 0.788 | 0.992 | 0.036 | 0.010 | 0.010 | 7.67 | 5 | 10 | 278 | 1.416 | 0.35 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.9993 | 0.0071 | 0.0474 | 0.0414 | 1.011 | 1.288 | 1.000 | 0.865 | 0.997 | 0.039 | 0.005 | 0.004 | 5.70 | 5 | 8 | 55 | 1.319 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9991 | 0.0057 | 0.0496 | 0.0468 | 1.022 | 1.655 | 1.000 | 0.851 | 0.996 | 0.021 | 0.003 | 0.003 | 6.13 | 5 | 8 | 193 | 1.363 | 0.35 | 0.01 | 0.00 |
| | 300 | 0.9978 | 0.0059 | 0.0497 | 0.0461 | 1.033 | 1.859 | 0.999 | 0.849 | 0.991 | 0.029 | 0.006 | 0.007 | 6.76 | 5 | 8 | 262 | 1.431 | 0.38 | 0.01 | 0.01 |
| $p = 0.01$, | 100 | 0.9979 | 0.0029 | 0.0216 | 0.0188 | 1.007 | 1.112 | 0.997 | 0.934 | 0.993 | 0.019 | 0.002 | 0.001 | 5.28 | 5 | 6 | 42 | 1.430 | 0.43 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9984 | 0.0019 | 0.0236 | 0.0226 | 1.009 | 1.177 | 0.999 | 0.926 | 0.993 | 0.008 | 0.001 | 0.000 | 5.38 | 5 | 6 | 70 | 1.457 | 0.46 | 0.00 | 0.00 |
| | 300 | 0.9963 | 0.0023 | 0.0227 | 0.0214 | 1.016 | 1.353 | 0.996 | 0.926 | 0.986 | 0.011 | 0.002 | 0.003 | 5.68 | 5 | 6 | 265 | 1.519 | 0.51 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9985 | 0.0104 | 0.0670 | 0.0579 | 1.015 | 1.358 | 1.000 | 0.814 | 0.993 | 0.058 | 0.010 | 0.006 | 6.02 | 5 | 9 | 61 | 1.252 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9984 | 0.0080 | 0.0676 | 0.0627 | 1.035 | 1.983 | 1.000 | 0.805 | 0.993 | 0.037 | 0.006 | 0.004 | 6.59 | 5 | 10 | 190 | 1.299 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9961 | 0.0079 | 0.0678 | 0.0635 | 1.046 | 2.061 | 1.000 | 0.799 | 0.981 | 0.035 | 0.009 | 0.009 | 7.36 | 5 | 9 | 284 | 1.374 | 0.32 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.9980 | 0.0070 | 0.0461 | 0.0402 | 1.012 | 1.256 | 1.000 | 0.872 | 0.990 | 0.038 | 0.005 | 0.004 | 5.68 | 5 | 7 | 55 | 1.306 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9971 | 0.0053 | 0.0480 | 0.0453 | 1.024 | 1.647 | 1.000 | 0.860 | 0.986 | 0.020 | 0.003 | 0.002 | 6.03 | 5 | 8 | 188 | 1.335 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.9951 | 0.0056 | 0.0480 | 0.0446 | 1.036 | 1.812 | 0.999 | 0.856 | 0.977 | 0.028 | 0.006 | 0.006 | 6.64 | 5 | 8 | 285 | 1.400 | 0.37 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9957 | 0.0029 | 0.0205 | 0.0179 | 1.010 | 1.106 | 0.997 | 0.939 | 0.982 | 0.018 | 0.002 | 0.001 | 5.26 | 5 | 6 | 42 | 1.417 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9954 | 0.0019 | 0.0223 | 0.0214 | 1.012 | 1.148 | 0.999 | 0.932 | 0.978 | 0.007 | 0.001 | 0.000 | 5.35 | 5 | 6 | 67 | 1.437 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9925 | 0.0023 | 0.0217 | 0.0204 | 1.021 | 1.343 | 0.996 | 0.930 | 0.967 | 0.011 | 0.002 | 0.003 | 5.64 | 5 | 6 | 265 | 1.497 | 0.49 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9989 | 0.0600 | 0.4314 | 0.4055 | 1.070 | 1.528 | 0.995 | 0.061 | 1.000 | 0.127 | 0.104 | 0.125 | 10.93 | 5 | 19 | 37 | - | - | - | - |
| | 200 | 0.9980 | 0.0431 | 0.5105 | 0.4928 | 1.079 | 1.668 | 0.990 | 0.039 | 1.000 | 0.105 | 0.087 | 0.092 | 13.57 | 6 | 26 | 53 | - | - | - | - |
| | 300 | 0.9985 | 0.0363 | 0.5613 | 0.5467 | 1.090 | 1.798 | 0.993 | 0.028 | 1.000 | 0.079 | 0.073 | 0.105 | 15.85 | 6 | 32 | 88 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9586 | 0.0140 | 0.1230 | 0.1160 | 1.062 | 1.912 | 0.809 | 0.433 | 0.998 | 0.021 | 0.028 | 0.026 | 6.18 | 4 | 12 | 29 | - | - | - | - |
| | 200 | 0.9641 | 0.0142 | 0.1934 | 0.1868 | 1.076 | 2.254 | 0.839 | 0.362 | 0.996 | 0.028 | 0.027 | 0.026 | 7.64 | 4 | 20 | 38 | - | - | - | - |
| | 300 | 0.9678 | 0.0147 | 0.2574 | 0.2514 | 1.093 | 2.599 | 0.855 | 0.284 | 0.999 | 0.027 | 0.030 | 0.041 | 9.23 | 4 | 26 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 119: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0132 | 0.0991 | 0.0561 | 1.004 | 1.318 | 1.000 | 0.817 | 1.000 | 0.303 | 0.024 | 0.004 | 6.31 | 5 | 10 | 70 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0076 | 0.0878 | 0.0521 | 1.004 | 1.429 | 1.000 | 0.846 | 1.000 | 0.250 | 0.017 | 0.005 | 6.51 | 5 | 9 | 124 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0062 | 0.0834 | 0.0540 | 1.005 | 1.566 | 1.000 | 0.853 | 1.000 | 0.212 | 0.016 | 0.003 | 6.86 | 5 | 10 | 173 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0090 | 0.0724 | 0.0375 | 1.003 | 1.199 | 1.000 | 0.873 | 1.000 | 0.247 | 0.013 | 0.001 | 5.89 | 5 | 8 | 67 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0052 | 0.0652 | 0.0369 | 1.003 | 1.298 | 1.000 | 0.891 | 1.000 | 0.198 | 0.011 | 0.003 | 6.04 | 5 | 7 | 114 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.0637 | 0.0398 | 1.004 | 1.417 | 1.000 | 0.887 | 1.000 | 0.170 | 0.012 | 0.002 | 6.30 | 5 | 8 | 163 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0368 | 0.0156 | 1.001 | 1.078 | 1.000 | 0.949 | 1.000 | 0.145 | 0.007 | 0.001 | 5.40 | 5 | 6 | 58 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0023 | 0.0340 | 0.0156 | 1.001 | 1.111 | 1.000 | 0.952 | 1.000 | 0.126 | 0.007 | 0.002 | 5.45 | 5 | 6 | 88 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0338 | 0.0179 | 1.002 | 1.178 | 1.000 | 0.947 | 1.000 | 0.114 | 0.004 | 0.001 | 5.60 | 5 | 6 | 140 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0131 | 0.0978 | 0.0548 | 1.004 | 1.294 | 1.000 | 0.823 | 1.000 | 0.303 | 0.024 | 0.004 | 6.30 | 5 | 9.5 | 70 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0076 | 0.0874 | 0.0518 | 1.004 | 1.415 | 1.000 | 0.849 | 1.000 | 0.250 | 0.017 | 0.005 | 6.51 | 5 | 9 | 124 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0062 | 0.0828 | 0.0533 | 1.005 | 1.547 | 1.000 | 0.855 | 1.000 | 0.212 | 0.016 | 0.003 | 6.85 | 5 | 10 | 173 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0089 | 0.0715 | 0.0366 | 1.003 | 1.187 | 1.000 | 0.878 | 1.000 | 0.247 | 0.013 | 0.001 | 5.89 | 5 | 7.5 | 67 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0052 | 0.0648 | 0.0365 | 1.003 | 1.274 | 1.000 | 0.892 | 1.000 | 0.198 | 0.011 | 0.002 | 6.03 | 5 | 7 | 114 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.0634 | 0.0395 | 1.004 | 1.405 | 1.000 | 0.888 | 1.000 | 0.170 | 0.012 | 0.002 | 6.30 | 5 | 8 | 163 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0368 | 0.0156 | 1.001 | 1.078 | 1.000 | 0.949 | 1.000 | 0.145 | 0.007 | 0.001 | 5.40 | 5 | 6 | 58 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0022 | 0.0337 | 0.0153 | 1.001 | 1.103 | 1.000 | 0.953 | 1.000 | 0.126 | 0.007 | 0.002 | 5.45 | 5 | 6 | 88 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0337 | 0.0179 | 1.002 | 1.173 | 1.000 | 0.947 | 1.000 | 0.114 | 0.004 | 0.001 | 5.60 | 5 | 6 | 140 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0566 | 0.4194 | 0.3924 | 1.018 | 1.462 | 1.000 | 0.064 | 1.000 | 0.144 | 0.110 | 0.121 | 10.60 | 5 | 19 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0352 | 0.4641 | 0.4450 | 1.021 | 1.533 | 1.000 | 0.048 | 1.000 | 0.109 | 0.076 | 0.074 | 12.01 | 6 | 23 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0270 | 0.4942 | 0.4786 | 1.024 | 1.598 | 1.000 | 0.033 | 1.000 | 0.089 | 0.074 | 0.078 | 13.08 | 6 | 25.5 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0098 | 0.0733 | 0.0681 | 1.010 | 1.609 | 1.000 | 0.803 | 1.000 | 0.022 | 0.015 | 0.017 | 5.97 | 5 | 12 | 37 | - | - | - | - |
| | 200 | 0.9999 | 0.0089 | 0.1149 | 0.1107 | 1.014 | 1.915 | 1.000 | 0.734 | 1.000 | 0.023 | 0.018 | 0.017 | 6.77 | 5 | 17 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0084 | 0.1493 | 0.1454 | 1.019 | 2.186 | 1.000 | 0.686 | 1.000 | 0.023 | 0.020 | 0.025 | 7.51 | 5 | 19 | 42 | - | - | - | - |

Notes: See notes to Table 100.

## Table 120: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0164 | 0.1353 | 0.0508 | 1.002 | 1.308 | 1.000 | 0.841 | 1.000 | 0.595 | 0.041 | 0.005 | 6.62 | 5 | 10 | 58 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0102 | 0.1232 | 0.0520 | 1.003 | 1.444 | 1.000 | 0.849 | 1.000 | 0.500 | 0.037 | 0.005 | 7.03 | 5 | 10 | 118 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.1200 | 0.0525 | 1.003 | 1.523 | 1.000 | 0.843 | 1.000 | 0.482 | 0.027 | 0.003 | 7.17 | 5 | 10 | 196 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0121 | 0.1090 | 0.0351 | 1.002 | 1.200 | 1.000 | 0.892 | 1.000 | 0.520 | 0.026 | 0.003 | 6.19 | 5 | 8 | 55 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0075 | 0.1007 | 0.0374 | 1.002 | 1.322 | 1.000 | 0.891 | 1.000 | 0.445 | 0.025 | 0.002 | 6.50 | 5 | 8 | 104 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0052 | 0.0947 | 0.0355 | 1.002 | 1.356 | 1.000 | 0.894 | 1.000 | 0.419 | 0.019 | 0.002 | 6.55 | 5 | 8 | 184 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0063 | 0.0691 | 0.0148 | 1.001 | 1.074 | 1.000 | 0.951 | 1.000 | 0.378 | 0.011 | 0.002 | 5.62 | 5 | 6 | 41 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0039 | 0.0629 | 0.0164 | 1.001 | 1.132 | 1.000 | 0.955 | 1.000 | 0.325 | 0.013 | 0.001 | 5.77 | 5 | 6 | 85 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.0580 | 0.0152 | 1.001 | 1.173 | 1.000 | 0.955 | 1.000 | 0.303 | 0.007 | 0.001 | 5.80 | 5 | 6 | 163 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0163 | 0.1346 | 0.0500 | 1.002 | 1.292 | 1.000 | 0.846 | 1.000 | 0.595 | 0.041 | 0.005 | 6.62 | 5 | 10 | 58 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0102 | 0.1227 | 0.0514 | 1.003 | 1.429 | 1.000 | 0.851 | 1.000 | 0.500 | 0.037 | 0.005 | 7.02 | 5 | 10 | 118 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.1196 | 0.0521 | 1.003 | 1.508 | 1.000 | 0.846 | 1.000 | 0.482 | 0.027 | 0.003 | 7.16 | 5 | 10 | 196 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0120 | 0.1088 | 0.0347 | 1.001 | 1.192 | 1.000 | 0.894 | 1.000 | 0.520 | 0.026 | 0.003 | 6.19 | 5 | 8 | 55 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0075 | 0.1004 | 0.0371 | 1.002 | 1.313 | 1.000 | 0.893 | 1.000 | 0.445 | 0.025 | 0.002 | 6.49 | 5 | 8 | 104 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0052 | 0.0946 | 0.0353 | 1.002 | 1.351 | 1.000 | 0.895 | 1.000 | 0.419 | 0.019 | 0.002 | 6.55 | 5 | 8 | 184 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0063 | 0.0689 | 0.0146 | 1.001 | 1.070 | 1.000 | 0.952 | 1.000 | 0.378 | 0.011 | 0.002 | 5.62 | 5 | 6 | 41 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0039 | 0.0629 | 0.0164 | 1.001 | 1.132 | 1.000 | 0.955 | 1.000 | 0.325 | 0.013 | 0.001 | 5.77 | 5 | 6 | 85 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.0578 | 0.0150 | 1.001 | 1.170 | 1.000 | 0.956 | 1.000 | 0.303 | 0.007 | 0.001 | 5.80 | 5 | 6 | 163 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0541 | 0.4039 | 0.3755 | 1.009 | 1.441 | 1.000 | 0.061 | 1.000 | 0.147 | 0.116 | 0.121 | 10.36 | 5 | 19 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0338 | 0.4565 | 0.4376 | 1.012 | 1.500 | 1.000 | 0.047 | 1.000 | 0.118 | 0.084 | 0.091 | 11.72 | 6 | 25 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0258 | 0.4830 | 0.4687 | 1.013 | 1.551 | 1.000 | 0.044 | 1.000 | 0.092 | 0.069 | 0.065 | 12.71 | 6 | 25 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0090 | 0.0687 | 0.0650 | 1.005 | 1.537 | 1.000 | 0.844 | 1.000 | 0.020 | 0.021 | 0.023 | 5.89 | 5 | 12 | 27 | - | - | - | - |
| | 200 | 1.0000 | 0.0077 | 0.1024 | 0.0990 | 1.007 | 1.755 | 1.000 | 0.788 | 1.000 | 0.022 | 0.015 | 0.020 | 6.54 | 5 | 16 | 28 | - | - | - | - |
| | 300 | 1.0000 | 0.0065 | 0.1262 | 0.1230 | 1.008 | 1.944 | 1.000 | 0.752 | 1.000 | 0.021 | 0.022 | 0.017 | 6.93 | 5 | 16 | 38 | - | - | - | - |

Notes: See notes to Table 100.

**Table 121: Monte Carlo findings for DGPI(c)**

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9847 | 0.0116 | 0.0739 | 0.0666 | 1.028 | 1.466 | 0.980 | 0.778 | 0.946 | 0.045 | 0.009 | 0.004 | 6.07 | 4 | 11 | 58 | 1.211 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9765 | 0.0107 | 0.0727 | 0.0686 | 1.066 | 2.475 | 0.954 | 0.733 | 0.933 | 0.034 | 0.008 | 0.009 | 7.00 | 4 | 10 | 204 | 1.300 | 0.24 | 0.01 | 0.01 |
| | 300 | 0.9726 | 0.0086 | 0.0668 | 0.0626 | 1.062 | 2.216 | 0.956 | 0.770 | 0.915 | 0.034 | 0.010 | 0.008 | 7.45 | 4 | 9 | 270 | 1.329 | 0.26 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.9771 | 0.0075 | 0.0522 | 0.0473 | 1.026 | 1.316 | 0.960 | 0.814 | 0.930 | 0.032 | 0.005 | 0.002 | 5.63 | 4 | 8 | 49 | 1.237 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9670 | 0.0069 | 0.0506 | 0.0477 | 1.052 | 2.046 | 0.935 | 0.785 | 0.909 | 0.022 | 0.005 | 0.006 | 6.20 | 4 | 8 | 195 | 1.298 | 0.27 | 0.01 | 0.00 |
| | 300 | 0.9627 | 0.0062 | 0.0475 | 0.0446 | 1.053 | 1.916 | 0.933 | 0.796 | 0.894 | 0.025 | 0.006 | 0.006 | 6.68 | 4 | 7 | 260 | 1.336 | 0.28 | 0.01 | 0.01 |
| $p = 0.01$, | 100 | 0.9539 | 0.0029 | 0.0240 | 0.0211 | 1.028 | 1.194 | 0.900 | 0.830 | 0.887 | 0.020 | 0.002 | 0.000 | 5.06 | 4 | 6 | 44 | 1.316 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9389 | 0.0028 | 0.0227 | 0.0211 | 1.042 | 1.477 | 0.870 | 0.809 | 0.858 | 0.012 | 0.002 | 0.002 | 5.26 | 4 | 6 | 204 | 1.321 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.9293 | 0.0030 | 0.0224 | 0.0211 | 1.053 | 1.658 | 0.860 | 0.797 | 0.834 | 0.011 | 0.004 | 0.003 | 5.55 | 3 | 6 | 265 | 1.370 | 0.35 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9766 | 0.0113 | 0.0718 | 0.0648 | 1.033 | 1.415 | 0.980 | 0.786 | 0.906 | 0.045 | 0.009 | 0.004 | 6.00 | 4 | 10.5 | 58 | 1.153 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9637 | 0.0095 | 0.0704 | 0.0663 | 1.068 | 2.256 | 0.954 | 0.745 | 0.869 | 0.033 | 0.007 | 0.007 | 6.71 | 4 | 9.5 | 201 | 1.194 | 0.16 | 0.01 | 0.01 |
| | 300 | 0.9578 | 0.0078 | 0.0650 | 0.0608 | 1.070 | 2.110 | 0.956 | 0.777 | 0.841 | 0.033 | 0.009 | 0.007 | 7.13 | 4 | 9 | 270 | 1.213 | 0.17 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.9680 | 0.0074 | 0.0508 | 0.0459 | 1.033 | 1.302 | 0.960 | 0.821 | 0.884 | 0.032 | 0.004 | 0.002 | 5.57 | 4 | 8 | 49 | 1.183 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9525 | 0.0066 | 0.0493 | 0.0464 | 1.061 | 1.988 | 0.935 | 0.793 | 0.836 | 0.022 | 0.005 | 0.005 | 6.07 | 4 | 8 | 195 | 1.207 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.9451 | 0.0059 | 0.0467 | 0.0438 | 1.068 | 1.929 | 0.933 | 0.801 | 0.806 | 0.024 | 0.006 | 0.005 | 6.48 | 4 | 7 | 262 | 1.230 | 0.19 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9398 | 0.0029 | 0.0231 | 0.0203 | 1.040 | 1.191 | 0.900 | 0.836 | 0.816 | 0.019 | 0.002 | 0.000 | 4.98 | 4 | 6 | 44 | 1.241 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9221 | 0.0027 | 0.0220 | 0.0204 | 1.055 | 1.439 | 0.870 | 0.813 | 0.774 | 0.012 | 0.002 | 0.002 | 5.16 | 3 | 6 | 196 | 1.235 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.9073 | 0.0027 | 0.0212 | 0.0199 | 1.069 | 1.605 | 0.860 | 0.803 | 0.724 | 0.010 | 0.003 | 0.002 | 5.34 | 3 | 6 | 265 | 1.246 | 0.23 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9687 | 0.0589 | 0.4290 | 0.4042 | 1.066 | 1.499 | 0.851 | 0.056 | 0.998 | 0.118 | 0.094 | 0.110 | 10.68 | 5 | 19.5 | 37 | - | - | - | - |
| | 200 | 0.9655 | 0.0422 | 0.5063 | 0.4891 | 1.081 | 1.644 | 0.835 | 0.034 | 0.997 | 0.102 | 0.084 | 0.093 | 13.23 | 5 | 26 | 51 | - | - | - | - |
| | 300 | 0.9602 | 0.0344 | 0.5508 | 0.5366 | 1.090 | 1.741 | 0.815 | 0.023 | 0.998 | 0.080 | 0.089 | 0.090 | 15.09 | 6 | 32 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8317 | 0.0155 | 0.1541 | 0.1460 | 1.067 | 1.933 | 0.381 | 0.123 | 0.983 | 0.028 | 0.019 | 0.032 | 5.69 | 3 | 11 | 30 | - | - | - | - |
| | 200 | 0.8339 | 0.0149 | 0.2254 | 0.2187 | 1.085 | 2.278 | 0.391 | 0.084 | 0.977 | 0.028 | 0.029 | 0.032 | 7.13 | 3 | 19 | 40 | - | - | - | - |
| | 300 | 0.8396 | 0.0142 | 0.2792 | 0.2725 | 1.099 | 2.529 | 0.409 | 0.069 | 0.976 | 0.028 | 0.036 | 0.038 | 8.44 | 3 | 24 | 62 | - | - | - | - |

Notes: See notes to Table 100.

**Table 122: Monte Carlo findings for DGPI(c)**

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0116 | 0.0897 | 0.0470 | 1.004 | 1.271 | 1.000 | 0.848 | 1.000 | 0.297 | 0.022 | 0.008 | 6.15 | 5 | 9 | 69 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0079 | 0.0865 | 0.0532 | 1.005 | 1.441 | 1.000 | 0.838 | 1.000 | 0.237 | 0.014 | 0.005 | 6.58 | 5 | 9 | 134 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.0873 | 0.0565 | 1.007 | 1.667 | 1.000 | 0.841 | 1.000 | 0.222 | 0.012 | 0.005 | 7.09 | 5 | 10 | 152 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0080 | 0.0673 | 0.0325 | 1.003 | 1.183 | 1.000 | 0.893 | 1.000 | 0.242 | 0.014 | 0.005 | 5.79 | 5 | 7 | 64 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0055 | 0.0630 | 0.0361 | 1.004 | 1.300 | 1.000 | 0.890 | 1.000 | 0.189 | 0.008 | 0.004 | 6.09 | 5 | 7 | 126 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.0662 | 0.0406 | 1.004 | 1.449 | 1.000 | 0.882 | 1.000 | 0.183 | 0.009 | 0.003 | 6.45 | 5 | 7.5 | 137 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0033 | 0.0337 | 0.0136 | 1.001 | 1.064 | 1.000 | 0.952 | 1.000 | 0.139 | 0.005 | 0.002 | 5.33 | 5 | 6 | 56 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0025 | 0.0322 | 0.0158 | 1.002 | 1.126 | 1.000 | 0.951 | 1.000 | 0.113 | 0.005 | 0.003 | 5.49 | 5 | 6 | 101 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0328 | 0.0180 | 1.002 | 1.179 | 1.000 | 0.952 | 1.000 | 0.105 | 0.005 | 0.001 | 5.60 | 5 | 6 | 103 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0115 | 0.0891 | 0.0463 | 1.004 | 1.246 | 1.000 | 0.850 | 1.000 | 0.297 | 0.022 | 0.008 | 6.14 | 5 | 9 | 69 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0079 | 0.0861 | 0.0528 | 1.005 | 1.423 | 1.000 | 0.839 | 1.000 | 0.237 | 0.014 | 0.005 | 6.57 | 5 | 9 | 134 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.0868 | 0.0560 | 1.007 | 1.635 | 1.000 | 0.844 | 1.000 | 0.222 | 0.012 | 0.005 | 7.09 | 5 | 10 | 152 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0079 | 0.0668 | 0.0319 | 1.003 | 1.172 | 1.000 | 0.896 | 1.000 | 0.242 | 0.014 | 0.005 | 5.78 | 5 | 7 | 64 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0054 | 0.0627 | 0.0358 | 1.003 | 1.288 | 1.000 | 0.891 | 1.000 | 0.189 | 0.008 | 0.004 | 6.08 | 5 | 7 | 126 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0048 | 0.0658 | 0.0403 | 1.004 | 1.427 | 1.000 | 0.884 | 1.000 | 0.183 | 0.009 | 0.003 | 6.45 | 5 | 7 | 137 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0033 | 0.0336 | 0.0136 | 1.001 | 1.062 | 1.000 | 0.953 | 1.000 | 0.139 | 0.005 | 0.002 | 5.33 | 5 | 6 | 56 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0025 | 0.0322 | 0.0158 | 1.002 | 1.126 | 1.000 | 0.951 | 1.000 | 0.113 | 0.005 | 0.003 | 5.49 | 5 | 6 | 101 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0326 | 0.0177 | 1.002 | 1.169 | 1.000 | 0.954 | 1.000 | 0.105 | 0.005 | 0.001 | 5.60 | 5 | 6 | 103 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0576 | 0.4294 | 0.4021 | 1.018 | 1.456 | 1.000 | 0.049 | 1.000 | 0.123 | 0.106 | 0.113 | 10.70 | 6 | 19 | 38 | - | - | - | - |
| | 200 | 0.9997 | 0.0372 | 0.4817 | 0.4618 | 1.021 | 1.523 | 0.999 | 0.034 | 1.000 | 0.122 | 0.087 | 0.089 | 12.41 | 6 | 24 | 43 | - | - | - | - |
| | 300 | 0.9999 | 0.0287 | 0.5152 | 0.4999 | 1.024 | 1.600 | 1.000 | 0.029 | 1.000 | 0.093 | 0.074 | 0.073 | 13.58 | 6 | 26 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9903 | 0.0108 | 0.0949 | 0.0898 | 1.013 | 1.732 | 0.953 | 0.630 | 1.000 | 0.021 | 0.019 | 0.017 | 6.02 | 5 | 11 | 33 | - | - | - | - |
| | 200 | 0.9873 | 0.0106 | 0.1515 | 0.1458 | 1.018 | 2.056 | 0.937 | 0.518 | 1.000 | 0.027 | 0.013 | 0.022 | 7.04 | 4 | 17 | 39 | - | - | - | - |
| | 300 | 0.9904 | 0.0099 | 0.1900 | 0.1851 | 1.023 | 2.382 | 0.953 | 0.471 | 1.000 | 0.029 | 0.023 | 0.023 | 7.92 | 5 | 21 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 123: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0151 | 0.1275 | 0.0485 | 1.002 | 1.292 | 1.000 | 0.841 | 1.000 | 0.550 | 0.033 | 0.010 | 6.50 | 5 | 9 | 64 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0098 | 0.1238 | 0.0511 | 1.003 | 1.469 | 1.000 | 0.844 | 1.000 | 0.510 | 0.031 | 0.007 | 6.95 | 5 | 9 | 111 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.1138 | 0.0503 | 1.003 | 1.496 | 1.000 | 0.856 | 1.000 | 0.455 | 0.022 | 0.005 | 7.02 | 5 | 10 | 166 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0112 | 0.1026 | 0.0330 | 1.002 | 1.200 | 1.000 | 0.890 | 1.000 | 0.485 | 0.022 | 0.007 | 6.11 | 5 | 8 | 63 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0073 | 0.0994 | 0.0356 | 1.002 | 1.329 | 1.000 | 0.891 | 1.000 | 0.447 | 0.020 | 0.004 | 6.44 | 5 | 8 | 103 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.0909 | 0.0347 | 1.002 | 1.309 | 1.000 | 0.900 | 1.000 | 0.396 | 0.018 | 0.004 | 6.39 | 5 | 8 | 150 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0061 | 0.0631 | 0.0133 | 1.001 | 1.080 | 1.000 | 0.954 | 1.000 | 0.348 | 0.006 | 0.003 | 5.60 | 5 | 6 | 56 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0038 | 0.0616 | 0.0163 | 1.001 | 1.143 | 1.000 | 0.957 | 1.000 | 0.316 | 0.009 | 0.002 | 5.76 | 5 | 6 | 79 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0562 | 0.0145 | 1.001 | 1.108 | 1.000 | 0.956 | 1.000 | 0.291 | 0.007 | 0.002 | 5.65 | 5 | 6 | 108 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0151 | 0.1268 | 0.0478 | 1.002 | 1.281 | 1.000 | 0.844 | 1.000 | 0.550 | 0.033 | 0.010 | 6.49 | 5 | 9 | 64 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0097 | 0.1231 | 0.0503 | 1.003 | 1.437 | 1.000 | 0.848 | 1.000 | 0.510 | 0.031 | 0.007 | 6.93 | 5 | 9 | 111 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.1132 | 0.0497 | 1.003 | 1.473 | 1.000 | 0.859 | 1.000 | 0.455 | 0.022 | 0.005 | 7.01 | 5 | 10 | 166 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0112 | 0.1025 | 0.0329 | 1.002 | 1.196 | 1.000 | 0.890 | 1.000 | 0.485 | 0.022 | 0.007 | 6.11 | 5 | 8 | 63 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0072 | 0.0992 | 0.0353 | 1.002 | 1.318 | 1.000 | 0.892 | 1.000 | 0.447 | 0.020 | 0.004 | 6.44 | 5 | 8 | 103 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.0906 | 0.0345 | 1.002 | 1.302 | 1.000 | 0.901 | 1.000 | 0.396 | 0.018 | 0.004 | 6.38 | 5 | 8 | 150 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0060 | 0.0628 | 0.0130 | 1.001 | 1.078 | 1.000 | 0.955 | 1.000 | 0.348 | 0.006 | 0.003 | 5.60 | 5 | 6 | 56 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0038 | 0.0616 | 0.0163 | 1.001 | 1.143 | 1.000 | 0.957 | 1.000 | 0.316 | 0.009 | 0.002 | 5.76 | 5 | 6 | 79 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0562 | 0.0145 | 1.001 | 1.108 | 1.000 | 0.956 | 1.000 | 0.291 | 0.007 | 0.002 | 5.65 | 5 | 6 | 108 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0574 | 0.4261 | 0.3960 | 1.010 | 1.441 | 1.000 | 0.062 | 1.000 | 0.145 | 0.118 | 0.125 | 10.68 | 5 | 18 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0357 | 0.4687 | 0.4493 | 1.013 | 1.539 | 1.000 | 0.045 | 1.000 | 0.113 | 0.077 | 0.083 | 12.11 | 6 | 23 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0264 | 0.4930 | 0.4776 | 1.013 | 1.538 | 1.000 | 0.033 | 1.000 | 0.094 | 0.074 | 0.066 | 12.90 | 6 | 25 | 48 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9994 | 0.0103 | 0.0821 | 0.0776 | 1.006 | 1.644 | 0.997 | 0.751 | 1.000 | 0.023 | 0.023 | 0.019 | 6.01 | 5 | 13 | 25 | - | - | - | - |
| | 200 | 0.9990 | 0.0102 | 0.1317 | 0.1270 | 1.010 | 2.042 | 0.995 | 0.668 | 1.000 | 0.022 | 0.011 | 0.022 | 7.02 | 5 | 17 | 43 | - | - | - | - |
| | 300 | 0.9992 | 0.0084 | 0.1585 | 0.1544 | 1.011 | 2.211 | 0.996 | 0.628 | 1.000 | 0.022 | 0.018 | 0.016 | 7.49 | 5 | 19 | 40 | - | - | - | - |

Notes: See notes to Table 100.

**Table 124: Monte Carlo findings for DGPI(c)**

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8365 | 0.0103 | 0.0746 | 0.0626 | 1.043 | 1.504 | 0.576 | 0.470 | 0.846 | 0.064 | 0.011 | 0.008 | 5.20 | 2 | 9 | 56 | 1.095 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7960 | 0.0078 | 0.0733 | 0.0665 | 1.073 | 2.070 | 0.529 | 0.421 | 0.793 | 0.038 | 0.008 | 0.008 | 5.54 | 2 | 8 | 193 | 1.145 | 0.11 | 0.01 | 0.00 |
| | 300 | 0.7744 | 0.0089 | 0.0811 | 0.0761 | 1.099 | 2.426 | 0.491 | 0.387 | 0.765 | 0.032 | 0.012 | 0.010 | 6.54 | 2 | 9 | 274 | 1.211 | 0.12 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.7920 | 0.0069 | 0.0547 | 0.0451 | 1.045 | 1.423 | 0.497 | 0.433 | 0.813 | 0.049 | 0.007 | 0.006 | 4.64 | 2 | 7 | 55 | 1.108 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7472 | 0.0050 | 0.0524 | 0.0471 | 1.069 | 1.802 | 0.444 | 0.388 | 0.759 | 0.028 | 0.005 | 0.006 | 4.73 | 1 | 6 | 199 | 1.144 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.7224 | 0.0056 | 0.0571 | 0.0535 | 1.086 | 2.019 | 0.417 | 0.354 | 0.714 | 0.022 | 0.006 | 0.006 | 5.30 | 1 | 7 | 262 | 1.171 | 0.12 | 0.01 | 0.01 |
| $p = 0.01$, | 100 | 0.6684 | 0.0026 | 0.0259 | 0.0218 | 1.065 | 1.401 | 0.324 | 0.302 | 0.705 | 0.020 | 0.001 | 0.002 | 3.59 | 1 | 5 | 45 | 1.139 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6162 | 0.0019 | 0.0273 | 0.0239 | 1.084 | 1.574 | 0.275 | 0.260 | 0.638 | 0.016 | 0.003 | 0.002 | 3.46 | 0.5 | 5 | 190 | 1.125 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.5976 | 0.0022 | 0.0258 | 0.0239 | 1.098 | 1.684 | 0.271 | 0.251 | 0.586 | 0.012 | 0.002 | 0.002 | 3.65 | 0 | 5 | 260 | 1.133 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8271 | 0.0100 | 0.0733 | 0.0614 | 1.047 | 1.464 | 0.576 | 0.472 | 0.806 | 0.064 | 0.011 | 0.008 | 5.13 | 2 | 9 | 56 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7845 | 0.0070 | 0.0718 | 0.0650 | 1.076 | 1.953 | 0.529 | 0.425 | 0.742 | 0.037 | 0.007 | 0.007 | 5.32 | 2 | 8 | 193 | 1.060 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.7608 | 0.0080 | 0.0796 | 0.0746 | 1.103 | 2.347 | 0.491 | 0.391 | 0.705 | 0.031 | 0.011 | 0.009 | 6.20 | 2 | 8 | 274 | 1.105 | 0.04 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.7803 | 0.0068 | 0.0539 | 0.0445 | 1.052 | 1.404 | 0.497 | 0.435 | 0.764 | 0.048 | 0.007 | 0.006 | 4.58 | 2 | 7 | 55 | 1.048 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7349 | 0.0045 | 0.0512 | 0.0459 | 1.072 | 1.647 | 0.444 | 0.391 | 0.706 | 0.027 | 0.004 | 0.005 | 4.58 | 1 | 6 | 191 | 1.057 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.7079 | 0.0053 | 0.0563 | 0.0527 | 1.093 | 1.927 | 0.417 | 0.357 | 0.653 | 0.021 | 0.006 | 0.005 | 5.12 | 1 | 7 | 276 | 1.083 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6514 | 0.0025 | 0.0257 | 0.0216 | 1.075 | 1.397 | 0.323 | 0.302 | 0.640 | 0.020 | 0.001 | 0.002 | 3.51 | 1 | 5 | 45 | 1.060 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6012 | 0.0019 | 0.0268 | 0.0233 | 1.093 | 1.554 | 0.275 | 0.261 | 0.581 | 0.016 | 0.003 | 0.002 | 3.38 | 0.5 | 5 | 190 | 1.047 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.5820 | 0.0019 | 0.0258 | 0.0238 | 1.106 | 1.658 | 0.270 | 0.251 | 0.523 | 0.012 | 0.001 | 0.001 | 3.48 | 0 | 5 | 259 | 1.052 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8538 | 0.0539 | 0.4299 | 0.4028 | 1.061 | 1.357 | 0.417 | 0.021 | 0.989 | 0.109 | 0.090 | 0.114 | 9.61 | 4 | 18.5 | 43 | - | - | - | - |
| | 200 | 0.8485 | 0.0389 | 0.5118 | 0.4954 | 1.071 | 1.497 | 0.412 | 0.012 | 0.980 | 0.077 | 0.071 | 0.086 | 11.98 | 5 | 25 | 49 | - | - | - | - |
| | 300 | 0.8402 | 0.0333 | 0.5665 | 0.5535 | 1.083 | 1.623 | 0.395 | 0.008 | 0.986 | 0.074 | 0.073 | 0.077 | 14.16 | 5 | 31 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6546 | 0.0161 | 0.1852 | 0.1737 | 1.062 | 1.750 | 0.078 | 0.014 | 0.958 | 0.030 | 0.026 | 0.036 | 4.87 | 2 | 11 | 26 | - | - | - | - |
| | 200 | 0.6667 | 0.0140 | 0.2581 | 0.2499 | 1.077 | 2.097 | 0.091 | 0.008 | 0.944 | 0.018 | 0.023 | 0.035 | 6.11 | 2 | 15 | 46 | - | - | - | - |
| | 300 | 0.6738 | 0.0144 | 0.3258 | 0.3194 | 1.098 | 2.430 | 0.101 | 0.007 | 0.952 | 0.035 | 0.022 | 0.031 | 7.66 | 2 | 22 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 125: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0135 | 0.0950 | 0.0552 | 1.004 | 1.343 | 1.000 | 0.830 | 1.000 | 0.280 | 0.024 | 0.007 | 6.34 | 5 | 10 | 60 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0085 | 0.0881 | 0.0548 | 1.005 | 1.478 | 1.000 | 0.839 | 1.000 | 0.239 | 0.015 | 0.004 | 6.69 | 5 | 9 | 120 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0064 | 0.0801 | 0.0534 | 1.007 | 1.662 | 1.000 | 0.846 | 1.000 | 0.189 | 0.016 | 0.002 | 6.91 | 5 | 9 | 185 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0095 | 0.0701 | 0.0370 | 1.003 | 1.223 | 1.000 | 0.884 | 1.000 | 0.233 | 0.016 | 0.003 | 5.94 | 5 | 8 | 55 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0060 | 0.0672 | 0.0395 | 1.004 | 1.322 | 1.000 | 0.883 | 1.000 | 0.200 | 0.010 | 0.002 | 6.18 | 5 | 7 | 109 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0044 | 0.0595 | 0.0377 | 1.005 | 1.470 | 0.999 | 0.888 | 1.000 | 0.153 | 0.011 | 0.002 | 6.32 | 5 | 7 | 179 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0044 | 0.0370 | 0.0172 | 1.002 | 1.083 | 1.000 | 0.949 | 1.000 | 0.136 | 0.010 | 0.001 | 5.44 | 5 | 6 | 45 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0025 | 0.0335 | 0.0168 | 1.002 | 1.115 | 0.998 | 0.951 | 1.000 | 0.119 | 0.003 | 0.001 | 5.50 | 5 | 6 | 88 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0020 | 0.0288 | 0.0168 | 1.002 | 1.191 | 0.997 | 0.954 | 1.000 | 0.084 | 0.003 | 0.001 | 5.59 | 5 | 6 | 156 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0134 | 0.0943 | 0.0545 | 1.004 | 1.317 | 1.000 | 0.832 | 1.000 | 0.280 | 0.023 | 0.006 | 6.33 | 5 | 10 | 60 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0084 | 0.0872 | 0.0540 | 1.005 | 1.442 | 1.000 | 0.842 | 1.000 | 0.239 | 0.015 | 0.004 | 6.68 | 5 | 9 | 120 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0063 | 0.0794 | 0.0526 | 1.007 | 1.619 | 1.000 | 0.847 | 1.000 | 0.189 | 0.016 | 0.002 | 6.89 | 5 | 9 | 185 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0094 | 0.0695 | 0.0365 | 1.003 | 1.209 | 1.000 | 0.887 | 1.000 | 0.233 | 0.016 | 0.003 | 5.93 | 5 | 8 | 55 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0059 | 0.0669 | 0.0392 | 1.004 | 1.299 | 1.000 | 0.884 | 1.000 | 0.200 | 0.010 | 0.002 | 6.18 | 5 | 7 | 109 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0044 | 0.0592 | 0.0374 | 1.005 | 1.449 | 0.999 | 0.889 | 1.000 | 0.153 | 0.011 | 0.002 | 6.32 | 5 | 7 | 179 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0044 | 0.0370 | 0.0172 | 1.002 | 1.083 | 1.000 | 0.949 | 1.000 | 0.136 | 0.010 | 0.001 | 5.44 | 5 | 6 | 45 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0025 | 0.0335 | 0.0167 | 1.002 | 1.111 | 0.998 | 0.951 | 1.000 | 0.119 | 0.003 | 0.001 | 5.50 | 5 | 6 | 88 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9992 | 0.0020 | 0.0288 | 0.0168 | 1.002 | 1.189 | 0.997 | 0.954 | 0.999 | 0.084 | 0.003 | 0.001 | 5.59 | 5 | 6 | 156 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9882 | 0.0586 | 0.4317 | 0.4028 | 1.017 | 1.425 | 0.941 | 0.052 | 1.000 | 0.137 | 0.122 | 0.132 | 10.74 | 5 | 19 | 36 | - | - | - | - |
| | 200 | 0.9868 | 0.0357 | 0.4741 | 0.4546 | 1.021 | 1.506 | 0.935 | 0.036 | 1.000 | 0.095 | 0.081 | 0.087 | 12.04 | 6 | 23 | 47 | - | - | - | - |
| | 300 | 0.9856 | 0.0279 | 0.5122 | 0.4991 | 1.024 | 1.559 | 0.929 | 0.024 | 1.000 | 0.096 | 0.062 | 0.070 | 13.27 | 6 | 25 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8885 | 0.0121 | 0.1201 | 0.1132 | 1.018 | 1.832 | 0.535 | 0.243 | 1.000 | 0.025 | 0.025 | 0.031 | 5.64 | 3 | 10 | 29 | - | - | - | - |
| | 200 | 0.8987 | 0.0110 | 0.1726 | 0.1662 | 1.023 | 2.179 | 0.580 | 0.210 | 1.000 | 0.026 | 0.024 | 0.029 | 6.68 | 3 | 16 | 42 | - | - | - | - |
| | 300 | 0.9034 | 0.0100 | 0.2154 | 0.2103 | 1.026 | 2.410 | 0.583 | 0.163 | 1.000 | 0.033 | 0.024 | 0.025 | 7.52 | 3 | 20 | 45 | - | - | - | - |

Notes: See notes to Table 100.

## Table 126: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0153 | 0.1311 | 0.0480 | 1.003 | 1.311 | 1.000 | 0.844 | 1.000 | 0.571 | 0.051 | 0.010 | 6.52 | 5 | 10 | 65 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0088 | 0.1235 | 0.0492 | 1.003 | 1.412 | 1.000 | 0.855 | 1.000 | 0.521 | 0.033 | 0.006 | 6.75 | 5 | 9 | 105 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.1159 | 0.0489 | 1.004 | 1.599 | 1.000 | 0.856 | 1.000 | 0.472 | 0.029 | 0.005 | 7.30 | 5 | 8 | 173 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0114 | 0.1064 | 0.0328 | 1.002 | 1.218 | 1.000 | 0.887 | 1.000 | 0.503 | 0.039 | 0.006 | 6.13 | 5 | 8 | 60 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0063 | 0.0998 | 0.0339 | 1.002 | 1.275 | 1.000 | 0.901 | 1.000 | 0.459 | 0.024 | 0.004 | 6.24 | 5 | 8 | 90 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0057 | 0.0929 | 0.0347 | 1.003 | 1.437 | 1.000 | 0.906 | 1.000 | 0.410 | 0.020 | 0.003 | 6.70 | 5 | 7 | 159 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0061 | 0.0654 | 0.0122 | 1.001 | 1.088 | 1.000 | 0.958 | 1.000 | 0.365 | 0.018 | 0.001 | 5.60 | 5 | 6 | 52 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0031 | 0.0615 | 0.0132 | 1.001 | 1.103 | 1.000 | 0.956 | 1.000 | 0.334 | 0.013 | 0.002 | 5.62 | 5 | 6 | 73 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.0589 | 0.0171 | 1.001 | 1.169 | 1.000 | 0.955 | 1.000 | 0.292 | 0.010 | 0.001 | 5.84 | 5 | 6 | 132 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0153 | 0.1307 | 0.0476 | 1.003 | 1.295 | 1.000 | 0.846 | 1.000 | 0.571 | 0.051 | 0.010 | 6.51 | 5 | 10 | 65 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0088 | 0.1231 | 0.0489 | 1.003 | 1.390 | 1.000 | 0.856 | 1.000 | 0.521 | 0.033 | 0.006 | 6.74 | 5 | 9 | 105 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.1153 | 0.0483 | 1.003 | 1.571 | 1.000 | 0.859 | 1.000 | 0.472 | 0.029 | 0.005 | 7.29 | 5 | 8 | 173 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0114 | 0.1062 | 0.0325 | 1.002 | 1.213 | 1.000 | 0.888 | 1.000 | 0.503 | 0.039 | 0.006 | 6.12 | 5 | 8 | 60 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0062 | 0.0997 | 0.0337 | 1.002 | 1.263 | 1.000 | 0.902 | 1.000 | 0.459 | 0.024 | 0.004 | 6.24 | 5 | 8 | 90 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0057 | 0.0926 | 0.0344 | 1.002 | 1.422 | 1.000 | 0.907 | 1.000 | 0.410 | 0.020 | 0.003 | 6.69 | 5 | 7 | 159 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0060 | 0.0654 | 0.0121 | 1.001 | 1.086 | 1.000 | 0.958 | 1.000 | 0.365 | 0.018 | 0.001 | 5.60 | 5 | 6 | 52 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0031 | 0.0614 | 0.0131 | 1.001 | 1.099 | 1.000 | 0.957 | 1.000 | 0.334 | 0.013 | 0.002 | 5.62 | 5 | 6 | 73 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.0588 | 0.0170 | 1.001 | 1.166 | 1.000 | 0.955 | 1.000 | 0.292 | 0.010 | 0.001 | 5.84 | 5 | 6 | 132 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9992 | 0.0584 | 0.4316 | 0.3990 | 1.010 | 1.434 | 0.996 | 0.053 | 1.000 | 0.128 | 0.112 | 0.132 | 10.78 | 6 | 19 | 33 | - | - | - | - |
| | 200 | 0.9987 | 0.0354 | 0.4736 | 0.4535 | 1.012 | 1.502 | 0.994 | 0.033 | 1.000 | 0.111 | 0.074 | 0.090 | 12.04 | 6 | 22.5 | 43 | - | - | - | - |
| | 300 | 0.9991 | 0.0272 | 0.5028 | 0.4867 | 1.013 | 1.565 | 0.996 | 0.032 | 1.000 | 0.086 | 0.072 | 0.082 | 13.13 | 6 | 25 | 47 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9702 | 0.0116 | 0.1019 | 0.0945 | 1.009 | 1.834 | 0.855 | 0.533 | 1.000 | 0.028 | 0.021 | 0.026 | 6.00 | 4 | 12 | 27 | - | - | - | - |
| | 200 | 0.9712 | 0.0105 | 0.1513 | 0.1454 | 1.012 | 2.170 | 0.861 | 0.462 | 1.000 | 0.033 | 0.023 | 0.031 | 6.94 | 4 | 17 | 37 | - | - | - | - |
| | 300 | 0.9724 | 0.0104 | 0.2010 | 0.1941 | 1.015 | 2.502 | 0.867 | 0.399 | 1.000 | 0.024 | 0.023 | 0.032 | 7.99 | 4 | 21 | 42 | - | - | - | - |

Notes: See notes to Table 100.

**Table 127: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9951 | 0.0024 | 0.0323 | 0.0237 | 1.011 | 1.178 | 0.980 | 0.830 | 0.997 | 0.045 | 0.012 | 0.007 | 5.21 | 5 | 6 | 9 | 1.307 | 0.29 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9891 | 0.0012 | 0.0324 | 0.0263 | 1.015 | 1.261 | 0.952 | 0.793 | 0.996 | 0.037 | 0.005 | 0.003 | 5.18 | 5 | 6 | 9 | 1.364 | 0.34 | 0.02 | 0.00 |
| | 300 | 0.9845 | 0.0007 | 0.0310 | 0.0267 | 1.020 | 1.328 | 0.936 | 0.774 | 0.991 | 0.026 | 0.004 | 0.002 | 5.14 | 4 | 6 | 9 | 1.410 | 0.38 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9902 | 0.0014 | 0.0194 | 0.0137 | 1.012 | 1.208 | 0.960 | 0.875 | 0.994 | 0.031 | 0.006 | 0.004 | 5.09 | 5 | 6 | 8 | 1.363 | 0.34 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9844 | 0.0007 | 0.0191 | 0.0147 | 1.016 | 1.287 | 0.931 | 0.844 | 0.994 | 0.027 | 0.003 | 0.003 | 5.06 | 4 | 6 | 8 | 1.442 | 0.41 | 0.03 | 0.00 |
| | 300 | 0.9765 | 0.0004 | 0.0163 | 0.0137 | 1.023 | 1.377 | 0.905 | 0.825 | 0.988 | 0.015 | 0.003 | 0.001 | 5.00 | 4 | 6 | 7 | 1.463 | 0.43 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.9731 | 0.0005 | 0.0067 | 0.0038 | 1.024 | 1.387 | 0.894 | 0.874 | 0.984 | 0.017 | 0.002 | 0.002 | 4.91 | 4 | 5 | 8 | 1.542 | 0.50 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9612 | 0.0002 | 0.0070 | 0.0051 | 1.035 | 1.520 | 0.842 | 0.816 | 0.978 | 0.012 | 0.001 | 0.001 | 4.85 | 4 | 5 | 8 | 1.608 | 0.55 | 0.06 | 0.00 |
| | 300 | 0.9466 | 0.0001 | 0.0045 | 0.0033 | 1.047 | 1.669 | 0.798 | 0.781 | 0.966 | 0.007 | 0.001 | 0.001 | 4.76 | 4 | 5 | 7 | 1.615 | 0.55 | 0.06 | 0.00 |
| $p = 0.1$, | 100 | 0.9914 | 0.0020 | 0.0280 | 0.0195 | 1.012 | 1.184 | 0.968 | 0.844 | 0.991 | 0.044 | 0.012 | 0.007 | 5.16 | 5 | 6 | 8 | 1.268 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9822 | 0.0010 | 0.0292 | 0.0232 | 1.020 | 1.305 | 0.929 | 0.792 | 0.985 | 0.037 | 0.005 | 0.003 | 5.12 | 4 | 6 | 9 | 1.311 | 0.30 | 0.01 | 0.00 |
| | 300 | 0.9759 | 0.0006 | 0.0275 | 0.0232 | 1.026 | 1.388 | 0.906 | 0.773 | 0.979 | 0.025 | 0.004 | 0.002 | 5.07 | 4 | 6 | 9 | 1.351 | 0.34 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9838 | 0.0012 | 0.0165 | 0.0110 | 1.017 | 1.260 | 0.938 | 0.872 | 0.986 | 0.031 | 0.005 | 0.004 | 5.04 | 4 | 6 | 8 | 1.320 | 0.31 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9750 | 0.0006 | 0.0166 | 0.0123 | 1.024 | 1.362 | 0.900 | 0.832 | 0.981 | 0.026 | 0.003 | 0.003 | 4.99 | 4 | 6 | 8 | 1.383 | 0.37 | 0.01 | 0.00 |
| | 300 | 0.9648 | 0.0003 | 0.0145 | 0.0120 | 1.035 | 1.479 | 0.869 | 0.803 | 0.969 | 0.014 | 0.003 | 0.001 | 4.92 | 4 | 6 | 7 | 1.401 | 0.38 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9599 | 0.0004 | 0.0061 | 0.0032 | 1.037 | 1.511 | 0.856 | 0.840 | 0.964 | 0.017 | 0.002 | 0.002 | 4.84 | 4 | 5 | 8 | 1.482 | 0.46 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9424 | 0.0002 | 0.0059 | 0.0040 | 1.053 | 1.679 | 0.787 | 0.770 | 0.951 | 0.012 | 0.001 | 0.001 | 4.75 | 3 | 5 | 8 | 1.516 | 0.48 | 0.03 | 0.00 |
| | 300 | 0.9244 | 0.0001 | 0.0036 | 0.0025 | 1.069 | 1.842 | 0.741 | 0.729 | 0.928 | 0.006 | 0.001 | 0.001 | 4.65 | 3 | 5 | 7 | 1.510 | 0.49 | 0.02 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0986 | 0.5626 | 0.5430 | 1.087 | 1.799 | 1.000 | 0.013 | 1.000 | 0.131 | 0.111 | 0.120 | 14.76 | 7 | 25 | 55 | - | - | - | - |
| | 200 | 0.9998 | 0.0717 | 0.6472 | 0.6349 | 1.109 | 1.959 | 1.000 | 0.005 | 1.000 | 0.098 | 0.086 | 0.085 | 19.27 | 8 | 36 | 66 | - | - | - | - |
| | 300 | 0.9998 | 0.0598 | 0.6940 | 0.6852 | 1.122 | 2.085 | 1.000 | 0.004 | 1.000 | 0.102 | 0.068 | 0.082 | 22.87 | 9 | 42 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9982 | 0.0257 | 0.2016 | 0.1939 | 1.054 | 1.726 | 0.994 | 0.404 | 0.999 | 0.035 | 0.036 | 0.031 | 7.53 | 5 | 17 | 45 | - | - | - | - |
| | 200 | 0.9976 | 0.0288 | 0.3232 | 0.3175 | 1.090 | 2.119 | 0.989 | 0.268 | 0.999 | 0.043 | 0.033 | 0.040 | 10.72 | 5 | 29 | 52 | - | - | - | - |
| | 300 | 0.9968 | 0.0291 | 0.4137 | 0.4087 | 1.123 | 2.464 | 0.986 | 0.190 | 0.999 | 0.037 | 0.032 | 0.039 | 13.70 | 5 | 34 | 51 | - | - | - | - |

Notes: See notes to Table 100.

**Table 128: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0598 | 0.0159 | 1.002 | 1.069 | 1.000 | 0.894 | 1.000 | 0.282 | 0.030 | 0.009 | 5.44 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0020 | 0.0547 | 0.0182 | 1.002 | 1.082 | 1.000 | 0.877 | 1.000 | 0.245 | 0.017 | 0.003 | 5.40 | 5 | 7 | 8 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0487 | 0.0168 | 1.002 | 1.074 | 1.000 | 0.886 | 1.000 | 0.212 | 0.015 | 0.004 | 5.36 | 5 | 6 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0447 | 0.0089 | 1.001 | 1.044 | 1.000 | 0.939 | 1.000 | 0.232 | 0.023 | 0.005 | 5.32 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0390 | 0.0094 | 1.001 | 1.044 | 1.000 | 0.935 | 1.000 | 0.197 | 0.014 | 0.003 | 5.28 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0334 | 0.0075 | 1.001 | 1.037 | 1.000 | 0.948 | 1.000 | 0.174 | 0.008 | 0.003 | 5.24 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0251 | 0.0020 | 1.000 | 1.016 | 1.000 | 0.987 | 1.000 | 0.155 | 0.010 | 0.001 | 5.18 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0192 | 0.0015 | 1.000 | 1.010 | 1.000 | 0.990 | 1.000 | 0.120 | 0.006 | 0.001 | 5.14 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0182 | 0.0019 | 1.000 | 1.012 | 1.000 | 0.987 | 1.000 | 0.110 | 0.005 | 0.001 | 5.13 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0587 | 0.0148 | 1.001 | 1.056 | 1.000 | 0.901 | 1.000 | 0.282 | 0.030 | 0.009 | 5.43 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0530 | 0.0164 | 1.001 | 1.058 | 1.000 | 0.889 | 1.000 | 0.245 | 0.017 | 0.003 | 5.39 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0479 | 0.0160 | 1.001 | 1.061 | 1.000 | 0.892 | 1.000 | 0.212 | 0.015 | 0.004 | 5.35 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0032 | 0.0442 | 0.0083 | 1.001 | 1.035 | 1.000 | 0.943 | 1.000 | 0.232 | 0.023 | 0.005 | 5.32 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0381 | 0.0085 | 1.001 | 1.033 | 1.000 | 0.940 | 1.000 | 0.197 | 0.014 | 0.003 | 5.27 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0330 | 0.0072 | 1.001 | 1.031 | 1.000 | 0.951 | 1.000 | 0.174 | 0.008 | 0.003 | 5.24 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0248 | 0.0016 | 1.000 | 1.010 | 1.000 | 0.989 | 1.000 | 0.155 | 0.010 | 0.001 | 5.18 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0191 | 0.0013 | 1.000 | 1.008 | 1.000 | 0.991 | 1.000 | 0.120 | 0.006 | 0.001 | 5.14 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0181 | 0.0018 | 1.000 | 1.011 | 1.000 | 0.987 | 1.000 | 0.110 | 0.005 | 0.001 | 5.13 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0988 | 0.5638 | 0.5440 | 1.024 | 1.718 | 1.000 | 0.011 | 1.000 | 0.149 | 0.111 | 0.120 | 14.78 | 7 | 26 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0623 | 0.6128 | 0.6003 | 1.030 | 1.819 | 1.000 | 0.009 | 1.000 | 0.093 | 0.059 | 0.068 | 17.41 | 7 | 31 | 71 | - | - | - | - |
| | 300 | 1.0000 | 0.0472 | 0.6428 | 0.6329 | 1.033 | 1.915 | 1.000 | 0.007 | 1.000 | 0.088 | 0.048 | 0.052 | 19.11 | 8 | 35 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0202 | 0.1254 | 0.1212 | 1.012 | 1.562 | 1.000 | 0.700 | 1.000 | 0.028 | 0.017 | 0.030 | 7.00 | 5 | 18 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0200 | 0.2142 | 0.2098 | 1.022 | 1.923 | 1.000 | 0.567 | 1.000 | 0.028 | 0.020 | 0.023 | 8.98 | 5 | 23 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.0186 | 0.2763 | 0.2725 | 1.030 | 2.227 | 1.000 | 0.496 | 1.000 | 0.032 | 0.021 | 0.020 | 10.55 | 5 | 27 | 54 | - | - | - | - |

Notes: See notes to Table 100.

**Table 129: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1022 | 0.0148 | 1.001 | 1.058 | 1.000 | 0.894 | 1.000 | 0.576 | 0.049 | 0.011 | 5.75 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0933 | 0.0171 | 1.001 | 1.081 | 1.000 | 0.879 | 1.000 | 0.511 | 0.037 | 0.007 | 5.69 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0862 | 0.0159 | 1.001 | 1.073 | 1.000 | 0.891 | 1.000 | 0.478 | 0.023 | 0.007 | 5.63 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0842 | 0.0078 | 1.001 | 1.036 | 1.000 | 0.946 | 1.000 | 0.509 | 0.036 | 0.004 | 5.61 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0741 | 0.0090 | 1.001 | 1.048 | 1.000 | 0.934 | 1.000 | 0.437 | 0.027 | 0.004 | 5.54 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0698 | 0.0080 | 1.001 | 1.042 | 1.000 | 0.944 | 1.000 | 0.421 | 0.015 | 0.005 | 5.50 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0569 | 0.0015 | 1.000 | 1.012 | 1.000 | 0.990 | 1.000 | 0.377 | 0.013 | 0.002 | 5.40 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0479 | 0.0018 | 1.000 | 1.017 | 1.000 | 0.987 | 1.000 | 0.314 | 0.012 | 0.002 | 5.34 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0444 | 0.0019 | 1.000 | 1.013 | 1.000 | 0.987 | 1.000 | 0.292 | 0.007 | 0.002 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1015 | 0.0141 | 1.001 | 1.049 | 1.000 | 0.900 | 1.000 | 0.576 | 0.049 | 0.011 | 5.74 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0034 | 0.0925 | 0.0162 | 1.001 | 1.067 | 1.000 | 0.884 | 1.000 | 0.511 | 0.037 | 0.007 | 5.68 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0855 | 0.0151 | 1.001 | 1.062 | 1.000 | 0.897 | 1.000 | 0.478 | 0.023 | 0.007 | 5.62 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0839 | 0.0075 | 1.001 | 1.033 | 1.000 | 0.948 | 1.000 | 0.509 | 0.036 | 0.003 | 5.60 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0738 | 0.0087 | 1.001 | 1.043 | 1.000 | 0.937 | 1.000 | 0.437 | 0.027 | 0.004 | 5.53 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0696 | 0.0077 | 1.001 | 1.038 | 1.000 | 0.946 | 1.000 | 0.421 | 0.015 | 0.005 | 5.50 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0568 | 0.0014 | 1.000 | 1.011 | 1.000 | 0.990 | 1.000 | 0.377 | 0.013 | 0.002 | 5.40 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0479 | 0.0018 | 1.000 | 1.017 | 1.000 | 0.987 | 1.000 | 0.314 | 0.012 | 0.002 | 5.34 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0442 | 0.0017 | 1.000 | 1.011 | 1.000 | 0.988 | 1.000 | 0.292 | 0.007 | 0.002 | 5.31 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0941 | 0.5497 | 0.5287 | 1.014 | 1.659 | 1.000 | 0.011 | 1.000 | 0.135 | 0.109 | 0.119 | 14.31 | 7 | 25 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0607 | 0.6035 | 0.5917 | 1.018 | 1.808 | 1.000 | 0.008 | 1.000 | 0.095 | 0.068 | 0.068 | 17.07 | 7 | 32 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0459 | 0.6320 | 0.6229 | 1.019 | 1.871 | 1.000 | 0.009 | 1.000 | 0.075 | 0.043 | 0.052 | 18.71 | 7 | 37 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0175 | 0.1091 | 0.1054 | 1.006 | 1.476 | 1.000 | 0.793 | 1.000 | 0.018 | 0.023 | 0.025 | 6.73 | 5 | 16 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0177 | 0.1922 | 0.1885 | 1.011 | 1.836 | 1.000 | 0.669 | 1.000 | 0.020 | 0.023 | 0.024 | 8.53 | 5 | 22 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0149 | 0.2335 | 0.2302 | 1.014 | 2.012 | 1.000 | 0.615 | 1.000 | 0.019 | 0.018 | 0.021 | 9.47 | 5 | 24 | 42 | - | - | - | - |

Notes: See notes to Table 100.

**Table 130: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8914 | 0.0025 | 0.0362 | 0.0260 | 1.045 | 1.639 | 0.602 | 0.512 | 0.942 | 0.053 | 0.011 | 0.006 | 4.70 | 3 | 6 | 10 | 1.230 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8627 | 0.0012 | 0.0366 | 0.0300 | 1.060 | 1.800 | 0.534 | 0.448 | 0.922 | 0.035 | 0.004 | 0.006 | 4.55 | 3 | 6 | 8 | 1.240 | 0.23 | 0.01 | 0.00 |
| | 300 | 0.8298 | 0.0007 | 0.0359 | 0.0303 | 1.078 | 1.956 | 0.474 | 0.395 | 0.889 | 0.029 | 0.002 | 0.005 | 4.37 | 2 | 6 | 8 | 1.226 | 0.22 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8516 | 0.0015 | 0.0236 | 0.0155 | 1.059 | 1.776 | 0.498 | 0.455 | 0.911 | 0.041 | 0.008 | 0.004 | 4.41 | 3 | 6 | 9 | 1.247 | 0.24 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8148 | 0.0007 | 0.0227 | 0.0178 | 1.079 | 1.963 | 0.428 | 0.384 | 0.884 | 0.024 | 0.003 | 0.005 | 4.21 | 2 | 6 | 7 | 1.273 | 0.27 | 0.01 | 0.00 |
| | 300 | 0.7842 | 0.0005 | 0.0233 | 0.0190 | 1.095 | 2.102 | 0.378 | 0.336 | 0.855 | 0.022 | 0.002 | 0.003 | 4.06 | 2 | 6 | 8 | 1.249 | 0.24 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.7418 | 0.0004 | 0.0073 | 0.0045 | 1.105 | 2.156 | 0.284 | 0.275 | 0.822 | 0.013 | 0.003 | 0.002 | 3.75 | 2 | 5 | 7 | 1.306 | 0.30 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6987 | 0.0002 | 0.0068 | 0.0050 | 1.130 | 2.333 | 0.238 | 0.233 | 0.768 | 0.008 | 0.001 | 0.002 | 3.53 | 1 | 5 | 6 | 1.290 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.6616 | 0.0001 | 0.0077 | 0.0054 | 1.150 | 2.488 | 0.196 | 0.192 | 0.745 | 0.011 | 0.001 | 0.002 | 3.35 | 1 | 5 | 6 | 1.274 | 0.27 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.8774 | 0.0022 | 0.0331 | 0.0230 | 1.053 | 1.652 | 0.586 | 0.512 | 0.895 | 0.052 | 0.011 | 0.006 | 4.61 | 3 | 6 | 10 | 1.143 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8465 | 0.0011 | 0.0344 | 0.0278 | 1.072 | 1.813 | 0.524 | 0.447 | 0.861 | 0.035 | 0.004 | 0.006 | 4.45 | 3 | 6 | 8 | 1.147 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.8123 | 0.0007 | 0.0340 | 0.0286 | 1.090 | 1.973 | 0.464 | 0.393 | 0.826 | 0.029 | 0.002 | 0.004 | 4.27 | 2 | 6 | 8 | 1.129 | 0.13 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8369 | 0.0014 | 0.0221 | 0.0140 | 1.069 | 1.795 | 0.488 | 0.453 | 0.859 | 0.041 | 0.008 | 0.003 | 4.32 | 3 | 6 | 9 | 1.164 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7935 | 0.0007 | 0.0217 | 0.0167 | 1.094 | 1.990 | 0.421 | 0.382 | 0.804 | 0.024 | 0.003 | 0.005 | 4.10 | 2 | 5.5 | 7 | 1.163 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.7630 | 0.0004 | 0.0221 | 0.0180 | 1.110 | 2.127 | 0.370 | 0.333 | 0.777 | 0.021 | 0.002 | 0.002 | 3.94 | 2 | 5 | 8 | 1.135 | 0.13 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7193 | 0.0004 | 0.0069 | 0.0040 | 1.120 | 2.185 | 0.279 | 0.273 | 0.740 | 0.013 | 0.003 | 0.002 | 3.64 | 2 | 5 | 7 | 1.193 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6753 | 0.0002 | 0.0068 | 0.0049 | 1.146 | 2.363 | 0.233 | 0.229 | 0.683 | 0.008 | 0.001 | 0.002 | 3.41 | 1 | 5 | 6 | 1.173 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.6352 | 0.0001 | 0.0073 | 0.0050 | 1.168 | 2.524 | 0.191 | 0.187 | 0.658 | 0.011 | 0.001 | 0.001 | 3.21 | 1 | 5 | 6 | 1.143 | 0.14 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9897 | 0.0951 | 0.5513 | 0.5328 | 1.086 | 1.782 | 0.950 | 0.018 | 0.998 | 0.113 | 0.111 | 0.122 | 14.36 | 6 | 26 | 48 | - | - | - | - |
| | 200 | 0.9876 | 0.0683 | 0.6343 | 0.6233 | 1.105 | 1.958 | 0.944 | 0.002 | 0.993 | 0.083 | 0.082 | 0.079 | 18.54 | 8 | 35 | 60 | - | - | - | - |
| | 300 | 0.9855 | 0.0570 | 0.6820 | 0.6729 | 1.124 | 2.115 | 0.935 | 0.006 | 0.994 | 0.081 | 0.063 | 0.065 | 21.98 | 8 | 42 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9434 | 0.0304 | 0.2474 | 0.2383 | 1.075 | 1.960 | 0.765 | 0.190 | 0.986 | 0.036 | 0.038 | 0.037 | 7.73 | 4 | 16 | 43 | - | - | - | - |
| | 200 | 0.9457 | 0.0296 | 0.3621 | 0.3557 | 1.106 | 2.328 | 0.781 | 0.113 | 0.984 | 0.033 | 0.035 | 0.035 | 10.61 | 4 | 27 | 48 | - | - | - | - |
| | 300 | 0.9445 | 0.0303 | 0.4559 | 0.4500 | 1.143 | 2.670 | 0.770 | 0.068 | 0.980 | 0.043 | 0.032 | 0.037 | 13.77 | 4 | 35 | 56 | - | - | - | - |

Notes: See notes to Table 100.

## Table 131: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables

$\omega = 0.2$, $T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0619 | 0.0175 | 1.002 | 1.102 | 1.000 | 0.882 | 1.000 | 0.291 | 0.025 | 0.006 | 5.45 | 5 | 7 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0019 | 0.0514 | 0.0166 | 1.002 | 1.094 | 1.000 | 0.888 | 1.000 | 0.234 | 0.014 | 0.003 | 5.37 | 5 | 6 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0476 | 0.0171 | 1.002 | 1.091 | 1.000 | 0.885 | 1.000 | 0.207 | 0.011 | 0.002 | 5.34 | 5 | 6 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0448 | 0.0093 | 1.001 | 1.060 | 1.000 | 0.937 | 1.000 | 0.236 | 0.017 | 0.003 | 5.32 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0013 | 0.0369 | 0.0083 | 1.001 | 1.057 | 1.000 | 0.943 | 1.000 | 0.192 | 0.011 | 0.002 | 5.26 | 5 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0320 | 0.0081 | 1.001 | 1.045 | 1.000 | 0.944 | 1.000 | 0.163 | 0.007 | 0.001 | 5.23 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0236 | 0.0021 | 1.001 | 1.019 | 1.000 | 0.985 | 1.000 | 0.146 | 0.006 | 0.002 | 5.17 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0203 | 0.0018 | 1.000 | 1.015 | 1.000 | 0.988 | 1.000 | 0.126 | 0.004 | 0.001 | 5.14 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0150 | 0.0018 | 1.000 | 1.013 | 1.000 | 0.988 | 1.000 | 0.091 | 0.003 | 0.000 | 5.11 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0605 | 0.0161 | 1.002 | 1.086 | 1.000 | 0.892 | 1.000 | 0.291 | 0.025 | 0.006 | 5.44 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0506 | 0.0159 | 1.002 | 1.085 | 1.000 | 0.894 | 1.000 | 0.234 | 0.014 | 0.003 | 5.37 | 5 | 6 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0465 | 0.0160 | 1.001 | 1.077 | 1.000 | 0.892 | 1.000 | 0.206 | 0.011 | 0.002 | 5.34 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0032 | 0.0442 | 0.0086 | 1.001 | 1.052 | 1.000 | 0.941 | 1.000 | 0.236 | 0.017 | 0.003 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0364 | 0.0077 | 1.001 | 1.049 | 1.000 | 0.947 | 1.000 | 0.192 | 0.011 | 0.002 | 5.26 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0317 | 0.0078 | 1.001 | 1.041 | 1.000 | 0.947 | 1.000 | 0.163 | 0.007 | 0.001 | 5.23 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0234 | 0.0019 | 1.000 | 1.016 | 1.000 | 0.987 | 1.000 | 0.146 | 0.006 | 0.002 | 5.17 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0202 | 0.0017 | 1.000 | 1.014 | 1.000 | 0.988 | 1.000 | 0.126 | 0.004 | 0.001 | 5.14 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0149 | 0.0017 | 1.000 | 1.012 | 1.000 | 0.989 | 1.000 | 0.091 | 0.003 | 0.000 | 5.11 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0999 | 0.5705 | 0.5489 | 1.024 | 1.689 | 1.000 | 0.010 | 1.000 | 0.127 | 0.121 | 0.129 | 14.89 | 7 | 26 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.0613 | 0.6125 | 0.5996 | 1.030 | 1.814 | 1.000 | 0.008 | 1.000 | 0.099 | 0.071 | 0.072 | 17.19 | 7 | 31 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0478 | 0.6474 | 0.6384 | 1.034 | 1.873 | 1.000 | 0.003 | 1.000 | 0.085 | 0.064 | 0.054 | 19.29 | 8 | 36 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0231 | 0.1728 | 0.1664 | 1.013 | 1.607 | 1.000 | 0.479 | 1.000 | 0.026 | 0.024 | 0.026 | 7.28 | 5 | 18 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0239 | 0.2731 | 0.2680 | 1.026 | 2.081 | 1.000 | 0.361 | 1.000 | 0.036 | 0.022 | 0.028 | 9.75 | 5 | 25.5 | 47 | - | - | - | - |
| | 300 | 0.9999 | 0.0213 | 0.3331 | 0.3287 | 1.036 | 2.329 | 1.000 | 0.293 | 1.000 | 0.033 | 0.030 | 0.024 | 11.38 | 5 | 30 | 54 | - | - | - | - |

Notes: See notes to Table 100.

**Table 132: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1038 | 0.0150 | 1.002 | 1.089 | 1.000 | 0.892 | 1.000 | 0.591 | 0.044 | 0.009 | 5.76 | 5 | 7 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0890 | 0.0157 | 1.001 | 1.088 | 1.000 | 0.890 | 1.000 | 0.492 | 0.033 | 0.007 | 5.65 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0861 | 0.0173 | 1.002 | 1.111 | 1.000 | 0.880 | 1.000 | 0.466 | 0.027 | 0.005 | 5.63 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0856 | 0.0076 | 1.001 | 1.049 | 1.000 | 0.946 | 1.000 | 0.522 | 0.030 | 0.007 | 5.62 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0026 | 0.0717 | 0.0072 | 1.001 | 1.046 | 1.000 | 0.948 | 1.000 | 0.435 | 0.025 | 0.004 | 5.52 | 5 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0703 | 0.0099 | 1.001 | 1.071 | 1.000 | 0.931 | 1.000 | 0.409 | 0.020 | 0.004 | 5.51 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0043 | 0.0598 | 0.0016 | 1.001 | 1.015 | 1.000 | 0.989 | 1.000 | 0.394 | 0.017 | 0.003 | 5.42 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0016 | 1.000 | 1.014 | 1.000 | 0.988 | 1.000 | 0.305 | 0.012 | 0.003 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0452 | 0.0031 | 1.001 | 1.030 | 1.000 | 0.978 | 1.000 | 0.287 | 0.010 | 0.001 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1030 | 0.0141 | 1.001 | 1.077 | 1.000 | 0.898 | 1.000 | 0.591 | 0.044 | 0.009 | 5.75 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0032 | 0.0882 | 0.0148 | 1.001 | 1.076 | 1.000 | 0.897 | 1.000 | 0.492 | 0.033 | 0.007 | 5.65 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0850 | 0.0161 | 1.002 | 1.094 | 1.000 | 0.888 | 1.000 | 0.466 | 0.027 | 0.005 | 5.62 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0851 | 0.0071 | 1.001 | 1.042 | 1.000 | 0.950 | 1.000 | 0.522 | 0.030 | 0.007 | 5.61 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0026 | 0.0714 | 0.0068 | 1.001 | 1.042 | 1.000 | 0.950 | 1.000 | 0.435 | 0.025 | 0.004 | 5.51 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0699 | 0.0095 | 1.001 | 1.064 | 1.000 | 0.934 | 1.000 | 0.409 | 0.020 | 0.004 | 5.50 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0043 | 0.0596 | 0.0014 | 1.001 | 1.012 | 1.000 | 0.990 | 1.000 | 0.394 | 0.017 | 0.003 | 5.42 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0465 | 0.0015 | 1.000 | 1.012 | 1.000 | 0.989 | 1.000 | 0.305 | 0.012 | 0.003 | 5.33 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0450 | 0.0029 | 1.001 | 1.027 | 1.000 | 0.979 | 1.000 | 0.287 | 0.010 | 0.001 | 5.32 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1023 | 0.5756 | 0.5549 | 1.013 | 1.695 | 1.000 | 0.009 | 1.000 | 0.131 | 0.107 | 0.114 | 15.13 | 7 | 27 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.0622 | 0.6173 | 0.6044 | 1.017 | 1.798 | 1.000 | 0.006 | 1.000 | 0.096 | 0.067 | 0.082 | 17.37 | 8 | 31 | 57 | - | - | - | - |
| | 300 | 1.0000 | 0.0460 | 0.6364 | 0.6272 | 1.020 | 1.883 | 1.000 | 0.006 | 1.000 | 0.092 | 0.057 | 0.053 | 18.75 | 8 | 35 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0224 | 0.1415 | 0.1363 | 1.007 | 1.605 | 1.000 | 0.641 | 1.000 | 0.021 | 0.024 | 0.025 | 7.22 | 5 | 19 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0208 | 0.2282 | 0.2240 | 1.014 | 1.975 | 1.000 | 0.500 | 1.000 | 0.032 | 0.028 | 0.029 | 9.14 | 5 | 24 | 46 | - | - | - | - |
| | 300 | 1.0000 | 0.0193 | 0.2886 | 0.2850 | 1.020 | 2.321 | 1.000 | 0.438 | 1.000 | 0.034 | 0.022 | 0.025 | 10.76 | 5 | 28 | 49 | - | - | - | - |

Notes: See notes to Table 100.

**Table 133: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5932 | 0.0022 | 0.0438 | 0.0329 | 1.084 | 1.938 | 0.112 | 0.097 | 0.813 | 0.048 | 0.007 | 0.004 | 3.19 | 1 | 5 | 7 | 1.093 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5186 | 0.0011 | 0.0465 | 0.0391 | 1.106 | 2.061 | 0.067 | 0.055 | 0.749 | 0.030 | 0.006 | 0.003 | 2.81 | 1 | 5 | 9 | 1.088 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.4747 | 0.0008 | 0.0551 | 0.0469 | 1.122 | 2.162 | 0.048 | 0.037 | 0.715 | 0.030 | 0.006 | 0.002 | 2.61 | 1 | 5 | 7 | 1.083 | 0.08 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5301 | 0.0013 | 0.0285 | 0.0201 | 1.100 | 2.022 | 0.076 | 0.071 | 0.758 | 0.034 | 0.006 | 0.002 | 2.78 | 1 | 5 | 6 | 1.087 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4572 | 0.0006 | 0.0274 | 0.0217 | 1.120 | 2.122 | 0.044 | 0.039 | 0.690 | 0.022 | 0.005 | 0.002 | 2.40 | 0 | 5 | 7 | 1.079 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.4102 | 0.0005 | 0.0363 | 0.0305 | 1.138 | 2.225 | 0.029 | 0.027 | 0.659 | 0.020 | 0.003 | 0.001 | 2.19 | 0 | 4 | 7 | 1.079 | 0.08 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3806 | 0.0004 | 0.0100 | 0.0054 | 1.142 | 2.224 | 0.020 | 0.020 | 0.620 | 0.016 | 0.003 | 0.002 | 1.94 | 0 | 4 | 6 | 1.098 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3297 | 0.0002 | 0.0105 | 0.0071 | 1.157 | 2.270 | 0.014 | 0.013 | 0.555 | 0.012 | 0.003 | 0.001 | 1.69 | 0 | 4 | 6 | 1.066 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.2911 | 0.0001 | 0.0122 | 0.0098 | 1.173 | 2.329 | 0.009 | 0.009 | 0.517 | 0.008 | 0.001 | 0.000 | 1.50 | 0 | 3 | 5 | 1.058 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5819 | 0.0021 | 0.0417 | 0.0309 | 1.089 | 1.933 | 0.111 | 0.097 | 0.777 | 0.047 | 0.007 | 0.004 | 3.12 | 1 | 5 | 7 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5082 | 0.0010 | 0.0443 | 0.0370 | 1.110 | 2.054 | 0.067 | 0.057 | 0.720 | 0.030 | 0.006 | 0.003 | 2.74 | 1 | 5 | 9 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.4645 | 0.0008 | 0.0535 | 0.0453 | 1.126 | 2.156 | 0.048 | 0.038 | 0.687 | 0.029 | 0.006 | 0.002 | 2.55 | 1 | 5 | 7 | 1.024 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5190 | 0.0012 | 0.0272 | 0.0188 | 1.105 | 2.022 | 0.075 | 0.071 | 0.727 | 0.034 | 0.006 | 0.002 | 2.72 | 1 | 5 | 6 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4459 | 0.0006 | 0.0267 | 0.0209 | 1.125 | 2.120 | 0.044 | 0.040 | 0.656 | 0.022 | 0.005 | 0.002 | 2.34 | 0 | 4.5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3984 | 0.0004 | 0.0350 | 0.0292 | 1.142 | 2.220 | 0.029 | 0.027 | 0.627 | 0.020 | 0.003 | 0.001 | 2.12 | 0 | 4 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3669 | 0.0004 | 0.0099 | 0.0054 | 1.148 | 2.227 | 0.020 | 0.020 | 0.586 | 0.016 | 0.003 | 0.001 | 1.87 | 0 | 4 | 6 | 1.032 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3199 | 0.0002 | 0.0105 | 0.0071 | 1.162 | 2.270 | 0.014 | 0.013 | 0.530 | 0.012 | 0.003 | 0.001 | 1.64 | 0 | 4 | 6 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2821 | 0.0001 | 0.0122 | 0.0097 | 1.177 | 2.327 | 0.009 | 0.009 | 0.491 | 0.008 | 0.001 | 0.000 | 1.45 | 0 | 3 | 5 | 1.014 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8933 | 0.0811 | 0.5248 | 0.5064 | 1.083 | 1.677 | 0.578 | 0.008 | 0.989 | 0.101 | 0.094 | 0.092 | 12.50 | 5 | 24 | 49 | - | - | - | - |
| | 200 | 0.8655 | 0.0590 | 0.6137 | 0.6022 | 1.099 | 1.813 | 0.502 | 0.003 | 0.983 | 0.075 | 0.055 | 0.070 | 16.06 | 5 | 32 | 68 | - | - | - | - |
| | 300 | 0.8522 | 0.0498 | 0.6657 | 0.6577 | 1.111 | 1.925 | 0.466 | 0.001 | 0.973 | 0.071 | 0.060 | 0.075 | 19.16 | 6 | 40 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7484 | 0.0281 | 0.2677 | 0.2593 | 1.082 | 1.967 | 0.238 | 0.031 | 0.965 | 0.036 | 0.031 | 0.033 | 6.52 | 2 | 14 | 41 | - | - | - | - |
| | 200 | 0.7481 | 0.0282 | 0.3926 | 0.3854 | 1.116 | 2.319 | 0.255 | 0.012 | 0.960 | 0.032 | 0.027 | 0.030 | 9.35 | 2 | 24 | 60 | - | - | - | - |
| | 300 | 0.7443 | 0.0271 | 0.4755 | 0.4698 | 1.141 | 2.572 | 0.250 | 0.009 | 0.952 | 0.031 | 0.034 | 0.042 | 11.81 | 3 | 32 | 61 | - | - | - | - |

Notes: See notes to Table 100.

**Table 134: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9932 | 0.0046 | 0.0624 | 0.0167 | 1.003 | 1.157 | 0.969 | 0.861 | 1.000 | 0.304 | 0.020 | 0.004 | 5.42 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9917 | 0.0019 | 0.0530 | 0.0171 | 1.004 | 1.178 | 0.959 | 0.847 | 1.000 | 0.236 | 0.018 | 0.006 | 5.34 | 5 | 6 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9866 | 0.0012 | 0.0485 | 0.0188 | 1.004 | 1.224 | 0.937 | 0.819 | 1.000 | 0.198 | 0.012 | 0.003 | 5.28 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9902 | 0.0033 | 0.0454 | 0.0087 | 1.002 | 1.137 | 0.954 | 0.897 | 1.000 | 0.244 | 0.015 | 0.001 | 5.27 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9872 | 0.0014 | 0.0394 | 0.0093 | 1.003 | 1.170 | 0.939 | 0.879 | 1.000 | 0.199 | 0.013 | 0.004 | 5.22 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9794 | 0.0008 | 0.0338 | 0.0103 | 1.004 | 1.233 | 0.903 | 0.841 | 1.000 | 0.155 | 0.009 | 0.002 | 5.14 | 4 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9733 | 0.0016 | 0.0233 | 0.0017 | 1.004 | 1.240 | 0.877 | 0.865 | 1.000 | 0.143 | 0.006 | 0.000 | 5.03 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9644 | 0.0007 | 0.0205 | 0.0025 | 1.006 | 1.317 | 0.839 | 0.826 | 1.000 | 0.118 | 0.005 | 0.001 | 4.96 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9538 | 0.0004 | 0.0161 | 0.0021 | 1.007 | 1.382 | 0.800 | 0.787 | 1.000 | 0.092 | 0.004 | 0.001 | 4.88 | 4 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9932 | 0.0045 | 0.0615 | 0.0157 | 1.003 | 1.146 | 0.969 | 0.868 | 1.000 | 0.304 | 0.020 | 0.004 | 5.41 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9917 | 0.0019 | 0.0525 | 0.0166 | 1.003 | 1.172 | 0.959 | 0.850 | 1.000 | 0.236 | 0.018 | 0.006 | 5.34 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9866 | 0.0011 | 0.0478 | 0.0180 | 1.004 | 1.214 | 0.937 | 0.824 | 1.000 | 0.198 | 0.012 | 0.003 | 5.27 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9902 | 0.0032 | 0.0452 | 0.0084 | 1.002 | 1.134 | 0.954 | 0.899 | 1.000 | 0.244 | 0.015 | 0.001 | 5.27 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9872 | 0.0014 | 0.0390 | 0.0089 | 1.003 | 1.167 | 0.939 | 0.881 | 1.000 | 0.199 | 0.013 | 0.004 | 5.22 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9794 | 0.0008 | 0.0334 | 0.0099 | 1.004 | 1.227 | 0.903 | 0.844 | 1.000 | 0.155 | 0.009 | 0.002 | 5.13 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9729 | 0.0016 | 0.0233 | 0.0017 | 1.004 | 1.243 | 0.877 | 0.865 | 1.000 | 0.143 | 0.006 | 0.000 | 5.03 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9642 | 0.0007 | 0.0203 | 0.0024 | 1.006 | 1.317 | 0.838 | 0.826 | 1.000 | 0.118 | 0.005 | 0.001 | 4.96 | 4 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9536 | 0.0004 | 0.0159 | 0.0019 | 1.007 | 1.381 | 0.800 | 0.788 | 1.000 | 0.092 | 0.004 | 0.001 | 4.88 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9993 | 0.0978 | 0.5629 | 0.5422 | 1.024 | 1.703 | 0.997 | 0.016 | 1.000 | 0.126 | 0.109 | 0.106 | 14.67 | 7 | 25 | 44 | - | - | - | - |
| | 200 | 0.9984 | 0.0624 | 0.6161 | 0.6027 | 1.030 | 1.826 | 0.992 | 0.007 | 1.000 | 0.096 | 0.068 | 0.083 | 17.40 | 7 | 32 | 63 | - | - | - | - |
| | 300 | 0.9982 | 0.0481 | 0.6483 | 0.6400 | 1.035 | 1.882 | 0.991 | 0.003 | 1.000 | 0.091 | 0.060 | 0.070 | 19.38 | 8 | 35 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9843 | 0.0279 | 0.2232 | 0.2151 | 1.019 | 1.841 | 0.926 | 0.304 | 1.000 | 0.031 | 0.037 | 0.029 | 7.68 | 5 | 17 | 34 | - | - | - | - |
| | 200 | 0.9851 | 0.0275 | 0.3312 | 0.3246 | 1.033 | 2.290 | 0.932 | 0.205 | 1.000 | 0.038 | 0.036 | 0.039 | 10.39 | 5 | 26 | 57 | - | - | - | - |
| | 300 | 0.9799 | 0.0250 | 0.3938 | 0.3882 | 1.047 | 2.617 | 0.910 | 0.150 | 1.000 | 0.041 | 0.031 | 0.036 | 12.39 | 4 | 31 | 62 | - | - | - | - |

Notes: See notes to Table 100.

**Table 135: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0993 | 0.0142 | 1.002 | 1.100 | 1.000 | 0.901 | 1.000 | 0.560 | 0.050 | 0.008 | 5.73 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0917 | 0.0155 | 1.002 | 1.112 | 1.000 | 0.893 | 1.000 | 0.512 | 0.032 | 0.007 | 5.67 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0852 | 0.0141 | 1.002 | 1.111 | 1.000 | 0.900 | 1.000 | 0.484 | 0.026 | 0.003 | 5.62 | 5 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0813 | 0.0069 | 1.001 | 1.055 | 1.000 | 0.951 | 1.000 | 0.495 | 0.036 | 0.004 | 5.59 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0755 | 0.0090 | 1.001 | 1.075 | 1.000 | 0.936 | 1.000 | 0.451 | 0.023 | 0.004 | 5.54 | 5 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0701 | 0.0077 | 1.001 | 1.068 | 1.000 | 0.944 | 1.000 | 0.426 | 0.017 | 0.002 | 5.50 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9997 | 0.0039 | 0.0542 | 0.0011 | 1.001 | 1.018 | 0.999 | 0.991 | 1.000 | 0.361 | 0.014 | 0.001 | 5.38 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0017 | 0.0477 | 0.0021 | 1.001 | 1.024 | 0.999 | 0.984 | 1.000 | 0.314 | 0.008 | 0.001 | 5.34 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0011 | 0.0462 | 0.0016 | 1.001 | 1.023 | 0.999 | 0.988 | 1.000 | 0.308 | 0.005 | 0.001 | 5.32 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0984 | 0.0132 | 1.002 | 1.088 | 1.000 | 0.908 | 1.000 | 0.560 | 0.050 | 0.008 | 5.72 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0910 | 0.0147 | 1.001 | 1.101 | 1.000 | 0.898 | 1.000 | 0.512 | 0.032 | 0.007 | 5.66 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0846 | 0.0133 | 1.002 | 1.101 | 1.000 | 0.906 | 1.000 | 0.484 | 0.026 | 0.003 | 5.61 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0811 | 0.0066 | 1.001 | 1.052 | 1.000 | 0.952 | 1.000 | 0.495 | 0.036 | 0.004 | 5.59 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0751 | 0.0085 | 1.001 | 1.068 | 1.000 | 0.939 | 1.000 | 0.451 | 0.023 | 0.004 | 5.54 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0697 | 0.0073 | 1.001 | 1.062 | 1.000 | 0.947 | 1.000 | 0.426 | 0.017 | 0.002 | 5.50 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9997 | 0.0039 | 0.0542 | 0.0011 | 1.001 | 1.018 | 0.999 | 0.991 | 1.000 | 0.361 | 0.014 | 0.001 | 5.38 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0017 | 0.0477 | 0.0020 | 1.001 | 1.023 | 0.999 | 0.985 | 1.000 | 0.314 | 0.008 | 0.001 | 5.34 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0011 | 0.0462 | 0.0016 | 1.001 | 1.023 | 0.999 | 0.988 | 1.000 | 0.308 | 0.005 | 0.001 | 5.32 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0974 | 0.5660 | 0.5446 | 1.014 | 1.676 | 1.000 | 0.009 | 1.000 | 0.126 | 0.102 | 0.104 | 14.64 | 7 | 25 | 40 | - | - | - | - |
| | 200 | 1.0000 | 0.0608 | 0.6142 | 0.6019 | 1.017 | 1.766 | 1.000 | 0.004 | 1.000 | 0.111 | 0.064 | 0.064 | 17.09 | 8 | 31 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0449 | 0.6336 | 0.6241 | 1.020 | 1.855 | 1.000 | 0.006 | 1.000 | 0.086 | 0.061 | 0.060 | 18.42 | 8 | 34.5 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9988 | 0.0256 | 0.1888 | 0.1820 | 1.010 | 1.720 | 0.995 | 0.451 | 1.000 | 0.033 | 0.027 | 0.034 | 7.52 | 5 | 18 | 34 | - | - | - | - |
| | 200 | 0.9987 | 0.0257 | 0.2963 | 0.2904 | 1.018 | 2.194 | 0.995 | 0.331 | 1.000 | 0.045 | 0.025 | 0.026 | 10.12 | 5 | 25 | 42 | - | - | - | - |
| | 300 | 0.9987 | 0.0225 | 0.3492 | 0.3443 | 1.025 | 2.517 | 0.994 | 0.283 | 1.000 | 0.038 | 0.032 | 0.032 | 11.71 | 5 | 29 | 52 | - | - | - | - |

Notes: See notes to Table 100.

**Table 136: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.0022 | 0.0304 | 0.0222 | 1.006 | 1.033 | 1.000 | 0.859 | 0.999 | 0.049 | 0.007 | 0.005 | 5.22 | 5 | 6 | 8 | 1.263 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0011 | 0.0312 | 0.0245 | 1.007 | 1.033 | 1.000 | 0.843 | 0.998 | 0.043 | 0.006 | 0.002 | 5.23 | 5 | 6 | 9 | 1.282 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0008 | 0.0316 | 0.0264 | 1.007 | 1.040 | 1.000 | 0.829 | 0.998 | 0.032 | 0.004 | 0.002 | 5.23 | 5 | 6 | 11 | 1.342 | 0.33 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0012 | 0.0173 | 0.0118 | 1.003 | 1.019 | 1.000 | 0.921 | 0.998 | 0.034 | 0.004 | 0.003 | 5.12 | 5 | 6 | 7 | 1.303 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0007 | 0.0179 | 0.0133 | 1.005 | 1.018 | 1.000 | 0.913 | 0.996 | 0.029 | 0.004 | 0.001 | 5.13 | 5 | 6 | 8 | 1.325 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0005 | 0.0198 | 0.0162 | 1.005 | 1.026 | 1.000 | 0.893 | 0.998 | 0.022 | 0.003 | 0.002 | 5.14 | 5 | 6 | 8 | 1.388 | 0.38 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0005 | 0.0064 | 0.0038 | 1.002 | 1.008 | 1.000 | 0.974 | 0.997 | 0.017 | 0.002 | 0.001 | 5.04 | 5 | 5 | 7 | 1.423 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9984 | 0.0002 | 0.0054 | 0.0033 | 1.004 | 1.009 | 1.000 | 0.977 | 0.992 | 0.014 | 0.001 | 0.001 | 5.03 | 5 | 5 | 7 | 1.453 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.9987 | 0.0001 | 0.0061 | 0.0045 | 1.003 | 1.012 | 1.000 | 0.970 | 0.994 | 0.010 | 0.002 | 0.000 | 5.04 | 5 | 5 | 7 | 1.498 | 0.50 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9994 | 0.0020 | 0.0272 | 0.0191 | 1.005 | 1.022 | 1.000 | 0.876 | 0.997 | 0.048 | 0.007 | 0.005 | 5.19 | 5 | 6 | 8 | 1.247 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9980 | 0.0010 | 0.0279 | 0.0213 | 1.007 | 1.022 | 1.000 | 0.863 | 0.990 | 0.042 | 0.005 | 0.002 | 5.19 | 5 | 6 | 9 | 1.253 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.9981 | 0.0007 | 0.0275 | 0.0225 | 1.007 | 1.028 | 1.000 | 0.854 | 0.991 | 0.032 | 0.004 | 0.002 | 5.19 | 5 | 6 | 9 | 1.310 | 0.31 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9985 | 0.0011 | 0.0156 | 0.0102 | 1.004 | 1.014 | 1.000 | 0.931 | 0.993 | 0.033 | 0.004 | 0.003 | 5.10 | 5 | 6 | 7 | 1.291 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9975 | 0.0006 | 0.0161 | 0.0117 | 1.006 | 1.014 | 1.000 | 0.924 | 0.988 | 0.028 | 0.004 | 0.001 | 5.10 | 5 | 6 | 8 | 1.307 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.9974 | 0.0004 | 0.0167 | 0.0133 | 1.007 | 1.022 | 1.000 | 0.912 | 0.987 | 0.021 | 0.003 | 0.002 | 5.11 | 5 | 6 | 8 | 1.360 | 0.36 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9973 | 0.0004 | 0.0054 | 0.0029 | 1.004 | 1.008 | 1.000 | 0.980 | 0.987 | 0.016 | 0.002 | 0.000 | 5.02 | 5 | 5 | 7 | 1.408 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9958 | 0.0002 | 0.0045 | 0.0025 | 1.007 | 1.009 | 1.000 | 0.983 | 0.979 | 0.013 | 0.001 | 0.001 | 5.01 | 5 | 5 | 7 | 1.436 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9948 | 0.0001 | 0.0053 | 0.0037 | 1.008 | 1.015 | 1.000 | 0.975 | 0.974 | 0.010 | 0.002 | 0.000 | 5.01 | 5 | 5 | 7 | 1.475 | 0.47 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9625 | 0.0649 | 0.4433 | 0.4269 | 1.063 | 1.109 | 0.819 | 0.066 | 1.000 | 0.084 | 0.067 | 0.072 | 11.24 | 5 | 21 | 44 | - | - | - | - |
| | 200 | 0.9625 | 0.0468 | 0.5187 | 0.5076 | 1.075 | 1.150 | 0.819 | 0.043 | 0.999 | 0.060 | 0.043 | 0.055 | 14.13 | 5 | 29.5 | 61 | - | - | - | - |
| | 300 | 0.9555 | 0.0393 | 0.5733 | 0.5642 | 1.084 | 1.174 | 0.787 | 0.023 | 1.000 | 0.061 | 0.048 | 0.052 | 16.54 | 6 | 36 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7843 | 0.0165 | 0.1376 | 0.1327 | 1.068 | 1.726 | 0.236 | 0.074 | 0.996 | 0.016 | 0.013 | 0.016 | 5.55 | 3 | 14.5 | 33 | - | - | - | - |
| | 200 | 0.8096 | 0.0171 | 0.2167 | 0.2124 | 1.085 | 1.767 | 0.308 | 0.074 | 0.996 | 0.017 | 0.016 | 0.021 | 7.46 | 3 | 22 | 44 | - | - | - | - |
| | 300 | 0.8227 | 0.0174 | 0.2844 | 0.2809 | 1.103 | 1.794 | 0.352 | 0.054 | 0.998 | 0.020 | 0.020 | 0.021 | 9.32 | 3 | 28 | 48 | - | - | - | - |

Notes: See notes to Table 100.

**Table 137: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0042 | 0.0574 | 0.0149 | 1.002 | 1.020 | 1.000 | 0.900 | 1.000 | 0.280 | 0.020 | 0.007 | 5.42 | 5 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0020 | 0.0535 | 0.0186 | 1.002 | 1.021 | 1.000 | 0.876 | 1.000 | 0.232 | 0.019 | 0.004 | 5.39 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0470 | 0.0167 | 1.002 | 1.024 | 1.000 | 0.886 | 1.000 | 0.207 | 0.012 | 0.001 | 5.34 | 5 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0030 | 0.0419 | 0.0080 | 1.001 | 1.012 | 1.000 | 0.947 | 1.000 | 0.224 | 0.014 | 0.004 | 5.30 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0013 | 0.0373 | 0.0094 | 1.001 | 1.011 | 1.000 | 0.936 | 1.000 | 0.184 | 0.013 | 0.004 | 5.27 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0336 | 0.0090 | 1.001 | 1.014 | 1.000 | 0.937 | 1.000 | 0.168 | 0.008 | 0.001 | 5.24 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0216 | 0.0014 | 1.000 | 1.003 | 1.000 | 0.991 | 1.000 | 0.136 | 0.008 | 0.001 | 5.15 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0191 | 0.0019 | 1.000 | 1.003 | 1.000 | 0.987 | 1.000 | 0.114 | 0.006 | 0.002 | 5.14 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0157 | 0.0017 | 1.000 | 1.004 | 1.000 | 0.988 | 1.000 | 0.098 | 0.001 | 0.000 | 5.11 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0041 | 0.0560 | 0.0135 | 1.001 | 1.014 | 1.000 | 0.910 | 1.000 | 0.280 | 0.020 | 0.007 | 5.41 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0523 | 0.0174 | 1.001 | 1.017 | 1.000 | 0.884 | 1.000 | 0.232 | 0.019 | 0.004 | 5.38 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0462 | 0.0158 | 1.001 | 1.020 | 1.000 | 0.892 | 1.000 | 0.207 | 0.012 | 0.001 | 5.34 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0030 | 0.0411 | 0.0072 | 1.001 | 1.009 | 1.000 | 0.952 | 1.000 | 0.224 | 0.014 | 0.004 | 5.29 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0365 | 0.0086 | 1.001 | 1.008 | 1.000 | 0.941 | 1.000 | 0.184 | 0.013 | 0.004 | 5.26 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0332 | 0.0087 | 1.001 | 1.012 | 1.000 | 0.939 | 1.000 | 0.168 | 0.008 | 0.001 | 5.24 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0015 | 0.0215 | 0.0013 | 1.000 | 1.003 | 1.000 | 0.991 | 1.000 | 0.136 | 0.008 | 0.001 | 5.15 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0190 | 0.0018 | 1.000 | 1.002 | 1.000 | 0.988 | 1.000 | 0.114 | 0.006 | 0.002 | 5.14 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0155 | 0.0014 | 1.000 | 1.002 | 1.000 | 0.990 | 1.000 | 0.098 | 0.001 | 0.000 | 5.11 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0624 | 0.4314 | 0.4146 | 1.019 | 1.123 | 0.999 | 0.070 | 1.000 | 0.099 | 0.068 | 0.073 | 11.18 | 5 | 20 | 36 | - | - | - | - |
| | 200 | 0.9994 | 0.0397 | 0.4816 | 0.4711 | 1.023 | 1.135 | 0.997 | 0.046 | 1.000 | 0.077 | 0.055 | 0.041 | 12.91 | 6 | 26 | 56 | - | - | - | - |
| | 300 | 0.9993 | 0.0303 | 0.5051 | 0.4967 | 1.024 | 1.152 | 0.997 | 0.049 | 1.000 | 0.060 | 0.041 | 0.034 | 14.05 | 6 | 28 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9596 | 0.0146 | 0.1048 | 0.1016 | 1.019 | 1.726 | 0.807 | 0.571 | 1.000 | 0.022 | 0.017 | 0.019 | 6.24 | 4 | 14 | 28 | - | - | - | - |
| | 200 | 0.9626 | 0.0133 | 0.1660 | 0.1624 | 1.024 | 1.735 | 0.820 | 0.492 | 1.000 | 0.020 | 0.017 | 0.015 | 7.46 | 4 | 19 | 39 | - | - | - | - |
| | 300 | 0.9669 | 0.0120 | 0.2041 | 0.2008 | 1.029 | 1.784 | 0.838 | 0.461 | 1.000 | 0.016 | 0.015 | 0.011 | 8.42 | 4 | 21 | 46 | - | - | - | - |

Notes: See notes to Table 100.

## Table 138: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables

$\omega = 0.8$, $T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1024 | 0.0143 | 1.001 | 1.019 | 1.000 | 0.899 | 1.000 | 0.581 | 0.049 | 0.012 | 5.75 | 5 | 7 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0900 | 0.0148 | 1.001 | 1.021 | 1.000 | 0.896 | 1.000 | 0.502 | 0.038 | 0.005 | 5.66 | 5 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0900 | 0.0169 | 1.001 | 1.028 | 1.000 | 0.883 | 1.000 | 0.496 | 0.026 | 0.007 | 5.66 | 5 | 7 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0835 | 0.0073 | 1.001 | 1.012 | 1.000 | 0.947 | 1.000 | 0.510 | 0.032 | 0.006 | 5.60 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0026 | 0.0732 | 0.0084 | 1.001 | 1.014 | 1.000 | 0.939 | 1.000 | 0.434 | 0.028 | 0.003 | 5.53 | 5 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0018 | 0.0730 | 0.0087 | 1.001 | 1.016 | 1.000 | 0.937 | 1.000 | 0.439 | 0.017 | 0.004 | 5.52 | 5 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0565 | 0.0018 | 1.001 | 1.004 | 1.000 | 0.988 | 1.000 | 0.373 | 0.012 | 0.002 | 5.40 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0470 | 0.0018 | 1.000 | 1.005 | 1.000 | 0.987 | 1.000 | 0.306 | 0.014 | 0.001 | 5.33 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0477 | 0.0018 | 1.000 | 1.004 | 1.000 | 0.987 | 1.000 | 0.317 | 0.006 | 0.001 | 5.34 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1015 | 0.0133 | 1.001 | 1.016 | 1.000 | 0.906 | 1.000 | 0.581 | 0.048 | 0.012 | 5.74 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0893 | 0.0142 | 1.001 | 1.018 | 1.000 | 0.901 | 1.000 | 0.501 | 0.038 | 0.005 | 5.65 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0890 | 0.0158 | 1.001 | 1.022 | 1.000 | 0.890 | 1.000 | 0.496 | 0.026 | 0.007 | 5.65 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0828 | 0.0066 | 1.001 | 1.009 | 1.000 | 0.953 | 1.000 | 0.510 | 0.031 | 0.006 | 5.60 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0026 | 0.0726 | 0.0079 | 1.001 | 1.012 | 1.000 | 0.943 | 1.000 | 0.433 | 0.028 | 0.003 | 5.52 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0723 | 0.0079 | 1.001 | 1.012 | 1.000 | 0.942 | 1.000 | 0.439 | 0.017 | 0.004 | 5.52 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0564 | 0.0017 | 1.001 | 1.003 | 1.000 | 0.989 | 1.000 | 0.373 | 0.012 | 0.002 | 5.40 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0015 | 1.000 | 1.003 | 1.000 | 0.990 | 1.000 | 0.306 | 0.014 | 0.001 | 5.33 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0477 | 0.0018 | 1.000 | 1.004 | 1.000 | 0.987 | 1.000 | 0.317 | 0.006 | 0.001 | 5.34 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0645 | 0.4306 | 0.4130 | 1.011 | 1.120 | 1.000 | 0.066 | 1.000 | 0.103 | 0.069 | 0.075 | 11.39 | 5 | 23 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0390 | 0.4756 | 0.4640 | 1.013 | 1.139 | 1.000 | 0.069 | 1.000 | 0.077 | 0.048 | 0.047 | 12.76 | 5 | 28 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0293 | 0.4899 | 0.4818 | 1.015 | 1.151 | 1.000 | 0.069 | 1.000 | 0.060 | 0.034 | 0.033 | 13.78 | 5 | 25 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9910 | 0.0146 | 0.1058 | 0.1019 | 1.009 | 1.617 | 0.955 | 0.722 | 1.000 | 0.020 | 0.013 | 0.022 | 6.40 | 5 | 15 | 31 | - | - | - | - |
| | 200 | 0.9905 | 0.0121 | 0.1602 | 0.1566 | 1.012 | 1.654 | 0.953 | 0.627 | 1.000 | 0.021 | 0.014 | 0.013 | 7.36 | 5 | 16 | 35 | - | - | - | - |
| | 300 | 0.9920 | 0.0111 | 0.2063 | 0.2040 | 1.015 | 1.682 | 0.960 | 0.574 | 1.000 | 0.020 | 0.010 | 0.015 | 8.28 | 5 | 18 | 43 | - | - | - | - |

Notes: See notes to Table 100.

**Table 139: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9914 | 0.0021 | 0.0293 | 0.0218 | 1.013 | 1.041 | 1.000 | 0.858 | 0.957 | 0.044 | 0.004 | 0.007 | 5.17 | 5 | 6 | 9 | 1.227 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9864 | 0.0011 | 0.0304 | 0.0241 | 1.018 | 1.050 | 1.000 | 0.848 | 0.932 | 0.040 | 0.004 | 0.004 | 5.15 | 4 | 6 | 9 | 1.233 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.9825 | 0.0007 | 0.0302 | 0.0256 | 1.022 | 1.056 | 0.998 | 0.839 | 0.915 | 0.026 | 0.005 | 0.004 | 5.13 | 4 | 6 | 8 | 1.249 | 0.24 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9882 | 0.0012 | 0.0162 | 0.0109 | 1.013 | 1.027 | 1.000 | 0.928 | 0.941 | 0.033 | 0.004 | 0.002 | 5.06 | 4 | 6 | 8 | 1.249 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9829 | 0.0007 | 0.0182 | 0.0138 | 1.019 | 1.040 | 1.000 | 0.909 | 0.915 | 0.029 | 0.002 | 0.001 | 5.04 | 4 | 6 | 8 | 1.267 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.9783 | 0.0004 | 0.0179 | 0.0144 | 1.022 | 1.041 | 0.995 | 0.905 | 0.899 | 0.020 | 0.004 | 0.003 | 5.02 | 4 | 6 | 8 | 1.286 | 0.28 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9792 | 0.0003 | 0.0049 | 0.0025 | 1.018 | 1.023 | 0.998 | 0.981 | 0.898 | 0.014 | 0.002 | 0.001 | 4.93 | 4 | 5 | 8 | 1.332 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9736 | 0.0002 | 0.0066 | 0.0043 | 1.024 | 1.028 | 0.996 | 0.968 | 0.873 | 0.016 | 0.001 | 0.001 | 4.91 | 4 | 5 | 7 | 1.342 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.9656 | 0.0001 | 0.0048 | 0.0033 | 1.029 | 1.032 | 0.992 | 0.969 | 0.842 | 0.009 | 0.002 | 0.001 | 4.86 | 4 | 5 | 8 | 1.352 | 0.35 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9820 | 0.0019 | 0.0259 | 0.0186 | 1.020 | 1.038 | 1.000 | 0.881 | 0.910 | 0.043 | 0.004 | 0.006 | 5.10 | 4 | 6 | 8 | 1.156 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9751 | 0.0010 | 0.0274 | 0.0211 | 1.027 | 1.045 | 1.000 | 0.865 | 0.876 | 0.040 | 0.003 | 0.004 | 5.07 | 4 | 6 | 8 | 1.158 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.9687 | 0.0007 | 0.0279 | 0.0234 | 1.034 | 1.055 | 0.998 | 0.852 | 0.846 | 0.025 | 0.005 | 0.004 | 5.04 | 4 | 6 | 8 | 1.163 | 0.16 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9778 | 0.0011 | 0.0148 | 0.0096 | 1.022 | 1.031 | 1.000 | 0.937 | 0.889 | 0.032 | 0.004 | 0.002 | 4.99 | 4 | 6 | 8 | 1.187 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9689 | 0.0006 | 0.0160 | 0.0116 | 1.030 | 1.039 | 1.000 | 0.924 | 0.845 | 0.029 | 0.002 | 0.001 | 4.96 | 4 | 6 | 8 | 1.183 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.9619 | 0.0004 | 0.0165 | 0.0131 | 1.037 | 1.049 | 0.995 | 0.913 | 0.817 | 0.019 | 0.004 | 0.002 | 4.92 | 4 | 6 | 8 | 1.194 | 0.19 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9649 | 0.0003 | 0.0046 | 0.0023 | 1.031 | 1.034 | 0.998 | 0.983 | 0.827 | 0.014 | 0.002 | 0.001 | 4.86 | 4 | 5 | 8 | 1.259 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9536 | 0.0002 | 0.0057 | 0.0034 | 1.042 | 1.042 | 0.996 | 0.974 | 0.773 | 0.016 | 0.000 | 0.001 | 4.81 | 4 | 5 | 7 | 1.238 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.9430 | 0.0001 | 0.0045 | 0.0033 | 1.050 | 1.051 | 0.992 | 0.970 | 0.729 | 0.008 | 0.001 | 0.001 | 4.75 | 4 | 5 | 8 | 1.238 | 0.24 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8648 | 0.0588 | 0.4309 | 0.4143 | 1.059 | 0.975 | 0.434 | 0.035 | 0.998 | 0.088 | 0.065 | 0.077 | 10.14 | 4 | 20 | 43 | - | - | - | - |
| | 200 | 0.8603 | 0.0447 | 0.5207 | 0.5099 | 1.073 | 1.015 | 0.425 | 0.020 | 0.996 | 0.063 | 0.048 | 0.056 | 13.19 | 4 | 29 | 55 | - | - | - | - |
| | 300 | 0.8500 | 0.0384 | 0.5763 | 0.5685 | 1.084 | 1.048 | 0.389 | 0.014 | 0.995 | 0.061 | 0.035 | 0.048 | 15.72 | 5 | 35 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6365 | 0.0145 | 0.1489 | 0.1433 | 1.057 | 1.459 | 0.046 | 0.010 | 0.976 | 0.014 | 0.016 | 0.024 | 4.62 | 2 | 11.5 | 27 | - | - | - | - |
| | 200 | 0.6594 | 0.0173 | 0.2487 | 0.2438 | 1.077 | 1.535 | 0.076 | 0.004 | 0.971 | 0.023 | 0.015 | 0.020 | 6.73 | 2 | 21 | 45 | - | - | - | - |
| | 300 | 0.6644 | 0.0172 | 0.3162 | 0.3120 | 1.098 | 1.593 | 0.080 | 0.004 | 0.968 | 0.024 | 0.013 | 0.026 | 8.47 | 2 | 28 | 57 | - | - | - | - |

Notes: See notes to Table 100.

**Table 140: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0615 | 0.0162 | 1.002 | 1.026 | 1.000 | 0.889 | 1.000 | 0.295 | 0.027 | 0.009 | 5.45 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0020 | 0.0537 | 0.0185 | 1.002 | 1.034 | 1.000 | 0.880 | 1.000 | 0.237 | 0.014 | 0.003 | 5.39 | 5 | 7 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0477 | 0.0174 | 1.002 | 1.031 | 1.000 | 0.882 | 1.000 | 0.205 | 0.013 | 0.002 | 5.35 | 5 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0455 | 0.0086 | 1.001 | 1.015 | 1.000 | 0.940 | 1.000 | 0.240 | 0.021 | 0.005 | 5.33 | 5 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0376 | 0.0088 | 1.001 | 1.018 | 1.000 | 0.942 | 1.000 | 0.194 | 0.011 | 0.002 | 5.27 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0333 | 0.0097 | 1.001 | 1.019 | 1.000 | 0.934 | 1.000 | 0.159 | 0.010 | 0.002 | 5.24 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0231 | 0.0016 | 1.000 | 1.003 | 1.000 | 0.988 | 1.000 | 0.143 | 0.009 | 0.001 | 5.17 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0188 | 0.0020 | 1.000 | 1.004 | 1.000 | 0.987 | 1.000 | 0.114 | 0.004 | 0.001 | 5.13 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0150 | 0.0017 | 1.001 | 1.005 | 1.000 | 0.988 | 1.000 | 0.090 | 0.004 | 0.001 | 5.11 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0603 | 0.0151 | 1.002 | 1.022 | 1.000 | 0.896 | 1.000 | 0.294 | 0.026 | 0.009 | 5.44 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0520 | 0.0169 | 1.002 | 1.026 | 1.000 | 0.891 | 1.000 | 0.237 | 0.014 | 0.003 | 5.38 | 5 | 6.5 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0470 | 0.0166 | 1.002 | 1.028 | 1.000 | 0.887 | 1.000 | 0.205 | 0.013 | 0.002 | 5.34 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0448 | 0.0080 | 1.001 | 1.012 | 1.000 | 0.944 | 1.000 | 0.240 | 0.021 | 0.005 | 5.32 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0369 | 0.0081 | 1.001 | 1.014 | 1.000 | 0.947 | 1.000 | 0.194 | 0.011 | 0.002 | 5.27 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0328 | 0.0092 | 1.001 | 1.016 | 1.000 | 0.937 | 1.000 | 0.159 | 0.010 | 0.002 | 5.24 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0229 | 0.0014 | 1.000 | 1.002 | 1.000 | 0.990 | 1.000 | 0.143 | 0.009 | 0.001 | 5.16 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0186 | 0.0018 | 1.000 | 1.003 | 1.000 | 0.988 | 1.000 | 0.114 | 0.004 | 0.001 | 5.13 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0150 | 0.0017 | 1.001 | 1.005 | 1.000 | 0.988 | 1.000 | 0.090 | 0.004 | 0.001 | 5.11 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9819 | 0.0634 | 0.4356 | 0.4177 | 1.019 | 1.095 | 0.911 | 0.067 | 1.000 | 0.089 | 0.064 | 0.074 | 11.18 | 5 | 21 | 37 | - | - | - | - |
| | 200 | 0.9822 | 0.0396 | 0.4863 | 0.4760 | 1.022 | 1.122 | 0.912 | 0.044 | 1.000 | 0.072 | 0.048 | 0.048 | 12.80 | 5 | 25 | 49 | - | - | - | - |
| | 300 | 0.9820 | 0.0314 | 0.5228 | 0.5143 | 1.024 | 1.139 | 0.911 | 0.034 | 1.000 | 0.061 | 0.037 | 0.036 | 14.30 | 6 | 29 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8417 | 0.0131 | 0.1065 | 0.1027 | 1.019 | 1.744 | 0.364 | 0.175 | 1.000 | 0.017 | 0.013 | 0.015 | 5.50 | 3 | 13 | 29 | - | - | - | - |
| | 200 | 0.8588 | 0.0132 | 0.1744 | 0.1713 | 1.026 | 1.787 | 0.424 | 0.153 | 1.000 | 0.022 | 0.020 | 0.022 | 6.92 | 3 | 20 | 44 | - | - | - | - |
| | 300 | 0.8697 | 0.0131 | 0.2230 | 0.2200 | 1.033 | 1.842 | 0.469 | 0.137 | 1.000 | 0.020 | 0.018 | 0.015 | 8.27 | 3 | 24 | 53 | - | - | - | - |

Notes: See notes to Table 100.

## Table 141: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables

$\omega = 0.8$, $T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1016 | 0.0152 | 1.001 | 1.027 | 1.000 | 0.895 | 1.000 | 0.574 | 0.045 | 0.007 | 5.74 | 5 | 7 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0910 | 0.0151 | 1.001 | 1.028 | 1.000 | 0.895 | 1.000 | 0.514 | 0.031 | 0.002 | 5.66 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0897 | 0.0172 | 1.001 | 1.032 | 1.000 | 0.877 | 1.000 | 0.483 | 0.040 | 0.006 | 5.66 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0841 | 0.0077 | 1.001 | 1.015 | 1.000 | 0.944 | 1.000 | 0.511 | 0.032 | 0.004 | 5.60 | 5 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0749 | 0.0086 | 1.001 | 1.016 | 1.000 | 0.939 | 1.000 | 0.454 | 0.018 | 0.002 | 5.54 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0716 | 0.0082 | 1.001 | 1.016 | 1.000 | 0.942 | 1.000 | 0.427 | 0.024 | 0.003 | 5.52 | 5 | 6.5 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0562 | 0.0018 | 1.001 | 1.005 | 1.000 | 0.987 | 1.000 | 0.372 | 0.011 | 0.002 | 5.40 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0018 | 0.0494 | 0.0024 | 1.000 | 1.005 | 1.000 | 0.984 | 1.000 | 0.325 | 0.006 | 0.001 | 5.35 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0472 | 0.0022 | 1.001 | 1.005 | 1.000 | 0.984 | 1.000 | 0.310 | 0.008 | 0.001 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0074 | 0.1005 | 0.0141 | 1.001 | 1.022 | 1.000 | 0.902 | 1.000 | 0.573 | 0.045 | 0.007 | 5.73 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0904 | 0.0145 | 1.001 | 1.025 | 1.000 | 0.900 | 1.000 | 0.514 | 0.031 | 0.002 | 5.66 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0888 | 0.0162 | 1.001 | 1.027 | 1.000 | 0.885 | 1.000 | 0.483 | 0.040 | 0.006 | 5.65 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0833 | 0.0069 | 1.001 | 1.012 | 1.000 | 0.949 | 1.000 | 0.511 | 0.032 | 0.004 | 5.60 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0745 | 0.0082 | 1.001 | 1.014 | 1.000 | 0.942 | 1.000 | 0.454 | 0.018 | 0.002 | 5.53 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0712 | 0.0078 | 1.001 | 1.014 | 1.000 | 0.945 | 1.000 | 0.427 | 0.024 | 0.003 | 5.51 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0559 | 0.0015 | 1.000 | 1.003 | 1.000 | 0.990 | 1.000 | 0.372 | 0.011 | 0.002 | 5.40 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0493 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.984 | 1.000 | 0.325 | 0.006 | 0.001 | 5.35 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0471 | 0.0020 | 1.001 | 1.004 | 1.000 | 0.985 | 1.000 | 0.310 | 0.008 | 0.001 | 5.33 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9979 | 0.0642 | 0.4391 | 0.4211 | 1.011 | 1.115 | 0.990 | 0.071 | 1.000 | 0.101 | 0.072 | 0.078 | 11.35 | 5 | 22 | 39 | - | - | - | - |
| | 200 | 0.9966 | 0.0416 | 0.4904 | 0.4796 | 1.013 | 1.133 | 0.983 | 0.048 | 1.000 | 0.080 | 0.047 | 0.041 | 13.25 | 6 | 26 | 51 | - | - | - | - |
| | 300 | 0.9977 | 0.0298 | 0.5064 | 0.4983 | 1.015 | 1.145 | 0.989 | 0.044 | 1.000 | 0.071 | 0.037 | 0.036 | 13.89 | 6 | 29 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9268 | 0.0138 | 0.0995 | 0.0961 | 1.011 | 1.782 | 0.663 | 0.431 | 1.000 | 0.012 | 0.013 | 0.015 | 6.00 | 4 | 15 | 26 | - | - | - | - |
| | 200 | 0.9313 | 0.0134 | 0.1643 | 0.1607 | 1.015 | 1.796 | 0.685 | 0.358 | 1.000 | 0.017 | 0.017 | 0.010 | 7.32 | 4 | 19 | 41 | - | - | - | - |
| | 300 | 0.9384 | 0.0116 | 0.1981 | 0.1956 | 1.018 | 1.829 | 0.713 | 0.347 | 1.000 | 0.025 | 0.016 | 0.012 | 8.17 | 4 | 23 | 51 | - | - | - | - |

Notes: See notes to Table 100.

**Table 142: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9426 | 0.0023 | 0.0324 | 0.0224 | 1.026 | 1.031 | 0.921 | 0.794 | 0.849 | 0.058 | 0.008 | 0.008 | 4.94 | 4 | 6 | 9 | 1.110 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9255 | 0.0011 | 0.0316 | 0.0247 | 1.031 | 1.032 | 0.895 | 0.767 | 0.803 | 0.038 | 0.008 | 0.003 | 4.84 | 3 | 6 | 8 | 1.123 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.9078 | 0.0008 | 0.0349 | 0.0296 | 1.036 | 1.042 | 0.862 | 0.717 | 0.792 | 0.030 | 0.004 | 0.004 | 4.77 | 3 | 6 | 8 | 1.111 | 0.11 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9207 | 0.0014 | 0.0203 | 0.0127 | 1.029 | 1.014 | 0.883 | 0.815 | 0.808 | 0.041 | 0.006 | 0.005 | 4.74 | 3 | 6 | 8 | 1.114 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9031 | 0.0006 | 0.0190 | 0.0137 | 1.034 | 1.010 | 0.862 | 0.794 | 0.762 | 0.031 | 0.005 | 0.001 | 4.64 | 3 | 6 | 8 | 1.126 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.8817 | 0.0004 | 0.0195 | 0.0162 | 1.038 | 1.015 | 0.822 | 0.750 | 0.750 | 0.019 | 0.002 | 0.002 | 4.53 | 2 | 6 | 8 | 1.118 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8620 | 0.0005 | 0.0083 | 0.0039 | 1.038 | 0.985 | 0.775 | 0.761 | 0.730 | 0.025 | 0.002 | 0.001 | 4.36 | 2 | 5 | 7 | 1.148 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8334 | 0.0002 | 0.0064 | 0.0036 | 1.048 | 0.981 | 0.745 | 0.731 | 0.659 | 0.015 | 0.003 | 0.001 | 4.21 | 2 | 5 | 7 | 1.147 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.8056 | 0.0001 | 0.0068 | 0.0048 | 1.052 | 0.988 | 0.698 | 0.684 | 0.647 | 0.011 | 0.001 | 0.001 | 4.06 | 1 | 5 | 7 | 1.140 | 0.14 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9339 | 0.0021 | 0.0300 | 0.0199 | 1.030 | 1.025 | 0.921 | 0.809 | 0.806 | 0.058 | 0.008 | 0.008 | 4.88 | 4 | 6 | 9 | 1.049 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9113 | 0.0010 | 0.0300 | 0.0230 | 1.039 | 1.028 | 0.895 | 0.777 | 0.738 | 0.038 | 0.008 | 0.003 | 4.76 | 3 | 6 | 8 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8953 | 0.0007 | 0.0331 | 0.0279 | 1.043 | 1.039 | 0.862 | 0.727 | 0.735 | 0.030 | 0.004 | 0.004 | 4.69 | 3 | 6 | 8 | 1.037 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9104 | 0.0013 | 0.0190 | 0.0114 | 1.034 | 1.012 | 0.883 | 0.823 | 0.761 | 0.041 | 0.006 | 0.005 | 4.68 | 3 | 6 | 8 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8867 | 0.0006 | 0.0182 | 0.0129 | 1.044 | 1.010 | 0.862 | 0.798 | 0.686 | 0.031 | 0.005 | 0.001 | 4.55 | 3 | 6 | 8 | 1.041 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8670 | 0.0004 | 0.0189 | 0.0156 | 1.047 | 1.017 | 0.821 | 0.753 | 0.686 | 0.018 | 0.002 | 0.002 | 4.45 | 2 | 6 | 8 | 1.043 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8465 | 0.0005 | 0.0081 | 0.0037 | 1.047 | 0.988 | 0.773 | 0.760 | 0.662 | 0.025 | 0.002 | 0.001 | 4.28 | 2 | 5 | 7 | 1.076 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8146 | 0.0002 | 0.0062 | 0.0034 | 1.060 | 0.982 | 0.744 | 0.731 | 0.578 | 0.014 | 0.003 | 0.001 | 4.11 | 1 | 5 | 7 | 1.058 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.7867 | 0.0001 | 0.0066 | 0.0046 | 1.063 | 0.989 | 0.697 | 0.684 | 0.565 | 0.011 | 0.001 | 0.001 | 3.97 | 1 | 5 | 7 | 1.051 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7291 | 0.0617 | 0.4766 | 0.4591 | 1.052 | 0.812 | 0.129 | 0.006 | 0.986 | 0.073 | 0.078 | 0.073 | 9.76 | 4 | 20 | 40 | - | - | - | - |
| | 200 | 0.7142 | 0.0458 | 0.5664 | 0.5546 | 1.064 | 0.857 | 0.117 | 0.004 | 0.983 | 0.064 | 0.045 | 0.059 | 12.69 | 4 | 28 | 61 | - | - | - | - |
| | 300 | 0.7104 | 0.0398 | 0.6256 | 0.6171 | 1.071 | 0.884 | 0.113 | 0.004 | 0.975 | 0.060 | 0.036 | 0.046 | 15.46 | 4 | 34 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5215 | 0.0196 | 0.2226 | 0.2149 | 1.047 | 1.170 | 0.007 | 0.001 | 0.931 | 0.018 | 0.021 | 0.028 | 4.55 | 2 | 11 | 33 | - | - | - | - |
| | 200 | 0.5368 | 0.0192 | 0.3225 | 0.3161 | 1.066 | 1.288 | 0.007 | 0.000 | 0.939 | 0.020 | 0.021 | 0.024 | 6.51 | 2 | 19 | 53 | - | - | - | - |
| | 300 | 0.5512 | 0.0197 | 0.4099 | 0.4047 | 1.089 | 1.381 | 0.014 | 0.000 | 0.938 | 0.026 | 0.019 | 0.023 | 8.66 | 2 | 26 | 67 | - | - | - | - |

Notes: See notes to Table 100.

**Table 143: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0620 | 0.0154 | 1.002 | 1.032 | 1.000 | 0.895 | 1.000 | 0.306 | 0.026 | 0.007 | 5.45 | 5 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0019 | 0.0520 | 0.0173 | 1.003 | 1.033 | 1.000 | 0.884 | 1.000 | 0.234 | 0.015 | 0.003 | 5.38 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0472 | 0.0156 | 1.003 | 1.034 | 1.000 | 0.895 | 1.000 | 0.212 | 0.015 | 0.001 | 5.34 | 5 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0470 | 0.0090 | 1.002 | 1.020 | 1.000 | 0.938 | 1.000 | 0.252 | 0.017 | 0.004 | 5.34 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0013 | 0.0371 | 0.0084 | 1.002 | 1.018 | 1.000 | 0.943 | 1.000 | 0.194 | 0.011 | 0.001 | 5.27 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0339 | 0.0084 | 1.002 | 1.020 | 1.000 | 0.942 | 1.000 | 0.171 | 0.010 | 0.001 | 5.24 | 5 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0229 | 0.0016 | 1.001 | 1.005 | 1.000 | 0.989 | 1.000 | 0.144 | 0.008 | 0.000 | 5.16 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0189 | 0.0024 | 1.001 | 1.006 | 1.000 | 0.984 | 1.000 | 0.114 | 0.002 | 0.001 | 5.13 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0172 | 0.0021 | 1.001 | 1.006 | 1.000 | 0.986 | 1.000 | 0.103 | 0.004 | 0.000 | 5.12 | 5 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0614 | 0.0148 | 1.002 | 1.030 | 1.000 | 0.899 | 1.000 | 0.306 | 0.026 | 0.007 | 5.45 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0513 | 0.0166 | 1.002 | 1.030 | 1.000 | 0.889 | 1.000 | 0.234 | 0.014 | 0.003 | 5.37 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0462 | 0.0145 | 1.002 | 1.030 | 1.000 | 0.902 | 1.000 | 0.212 | 0.015 | 0.001 | 5.33 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0465 | 0.0086 | 1.001 | 1.018 | 1.000 | 0.941 | 1.000 | 0.252 | 0.017 | 0.004 | 5.34 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0366 | 0.0080 | 1.001 | 1.016 | 1.000 | 0.946 | 1.000 | 0.194 | 0.011 | 0.001 | 5.26 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0008 | 0.0334 | 0.0080 | 1.002 | 1.018 | 1.000 | 0.945 | 1.000 | 0.171 | 0.010 | 0.001 | 5.24 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0228 | 0.0015 | 1.000 | 1.004 | 1.000 | 0.990 | 1.000 | 0.144 | 0.008 | 0.000 | 5.16 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0007 | 0.0188 | 0.0023 | 1.001 | 1.006 | 1.000 | 0.985 | 1.000 | 0.114 | 0.002 | 0.001 | 5.13 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0168 | 0.0017 | 1.001 | 1.005 | 1.000 | 0.988 | 1.000 | 0.103 | 0.004 | 0.000 | 5.12 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9126 | 0.0636 | 0.4493 | 0.4308 | 1.017 | 1.018 | 0.602 | 0.030 | 1.000 | 0.101 | 0.068 | 0.074 | 10.86 | 5 | 22 | 46 | - | - | - | - |
| | 200 | 0.9055 | 0.0392 | 0.4996 | 0.4889 | 1.022 | 1.021 | 0.574 | 0.027 | 1.000 | 0.076 | 0.047 | 0.052 | 12.33 | 5 | 25 | 45 | - | - | - | - |
| | 300 | 0.9020 | 0.0311 | 0.5345 | 0.5251 | 1.025 | 1.031 | 0.559 | 0.018 | 1.000 | 0.059 | 0.034 | 0.034 | 13.82 | 5 | 29 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6954 | 0.0141 | 0.1374 | 0.1326 | 1.016 | 1.566 | 0.094 | 0.023 | 1.000 | 0.015 | 0.017 | 0.020 | 4.87 | 2 | 11 | 31 | - | - | - | - |
| | 200 | 0.7124 | 0.0123 | 0.1938 | 0.1896 | 1.022 | 1.601 | 0.126 | 0.023 | 1.000 | 0.020 | 0.016 | 0.021 | 6.01 | 2 | 17 | 36 | - | - | - | - |
| | 300 | 0.7301 | 0.0136 | 0.2639 | 0.2597 | 1.031 | 1.670 | 0.148 | 0.013 | 1.000 | 0.020 | 0.012 | 0.017 | 7.72 | 2 | 24 | 61 | - | - | - | - |

Notes: See notes to Table 100.

**Table 144: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0074 | 0.1002 | 0.0122 | 1.001 | 1.025 | 1.000 | 0.913 | 1.000 | 0.579 | 0.049 | 0.010 | 5.73 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0928 | 0.0142 | 1.001 | 1.033 | 1.000 | 0.898 | 1.000 | 0.528 | 0.033 | 0.006 | 5.68 | 5 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0820 | 0.0129 | 1.001 | 1.029 | 1.000 | 0.907 | 1.000 | 0.465 | 0.028 | 0.006 | 5.60 | 5 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0834 | 0.0063 | 1.001 | 1.014 | 1.000 | 0.956 | 1.000 | 0.511 | 0.036 | 0.006 | 5.60 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0766 | 0.0075 | 1.001 | 1.020 | 1.000 | 0.946 | 1.000 | 0.468 | 0.023 | 0.003 | 5.55 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0676 | 0.0068 | 1.001 | 1.016 | 1.000 | 0.951 | 1.000 | 0.408 | 0.023 | 0.005 | 5.49 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0560 | 0.0010 | 1.001 | 1.002 | 1.000 | 0.994 | 1.000 | 0.373 | 0.016 | 0.003 | 5.40 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0490 | 0.0014 | 1.000 | 1.004 | 1.000 | 0.990 | 1.000 | 0.326 | 0.011 | 0.001 | 5.35 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0440 | 0.0011 | 1.000 | 1.004 | 1.000 | 0.992 | 1.000 | 0.294 | 0.009 | 0.001 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0991 | 0.0110 | 1.001 | 1.020 | 1.000 | 0.921 | 1.000 | 0.579 | 0.049 | 0.010 | 5.72 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0034 | 0.0923 | 0.0137 | 1.001 | 1.030 | 1.000 | 0.902 | 1.000 | 0.528 | 0.033 | 0.006 | 5.67 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0813 | 0.0121 | 1.001 | 1.025 | 1.000 | 0.913 | 1.000 | 0.465 | 0.028 | 0.006 | 5.59 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0827 | 0.0056 | 1.001 | 1.011 | 1.000 | 0.960 | 1.000 | 0.511 | 0.036 | 0.006 | 5.60 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0761 | 0.0070 | 1.001 | 1.018 | 1.000 | 0.949 | 1.000 | 0.468 | 0.023 | 0.003 | 5.55 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0673 | 0.0064 | 1.001 | 1.014 | 1.000 | 0.954 | 1.000 | 0.408 | 0.023 | 0.005 | 5.48 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0560 | 0.0010 | 1.001 | 1.002 | 1.000 | 0.994 | 1.000 | 0.373 | 0.016 | 0.003 | 5.40 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0490 | 0.0014 | 1.000 | 1.004 | 1.000 | 0.990 | 1.000 | 0.326 | 0.011 | 0.001 | 5.35 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0440 | 0.0010 | 1.000 | 1.003 | 1.000 | 0.993 | 1.000 | 0.294 | 0.009 | 0.001 | 5.31 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9664 | 0.0639 | 0.4481 | 0.4291 | 1.011 | 1.068 | 0.835 | 0.045 | 1.000 | 0.089 | 0.081 | 0.084 | 11.16 | 5 | 20 | 35 | - | - | - | - |
| | 200 | 0.9629 | 0.0412 | 0.4995 | 0.4888 | 1.013 | 1.082 | 0.818 | 0.037 | 1.000 | 0.073 | 0.049 | 0.043 | 13.01 | 5 | 26 | 50 | - | - | - | - |
| | 300 | 0.9595 | 0.0307 | 0.5260 | 0.5174 | 1.014 | 1.093 | 0.801 | 0.033 | 1.000 | 0.065 | 0.037 | 0.035 | 13.99 | 5 | 29 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7843 | 0.0143 | 0.1167 | 0.1124 | 1.012 | 1.709 | 0.236 | 0.090 | 1.000 | 0.017 | 0.018 | 0.019 | 5.34 | 3 | 14 | 30 | - | - | - | - |
| | 200 | 0.8019 | 0.0145 | 0.1919 | 0.1877 | 1.016 | 1.745 | 0.291 | 0.074 | 1.000 | 0.022 | 0.017 | 0.014 | 6.89 | 3 | 20 | 40 | - | - | - | - |
| | 300 | 0.8101 | 0.0122 | 0.2238 | 0.2209 | 1.019 | 1.782 | 0.298 | 0.069 | 1.000 | 0.024 | 0.015 | 0.014 | 7.71 | 3 | 23 | 47 | - | - | - | - |

Notes: See notes to Table 100.

### 3.2.2 Findings for designs featuring pseudo-signals

## Table 145: MC findings for DGPII(a)

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.0224 | 0.2669 | 0.0198 | 1.017 | 1.423 | 1.000 | 0.000 | 0.962 | 0.803 | 0.999 | 0.059 | 0.012 | 0.006 | 7.22 | 7 | 8 | 11 | 1.259 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9993 | 0.0109 | 0.2634 | 0.0213 | 1.018 | 1.436 | 1.000 | 0.002 | 0.948 | 0.784 | 0.997 | 0.032 | 0.002 | 0.003 | 7.18 | 7 | 8 | 11 | 1.304 | 0.30 | 0.01 | 0.00 |
| | 300 | 0.9984 | 0.0072 | 0.2598 | 0.0206 | 1.019 | 1.433 | 0.999 | 0.006 | 0.924 | 0.772 | 0.993 | 0.028 | 0.003 | 0.002 | 7.13 | 6 | 8 | 10 | 1.343 | 0.34 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0211 | 0.2555 | 0.0106 | 1.015 | 1.396 | 1.000 | 0.002 | 0.939 | 0.852 | 0.998 | 0.042 | 0.008 | 0.004 | 7.09 | 6 | 8 | 11 | 1.306 | 0.30 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0103 | 0.2526 | 0.0120 | 1.016 | 1.404 | 1.000 | 0.004 | 0.925 | 0.831 | 0.996 | 0.022 | 0.001 | 0.001 | 7.05 | 6 | 8 | 11 | 1.355 | 0.35 | 0.00 | 0.00 |
| | 300 | 0.9979 | 0.0068 | 0.2499 | 0.0123 | 1.017 | 1.406 | 0.999 | 0.008 | 0.900 | 0.808 | 0.991 | 0.020 | 0.002 | 0.002 | 7.01 | 6 | 8 | 9 | 1.391 | 0.39 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9981 | 0.0193 | 0.2392 | 0.0027 | 1.013 | 1.361 | 0.998 | 0.011 | 0.872 | 0.850 | 0.993 | 0.020 | 0.004 | 0.002 | 6.90 | 6 | 7 | 11 | 1.414 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9977 | 0.0094 | 0.2355 | 0.0030 | 1.014 | 1.363 | 0.999 | 0.011 | 0.849 | 0.827 | 0.990 | 0.009 | 0.000 | 0.000 | 6.86 | 6 | 7 | 8 | 1.464 | 0.46 | 0.00 | 0.00 |
| | 300 | 0.9966 | 0.0061 | 0.2315 | 0.0031 | 1.015 | 1.365 | 0.997 | 0.018 | 0.814 | 0.792 | 0.986 | 0.010 | 0.001 | 0.000 | 6.82 | 6 | 7 | 9 | 1.508 | 0.50 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9986 | 0.0222 | 0.2650 | 0.0171 | 1.017 | 1.404 | 1.000 | 0.000 | 0.962 | 0.825 | 0.993 | 0.058 | 0.012 | 0.005 | 7.19 | 7 | 8 | 11 | 1.229 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9978 | 0.0108 | 0.2614 | 0.0184 | 1.018 | 1.413 | 1.000 | 0.002 | 0.948 | 0.806 | 0.989 | 0.032 | 0.002 | 0.003 | 7.14 | 7 | 8 | 11 | 1.271 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.9966 | 0.0071 | 0.2580 | 0.0181 | 1.019 | 1.417 | 0.999 | 0.006 | 0.923 | 0.788 | 0.984 | 0.027 | 0.003 | 0.002 | 7.10 | 6 | 8 | 10 | 1.313 | 0.31 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9983 | 0.0209 | 0.2543 | 0.0088 | 1.016 | 1.383 | 1.000 | 0.002 | 0.939 | 0.867 | 0.992 | 0.041 | 0.008 | 0.004 | 7.06 | 6 | 8 | 11 | 1.286 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9971 | 0.0102 | 0.2515 | 0.0101 | 1.017 | 1.389 | 1.000 | 0.004 | 0.925 | 0.845 | 0.986 | 0.022 | 0.001 | 0.001 | 7.02 | 6 | 8 | 10 | 1.331 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.9958 | 0.0067 | 0.2487 | 0.0104 | 1.019 | 1.395 | 0.999 | 0.008 | 0.899 | 0.822 | 0.980 | 0.019 | 0.002 | 0.001 | 6.99 | 6 | 8 | 9 | 1.367 | 0.37 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9965 | 0.0193 | 0.2390 | 0.0022 | 1.015 | 1.359 | 0.998 | 0.011 | 0.872 | 0.854 | 0.985 | 0.019 | 0.004 | 0.002 | 6.89 | 6 | 7 | 11 | 1.404 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9948 | 0.0094 | 0.2357 | 0.0026 | 1.017 | 1.365 | 0.999 | 0.011 | 0.849 | 0.830 | 0.976 | 0.008 | 0.000 | 0.000 | 6.84 | 6 | 7 | 8 | 1.448 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.9931 | 0.0061 | 0.2316 | 0.0025 | 1.020 | 1.371 | 0.997 | 0.018 | 0.813 | 0.796 | 0.969 | 0.010 | 0.001 | 0.000 | 6.79 | 6 | 7 | 9 | 1.486 | 0.48 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9961 | 0.0790 | 0.4996 | 0.4411 | 1.072 | 1.475 | 0.981 | 0.032 | 0.068 | 0.002 | 1.000 | 0.107 | 0.098 | 0.092 | 12.80 | 6 | 23 | 50 | - | - | - | - |
| | 200 | 0.9968 | 0.0569 | 0.5817 | 0.5391 | 1.088 | 1.576 | 0.984 | 0.014 | 0.057 | 0.001 | 1.000 | 0.079 | 0.065 | 0.061 | 16.31 | 7 | 31.5 | 60 | - | - | - | - |
| | 300 | 0.9954 | 0.0454 | 0.6195 | 0.5819 | 1.100 | 1.612 | 0.978 | 0.012 | 0.058 | 0.001 | 1.000 | 0.067 | 0.058 | 0.062 | 18.56 | 7 | 37 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9519 | 0.0224 | 0.1800 | 0.1557 | 1.066 | 1.828 | 0.781 | 0.340 | 0.005 | 0.000 | 0.996 | 0.028 | 0.028 | 0.029 | 6.97 | 4 | 16 | 38 | - | - | - | - |
| | 200 | 0.9582 | 0.0221 | 0.2788 | 0.2553 | 1.088 | 2.031 | 0.807 | 0.231 | 0.009 | 0.000 | 0.999 | 0.030 | 0.031 | 0.027 | 9.19 | 4 | 24 | 46 | - | - | - | - |
| | 300 | 0.9627 | 0.0209 | 0.3324 | 0.3115 | 1.108 | 2.130 | 0.826 | 0.204 | 0.012 | 0.000 | 0.999 | 0.028 | 0.031 | 0.027 | 11.06 | 4 | 30 | 49 | - | - | - | - |

Notes: See notes to Table 100. $\hat{\pi}_6$ is the probability that signal variables $x_{it}$, for $i = 1, 2, ..., 6$, are among the selected variables, $\hat{\pi}^*$ is the probability of selecting $x_{it}$ for $i = 1, 2, ..., 6$ while none of the remaining variables in $\boldsymbol{x}_{nt}$ are selected.

## Table 146: MC findings for DGPII(a)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0244 | 0.2837 | 0.0107 | 1.005 | 1.390 | 1.000 | 0.000 | 1.000 | 0.908 | 1.000 | 0.285 | 0.026 | 0.008 | 7.42 | 7 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0121 | 0.2822 | 0.0135 | 1.005 | 1.411 | 1.000 | 0.000 | 1.000 | 0.884 | 1.000 | 0.248 | 0.018 | 0.007 | 7.40 | 7 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.2782 | 0.0127 | 1.005 | 1.393 | 1.000 | 0.000 | 1.000 | 0.894 | 1.000 | 0.212 | 0.015 | 0.003 | 7.35 | 7 | 8 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0234 | 0.2759 | 0.0064 | 1.005 | 1.379 | 1.000 | 0.000 | 1.000 | 0.944 | 1.000 | 0.238 | 0.017 | 0.004 | 7.32 | 7 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0115 | 0.2735 | 0.0070 | 1.005 | 1.395 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.204 | 0.014 | 0.006 | 7.29 | 7 | 8 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2698 | 0.0067 | 1.005 | 1.375 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 0.168 | 0.011 | 0.003 | 7.24 | 7 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0219 | 0.2638 | 0.0019 | 1.004 | 1.362 | 1.000 | 0.000 | 1.000 | 0.984 | 1.000 | 0.143 | 0.006 | 0.002 | 7.17 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2615 | 0.0014 | 1.004 | 1.377 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.119 | 0.006 | 0.002 | 7.14 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2597 | 0.0014 | 1.004 | 1.361 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.101 | 0.004 | 0.001 | 7.12 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0244 | 0.2831 | 0.0099 | 1.005 | 1.380 | 1.000 | 0.000 | 1.000 | 0.915 | 1.000 | 0.284 | 0.026 | 0.008 | 7.41 | 7 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0120 | 0.2816 | 0.0126 | 1.005 | 1.403 | 1.000 | 0.000 | 1.000 | 0.891 | 1.000 | 0.248 | 0.018 | 0.007 | 7.39 | 7 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2774 | 0.0116 | 1.005 | 1.383 | 1.000 | 0.000 | 1.000 | 0.903 | 1.000 | 0.212 | 0.015 | 0.003 | 7.34 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0234 | 0.2754 | 0.0057 | 1.004 | 1.370 | 1.000 | 0.000 | 1.000 | 0.950 | 1.000 | 0.238 | 0.017 | 0.004 | 7.31 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0115 | 0.2732 | 0.0066 | 1.004 | 1.391 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 0.204 | 0.014 | 0.006 | 7.28 | 7 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2694 | 0.0063 | 1.004 | 1.371 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 0.168 | 0.011 | 0.003 | 7.24 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0219 | 0.2637 | 0.0017 | 1.004 | 1.360 | 1.000 | 0.000 | 1.000 | 0.986 | 1.000 | 0.143 | 0.006 | 0.002 | 7.17 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2614 | 0.0013 | 1.004 | 1.375 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.119 | 0.006 | 0.002 | 7.14 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2597 | 0.0013 | 1.004 | 1.360 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.101 | 0.004 | 0.001 | 7.12 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0785 | 0.4978 | 0.4389 | 1.022 | 1.428 | 1.000 | 0.031 | 0.076 | 0.001 | 1.000 | 0.115 | 0.077 | 0.086 | 12.77 | 6 | 23 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0486 | 0.5466 | 0.5007 | 1.026 | 1.479 | 1.000 | 0.013 | 0.059 | 0.002 | 1.000 | 0.082 | 0.047 | 0.051 | 14.68 | 7 | 29 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.0376 | 0.5714 | 0.5322 | 1.029 | 1.509 | 1.000 | 0.021 | 0.053 | 0.002 | 1.000 | 0.083 | 0.054 | 0.041 | 16.23 | 6 | 33 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0177 | 0.1187 | 0.1050 | 1.013 | 1.513 | 1.000 | 0.717 | 0.011 | 0.000 | 1.000 | 0.023 | 0.015 | 0.020 | 6.75 | 5 | 16 | 30 | - | - | - | - |
| | 200 | 0.9995 | 0.0156 | 0.1835 | 0.1696 | 1.020 | 1.717 | 0.998 | 0.607 | 0.010 | 0.000 | 1.000 | 0.025 | 0.017 | 0.021 | 8.10 | 5 | 21 | 38 | - | - | - | - |
| | 300 | 1.0000 | 0.0145 | 0.2289 | 0.2167 | 1.026 | 1.877 | 1.000 | 0.549 | 0.010 | 0.000 | 1.000 | 0.030 | 0.020 | 0.018 | 9.33 | 5 | 25 | 48 | - | - | - | - |

Notes: See notes to Table 145.

## Table 147: MC findings for DGPII(a)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0276 | 0.3090 | 0.0114 | 1.003 | 1.397 | 1.000 | 0.000 | 1.000 | 0.899 | 1.000 | 0.571 | 0.046 | 0.006 | 7.73 | 7 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0135 | 0.3050 | 0.0122 | 1.004 | 1.407 | 1.000 | 0.000 | 1.000 | 0.894 | 1.000 | 0.524 | 0.037 | 0.006 | 7.69 | 7 | 9 | 12 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2990 | 0.0110 | 1.003 | 1.392 | 1.000 | 0.000 | 1.000 | 0.902 | 1.000 | 0.472 | 0.025 | 0.003 | 7.61 | 7 | 9 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0261 | 0.2974 | 0.0057 | 1.003 | 1.385 | 1.000 | 0.000 | 1.000 | 0.949 | 1.000 | 0.494 | 0.030 | 0.003 | 7.58 | 7 | 9 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0128 | 0.2951 | 0.0065 | 1.003 | 1.388 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 0.464 | 0.026 | 0.002 | 7.55 | 7 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2894 | 0.0054 | 1.003 | 1.377 | 1.000 | 0.000 | 1.000 | 0.951 | 1.000 | 0.412 | 0.018 | 0.002 | 7.48 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0241 | 0.2815 | 0.0013 | 1.002 | 1.371 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.353 | 0.016 | 0.001 | 7.38 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2787 | 0.0009 | 1.003 | 1.370 | 1.000 | 0.000 | 1.000 | 0.992 | 1.000 | 0.329 | 0.009 | 0.001 | 7.35 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2756 | 0.0011 | 1.002 | 1.365 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.293 | 0.007 | 0.000 | 7.31 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0275 | 0.3085 | 0.0107 | 1.003 | 1.391 | 1.000 | 0.000 | 1.000 | 0.905 | 1.000 | 0.571 | 0.046 | 0.006 | 7.73 | 7 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3042 | 0.0110 | 1.003 | 1.395 | 1.000 | 0.000 | 1.000 | 0.903 | 1.000 | 0.524 | 0.037 | 0.006 | 7.67 | 7 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2986 | 0.0105 | 1.003 | 1.387 | 1.000 | 0.000 | 1.000 | 0.906 | 1.000 | 0.472 | 0.025 | 0.003 | 7.60 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0260 | 0.2971 | 0.0053 | 1.003 | 1.381 | 1.000 | 0.000 | 1.000 | 0.953 | 1.000 | 0.494 | 0.030 | 0.003 | 7.58 | 7 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0128 | 0.2948 | 0.0060 | 1.003 | 1.382 | 1.000 | 0.000 | 1.000 | 0.947 | 1.000 | 0.464 | 0.026 | 0.002 | 7.55 | 7 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2892 | 0.0051 | 1.003 | 1.374 | 1.000 | 0.000 | 1.000 | 0.953 | 1.000 | 0.412 | 0.018 | 0.002 | 7.48 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0240 | 0.2813 | 0.0012 | 1.002 | 1.369 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.353 | 0.016 | 0.001 | 7.38 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0118 | 0.2787 | 0.0009 | 1.003 | 1.370 | 1.000 | 0.000 | 1.000 | 0.992 | 1.000 | 0.329 | 0.009 | 0.001 | 7.35 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2756 | 0.0011 | 1.002 | 1.365 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.293 | 0.007 | 0.000 | 7.31 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0771 | 0.4975 | 0.4366 | 1.012 | 1.416 | 1.000 | 0.026 | 0.078 | 0.003 | 1.000 | 0.110 | 0.089 | 0.091 | 12.63 | 6 | 24.5 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.0487 | 0.5384 | 0.4946 | 1.015 | 1.463 | 1.000 | 0.020 | 0.065 | 0.001 | 1.000 | 0.096 | 0.056 | 0.057 | 14.69 | 6 | 26 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0365 | 0.5613 | 0.5211 | 1.016 | 1.491 | 1.000 | 0.015 | 0.061 | 0.001 | 1.000 | 0.069 | 0.037 | 0.045 | 15.92 | 7 | 31 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0139 | 0.0956 | 0.0853 | 1.006 | 1.402 | 1.000 | 0.796 | 0.006 | 0.000 | 1.000 | 0.017 | 0.015 | 0.020 | 6.38 | 5 | 15 | 24 | - | - | - | - |
| | 200 | 1.0000 | 0.0146 | 0.1760 | 0.1652 | 1.011 | 1.626 | 1.000 | 0.674 | 0.011 | 0.000 | 1.000 | 0.021 | 0.018 | 0.018 | 7.90 | 5 | 18 | 41 | - | - | - | - |
| | 300 | 1.0000 | 0.0127 | 0.2110 | 0.1991 | 1.013 | 1.762 | 1.000 | 0.634 | 0.011 | 0.000 | 1.000 | 0.024 | 0.012 | 0.017 | 8.79 | 5 | 22 | 49 | - | - | - | - |

Notes: See notes to Table 145.

**Table 148: MC findings for DGPII(a)**

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9852 | 0.0198 | 0.2423 | 0.0182 | 1.025 | 1.404 | 0.976 | 0.019 | 0.762 | 0.655 | 0.952 | 0.049 | 0.011 | 0.005 | 6.88 | 6 | 8 | 11 | 1.230 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9743 | 0.0093 | 0.2314 | 0.0199 | 1.029 | 1.401 | 0.954 | 0.033 | 0.678 | 0.576 | 0.925 | 0.030 | 0.005 | 0.003 | 6.72 | 5 | 8 | 11 | 1.247 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.9728 | 0.0061 | 0.2298 | 0.0230 | 1.032 | 1.449 | 0.956 | 0.036 | 0.644 | 0.540 | 0.915 | 0.032 | 0.001 | 0.002 | 6.69 | 5 | 8 | 11 | 1.250 | 0.25 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9786 | 0.0179 | 0.2244 | 0.0102 | 1.024 | 1.371 | 0.960 | 0.038 | 0.690 | 0.632 | 0.938 | 0.036 | 0.007 | 0.004 | 6.67 | 5 | 8 | 11 | 1.258 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9663 | 0.0084 | 0.2146 | 0.0123 | 1.030 | 1.379 | 0.933 | 0.046 | 0.602 | 0.545 | 0.909 | 0.023 | 0.003 | 0.002 | 6.50 | 5 | 8 | 10 | 1.283 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9619 | 0.0054 | 0.2107 | 0.0126 | 1.033 | 1.412 | 0.930 | 0.055 | 0.573 | 0.524 | 0.893 | 0.025 | 0.000 | 0.001 | 6.44 | 5 | 8 | 9 | 1.279 | 0.28 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9540 | 0.0147 | 0.1927 | 0.0024 | 1.029 | 1.341 | 0.898 | 0.070 | 0.526 | 0.516 | 0.891 | 0.011 | 0.001 | 0.002 | 6.23 | 4 | 7 | 9 | 1.323 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9398 | 0.0067 | 0.1806 | 0.0028 | 1.037 | 1.352 | 0.872 | 0.089 | 0.436 | 0.428 | 0.854 | 0.011 | 0.002 | 0.002 | 6.04 | 4 | 7 | 10 | 1.340 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.9306 | 0.0044 | 0.1768 | 0.0032 | 1.040 | 1.383 | 0.853 | 0.102 | 0.409 | 0.398 | 0.838 | 0.012 | 0.000 | 0.001 | 5.96 | 4 | 7 | 9 | 1.332 | 0.33 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9761 | 0.0195 | 0.2416 | 0.0153 | 1.030 | 1.393 | 0.976 | 0.019 | 0.762 | 0.674 | 0.907 | 0.049 | 0.011 | 0.005 | 6.81 | 5 | 8 | 10 | 1.163 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9619 | 0.0092 | 0.2319 | 0.0183 | 1.039 | 1.399 | 0.954 | 0.033 | 0.678 | 0.584 | 0.863 | 0.028 | 0.005 | 0.003 | 6.63 | 5 | 8 | 10 | 1.169 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.9597 | 0.0060 | 0.2294 | 0.0200 | 1.042 | 1.439 | 0.956 | 0.037 | 0.644 | 0.557 | 0.849 | 0.032 | 0.001 | 0.002 | 6.60 | 5 | 8 | 11 | 1.166 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9679 | 0.0177 | 0.2246 | 0.0083 | 1.032 | 1.369 | 0.960 | 0.039 | 0.690 | 0.645 | 0.885 | 0.036 | 0.007 | 0.004 | 6.60 | 5 | 8 | 10 | 1.191 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9512 | 0.0083 | 0.2157 | 0.0111 | 1.043 | 1.383 | 0.933 | 0.047 | 0.602 | 0.550 | 0.834 | 0.021 | 0.003 | 0.002 | 6.41 | 5 | 8 | 10 | 1.196 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.9458 | 0.0054 | 0.2113 | 0.0106 | 1.046 | 1.411 | 0.930 | 0.057 | 0.573 | 0.535 | 0.812 | 0.025 | 0.000 | 0.001 | 6.34 | 5 | 7 | 9 | 1.185 | 0.19 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9418 | 0.0147 | 0.1940 | 0.0019 | 1.040 | 1.348 | 0.898 | 0.071 | 0.526 | 0.519 | 0.830 | 0.011 | 0.001 | 0.002 | 6.16 | 4 | 7 | 9 | 1.259 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9217 | 0.0067 | 0.1825 | 0.0023 | 1.054 | 1.369 | 0.872 | 0.090 | 0.436 | 0.430 | 0.763 | 0.011 | 0.002 | 0.002 | 5.95 | 4 | 7 | 10 | 1.245 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.9102 | 0.0043 | 0.1789 | 0.0026 | 1.058 | 1.399 | 0.853 | 0.103 | 0.409 | 0.400 | 0.736 | 0.011 | 0.000 | 0.001 | 5.85 | 4 | 7 | 9 | 1.226 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9477 | 0.0744 | 0.4882 | 0.4305 | 1.073 | 1.404 | 0.759 | 0.030 | 0.044 | 0.001 | 0.997 | 0.089 | 0.082 | 0.078 | 12.10 | 5 | 23 | 40 | - | - | - | - |
| | 200 | 0.9453 | 0.0551 | 0.5740 | 0.5310 | 1.089 | 1.506 | 0.751 | 0.018 | 0.037 | 0.001 | 0.994 | 0.075 | 0.059 | 0.074 | 15.70 | 6 | 33 | 71 | - | - | - | - |
| | 300 | 0.9436 | 0.0463 | 0.6250 | 0.5885 | 1.097 | 1.584 | 0.744 | 0.013 | 0.032 | 0.001 | 0.995 | 0.060 | 0.046 | 0.043 | 18.57 | 6 | 38 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8054 | 0.0223 | 0.2096 | 0.1748 | 1.071 | 1.810 | 0.316 | 0.074 | 0.002 | 0.001 | 0.981 | 0.031 | 0.026 | 0.025 | 6.23 | 3 | 13 | 32 | - | - | - | - |
| | 200 | 0.8186 | 0.0232 | 0.3119 | 0.2818 | 1.098 | 2.029 | 0.338 | 0.049 | 0.003 | 0.000 | 0.977 | 0.031 | 0.031 | 0.031 | 8.71 | 3 | 25 | 58 | - | - | - | - |
| | 300 | 0.8305 | 0.0236 | 0.3922 | 0.3656 | 1.121 | 2.228 | 0.381 | 0.032 | 0.005 | 0.000 | 0.977 | 0.030 | 0.018 | 0.019 | 11.20 | 3 | 31 | 52c | - | - | - | - |

Notes: See notes to Table 145.

## Table 149: MC findings for DGPII(a)

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0245 | 0.2842 | 0.0126 | 1.005 | 1.420 | 1.000 | 0.000 | 1.000 | 0.890 | 1.000 | 0.277 | 0.021 | 0.007 | 7.42 | 7 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0120 | 0.2816 | 0.0129 | 1.006 | 1.414 | 1.000 | 0.000 | 1.000 | 0.889 | 1.000 | 0.250 | 0.018 | 0.004 | 7.39 | 7 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2769 | 0.0124 | 1.005 | 1.416 | 1.000 | 0.000 | 1.000 | 0.896 | 1.000 | 0.196 | 0.015 | 0.006 | 7.33 | 7 | 8 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0233 | 0.2753 | 0.0066 | 1.005 | 1.402 | 1.000 | 0.000 | 1.000 | 0.941 | 1.000 | 0.230 | 0.015 | 0.005 | 7.31 | 7 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0115 | 0.2733 | 0.0071 | 1.005 | 1.396 | 1.000 | 0.000 | 1.000 | 0.936 | 1.000 | 0.207 | 0.011 | 0.003 | 7.29 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0074 | 0.2684 | 0.0060 | 1.005 | 1.394 | 1.000 | 0.000 | 1.000 | 0.950 | 1.000 | 0.159 | 0.010 | 0.002 | 7.23 | 7 | 8 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0218 | 0.2629 | 0.0012 | 1.004 | 1.382 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.138 | 0.007 | 0.001 | 7.16 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0107 | 0.2610 | 0.0013 | 1.004 | 1.373 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.117 | 0.005 | 0.001 | 7.13 | 7 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2593 | 0.0017 | 1.004 | 1.376 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.092 | 0.005 | 0.001 | 7.11 | 7 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0244 | 0.2835 | 0.0117 | 1.005 | 1.412 | 1.000 | 0.000 | 1.000 | 0.897 | 1.000 | 0.277 | 0.020 | 0.007 | 7.41 | 7 | 8.5 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0120 | 0.2813 | 0.0124 | 1.005 | 1.409 | 1.000 | 0.000 | 1.000 | 0.894 | 1.000 | 0.250 | 0.018 | 0.004 | 7.39 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2764 | 0.0118 | 1.005 | 1.410 | 1.000 | 0.000 | 1.000 | 0.902 | 1.000 | 0.196 | 0.015 | 0.006 | 7.33 | 7 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0233 | 0.2748 | 0.0059 | 1.005 | 1.395 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 0.230 | 0.015 | 0.005 | 7.30 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0115 | 0.2730 | 0.0067 | 1.005 | 1.392 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.207 | 0.011 | 0.003 | 7.28 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0074 | 0.2681 | 0.0056 | 1.004 | 1.390 | 1.000 | 0.000 | 1.000 | 0.953 | 1.000 | 0.159 | 0.010 | 0.002 | 7.22 | 7 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0218 | 0.2628 | 0.0011 | 1.004 | 1.379 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 0.138 | 0.007 | 0.001 | 7.16 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2609 | 0.0012 | 1.004 | 1.372 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.117 | 0.005 | 0.001 | 7.13 | 7 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2592 | 0.0016 | 1.004 | 1.375 | 1.000 | 0.000 | 1.000 | 0.986 | 1.000 | 0.092 | 0.005 | 0.001 | 7.11 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9988 | 0.0798 | 0.5091 | 0.4506 | 1.021 | 1.422 | 0.994 | 0.021 | 0.069 | 0.002 | 1.000 | 0.107 | 0.082 | 0.089 | 12.90 | 6 | 23 | 41 | - | - | - | - |
| | 200 | 0.9992 | 0.0490 | 0.5522 | 0.5068 | 1.026 | 1.460 | 0.996 | 0.014 | 0.062 | 0.001 | 1.000 | 0.086 | 0.047 | 0.061 | 14.75 | 6 | 27 | 50 | - | - | - | - |
| | 300 | 0.9992 | 0.0380 | 0.5825 | 0.5441 | 1.029 | 1.516 | 0.996 | 0.017 | 0.056 | 0.001 | 1.000 | 0.064 | 0.040 | 0.045 | 16.34 | 7 | 31 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9847 | 0.0194 | 0.1564 | 0.1343 | 1.015 | 1.674 | 0.924 | 0.462 | 0.006 | 0.000 | 1.000 | 0.021 | 0.021 | 0.019 | 6.84 | 5 | 15 | 33 | - | - | - | - |
| | 200 | 0.9844 | 0.0181 | 0.2332 | 0.2126 | 1.025 | 1.909 | 0.923 | 0.376 | 0.014 | 0.001 | 1.000 | 0.029 | 0.017 | 0.022 | 8.53 | 5 | 22 | 43 | - | - | - | - |
| | 300 | 0.9874 | 0.0170 | 0.2846 | 0.2652 | 1.034 | 2.124 | 0.938 | 0.339 | 0.018 | 0.001 | 1.000 | 0.022 | 0.018 | 0.021 | 10.03 | 5 | 26 | 58 | - | - | - | - |

Notes: See notes to Table 145.

## Table 150: MC findings for DGPII(a)

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3099 | 0.0119 | 1.003 | 1.400 | 1.000 | 0.000 | 1.000 | 0.894 | 1.000 | 0.576 | 0.045 | 0.011 | 7.75 | 7 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0133 | 0.3028 | 0.0114 | 1.003 | 1.413 | 1.000 | 0.000 | 1.000 | 0.898 | 1.000 | 0.507 | 0.031 | 0.006 | 7.65 | 7 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2994 | 0.0118 | 1.003 | 1.428 | 1.000 | 0.000 | 1.000 | 0.895 | 1.000 | 0.472 | 0.023 | 0.002 | 7.61 | 7 | 9 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0262 | 0.2985 | 0.0064 | 1.003 | 1.384 | 1.000 | 0.000 | 1.000 | 0.943 | 1.000 | 0.500 | 0.030 | 0.006 | 7.60 | 7 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0127 | 0.2930 | 0.0061 | 1.003 | 1.396 | 1.000 | 0.000 | 1.000 | 0.943 | 1.000 | 0.442 | 0.023 | 0.005 | 7.53 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2895 | 0.0068 | 1.003 | 1.407 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.403 | 0.014 | 0.002 | 7.48 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0242 | 0.2828 | 0.0015 | 1.002 | 1.364 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.368 | 0.013 | 0.004 | 7.40 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0117 | 0.2777 | 0.0011 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.315 | 0.008 | 0.002 | 7.33 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2743 | 0.0010 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.992 | 1.000 | 0.279 | 0.005 | 0.001 | 7.29 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3093 | 0.0111 | 1.003 | 1.392 | 1.000 | 0.000 | 1.000 | 0.902 | 1.000 | 0.576 | 0.045 | 0.011 | 7.74 | 7 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0133 | 0.3024 | 0.0109 | 1.003 | 1.407 | 1.000 | 0.000 | 1.000 | 0.903 | 1.000 | 0.507 | 0.031 | 0.006 | 7.65 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2989 | 0.0111 | 1.003 | 1.420 | 1.000 | 0.000 | 1.000 | 0.901 | 1.000 | 0.472 | 0.023 | 0.002 | 7.60 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0262 | 0.2980 | 0.0056 | 1.003 | 1.377 | 1.000 | 0.000 | 1.000 | 0.950 | 1.000 | 0.500 | 0.030 | 0.006 | 7.59 | 7 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0127 | 0.2928 | 0.0058 | 1.003 | 1.393 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 0.442 | 0.023 | 0.005 | 7.52 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2892 | 0.0064 | 1.003 | 1.402 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 0.403 | 0.014 | 0.002 | 7.48 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0242 | 0.2827 | 0.0013 | 1.002 | 1.362 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.368 | 0.013 | 0.004 | 7.40 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0117 | 0.2776 | 0.0011 | 1.002 | 1.377 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 0.315 | 0.008 | 0.002 | 7.33 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2743 | 0.0009 | 1.002 | 1.383 | 1.000 | 0.000 | 1.000 | 0.993 | 1.000 | 0.279 | 0.005 | 0.001 | 7.29 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0817 | 0.5109 | 0.4514 | 1.013 | 1.422 | 1.000 | 0.018 | 0.075 | 0.001 | 1.000 | 0.113 | 0.076 | 0.089 | 13.09 | 6 | 24 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0470 | 0.5370 | 0.4909 | 1.015 | 1.459 | 1.000 | 0.021 | 0.055 | 0.001 | 1.000 | 0.079 | 0.051 | 0.058 | 14.35 | 6 | 28 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0371 | 0.5748 | 0.5356 | 1.016 | 1.501 | 1.000 | 0.018 | 0.056 | 0.001 | 1.000 | 0.067 | 0.039 | 0.045 | 16.10 | 7 | 31.5 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9973 | 0.0186 | 0.1308 | 0.1137 | 1.009 | 1.578 | 0.987 | 0.640 | 0.010 | 0.001 | 1.000 | 0.022 | 0.014 | 0.023 | 6.83 | 5 | 17 | 38 | - | - | - | - |
| | 200 | 0.9982 | 0.0157 | 0.1898 | 0.1732 | 1.012 | 1.768 | 0.991 | 0.549 | 0.011 | 0.001 | 1.000 | 0.026 | 0.016 | 0.019 | 8.11 | 5 | 22 | 42 | - | - | - | - |
| | 300 | 0.9982 | 0.0155 | 0.2499 | 0.2343 | 1.018 | 2.010 | 0.991 | 0.483 | 0.014 | 0.001 | 1.000 | 0.025 | 0.014 | 0.019 | 9.63 | 5 | 25 | 55 | - | - | - | - |

Notes: See notes to Table 145.

## Table 151: MC findings for DGPII(a)

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8402 | 0.0128 | 0.1779 | 0.0217 | 1.037 | 1.362 | 0.604 | 0.057 | 0.282 | 0.246 | 0.842 | 0.048 | 0.009 | 0.005 | 5.47 | 2 | 7 | 10 | 1.118 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7935 | 0.0057 | 0.1646 | 0.0279 | 1.047 | 1.399 | 0.508 | 0.068 | 0.194 | 0.159 | 0.815 | 0.036 | 0.007 | 0.005 | 5.11 | 2 | 7 | 9 | 1.119 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.7557 | 0.0035 | 0.1545 | 0.0278 | 1.055 | 1.398 | 0.465 | 0.069 | 0.173 | 0.144 | 0.760 | 0.035 | 0.004 | 0.003 | 4.81 | 2 | 7 | 10 | 1.106 | 0.11 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7945 | 0.0107 | 0.1551 | 0.0137 | 1.043 | 1.350 | 0.514 | 0.077 | 0.210 | 0.191 | 0.799 | 0.034 | 0.006 | 0.004 | 5.03 | 2 | 7 | 10 | 1.129 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7455 | 0.0046 | 0.1398 | 0.0170 | 1.052 | 1.385 | 0.428 | 0.070 | 0.142 | 0.124 | 0.773 | 0.026 | 0.005 | 0.002 | 4.64 | 2 | 7 | 9 | 1.127 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.7035 | 0.0028 | 0.1297 | 0.0158 | 1.062 | 1.400 | 0.387 | 0.074 | 0.132 | 0.121 | 0.713 | 0.026 | 0.003 | 0.001 | 4.35 | 1 | 7 | 9 | 1.121 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6735 | 0.0068 | 0.1106 | 0.0045 | 1.065 | 1.392 | 0.344 | 0.081 | 0.094 | 0.092 | 0.689 | 0.017 | 0.004 | 0.002 | 4.04 | 1 | 7 | 8 | 1.152 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6118 | 0.0028 | 0.0948 | 0.0056 | 1.081 | 1.453 | 0.273 | 0.070 | 0.059 | 0.056 | 0.641 | 0.012 | 0.001 | 0.001 | 3.61 | 0 | 6 | 8 | 1.129 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.5764 | 0.0017 | 0.0870 | 0.0057 | 1.087 | 1.463 | 0.234 | 0.067 | 0.054 | 0.054 | 0.592 | 0.008 | 0.001 | 0.001 | 3.38 | 0 | 6 | 8 | 1.120 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8284 | 0.0126 | 0.1776 | 0.0197 | 1.044 | 1.353 | 0.604 | 0.059 | 0.282 | 0.251 | 0.788 | 0.048 | 0.008 | 0.005 | 5.39 | 2 | 7 | 10 | 1.044 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7800 | 0.0056 | 0.1640 | 0.0258 | 1.054 | 1.383 | 0.508 | 0.069 | 0.194 | 0.166 | 0.757 | 0.036 | 0.007 | 0.004 | 5.02 | 2 | 7 | 9 | 1.035 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.7443 | 0.0034 | 0.1544 | 0.0261 | 1.061 | 1.388 | 0.465 | 0.069 | 0.173 | 0.149 | 0.711 | 0.035 | 0.004 | 0.003 | 4.74 | 2 | 7 | 10 | 1.038 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7808 | 0.0105 | 0.1555 | 0.0125 | 1.051 | 1.346 | 0.514 | 0.079 | 0.210 | 0.193 | 0.740 | 0.034 | 0.006 | 0.004 | 4.95 | 2 | 7 | 10 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7297 | 0.0045 | 0.1397 | 0.0158 | 1.061 | 1.377 | 0.428 | 0.071 | 0.142 | 0.127 | 0.704 | 0.026 | 0.005 | 0.002 | 4.55 | 1 | 7 | 9 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.6884 | 0.0027 | 0.1306 | 0.0152 | 1.070 | 1.396 | 0.387 | 0.074 | 0.132 | 0.122 | 0.650 | 0.025 | 0.003 | 0.001 | 4.26 | 1 | 7 | 9 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6561 | 0.0068 | 0.1115 | 0.0043 | 1.075 | 1.392 | 0.343 | 0.081 | 0.094 | 0.092 | 0.621 | 0.016 | 0.004 | 0.002 | 3.95 | 1 | 7 | 8 | 1.071 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5944 | 0.0028 | 0.0956 | 0.0051 | 1.091 | 1.446 | 0.273 | 0.070 | 0.059 | 0.056 | 0.571 | 0.012 | 0.001 | 0.001 | 3.52 | 0 | 6 | 8 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.5601 | 0.0017 | 0.0879 | 0.0055 | 1.096 | 1.459 | 0.234 | 0.067 | 0.054 | 0.054 | 0.525 | 0.008 | 0.001 | 0.001 | 3.29 | 0 | 6 | 8 | 1.041 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8142 | 0.0696 | 0.5024 | 0.4425 | 1.068 | 1.256 | 0.329 | 0.009 | 0.015 | 0.000 | 0.987 | 0.073 | 0.076 | 0.077 | 10.96 | 4 | 21 | 46 | - | - | - | - |
| | 200 | 0.8016 | 0.0537 | 0.5979 | 0.5526 | 1.079 | 1.346 | 0.293 | 0.004 | 0.010 | 0.000 | 0.981 | 0.072 | 0.062 | 0.059 | 14.70 | 5 | 31 | 81 | - | - | - | - |
| | 300 | 0.7948 | 0.0446 | 0.6453 | 0.6097 | 1.088 | 1.392 | 0.281 | 0.002 | 0.008 | 0.000 | 0.977 | 0.056 | 0.055 | 0.067 | 17.32 | 5 | 37 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6247 | 0.0242 | 0.2640 | 0.2198 | 1.068 | 1.639 | 0.056 | 0.005 | 0.000 | 0.000 | 0.959 | 0.020 | 0.027 | 0.023 | 5.52 | 2 | 12 | 28 | - | - | - | - |
| | 200 | 0.6418 | 0.0240 | 0.3679 | 0.3336 | 1.093 | 1.884 | 0.075 | 0.003 | 0.001 | 0.000 | 0.955 | 0.023 | 0.030 | 0.025 | 7.99 | 2 | 21 | 64 | - | - | - | - |
| | 300 | 0.6497 | 0.0238 | 0.4547 | 0.4238 | 1.116 | 2.049 | 0.083 | 0.002 | 0.001 | 0.000 | 0.956 | 0.022 | 0.033 | 0.037 | 10.36 | 2 | 29 | 59 | - | - | - | - |

Notes: See notes to Table 145.

## Table 152: MC findings for DGPII(a)

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0248 | 0.2862 | 0.0121 | 1.006 | 1.421 | 1.000 | 0.001 | 0.989 | 0.886 | 1.000 | 0.314 | 0.024 | 0.011 | 7.45 | 7 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0118 | 0.2778 | 0.0129 | 1.006 | 1.437 | 0.999 | 0.001 | 0.973 | 0.868 | 1.000 | 0.233 | 0.021 | 0.005 | 7.35 | 7 | 8 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0078 | 0.2760 | 0.0131 | 1.005 | 1.400 | 1.000 | 0.001 | 0.963 | 0.858 | 1.000 | 0.222 | 0.019 | 0.004 | 7.33 | 7 | 8 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0235 | 0.2761 | 0.0061 | 1.005 | 1.398 | 1.000 | 0.001 | 0.984 | 0.932 | 1.000 | 0.260 | 0.017 | 0.008 | 7.32 | 7 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0112 | 0.2677 | 0.0066 | 1.005 | 1.415 | 0.999 | 0.001 | 0.959 | 0.907 | 1.000 | 0.192 | 0.014 | 0.004 | 7.23 | 7 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0074 | 0.2656 | 0.0074 | 1.004 | 1.378 | 0.999 | 0.001 | 0.944 | 0.884 | 1.000 | 0.177 | 0.014 | 0.003 | 7.20 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0213 | 0.2579 | 0.0009 | 1.004 | 1.370 | 0.999 | 0.001 | 0.939 | 0.930 | 1.000 | 0.158 | 0.006 | 0.003 | 7.11 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9995 | 0.0102 | 0.2504 | 0.0016 | 1.004 | 1.381 | 0.998 | 0.004 | 0.901 | 0.888 | 1.000 | 0.117 | 0.006 | 0.001 | 7.03 | 6 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0067 | 0.2473 | 0.0017 | 1.003 | 1.343 | 0.998 | 0.009 | 0.885 | 0.873 | 1.000 | 0.102 | 0.008 | 0.001 | 7.00 | 6 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0247 | 0.2856 | 0.0114 | 1.006 | 1.414 | 1.000 | 0.001 | 0.989 | 0.892 | 1.000 | 0.314 | 0.024 | 0.010 | 7.45 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0118 | 0.2774 | 0.0123 | 1.006 | 1.432 | 0.999 | 0.001 | 0.973 | 0.872 | 1.000 | 0.233 | 0.021 | 0.005 | 7.34 | 7 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0078 | 0.2758 | 0.0128 | 1.005 | 1.397 | 1.000 | 0.001 | 0.963 | 0.860 | 1.000 | 0.222 | 0.019 | 0.004 | 7.33 | 7 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0234 | 0.2757 | 0.0057 | 1.005 | 1.395 | 1.000 | 0.001 | 0.984 | 0.935 | 1.000 | 0.260 | 0.017 | 0.008 | 7.32 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0112 | 0.2674 | 0.0062 | 1.005 | 1.411 | 0.999 | 0.001 | 0.959 | 0.911 | 1.000 | 0.192 | 0.014 | 0.004 | 7.22 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0074 | 0.2654 | 0.0071 | 1.004 | 1.375 | 0.999 | 0.001 | 0.944 | 0.887 | 1.000 | 0.177 | 0.014 | 0.003 | 7.20 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0213 | 0.2578 | 0.0008 | 1.004 | 1.369 | 0.999 | 0.001 | 0.939 | 0.931 | 1.000 | 0.158 | 0.006 | 0.003 | 7.11 | 6 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9994 | 0.0102 | 0.2503 | 0.0014 | 1.004 | 1.378 | 0.998 | 0.004 | 0.901 | 0.890 | 1.000 | 0.117 | 0.006 | 0.001 | 7.03 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0067 | 0.2472 | 0.0016 | 1.003 | 1.342 | 0.998 | 0.009 | 0.885 | 0.874 | 1.000 | 0.102 | 0.008 | 0.001 | 7.00 | 6 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9811 | 0.0793 | 0.5078 | 0.4477 | 1.021 | 1.395 | 0.906 | 0.026 | 0.062 | 0.001 | 1.000 | 0.107 | 0.074 | 0.101 | 12.76 | 6 | 23 | 35 | - | - | - | - |
| | 200 | 0.9780 | 0.0498 | 0.5576 | 0.5122 | 1.026 | 1.448 | 0.892 | 0.013 | 0.050 | 0.001 | 1.000 | 0.078 | 0.059 | 0.067 | 14.80 | 6 | 28 | 49 | - | - | - | - |
| | 300 | 0.9756 | 0.0374 | 0.5839 | 0.5444 | 1.028 | 1.466 | 0.880 | 0.013 | 0.048 | 0.001 | 1.000 | 0.061 | 0.040 | 0.048 | 16.08 | 6 | 31 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8819 | 0.0216 | 0.1929 | 0.1614 | 1.020 | 1.817 | 0.502 | 0.162 | 0.006 | 0.000 | 1.000 | 0.021 | 0.015 | 0.023 | 6.55 | 3 | 14 | 30 | - | - | - | - |
| | 200 | 0.8939 | 0.0199 | 0.2761 | 0.2486 | 1.029 | 2.031 | 0.555 | 0.118 | 0.005 | 0.000 | 1.000 | 0.027 | 0.023 | 0.029 | 8.44 | 4 | 21 | 42 | - | - | - | - |
| | 300 | 0.8990 | 0.0177 | 0.3219 | 0.2978 | 1.037 | 2.194 | 0.574 | 0.111 | 0.010 | 0.000 | 1.000 | 0.028 | 0.018 | 0.021 | 9.80 | 4 | 26 | 54 | - | - | - | - |

Notes: See notes to Table 145.

## Table 153: MC findings for DGPII(a)

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0274 | 0.3076 | 0.0105 | 1.003 | 1.411 | 1.000 | 0.000 | 1.000 | 0.907 | 1.000 | 0.563 | 0.043 | 0.008 | 7.72 | 7 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0133 | 0.3017 | 0.0114 | 1.003 | 1.416 | 1.000 | 0.000 | 1.000 | 0.901 | 1.000 | 0.491 | 0.038 | 0.004 | 7.64 | 7 | 9 | 12 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3007 | 0.0123 | 1.003 | 1.430 | 1.000 | 0.000 | 0.999 | 0.888 | 1.000 | 0.480 | 0.028 | 0.005 | 7.63 | 7 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0260 | 0.2971 | 0.0052 | 1.003 | 1.390 | 1.000 | 0.000 | 1.000 | 0.953 | 1.000 | 0.492 | 0.031 | 0.005 | 7.58 | 7 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0127 | 0.2924 | 0.0062 | 1.003 | 1.394 | 1.000 | 0.000 | 1.000 | 0.944 | 1.000 | 0.432 | 0.027 | 0.003 | 7.52 | 7 | 8 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2903 | 0.0063 | 1.003 | 1.403 | 1.000 | 0.000 | 0.999 | 0.942 | 1.000 | 0.414 | 0.019 | 0.003 | 7.49 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0241 | 0.2821 | 0.0010 | 1.002 | 1.371 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 0.363 | 0.015 | 0.002 | 7.39 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0117 | 0.2778 | 0.0013 | 1.002 | 1.372 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.311 | 0.015 | 0.001 | 7.34 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2769 | 0.0014 | 1.002 | 1.380 | 1.000 | 0.000 | 0.997 | 0.985 | 1.000 | 0.308 | 0.008 | 0.001 | 7.33 | 7 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0273 | 0.3069 | 0.0095 | 1.003 | 1.403 | 1.000 | 0.000 | 1.000 | 0.915 | 1.000 | 0.563 | 0.043 | 0.008 | 7.71 | 7 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0133 | 0.3014 | 0.0109 | 1.003 | 1.412 | 1.000 | 0.000 | 1.000 | 0.905 | 1.000 | 0.490 | 0.038 | 0.004 | 7.64 | 7 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3003 | 0.0118 | 1.003 | 1.424 | 1.000 | 0.000 | 0.999 | 0.892 | 1.000 | 0.480 | 0.028 | 0.005 | 7.62 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0260 | 0.2968 | 0.0049 | 1.003 | 1.387 | 1.000 | 0.000 | 1.000 | 0.956 | 1.000 | 0.492 | 0.031 | 0.005 | 7.57 | 7 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0126 | 0.2921 | 0.0058 | 1.003 | 1.389 | 1.000 | 0.000 | 1.000 | 0.948 | 1.000 | 0.432 | 0.027 | 0.003 | 7.52 | 7 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2901 | 0.0061 | 1.003 | 1.400 | 1.000 | 0.000 | 0.999 | 0.944 | 1.000 | 0.414 | 0.019 | 0.003 | 7.49 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0241 | 0.2820 | 0.0010 | 1.002 | 1.371 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 0.363 | 0.015 | 0.002 | 7.39 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0117 | 0.2777 | 0.0011 | 1.002 | 1.369 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.311 | 0.015 | 0.001 | 7.34 | 7 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2769 | 0.0014 | 1.002 | 1.380 | 1.000 | 0.000 | 0.997 | 0.985 | 1.000 | 0.308 | 0.008 | 0.001 | 7.33 | 7 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9972 | 0.0777 | 0.5036 | 0.4457 | 1.012 | 1.401 | 0.986 | 0.022 | 0.076 | 0.002 | 1.000 | 0.113 | 0.090 | 0.096 | 12.68 | 6 | 22 | 38 | - | - | - | - |
| | 200 | 0.9967 | 0.0487 | 0.5515 | 0.5043 | 1.014 | 1.439 | 0.984 | 0.019 | 0.056 | 0.001 | 1.000 | 0.086 | 0.065 | 0.052 | 14.68 | 7 | 27 | 68 | - | - | - | - |
| | 300 | 0.9955 | 0.0383 | 0.5827 | 0.5423 | 1.016 | 1.498 | 0.978 | 0.010 | 0.064 | 0.002 | 1.000 | 0.079 | 0.038 | 0.035 | 16.43 | 7 | 33 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9570 | 0.0200 | 0.1569 | 0.1322 | 1.011 | 1.786 | 0.797 | 0.392 | 0.010 | 0.000 | 1.000 | 0.033 | 0.023 | 0.032 | 6.76 | 4 | 16 | 30 | - | - | - | - |
| | 200 | 0.9610 | 0.0189 | 0.2393 | 0.2158 | 1.017 | 1.992 | 0.813 | 0.297 | 0.012 | 0.001 | 1.000 | 0.032 | 0.023 | 0.016 | 8.56 | 4 | 21 | 58 | - | - | - | - |
| | 300 | 0.9635 | 0.0189 | 0.3088 | 0.2855 | 1.024 | 2.245 | 0.829 | 0.249 | 0.017 | 0.000 | 1.000 | 0.030 | 0.017 | 0.015 | 10.46 | 4 | 27 | 55 | - | - | - | - |

Notes: See notes to Table 145.

# Table 154: MC findings for DGPII(b)

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9967 | 0.0055 | 0.0731 | 0.0210 | 1.010 | 1.162 | 0.985 | 0.598 | 0.999 | 0.051 | 0.009 | 0.005 | 5.53 | 5 | 7 | 10 | 1.268 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9928 | 0.0023 | 0.0622 | 0.0249 | 1.012 | 1.187 | 0.968 | 0.627 | 0.997 | 0.035 | 0.006 | 0.003 | 5.42 | 5 | 7 | 9 | 1.315 | 0.31 | 0.01 | 0.00 |
| | 300 | 0.9916 | 0.0013 | 0.0540 | 0.0266 | 1.013 | 1.194 | 0.963 | 0.676 | 0.996 | 0.030 | 0.005 | 0.002 | 5.36 | 5 | 7 | 9 | 1.359 | 0.35 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9943 | 0.0039 | 0.0535 | 0.0123 | 1.009 | 1.150 | 0.974 | 0.684 | 0.998 | 0.039 | 0.004 | 0.003 | 5.36 | 5 | 7 | 9 | 1.307 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9882 | 0.0015 | 0.0412 | 0.0144 | 1.011 | 1.188 | 0.947 | 0.718 | 0.994 | 0.023 | 0.003 | 0.002 | 5.24 | 5 | 6 | 8 | 1.357 | 0.35 | 0.01 | 0.00 |
| | 300 | 0.9877 | 0.0009 | 0.0362 | 0.0152 | 1.012 | 1.191 | 0.945 | 0.750 | 0.994 | 0.020 | 0.005 | 0.001 | 5.20 | 5 | 6 | 9 | 1.412 | 0.40 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9866 | 0.0019 | 0.0266 | 0.0041 | 1.010 | 1.183 | 0.939 | 0.789 | 0.996 | 0.018 | 0.002 | 0.001 | 5.12 | 4 | 6 | 8 | 1.440 | 0.43 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9743 | 0.0007 | 0.0190 | 0.0044 | 1.016 | 1.262 | 0.888 | 0.783 | 0.986 | 0.012 | 0.001 | 0.000 | 5.00 | 4 | 6 | 8 | 1.472 | 0.47 | 0.01 | 0.00 |
| | 300 | 0.9715 | 0.0004 | 0.0162 | 0.0045 | 1.019 | 1.295 | 0.877 | 0.788 | 0.984 | 0.011 | 0.002 | 0.000 | 4.97 | 4 | 6 | 7 | 1.527 | 0.52 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9959 | 0.0052 | 0.0695 | 0.0177 | 1.009 | 1.139 | 0.983 | 0.614 | 0.997 | 0.051 | 0.008 | 0.004 | 5.50 | 5 | 7 | 10 | 1.241 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9902 | 0.0021 | 0.0582 | 0.0208 | 1.012 | 1.171 | 0.963 | 0.643 | 0.989 | 0.035 | 0.006 | 0.002 | 5.38 | 5 | 7 | 9 | 1.279 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9889 | 0.0012 | 0.0509 | 0.0235 | 1.014 | 1.179 | 0.959 | 0.688 | 0.986 | 0.029 | 0.005 | 0.002 | 5.32 | 5 | 7 | 9 | 1.327 | 0.33 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9931 | 0.0038 | 0.0514 | 0.0103 | 1.009 | 1.136 | 0.972 | 0.692 | 0.994 | 0.039 | 0.003 | 0.002 | 5.34 | 5 | 6.5 | 9 | 1.287 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9845 | 0.0014 | 0.0384 | 0.0117 | 1.014 | 1.185 | 0.941 | 0.728 | 0.982 | 0.022 | 0.003 | 0.002 | 5.20 | 4 | 6 | 8 | 1.324 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.9842 | 0.0008 | 0.0344 | 0.0135 | 1.015 | 1.192 | 0.940 | 0.755 | 0.982 | 0.020 | 0.005 | 0.001 | 5.17 | 4 | 6 | 8 | 1.386 | 0.38 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9815 | 0.0018 | 0.0256 | 0.0032 | 1.015 | 1.201 | 0.929 | 0.785 | 0.980 | 0.018 | 0.002 | 0.001 | 5.09 | 4 | 6 | 8 | 1.409 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9690 | 0.0006 | 0.0184 | 0.0037 | 1.022 | 1.280 | 0.880 | 0.779 | 0.968 | 0.012 | 0.001 | 0.000 | 4.97 | 4 | 6 | 8 | 1.442 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9659 | 0.0004 | 0.0155 | 0.0038 | 1.026 | 1.312 | 0.869 | 0.785 | 0.964 | 0.011 | 0.002 | 0.000 | 4.94 | 4 | 6 | 7 | 1.498 | 0.49 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9994 | 0.0892 | 0.5315 | 0.4665 | 1.078 | 1.566 | 0.997 | 0.026 | 1.000 | 0.112 | 0.097 | 0.107 | 13.83 | 6 | 25 | 42 | - | - | - | - |
| | 200 | 0.9987 | 0.0620 | 0.6048 | 0.5670 | 1.095 | 1.667 | 0.994 | 0.012 | 1.000 | 0.091 | 0.079 | 0.080 | 17.34 | 7 | 34 | 61 | - | - | - | - |
| | 300 | 0.9988 | 0.0509 | 0.6513 | 0.6222 | 1.110 | 1.733 | 0.994 | 0.009 | 1.000 | 0.074 | 0.065 | 0.058 | 20.21 | 8 | 40 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9780 | 0.0239 | 0.1839 | 0.1629 | 1.062 | 1.824 | 0.902 | 0.381 | 1.000 | 0.027 | 0.021 | 0.029 | 7.26 | 4 | 17 | 38 | - | - | - | - |
| | 200 | 0.9794 | 0.0254 | 0.2940 | 0.2767 | 1.094 | 2.069 | 0.910 | 0.260 | 0.998 | 0.034 | 0.029 | 0.034 | 9.96 | 4 | 26 | 48 | - | - | - | - |
| | 300 | 0.9786 | 0.0241 | 0.3629 | 0.3470 | 1.117 | 2.236 | 0.905 | 0.209 | 0.999 | 0.035 | 0.032 | 0.026 | 12.11 | 4 | 31 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 155: MC findings for DGPII(b)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0152 | 0.1907 | 0.0136 | 1.004 | 1.187 | 1.000 | 0.111 | 1.000 | 0.316 | 0.027 | 0.005 | 6.50 | 5 | 8 | 12 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0066 | 0.1706 | 0.0141 | 1.003 | 1.166 | 1.000 | 0.147 | 1.000 | 0.236 | 0.021 | 0.004 | 6.32 | 5 | 8 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0043 | 0.1658 | 0.0167 | 1.004 | 1.177 | 1.000 | 0.160 | 1.000 | 0.215 | 0.013 | 0.002 | 6.27 | 5 | 8 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0131 | 0.1693 | 0.0071 | 1.003 | 1.153 | 1.000 | 0.154 | 1.000 | 0.267 | 0.016 | 0.003 | 6.30 | 5 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0056 | 0.1486 | 0.0077 | 1.002 | 1.133 | 1.000 | 0.206 | 1.000 | 0.184 | 0.016 | 0.003 | 6.12 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1408 | 0.0080 | 1.002 | 1.140 | 1.000 | 0.238 | 1.000 | 0.168 | 0.008 | 0.001 | 6.05 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0097 | 0.1299 | 0.0012 | 1.002 | 1.110 | 1.000 | 0.267 | 1.000 | 0.157 | 0.008 | 0.001 | 5.96 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0041 | 0.1128 | 0.0019 | 1.002 | 1.098 | 1.000 | 0.338 | 1.000 | 0.109 | 0.006 | 0.001 | 5.82 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0025 | 0.1043 | 0.0021 | 1.001 | 1.101 | 1.000 | 0.384 | 1.000 | 0.099 | 0.003 | 0.000 | 5.76 | 5 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0150 | 0.1890 | 0.0118 | 1.003 | 1.171 | 1.000 | 0.111 | 1.000 | 0.315 | 0.027 | 0.005 | 6.49 | 5 | 8 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0066 | 0.1698 | 0.0132 | 1.003 | 1.156 | 1.000 | 0.149 | 1.000 | 0.236 | 0.021 | 0.004 | 6.31 | 5 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0042 | 0.1649 | 0.0156 | 1.003 | 1.165 | 1.000 | 0.161 | 1.000 | 0.215 | 0.013 | 0.002 | 6.26 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0131 | 0.1684 | 0.0062 | 1.003 | 1.144 | 1.000 | 0.154 | 1.000 | 0.266 | 0.016 | 0.003 | 6.29 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0056 | 0.1484 | 0.0074 | 1.002 | 1.129 | 1.000 | 0.206 | 1.000 | 0.184 | 0.016 | 0.003 | 6.12 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1401 | 0.0072 | 1.002 | 1.131 | 1.000 | 0.239 | 1.000 | 0.168 | 0.008 | 0.001 | 6.05 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0097 | 0.1298 | 0.0011 | 1.002 | 1.109 | 1.000 | 0.267 | 1.000 | 0.157 | 0.008 | 0.001 | 5.96 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0041 | 0.1128 | 0.0019 | 1.002 | 1.098 | 1.000 | 0.338 | 1.000 | 0.109 | 0.006 | 0.001 | 5.82 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0025 | 0.1040 | 0.0017 | 1.001 | 1.096 | 1.000 | 0.384 | 1.000 | 0.099 | 0.003 | 0.000 | 5.75 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0862 | 0.5259 | 0.4623 | 1.023 | 1.472 | 1.000 | 0.022 | 1.000 | 0.125 | 0.101 | 0.096 | 13.53 | 6 | 24 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0546 | 0.5761 | 0.5381 | 1.027 | 1.562 | 1.000 | 0.012 | 1.000 | 0.091 | 0.060 | 0.068 | 15.86 | 7 | 31 | 60 | - | - | - | - |
| | 300 | 1.0000 | 0.0435 | 0.6155 | 0.5866 | 1.031 | 1.604 | 1.000 | 0.009 | 1.000 | 0.087 | 0.055 | 0.046 | 18.00 | 7 | 36 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0186 | 0.1227 | 0.1083 | 1.013 | 1.494 | 1.000 | 0.715 | 1.000 | 0.025 | 0.025 | 0.022 | 6.85 | 5 | 16 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0171 | 0.1945 | 0.1828 | 1.020 | 1.731 | 1.000 | 0.606 | 1.000 | 0.023 | 0.020 | 0.024 | 8.41 | 5 | 22 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0171 | 0.2627 | 0.2509 | 1.029 | 1.954 | 1.000 | 0.514 | 1.000 | 0.029 | 0.026 | 0.018 | 10.10 | 5 | 26 | 44 | - | - | - | - |

Notes: See notes to Table 100.

## Table 156: MC findings for DGPII(b)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0211 | 0.2494 | 0.0116 | 1.003 | 1.211 | 1.000 | 0.006 | 1.000 | 0.565 | 0.047 | 0.013 | 7.09 | 6 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0097 | 0.2357 | 0.0133 | 1.002 | 1.213 | 1.000 | 0.006 | 1.000 | 0.497 | 0.033 | 0.005 | 6.93 | 6 | 8 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0061 | 0.2260 | 0.0122 | 1.002 | 1.197 | 1.000 | 0.012 | 1.000 | 0.469 | 0.029 | 0.003 | 6.83 | 6 | 8 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0189 | 0.2295 | 0.0055 | 1.002 | 1.186 | 1.000 | 0.010 | 1.000 | 0.499 | 0.029 | 0.009 | 6.87 | 6 | 8 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0087 | 0.2163 | 0.0069 | 1.002 | 1.181 | 1.000 | 0.012 | 1.000 | 0.433 | 0.023 | 0.004 | 6.72 | 6 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0055 | 0.2085 | 0.0056 | 1.002 | 1.167 | 1.000 | 0.023 | 1.000 | 0.409 | 0.025 | 0.002 | 6.65 | 6 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0154 | 0.1958 | 0.0016 | 1.002 | 1.154 | 1.000 | 0.032 | 1.000 | 0.363 | 0.015 | 0.003 | 6.52 | 6 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0070 | 0.1835 | 0.0012 | 1.001 | 1.144 | 1.000 | 0.045 | 1.000 | 0.303 | 0.011 | 0.002 | 6.40 | 6 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0045 | 0.1772 | 0.0010 | 1.001 | 1.136 | 1.000 | 0.054 | 1.000 | 0.278 | 0.009 | 0.002 | 6.34 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0210 | 0.2490 | 0.0111 | 1.002 | 1.206 | 1.000 | 0.006 | 1.000 | 0.565 | 0.047 | 0.013 | 7.08 | 6 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0096 | 0.2347 | 0.0122 | 1.002 | 1.199 | 1.000 | 0.006 | 1.000 | 0.496 | 0.033 | 0.005 | 6.92 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0061 | 0.2255 | 0.0117 | 1.002 | 1.189 | 1.000 | 0.012 | 1.000 | 0.469 | 0.029 | 0.003 | 6.83 | 6 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0188 | 0.2293 | 0.0053 | 1.002 | 1.184 | 1.000 | 0.010 | 1.000 | 0.499 | 0.029 | 0.009 | 6.87 | 6 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0086 | 0.2158 | 0.0063 | 1.002 | 1.175 | 1.000 | 0.012 | 1.000 | 0.433 | 0.023 | 0.004 | 6.72 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0055 | 0.2083 | 0.0054 | 1.002 | 1.164 | 1.000 | 0.023 | 1.000 | 0.409 | 0.025 | 0.002 | 6.65 | 6 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0154 | 0.1957 | 0.0014 | 1.002 | 1.152 | 1.000 | 0.032 | 1.000 | 0.363 | 0.015 | 0.003 | 6.52 | 6 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0070 | 0.1835 | 0.0011 | 1.001 | 1.143 | 1.000 | 0.045 | 1.000 | 0.303 | 0.011 | 0.002 | 6.40 | 6 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0045 | 0.1772 | 0.0009 | 1.001 | 1.135 | 1.000 | 0.054 | 1.000 | 0.278 | 0.009 | 0.002 | 6.34 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0832 | 0.5160 | 0.4546 | 1.013 | 1.464 | 1.000 | 0.023 | 1.000 | 0.121 | 0.106 | 0.100 | 13.24 | 6 | 26 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.0533 | 0.5642 | 0.5274 | 1.015 | 1.546 | 1.000 | 0.014 | 1.000 | 0.088 | 0.061 | 0.063 | 15.60 | 7 | 28 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0406 | 0.5893 | 0.5613 | 1.018 | 1.602 | 1.000 | 0.013 | 1.000 | 0.077 | 0.050 | 0.053 | 17.15 | 7 | 32 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0169 | 0.1095 | 0.0970 | 1.007 | 1.447 | 1.000 | 0.783 | 1.000 | 0.018 | 0.021 | 0.018 | 6.67 | 5 | 16 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0163 | 0.1915 | 0.1794 | 1.011 | 1.676 | 1.000 | 0.660 | 1.000 | 0.020 | 0.019 | 0.015 | 8.25 | 5 | 19 | 42 | - | - | - | - |
| | 300 | 1.0000 | 0.0152 | 0.2429 | 0.2316 | 1.015 | 1.857 | 1.000 | 0.598 | 1.000 | 0.027 | 0.014 | 0.021 | 9.54 | 5 | 23 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 157: MC findings for DGPII(b)

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9499 | 0.0041 | 0.0564 | 0.0233 | 1.024 | 1.266 | 0.809 | 0.572 | 0.956 | 0.054 | 0.010 | 0.007 | 5.16 | 4 | 7 | 10 | 1.230 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9290 | 0.0018 | 0.0517 | 0.0295 | 1.031 | 1.333 | 0.744 | 0.536 | 0.928 | 0.037 | 0.003 | 0.002 | 5.01 | 4 | 6 | 9 | 1.230 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.9158 | 0.0011 | 0.0484 | 0.0286 | 1.038 | 1.381 | 0.717 | 0.525 | 0.905 | 0.030 | 0.003 | 0.001 | 4.91 | 3 | 6 | 8 | 1.246 | 0.24 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9306 | 0.0027 | 0.0379 | 0.0135 | 1.027 | 1.288 | 0.747 | 0.593 | 0.939 | 0.037 | 0.007 | 0.004 | 4.92 | 4 | 6 | 9 | 1.259 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9044 | 0.0011 | 0.0335 | 0.0168 | 1.035 | 1.365 | 0.665 | 0.541 | 0.908 | 0.027 | 0.003 | 0.002 | 4.75 | 3 | 6 | 8 | 1.251 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.8941 | 0.0007 | 0.0315 | 0.0168 | 1.042 | 1.406 | 0.657 | 0.544 | 0.885 | 0.025 | 0.002 | 0.001 | 4.68 | 3 | 6 | 7 | 1.281 | 0.28 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8677 | 0.0010 | 0.0144 | 0.0034 | 1.044 | 1.435 | 0.551 | 0.501 | 0.880 | 0.017 | 0.004 | 0.002 | 4.43 | 3 | 6 | 8 | 1.326 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8392 | 0.0004 | 0.0140 | 0.0052 | 1.055 | 1.526 | 0.498 | 0.451 | 0.847 | 0.010 | 0.001 | 0.001 | 4.28 | 3 | 5 | 7 | 1.328 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.8255 | 0.0003 | 0.0125 | 0.0056 | 1.064 | 1.560 | 0.482 | 0.444 | 0.812 | 0.011 | 0.001 | 0.001 | 4.21 | 3 | 5 | 7 | 1.319 | 0.32 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9395 | 0.0038 | 0.0534 | 0.0201 | 1.031 | 1.257 | 0.808 | 0.587 | 0.907 | 0.054 | 0.010 | 0.007 | 5.08 | 4 | 6 | 9 | 1.158 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9177 | 0.0017 | 0.0493 | 0.0269 | 1.039 | 1.322 | 0.743 | 0.546 | 0.873 | 0.037 | 0.003 | 0.002 | 4.93 | 4 | 6 | 9 | 1.156 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.9002 | 0.0010 | 0.0462 | 0.0262 | 1.050 | 1.380 | 0.716 | 0.538 | 0.831 | 0.030 | 0.003 | 0.001 | 4.81 | 3 | 6 | 8 | 1.155 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9191 | 0.0025 | 0.0365 | 0.0120 | 1.036 | 1.289 | 0.747 | 0.601 | 0.882 | 0.037 | 0.007 | 0.004 | 4.85 | 3 | 6 | 9 | 1.193 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8908 | 0.0011 | 0.0322 | 0.0154 | 1.046 | 1.368 | 0.665 | 0.547 | 0.841 | 0.026 | 0.003 | 0.002 | 4.67 | 3 | 6 | 8 | 1.175 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.8759 | 0.0006 | 0.0299 | 0.0149 | 1.056 | 1.409 | 0.655 | 0.551 | 0.798 | 0.025 | 0.002 | 0.001 | 4.57 | 3 | 6 | 7 | 1.179 | 0.18 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8526 | 0.0009 | 0.0139 | 0.0028 | 1.057 | 1.442 | 0.549 | 0.503 | 0.809 | 0.017 | 0.004 | 0.002 | 4.35 | 3 | 5 | 8 | 1.248 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8174 | 0.0004 | 0.0137 | 0.0048 | 1.073 | 1.541 | 0.497 | 0.452 | 0.741 | 0.010 | 0.001 | 0.001 | 4.17 | 2 | 5 | 7 | 1.216 | 0.22 | 0.00 | 0.00 |
| | 300 | 0.8011 | 0.0002 | 0.0123 | 0.0051 | 1.084 | 1.574 | 0.481 | 0.446 | 0.693 | 0.011 | 0.001 | 0.001 | 4.08 | 2 | 5 | 7 | 1.195 | 0.20 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9693 | 0.0834 | 0.5159 | 0.4542 | 1.081 | 1.516 | 0.858 | 0.023 | 0.999 | 0.101 | 0.095 | 0.107 | 13.11 | 6 | 25 | 46 | - | - | - | - |
| | 200 | 0.9624 | 0.0588 | 0.5917 | 0.5543 | 1.099 | 1.627 | 0.828 | 0.016 | 0.997 | 0.083 | 0.075 | 0.074 | 16.52 | 6 | 32 | 74 | - | - | - | - |
| | 300 | 0.9602 | 0.0494 | 0.6410 | 0.6118 | 1.108 | 1.705 | 0.821 | 0.008 | 0.995 | 0.075 | 0.050 | 0.056 | 19.56 | 7 | 41 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8509 | 0.0257 | 0.2179 | 0.1908 | 1.078 | 1.901 | 0.456 | 0.096 | 0.984 | 0.026 | 0.021 | 0.034 | 6.80 | 3 | 15 | 39 | - | - | - | - |
| | 200 | 0.8635 | 0.0245 | 0.3180 | 0.2975 | 1.103 | 2.125 | 0.499 | 0.071 | 0.982 | 0.029 | 0.034 | 0.030 | 9.20 | 3 | 24 | 57 | - | - | - | - |
| | 300 | 0.8741 | 0.0253 | 0.4004 | 0.3812 | 1.129 | 2.322 | 0.547 | 0.050 | 0.975 | 0.037 | 0.021 | 0.026 | 11.93 | 3 | 34 | 59 | - | - | - | - |

Notes: See notes to Table 100.

## Table 158: MC findings for DGPII(b)

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0118 | 0.1519 | 0.0125 | 1.003 | 1.155 | 1.000 | 0.299 | 1.000 | 0.297 | 0.023 | 0.009 | 6.17 | 5 | 8 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0053 | 0.1374 | 0.0141 | 1.003 | 1.149 | 1.000 | 0.351 | 1.000 | 0.248 | 0.019 | 0.008 | 6.05 | 5 | 8 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.1311 | 0.0161 | 1.004 | 1.155 | 1.000 | 0.374 | 1.000 | 0.216 | 0.015 | 0.004 | 6.01 | 5 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0097 | 0.1275 | 0.0071 | 1.002 | 1.123 | 1.000 | 0.379 | 1.000 | 0.237 | 0.017 | 0.007 | 5.96 | 5 | 7 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0043 | 0.1142 | 0.0075 | 1.002 | 1.113 | 1.000 | 0.436 | 1.000 | 0.207 | 0.013 | 0.005 | 5.86 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1092 | 0.0096 | 1.003 | 1.121 | 1.000 | 0.453 | 1.000 | 0.178 | 0.010 | 0.002 | 5.82 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0062 | 0.0845 | 0.0015 | 1.001 | 1.076 | 1.000 | 0.557 | 1.000 | 0.139 | 0.008 | 0.001 | 5.61 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0027 | 0.0754 | 0.0014 | 1.001 | 1.066 | 1.000 | 0.599 | 1.000 | 0.125 | 0.005 | 0.002 | 5.55 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0712 | 0.0022 | 1.001 | 1.066 | 1.000 | 0.625 | 1.000 | 0.115 | 0.004 | 0.001 | 5.52 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0117 | 0.1508 | 0.0115 | 1.003 | 1.144 | 1.000 | 0.303 | 1.000 | 0.297 | 0.023 | 0.009 | 6.16 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0052 | 0.1364 | 0.0129 | 1.003 | 1.137 | 1.000 | 0.353 | 1.000 | 0.248 | 0.019 | 0.008 | 6.04 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0033 | 0.1306 | 0.0154 | 1.003 | 1.149 | 1.000 | 0.376 | 1.000 | 0.216 | 0.015 | 0.004 | 6.00 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0096 | 0.1267 | 0.0063 | 1.002 | 1.114 | 1.000 | 0.382 | 1.000 | 0.237 | 0.017 | 0.006 | 5.95 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0043 | 0.1137 | 0.0069 | 1.002 | 1.106 | 1.000 | 0.438 | 1.000 | 0.207 | 0.013 | 0.005 | 5.85 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1088 | 0.0092 | 1.003 | 1.116 | 1.000 | 0.454 | 1.000 | 0.178 | 0.010 | 0.002 | 5.81 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0062 | 0.0844 | 0.0013 | 1.001 | 1.075 | 1.000 | 0.558 | 1.000 | 0.139 | 0.008 | 0.001 | 5.61 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0027 | 0.0753 | 0.0013 | 1.001 | 1.064 | 1.000 | 0.599 | 1.000 | 0.125 | 0.005 | 0.002 | 5.54 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0711 | 0.0022 | 1.001 | 1.066 | 1.000 | 0.625 | 1.000 | 0.115 | 0.004 | 0.001 | 5.51 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0849 | 0.5245 | 0.4637 | 1.022 | 1.489 | 1.000 | 0.021 | 1.000 | 0.128 | 0.093 | 0.102 | 13.41 | 7 | 24 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0547 | 0.5749 | 0.5366 | 1.028 | 1.551 | 1.000 | 0.018 | 1.000 | 0.094 | 0.060 | 0.063 | 15.89 | 7 | 31 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0416 | 0.6073 | 0.5784 | 1.030 | 1.590 | 1.000 | 0.013 | 1.000 | 0.076 | 0.047 | 0.051 | 17.43 | 7 | 34 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9961 | 0.0222 | 0.1659 | 0.1462 | 1.016 | 1.678 | 0.981 | 0.492 | 1.000 | 0.027 | 0.025 | 0.022 | 7.18 | 5 | 17 | 35 | - | - | - | - |
| | 200 | 0.9958 | 0.0220 | 0.2544 | 0.2378 | 1.027 | 1.964 | 0.980 | 0.388 | 1.000 | 0.035 | 0.019 | 0.024 | 9.35 | 5 | 24 | 47 | - | - | - | - |
| | 300 | 0.9963 | 0.0189 | 0.3027 | 0.2895 | 1.035 | 2.150 | 0.983 | 0.346 | 1.000 | 0.028 | 0.018 | 0.023 | 10.63 | 5 | 28 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 159: MC findings for DGPII(b)

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0190 | 0.2297 | 0.0121 | 1.002 | 1.206 | 1.000 | 0.059 | 1.000 | 0.581 | 0.042 | 0.009 | 6.88 | 6 | 8 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0086 | 0.2135 | 0.0136 | 1.002 | 1.213 | 1.000 | 0.081 | 1.000 | 0.499 | 0.033 | 0.004 | 6.72 | 6 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2083 | 0.0151 | 1.003 | 1.206 | 1.000 | 0.084 | 1.000 | 0.476 | 0.023 | 0.005 | 6.66 | 6 | 8 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0169 | 0.2090 | 0.0065 | 1.002 | 1.175 | 1.000 | 0.094 | 1.000 | 0.520 | 0.028 | 0.006 | 6.67 | 6 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0075 | 0.1911 | 0.0065 | 1.002 | 1.172 | 1.000 | 0.126 | 1.000 | 0.436 | 0.022 | 0.002 | 6.50 | 5 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.1868 | 0.0080 | 1.002 | 1.168 | 1.000 | 0.126 | 1.000 | 0.412 | 0.017 | 0.005 | 6.45 | 5 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0131 | 0.1695 | 0.0020 | 1.001 | 1.127 | 1.000 | 0.183 | 1.000 | 0.385 | 0.011 | 0.002 | 6.30 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0058 | 0.1543 | 0.0012 | 1.001 | 1.124 | 1.000 | 0.223 | 1.000 | 0.314 | 0.008 | 0.002 | 6.16 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0037 | 0.1475 | 0.0016 | 1.001 | 1.119 | 1.000 | 0.239 | 1.000 | 0.291 | 0.009 | 0.001 | 6.11 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0189 | 0.2290 | 0.0112 | 1.002 | 1.197 | 1.000 | 0.060 | 1.000 | 0.581 | 0.042 | 0.009 | 6.87 | 6 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0086 | 0.2127 | 0.0126 | 1.002 | 1.201 | 1.000 | 0.082 | 1.000 | 0.499 | 0.033 | 0.004 | 6.71 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0055 | 0.2076 | 0.0142 | 1.003 | 1.197 | 1.000 | 0.084 | 1.000 | 0.476 | 0.023 | 0.005 | 6.66 | 6 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0168 | 0.2083 | 0.0057 | 1.002 | 1.166 | 1.000 | 0.095 | 1.000 | 0.520 | 0.027 | 0.006 | 6.66 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0075 | 0.1908 | 0.0061 | 1.002 | 1.167 | 1.000 | 0.126 | 1.000 | 0.436 | 0.022 | 0.002 | 6.49 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.1865 | 0.0076 | 1.002 | 1.163 | 1.000 | 0.126 | 1.000 | 0.412 | 0.017 | 0.005 | 6.45 | 5 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0131 | 0.1694 | 0.0019 | 1.001 | 1.126 | 1.000 | 0.183 | 1.000 | 0.385 | 0.011 | 0.002 | 6.30 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0058 | 0.1542 | 0.0011 | 1.001 | 1.121 | 1.000 | 0.223 | 1.000 | 0.314 | 0.008 | 0.002 | 6.16 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0037 | 0.1473 | 0.0014 | 1.001 | 1.116 | 1.000 | 0.239 | 1.000 | 0.291 | 0.009 | 0.001 | 6.10 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0842 | 0.5206 | 0.4553 | 1.013 | 1.468 | 1.000 | 0.019 | 1.000 | 0.116 | 0.097 | 0.102 | 13.34 | 6 | 24 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0546 | 0.5785 | 0.5399 | 1.016 | 1.552 | 1.000 | 0.012 | 1.000 | 0.091 | 0.061 | 0.064 | 15.87 | 7 | 30 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0418 | 0.6070 | 0.5777 | 1.018 | 1.587 | 1.000 | 0.014 | 1.000 | 0.069 | 0.051 | 0.054 | 17.51 | 7 | 33.5 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9997 | 0.0190 | 0.1263 | 0.1113 | 1.008 | 1.558 | 0.999 | 0.678 | 1.000 | 0.025 | 0.021 | 0.027 | 6.88 | 5 | 17 | 37 | - | - | - | - |
| | 200 | 0.9997 | 0.0193 | 0.2199 | 0.2071 | 1.015 | 1.845 | 0.999 | 0.524 | 1.000 | 0.029 | 0.024 | 0.022 | 8.85 | 5 | 23 | 40 | - | - | - | - |
| | 300 | 0.9997 | 0.0174 | 0.2683 | 0.2563 | 1.020 | 2.030 | 0.999 | 0.467 | 1.000 | 0.027 | 0.019 | 0.025 | 10.19 | 5 | 26 | 56 | - | - | - | - |

Notes: See notes to Table 100.

## Table 160: MC findings for DGPII(b)

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7237 | 0.0028 | 0.0488 | 0.0256 | 1.047 | 1.416 | 0.281 | 0.221 | 0.842 | 0.050 | 0.006 | 0.004 | 3.90 | 2 | 6 | 8 | 1.108 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6633 | 0.0013 | 0.0479 | 0.0324 | 1.064 | 1.513 | 0.207 | 0.161 | 0.780 | 0.037 | 0.005 | 0.003 | 3.58 | 1 | 6 | 8 | 1.097 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.6345 | 0.0009 | 0.0532 | 0.0379 | 1.075 | 1.553 | 0.183 | 0.138 | 0.747 | 0.036 | 0.004 | 0.003 | 3.45 | 1 | 5 | 7 | 1.103 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.6643 | 0.0018 | 0.0323 | 0.0152 | 1.057 | 1.465 | 0.209 | 0.180 | 0.795 | 0.036 | 0.004 | 0.002 | 3.50 | 1 | 5 | 8 | 1.111 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6063 | 0.0008 | 0.0297 | 0.0193 | 1.075 | 1.556 | 0.144 | 0.126 | 0.732 | 0.026 | 0.002 | 0.001 | 3.18 | 1 | 5 | 8 | 1.100 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.5789 | 0.0005 | 0.0320 | 0.0210 | 1.086 | 1.583 | 0.134 | 0.115 | 0.689 | 0.025 | 0.003 | 0.001 | 3.05 | 1 | 5 | 7 | 1.096 | 0.10 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5358 | 0.0006 | 0.0119 | 0.0032 | 1.088 | 1.593 | 0.107 | 0.101 | 0.662 | 0.019 | 0.002 | 0.001 | 2.74 | 0 | 5 | 6 | 1.104 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4755 | 0.0002 | 0.0091 | 0.0055 | 1.106 | 1.689 | 0.061 | 0.058 | 0.610 | 0.009 | 0.001 | 0.000 | 2.42 | 0 | 4 | 6 | 1.107 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.4494 | 0.0002 | 0.0125 | 0.0068 | 1.117 | 1.704 | 0.062 | 0.057 | 0.553 | 0.011 | 0.001 | 0.000 | 2.30 | 0 | 4 | 6 | 1.101 | 0.10 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7112 | 0.0027 | 0.0467 | 0.0236 | 1.053 | 1.405 | 0.281 | 0.226 | 0.792 | 0.050 | 0.006 | 0.003 | 3.82 | 2 | 6 | 8 | 1.033 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6523 | 0.0012 | 0.0460 | 0.0305 | 1.070 | 1.500 | 0.207 | 0.166 | 0.733 | 0.037 | 0.005 | 0.003 | 3.51 | 1 | 5 | 8 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.6213 | 0.0009 | 0.0514 | 0.0358 | 1.082 | 1.539 | 0.183 | 0.142 | 0.695 | 0.036 | 0.004 | 0.003 | 3.37 | 1 | 5 | 7 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.6505 | 0.0017 | 0.0312 | 0.0141 | 1.064 | 1.460 | 0.209 | 0.183 | 0.744 | 0.036 | 0.004 | 0.002 | 3.42 | 1 | 5 | 8 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5940 | 0.0007 | 0.0285 | 0.0180 | 1.081 | 1.549 | 0.144 | 0.127 | 0.686 | 0.026 | 0.002 | 0.001 | 3.11 | 1 | 5 | 8 | 1.035 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.5653 | 0.0005 | 0.0314 | 0.0202 | 1.092 | 1.577 | 0.134 | 0.117 | 0.641 | 0.025 | 0.003 | 0.001 | 2.97 | 1 | 5 | 7 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5213 | 0.0006 | 0.0120 | 0.0033 | 1.096 | 1.595 | 0.107 | 0.101 | 0.614 | 0.019 | 0.002 | 0.001 | 2.67 | 0 | 5 | 6 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4607 | 0.0002 | 0.0091 | 0.0054 | 1.113 | 1.686 | 0.061 | 0.058 | 0.558 | 0.009 | 0.001 | 0.000 | 2.34 | 0 | 4 | 6 | 1.035 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.4341 | 0.0002 | 0.0123 | 0.0065 | 1.125 | 1.701 | 0.062 | 0.057 | 0.506 | 0.011 | 0.001 | 0.000 | 2.22 | 0 | 4 | 6 | 1.029 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8479 | 0.0751 | 0.5088 | 0.4469 | 1.070 | 1.355 | 0.412 | 0.014 | 0.983 | 0.096 | 0.090 | 0.097 | 11.68 | 5 | 23 | 40 | - | - | - | - |
| | 200 | 0.8261 | 0.0555 | 0.6012 | 0.5641 | 1.086 | 1.474 | 0.358 | 0.003 | 0.977 | 0.080 | 0.068 | 0.074 | 15.17 | 5 | 31 | 65 | - | - | - | - |
| | 300 | 0.8147 | 0.0450 | 0.6445 | 0.6139 | 1.096 | 1.505 | 0.331 | 0.003 | 0.979 | 0.058 | 0.059 | 0.061 | 17.52 | 5 | 38 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6763 | 0.0259 | 0.2558 | 0.2234 | 1.070 | 1.714 | 0.119 | 0.014 | 0.952 | 0.034 | 0.028 | 0.038 | 5.94 | 2 | 13.5 | 32 | - | - | - | - |
| | 200 | 0.6781 | 0.0248 | 0.3702 | 0.3469 | 1.098 | 1.990 | 0.114 | 0.008 | 0.945 | 0.033 | 0.029 | 0.034 | 8.33 | 2 | 21 | 60 | - | - | - | - |
| | 300 | 0.6840 | 0.0235 | 0.4377 | 0.4176 | 1.121 | 2.137 | 0.123 | 0.003 | 0.950 | 0.030 | 0.030 | 0.026 | 10.44 | 2 | 30 | 59 | - | - | - | - |

Notes: See notes to Table 100.

## Table 161: MC findings for DGPII(b)

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9984 | 0.0082 | 0.1071 | 0.0140 | 1.003 | 1.136 | 0.992 | 0.584 | 1.000 | 0.292 | 0.022 | 0.010 | 5.81 | 5 | 7 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9975 | 0.0033 | 0.0872 | 0.0144 | 1.003 | 1.132 | 0.988 | 0.640 | 1.000 | 0.224 | 0.015 | 0.006 | 5.64 | 5 | 7 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9952 | 0.0020 | 0.0793 | 0.0143 | 1.003 | 1.138 | 0.977 | 0.663 | 1.000 | 0.208 | 0.014 | 0.005 | 5.56 | 5 | 7 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9975 | 0.0061 | 0.0812 | 0.0077 | 1.002 | 1.098 | 0.988 | 0.680 | 1.000 | 0.235 | 0.016 | 0.005 | 5.59 | 5 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9958 | 0.0025 | 0.0663 | 0.0081 | 1.003 | 1.104 | 0.980 | 0.718 | 1.000 | 0.181 | 0.010 | 0.004 | 5.47 | 5 | 7 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9924 | 0.0015 | 0.0598 | 0.0082 | 1.003 | 1.115 | 0.963 | 0.728 | 1.000 | 0.162 | 0.010 | 0.003 | 5.40 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9906 | 0.0035 | 0.0480 | 0.0020 | 1.002 | 1.088 | 0.953 | 0.773 | 1.000 | 0.145 | 0.009 | 0.002 | 5.30 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9897 | 0.0012 | 0.0343 | 0.0010 | 1.002 | 1.085 | 0.950 | 0.823 | 1.000 | 0.103 | 0.004 | 0.003 | 5.20 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9850 | 0.0007 | 0.0308 | 0.0019 | 1.002 | 1.103 | 0.927 | 0.817 | 1.000 | 0.098 | 0.004 | 0.001 | 5.14 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9984 | 0.0082 | 0.1064 | 0.0133 | 1.003 | 1.128 | 0.992 | 0.586 | 1.000 | 0.292 | 0.022 | 0.010 | 5.80 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9975 | 0.0033 | 0.0863 | 0.0136 | 1.003 | 1.123 | 0.988 | 0.643 | 1.000 | 0.224 | 0.015 | 0.006 | 5.63 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9952 | 0.0020 | 0.0789 | 0.0139 | 1.003 | 1.133 | 0.977 | 0.664 | 1.000 | 0.208 | 0.014 | 0.005 | 5.56 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9975 | 0.0060 | 0.0807 | 0.0072 | 1.002 | 1.092 | 0.988 | 0.683 | 1.000 | 0.235 | 0.016 | 0.005 | 5.59 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9958 | 0.0024 | 0.0660 | 0.0078 | 1.002 | 1.101 | 0.980 | 0.719 | 1.000 | 0.181 | 0.010 | 0.004 | 5.47 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9924 | 0.0014 | 0.0595 | 0.0079 | 1.002 | 1.111 | 0.963 | 0.729 | 1.000 | 0.162 | 0.010 | 0.003 | 5.40 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9906 | 0.0035 | 0.0478 | 0.0018 | 1.002 | 1.086 | 0.953 | 0.774 | 1.000 | 0.145 | 0.009 | 0.002 | 5.30 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9897 | 0.0012 | 0.0342 | 0.0009 | 1.002 | 1.084 | 0.950 | 0.823 | 1.000 | 0.103 | 0.004 | 0.003 | 5.19 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9847 | 0.0007 | 0.0306 | 0.0017 | 1.002 | 1.101 | 0.927 | 0.818 | 0.999 | 0.098 | 0.004 | 0.001 | 5.14 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9919 | 0.0847 | 0.5216 | 0.4602 | 1.023 | 1.471 | 0.961 | 0.016 | 1.000 | 0.111 | 0.095 | 0.100 | 13.34 | 6 | 24 | 41 | - | - | - | - |
| | 200 | 0.9909 | 0.0539 | 0.5729 | 0.5351 | 1.028 | 1.540 | 0.955 | 0.014 | 1.000 | 0.091 | 0.057 | 0.066 | 15.69 | 6 | 29 | 53 | - | - | - | - |
| | 300 | 0.9880 | 0.0416 | 0.6045 | 0.5767 | 1.032 | 1.585 | 0.942 | 0.015 | 1.000 | 0.072 | 0.042 | 0.056 | 17.39 | 7 | 33 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9238 | 0.0232 | 0.1892 | 0.1676 | 1.021 | 1.869 | 0.691 | 0.241 | 1.000 | 0.028 | 0.020 | 0.032 | 6.91 | 3 | 16 | 35 | - | - | - | - |
| | 200 | 0.9327 | 0.0220 | 0.2805 | 0.2627 | 1.031 | 2.119 | 0.713 | 0.167 | 1.000 | 0.029 | 0.021 | 0.027 | 9.04 | 4 | 23.5 | 46 | - | - | - | - |
| | 300 | 0.9333 | 0.0205 | 0.3449 | 0.3288 | 1.042 | 2.333 | 0.722 | 0.128 | 1.000 | 0.032 | 0.020 | 0.026 | 10.81 | 4 | 28 | 50 | - | - | - | - |

Notes: See notes to Table 100.

**Table 162: MC findings for DGPII(b)**

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0148 | 0.1850 | 0.0131 | 1.002 | 1.180 | 1.000 | 0.313 | 1.000 | 0.572 | 0.046 | 0.008 | 6.47 | 5 | 8 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0065 | 0.1650 | 0.0136 | 1.002 | 1.157 | 1.000 | 0.371 | 1.000 | 0.505 | 0.034 | 0.006 | 6.29 | 5 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1567 | 0.0138 | 1.002 | 1.154 | 1.000 | 0.401 | 1.000 | 0.480 | 0.024 | 0.003 | 6.22 | 5 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0126 | 0.1608 | 0.0066 | 1.002 | 1.137 | 1.000 | 0.398 | 1.000 | 0.516 | 0.034 | 0.006 | 6.25 | 5 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0054 | 0.1398 | 0.0062 | 1.002 | 1.112 | 1.000 | 0.461 | 1.000 | 0.447 | 0.019 | 0.004 | 6.07 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.1321 | 0.0073 | 1.002 | 1.113 | 1.000 | 0.491 | 1.000 | 0.416 | 0.017 | 0.001 | 6.00 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0085 | 0.1133 | 0.0019 | 1.001 | 1.084 | 1.000 | 0.559 | 1.000 | 0.364 | 0.015 | 0.003 | 5.85 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0036 | 0.0973 | 0.0012 | 1.001 | 1.064 | 1.000 | 0.630 | 1.000 | 0.323 | 0.007 | 0.001 | 5.72 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0022 | 0.0884 | 0.0015 | 1.001 | 1.063 | 0.999 | 0.658 | 1.000 | 0.287 | 0.009 | 0.000 | 5.65 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0147 | 0.1842 | 0.0121 | 1.002 | 1.169 | 1.000 | 0.317 | 1.000 | 0.572 | 0.046 | 0.008 | 6.46 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0065 | 0.1643 | 0.0128 | 1.002 | 1.149 | 1.000 | 0.375 | 1.000 | 0.505 | 0.034 | 0.006 | 6.29 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1563 | 0.0133 | 1.002 | 1.149 | 1.000 | 0.402 | 1.000 | 0.480 | 0.024 | 0.003 | 6.21 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0126 | 0.1603 | 0.0063 | 1.002 | 1.132 | 1.000 | 0.399 | 1.000 | 0.516 | 0.034 | 0.006 | 6.24 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0053 | 0.1394 | 0.0057 | 1.002 | 1.107 | 1.000 | 0.464 | 1.000 | 0.447 | 0.019 | 0.004 | 6.06 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0033 | 0.1319 | 0.0071 | 1.002 | 1.110 | 1.000 | 0.491 | 1.000 | 0.416 | 0.017 | 0.001 | 6.00 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0085 | 0.1131 | 0.0017 | 1.001 | 1.081 | 1.000 | 0.559 | 1.000 | 0.364 | 0.014 | 0.003 | 5.84 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0036 | 0.0972 | 0.0011 | 1.001 | 1.064 | 1.000 | 0.630 | 1.000 | 0.323 | 0.007 | 0.001 | 5.72 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0022 | 0.0884 | 0.0015 | 1.001 | 1.063 | 0.999 | 0.658 | 1.000 | 0.287 | 0.009 | 0.000 | 5.65 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0856 | 0.5285 | 0.4665 | 1.013 | 1.467 | 0.999 | 0.015 | 1.000 | 0.127 | 0.103 | 0.094 | 13.48 | 6.5 | 24 | 37 | - | - | - | - |
| | 200 | 0.9995 | 0.0554 | 0.5849 | 0.5463 | 1.017 | 1.522 | 0.998 | 0.012 | 1.000 | 0.088 | 0.063 | 0.069 | 16.02 | 7 | 29 | 56 | - | - | - | - |
| | 300 | 0.9985 | 0.0413 | 0.6026 | 0.5749 | 1.018 | 1.591 | 0.993 | 0.009 | 1.000 | 0.074 | 0.055 | 0.049 | 17.34 | 7 | 34 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9849 | 0.0235 | 0.1712 | 0.1512 | 1.011 | 1.797 | 0.928 | 0.453 | 1.000 | 0.034 | 0.023 | 0.022 | 7.25 | 4 | 17 | 33 | - | - | - | - |
| | 200 | 0.9842 | 0.0222 | 0.2617 | 0.2449 | 1.018 | 2.044 | 0.927 | 0.336 | 1.000 | 0.031 | 0.024 | 0.026 | 9.34 | 4 | 24 | 48 | - | - | - | - |
| | 300 | 0.9837 | 0.0203 | 0.3182 | 0.3041 | 1.024 | 2.309 | 0.925 | 0.288 | 1.000 | 0.037 | 0.020 | 0.017 | 10.98 | 4 | 28 | 59 | - | - | - | - |

Notes: See notes to Table 100.

### 3.2.3 Findings for designs featuring hidden signals

## Table 163: MC findings for DGPIII

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9986 | 0.0026 | 0.0352 | 0.0259 | 1.008 | 1.106 | 0.995 | 0.833 | 0.998 | 0.054 | 0.009 | 0.006 | 5.25 | 5 | 6 | 9 | 2.115 | 1.00 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9957 | 0.0013 | 0.0348 | 0.0282 | 1.011 | 1.163 | 0.986 | 0.815 | 0.996 | 0.039 | 0.008 | 0.003 | 5.23 | 5 | 6 | 9 | 2.157 | 1.00 | 0.15 | 0.01 |
| | 300 | 0.9947 | 0.0008 | 0.0345 | 0.0304 | 1.013 | 1.204 | 0.983 | 0.796 | 0.996 | 0.025 | 0.005 | 0.001 | 5.22 | 5 | 6 | 8 | 2.191 | 1.00 | 0.18 | 0.01 |
| $p = 0.05$, | 100 | 0.9974 | 0.0016 | 0.0213 | 0.0149 | 1.007 | 1.101 | 0.991 | 0.895 | 0.997 | 0.037 | 0.006 | 0.005 | 5.14 | 5 | 6 | 8 | 2.138 | 1.00 | 0.13 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9928 | 0.0008 | 0.0217 | 0.0169 | 1.011 | 1.192 | 0.976 | 0.871 | 0.994 | 0.029 | 0.005 | 0.002 | 5.12 | 5 | 6 | 8 | 2.189 | 1.00 | 0.18 | 0.01 |
| | 300 | 0.9894 | 0.0005 | 0.0209 | 0.0176 | 1.016 | 1.259 | 0.969 | 0.860 | 0.989 | 0.020 | 0.003 | 0.001 | 5.09 | 5 | 6 | 8 | 2.231 | 1.00 | 0.22 | 0.02 |
| $p = 0.01$, | 100 | 0.9899 | 0.0006 | 0.0081 | 0.0047 | 1.012 | 1.216 | 0.969 | 0.940 | 0.991 | 0.021 | 0.004 | 0.001 | 5.01 | 5 | 5 | 8 | 2.240 | 1.00 | 0.22 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9753 | 0.0003 | 0.0076 | 0.0049 | 1.026 | 1.464 | 0.931 | 0.905 | 0.979 | 0.015 | 0.003 | 0.001 | 4.93 | 4 | 5 | 7 | 2.269 | 0.98 | 0.27 | 0.02 |
| | 300 | 0.9666 | 0.0002 | 0.0066 | 0.0054 | 1.039 | 1.596 | 0.914 | 0.883 | 0.964 | 0.007 | 0.001 | 0.001 | 4.88 | 4 | 5 | 7 | 2.283 | 0.98 | 0.28 | 0.02 |
| $p = 0.1$, | 100 | 0.9964 | 0.0022 | 0.0302 | 0.0211 | 1.008 | 1.122 | 0.988 | 0.856 | 0.996 | 0.053 | 0.009 | 0.006 | 5.20 | 5 | 6 | 9 | 2.149 | 1.00 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9902 | 0.0011 | 0.0301 | 0.0234 | 1.015 | 1.219 | 0.973 | 0.834 | 0.985 | 0.039 | 0.008 | 0.003 | 5.17 | 5 | 6 | 9 | 2.184 | 1.00 | 0.18 | 0.00 |
| | 300 | 0.9863 | 0.0007 | 0.0302 | 0.0261 | 1.021 | 1.299 | 0.964 | 0.806 | 0.979 | 0.025 | 0.005 | 0.001 | 5.15 | 5 | 6 | 8 | 2.207 | 0.99 | 0.21 | 0.01 |
| $p = 0.05$, | 100 | 0.9932 | 0.0013 | 0.0184 | 0.0122 | 1.010 | 1.161 | 0.979 | 0.903 | 0.991 | 0.036 | 0.006 | 0.004 | 5.10 | 5 | 6 | 8 | 2.181 | 1.00 | 0.18 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9854 | 0.0007 | 0.0186 | 0.0137 | 1.018 | 1.286 | 0.957 | 0.875 | 0.980 | 0.029 | 0.005 | 0.002 | 5.06 | 5 | 6 | 8 | 2.223 | 0.99 | 0.22 | 0.01 |
| | 300 | 0.9762 | 0.0004 | 0.0178 | 0.0145 | 1.030 | 1.445 | 0.936 | 0.851 | 0.967 | 0.020 | 0.003 | 0.001 | 5.00 | 4 | 6 | 7 | 2.250 | 0.99 | 0.25 | 0.01 |
| $p = 0.01$, | 100 | 0.9753 | 0.0005 | 0.0070 | 0.0037 | 1.029 | 1.439 | 0.931 | 0.909 | 0.966 | 0.020 | 0.004 | 0.001 | 4.93 | 4 | 5 | 8 | 2.243 | 0.99 | 0.25 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9549 | 0.0002 | 0.0069 | 0.0041 | 1.051 | 1.741 | 0.884 | 0.865 | 0.945 | 0.015 | 0.003 | 0.001 | 4.82 | 4 | 5 | 7 | 2.268 | 0.97 | 0.29 | 0.01 |
| | 300 | 0.9431 | 0.0001 | 0.0057 | 0.0045 | 1.067 | 1.888 | 0.864 | 0.838 | 0.921 | 0.007 | 0.001 | 0.001 | 4.75 | 3 | 5 | 7 | 2.283 | 0.95 | 0.32 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9995 | 0.1586 | 0.6894 | 0.6657 | 1.140 | 2.677 | 0.998 | 0.001 | 1.000 | 0.178 | 0.166 | 0.170 | 20.69 | 10 | 33 | 53 | - | - | - | - |
| | 200 | 0.9982 | 0.1132 | 0.7534 | 0.7403 | 1.194 | 3.082 | 0.992 | 0.001 | 1.000 | 0.132 | 0.125 | 0.149 | 27.51 | 12 | 47 | 72 | - | - | - | - |
| | 300 | 0.9948 | 0.0901 | 0.7866 | 0.7771 | 1.230 | 3.413 | 0.976 | 0.000 | 0.999 | 0.114 | 0.105 | 0.108 | 31.91 | 13 | 54 | 93 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9936 | 0.0426 | 0.2883 | 0.2787 | 1.075 | 1.980 | 0.978 | 0.241 | 0.999 | 0.048 | 0.045 | 0.055 | 9.18 | 5 | 23.5 | 41 | - | - | - | - |
| | 200 | 0.9921 | 0.0500 | 0.4499 | 0.4420 | 1.145 | 2.462 | 0.969 | 0.127 | 0.998 | 0.056 | 0.055 | 0.068 | 14.91 | 5 | 37.5 | 56 | - | - | - | - |
| | 300 | 0.9872 | 0.0468 | 0.5405 | 0.5343 | 1.193 | 2.873 | 0.954 | 0.078 | 0.996 | 0.055 | 0.049 | 0.056 | 18.93 | 5 | 41 | 60 | - | - | - | - |

Notes: See notes to Table 100.

## Table 164: MC findings for DGPIII

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0047 | 0.0629 | 0.0185 | 1.002 | 1.063 | 1.000 | 0.878 | 1.000 | 0.295 | 0.023 | 0.007 | 5.46 | 5 | 7 | 9 | 2.010 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0020 | 0.0540 | 0.0190 | 1.002 | 1.064 | 1.000 | 0.874 | 1.000 | 0.235 | 0.017 | 0.003 | 5.40 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0522 | 0.0192 | 1.002 | 1.065 | 1.000 | 0.872 | 1.000 | 0.219 | 0.015 | 0.007 | 5.38 | 5 | 7 | 9 | 2.010 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0462 | 0.0101 | 1.001 | 1.036 | 1.000 | 0.932 | 1.000 | 0.237 | 0.018 | 0.005 | 5.33 | 5 | 6 | 8 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0384 | 0.0102 | 1.001 | 1.042 | 1.000 | 0.931 | 1.000 | 0.190 | 0.012 | 0.001 | 5.28 | 5 | 6 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0385 | 0.0113 | 1.001 | 1.042 | 1.000 | 0.923 | 1.000 | 0.181 | 0.011 | 0.005 | 5.28 | 5 | 6 | 9 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0241 | 0.0026 | 1.001 | 1.014 | 1.000 | 0.982 | 1.000 | 0.143 | 0.009 | 0.003 | 5.17 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0176 | 0.0017 | 1.000 | 1.011 | 1.000 | 0.988 | 1.000 | 0.109 | 0.003 | 0.000 | 5.12 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0187 | 0.0020 | 1.000 | 1.010 | 1.000 | 0.986 | 1.000 | 0.110 | 0.006 | 0.004 | 5.13 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0609 | 0.0164 | 1.002 | 1.049 | 1.000 | 0.891 | 1.000 | 0.294 | 0.023 | 0.007 | 5.45 | 5 | 7 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0525 | 0.0174 | 1.001 | 1.050 | 1.000 | 0.884 | 1.000 | 0.235 | 0.017 | 0.003 | 5.38 | 5 | 7 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0503 | 0.0172 | 1.001 | 1.048 | 1.000 | 0.884 | 1.000 | 0.219 | 0.015 | 0.007 | 5.37 | 5 | 6 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0451 | 0.0091 | 1.001 | 1.029 | 1.000 | 0.939 | 1.000 | 0.237 | 0.018 | 0.005 | 5.33 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0373 | 0.0091 | 1.001 | 1.032 | 1.000 | 0.939 | 1.000 | 0.190 | 0.012 | 0.001 | 5.27 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0372 | 0.0101 | 1.001 | 1.030 | 1.000 | 0.931 | 1.000 | 0.181 | 0.011 | 0.005 | 5.27 | 5 | 6 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0237 | 0.0022 | 1.001 | 1.009 | 1.000 | 0.985 | 1.000 | 0.143 | 0.009 | 0.003 | 5.17 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0175 | 0.0016 | 1.000 | 1.011 | 1.000 | 0.989 | 1.000 | 0.109 | 0.003 | 0.000 | 5.12 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0184 | 0.0017 | 1.000 | 1.007 | 1.000 | 0.988 | 1.000 | 0.110 | 0.006 | 0.004 | 5.13 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1630 | 0.7018 | 0.6781 | 1.037 | 2.354 | 1.000 | 0.000 | 1.000 | 0.210 | 0.179 | 0.197 | 21.14 | 11 | 33 | 53 | - | - | - | - |
| | 200 | 1.0000 | 0.1067 | 0.7526 | 0.7392 | 1.048 | 2.702 | 1.000 | 0.000 | 1.000 | 0.160 | 0.130 | 0.128 | 26.23 | 13 | 43 | 66 | - | - | - | - |
| | 300 | 1.0000 | 0.0853 | 0.7833 | 0.7727 | 1.056 | 2.974 | 1.000 | 0.000 | 1.000 | 0.116 | 0.096 | 0.104 | 30.51 | 15 | 51 | 117 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0326 | 0.1779 | 0.1725 | 1.015 | 1.571 | 1.000 | 0.619 | 1.000 | 0.035 | 0.038 | 0.040 | 8.22 | 5 | 22 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0338 | 0.2954 | 0.2905 | 1.030 | 1.965 | 1.000 | 0.480 | 1.000 | 0.055 | 0.040 | 0.043 | 11.72 | 5 | 30 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0364 | 0.4148 | 0.4090 | 1.047 | 2.368 | 1.000 | 0.351 | 1.000 | 0.048 | 0.034 | 0.042 | 15.89 | 5 | 37 | 79 | - | - | - | - |

Notes: See notes to Table 100.

## Table 165: MC findings for DGPIII

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0074 | 0.0995 | 0.0154 | 1.001 | 1.057 | 1.000 | 0.891 | 1.000 | 0.554 | 0.050 | 0.009 | 5.73 | 5 | 7 | 9 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0907 | 0.0158 | 1.001 | 1.057 | 1.000 | 0.889 | 1.000 | 0.503 | 0.034 | 0.005 | 5.66 | 5 | 7 | 9 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0894 | 0.0174 | 1.001 | 1.067 | 1.000 | 0.879 | 1.000 | 0.491 | 0.028 | 0.002 | 5.65 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0816 | 0.0084 | 1.001 | 1.037 | 1.000 | 0.939 | 1.000 | 0.485 | 0.036 | 0.007 | 5.59 | 5 | 7 | 8 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0733 | 0.0080 | 1.001 | 1.035 | 1.000 | 0.942 | 1.000 | 0.440 | 0.025 | 0.004 | 5.53 | 5 | 7 | 9 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0722 | 0.0098 | 1.001 | 1.044 | 1.000 | 0.929 | 1.000 | 0.427 | 0.019 | 0.001 | 5.52 | 5 | 6 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0038 | 0.0530 | 0.0017 | 1.000 | 1.012 | 1.000 | 0.987 | 1.000 | 0.347 | 0.016 | 0.001 | 5.38 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0017 | 1.000 | 1.012 | 1.000 | 0.988 | 1.000 | 0.308 | 0.009 | 0.002 | 5.33 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0459 | 0.0028 | 1.000 | 1.017 | 1.000 | 0.980 | 1.000 | 0.295 | 0.009 | 0.001 | 5.32 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0072 | 0.0972 | 0.0131 | 1.001 | 1.039 | 1.000 | 0.908 | 1.000 | 0.554 | 0.050 | 0.008 | 5.71 | 5 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0890 | 0.0140 | 1.001 | 1.044 | 1.000 | 0.900 | 1.000 | 0.503 | 0.034 | 0.005 | 5.65 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0877 | 0.0156 | 1.001 | 1.051 | 1.000 | 0.891 | 1.000 | 0.491 | 0.028 | 0.002 | 5.64 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0058 | 0.0800 | 0.0067 | 1.001 | 1.024 | 1.000 | 0.951 | 1.000 | 0.485 | 0.036 | 0.006 | 5.58 | 5 | 7 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0026 | 0.0723 | 0.0070 | 1.001 | 1.026 | 1.000 | 0.949 | 1.000 | 0.440 | 0.024 | 0.004 | 5.52 | 5 | 6 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0711 | 0.0087 | 1.001 | 1.034 | 1.000 | 0.937 | 1.000 | 0.427 | 0.019 | 0.001 | 5.51 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0038 | 0.0529 | 0.0016 | 1.000 | 1.011 | 1.000 | 0.988 | 1.000 | 0.347 | 0.016 | 0.001 | 5.38 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0464 | 0.0014 | 1.000 | 1.009 | 1.000 | 0.990 | 1.000 | 0.308 | 0.009 | 0.002 | 5.33 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0455 | 0.0025 | 1.000 | 1.014 | 1.000 | 0.982 | 1.000 | 0.295 | 0.008 | 0.001 | 5.32 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1586 | 0.6924 | 0.6675 | 1.021 | 2.365 | 1.000 | 0.000 | 1.000 | 0.196 | 0.173 | 0.191 | 20.70 | 11 | 35 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.1056 | 0.7490 | 0.7353 | 1.027 | 2.668 | 1.000 | 0.000 | 1.000 | 0.161 | 0.121 | 0.124 | 26.02 | 13 | 42 | 67 | - | - | - | - |
| | 300 | 1.0000 | 0.0816 | 0.7704 | 0.7603 | 1.033 | 2.871 | 1.000 | 0.000 | 1.000 | 0.125 | 0.083 | 0.090 | 29.39 | 14 | 48 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0257 | 0.1445 | 0.1394 | 1.007 | 1.515 | 1.000 | 0.755 | 1.000 | 0.035 | 0.026 | 0.038 | 7.55 | 5 | 20 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0318 | 0.3016 | 0.2960 | 1.016 | 1.898 | 1.000 | 0.544 | 1.000 | 0.043 | 0.035 | 0.038 | 11.33 | 5 | 26 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0304 | 0.3822 | 0.3774 | 1.024 | 2.146 | 1.000 | 0.452 | 1.000 | 0.041 | 0.030 | 0.040 | 14.10 | 5 | 32 | 53 | - | - | - | - |

Notes: See notes to Table 100.

## Table 166: MC findings for DGPIII

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9156 | 0.0024 | 0.0347 | 0.0254 | 1.050 | 1.719 | 0.759 | 0.646 | 0.929 | 0.052 | 0.007 | 0.006 | 4.81 | 3 | 6 | 9 | 2.062 | 0.93 | 0.13 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8760 | 0.0012 | 0.0385 | 0.0316 | 1.074 | 1.986 | 0.657 | 0.545 | 0.897 | 0.038 | 0.005 | 0.004 | 4.63 | 2 | 6 | 8 | 2.011 | 0.87 | 0.14 | 0.00 |
| | 300 | 0.8439 | 0.0008 | 0.0405 | 0.0353 | 1.091 | 2.163 | 0.611 | 0.506 | 0.871 | 0.029 | 0.003 | 0.003 | 4.47 | 2 | 6 | 8 | 1.986 | 0.84 | 0.15 | 0.00 |
| $p = 0.05$, | 100 | 0.8796 | 0.0014 | 0.0216 | 0.0144 | 1.067 | 1.924 | 0.679 | 0.622 | 0.898 | 0.039 | 0.005 | 0.004 | 4.53 | 2 | 6 | 8 | 2.030 | 0.89 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8301 | 0.0007 | 0.0241 | 0.0188 | 1.094 | 2.212 | 0.568 | 0.512 | 0.859 | 0.028 | 0.004 | 0.002 | 4.30 | 2 | 6 | 8 | 1.954 | 0.81 | 0.14 | 0.01 |
| | 300 | 0.7898 | 0.0005 | 0.0250 | 0.0208 | 1.115 | 2.409 | 0.520 | 0.462 | 0.825 | 0.022 | 0.001 | 0.002 | 4.09 | 1 | 6 | 7 | 1.906 | 0.76 | 0.14 | 0.00 |
| $p = 0.01$, | 100 | 0.7598 | 0.0005 | 0.0080 | 0.0042 | 1.127 | 2.530 | 0.471 | 0.458 | 0.794 | 0.019 | 0.002 | 0.002 | 3.84 | 1 | 5 | 7 | 1.882 | 0.73 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7011 | 0.0002 | 0.0065 | 0.0050 | 1.157 | 2.764 | 0.385 | 0.376 | 0.737 | 0.008 | 0.000 | 0.002 | 3.54 | 1 | 5 | 6 | 1.773 | 0.64 | 0.13 | 0.00 |
| | 300 | 0.6476 | 0.0001 | 0.0070 | 0.0049 | 1.185 | 2.978 | 0.330 | 0.321 | 0.690 | 0.010 | 0.000 | 0.001 | 3.27 | 1 | 5 | 6 | 1.683 | 0.56 | 0.11 | 0.01 |
| $p = 0.1$, | 100 | 0.8798 | 0.0020 | 0.0315 | 0.0220 | 1.075 | 1.962 | 0.692 | 0.609 | 0.866 | 0.051 | 0.007 | 0.006 | 4.60 | 2 | 6 | 9 | 1.927 | 0.84 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8276 | 0.0011 | 0.0357 | 0.0286 | 1.108 | 2.284 | 0.572 | 0.496 | 0.815 | 0.038 | 0.005 | 0.004 | 4.36 | 2 | 6 | 8 | 1.808 | 0.73 | 0.07 | 0.00 |
| | 300 | 0.7876 | 0.0007 | 0.0380 | 0.0326 | 1.131 | 2.503 | 0.502 | 0.430 | 0.779 | 0.029 | 0.003 | 0.003 | 4.16 | 2 | 6 | 8 | 1.740 | 0.66 | 0.08 | 0.00 |
| $p = 0.05$, | 100 | 0.8356 | 0.0012 | 0.0202 | 0.0128 | 1.097 | 2.201 | 0.602 | 0.563 | 0.823 | 0.039 | 0.005 | 0.003 | 4.30 | 2 | 6 | 8 | 1.865 | 0.78 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7772 | 0.0006 | 0.0227 | 0.0172 | 1.130 | 2.500 | 0.481 | 0.447 | 0.763 | 0.028 | 0.004 | 0.002 | 4.01 | 2 | 5 | 8 | 1.731 | 0.66 | 0.07 | 0.00 |
| | 300 | 0.7319 | 0.0004 | 0.0231 | 0.0188 | 1.155 | 2.724 | 0.418 | 0.382 | 0.730 | 0.022 | 0.001 | 0.002 | 3.78 | 1 | 5 | 7 | 1.655 | 0.58 | 0.08 | 0.00 |
| $p = 0.01$, | 100 | 0.7069 | 0.0004 | 0.0076 | 0.0037 | 1.162 | 2.795 | 0.391 | 0.383 | 0.705 | 0.019 | 0.002 | 0.002 | 3.58 | 1 | 5 | 7 | 1.674 | 0.58 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6432 | 0.0002 | 0.0060 | 0.0046 | 1.196 | 3.022 | 0.298 | 0.294 | 0.631 | 0.008 | 0.000 | 0.001 | 3.25 | 1 | 5 | 6 | 1.531 | 0.46 | 0.07 | 0.00 |
| | 300 | 0.5917 | 0.0001 | 0.0067 | 0.0045 | 1.221 | 3.211 | 0.246 | 0.242 | 0.584 | 0.010 | 0.000 | 0.001 | 2.99 | 1 | 5 | 6 | 1.441 | 0.39 | 0.05 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9578 | 0.1255 | 0.6258 | 0.6049 | 1.152 | 2.809 | 0.821 | 0.002 | 0.998 | 0.150 | 0.130 | 0.155 | 17.21 | 7 | 31 | 58 | - | - | - | - |
| | 200 | 0.9231 | 0.0852 | 0.6912 | 0.6775 | 1.194 | 3.121 | 0.694 | 0.001 | 0.993 | 0.106 | 0.093 | 0.117 | 21.57 | 7 | 41 | 73 | - | - | - | - |
| | 300 | 0.8967 | 0.0649 | 0.7223 | 0.7133 | 1.218 | 3.317 | 0.614 | 0.000 | 0.991 | 0.085 | 0.074 | 0.090 | 23.90 | 7 | 47 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8925 | 0.0419 | 0.3168 | 0.3052 | 1.124 | 2.561 | 0.668 | 0.086 | 0.985 | 0.048 | 0.041 | 0.052 | 8.61 | 3 | 18 | 50 | - | - | - | - |
| | 200 | 0.8605 | 0.0407 | 0.4518 | 0.4431 | 1.183 | 2.962 | 0.579 | 0.023 | 0.979 | 0.048 | 0.041 | 0.062 | 12.41 | 3 | 33 | 60 | - | - | - | - |
| | 300 | 0.8349 | 0.0353 | 0.5120 | 0.5049 | 1.222 | 3.256 | 0.515 | 0.013 | 0.977 | 0.043 | 0.040 | 0.053 | 14.74 | 3 | 39 | 63 | - | - | - | - |

Notes: See notes to Table 100.

## Table 167: MC findings for DGPIII

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0627 | 0.0173 | 1.002 | 1.070 | 1.000 | 0.883 | 1.000 | 0.305 | 0.021 | 0.004 | 5.46 | 5 | 7 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0563 | 0.0183 | 1.002 | 1.078 | 1.000 | 0.878 | 1.000 | 0.256 | 0.014 | 0.007 | 5.41 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0497 | 0.0186 | 1.002 | 1.077 | 1.000 | 0.873 | 1.000 | 0.212 | 0.013 | 0.002 | 5.36 | 5 | 6 | 9 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0457 | 0.0096 | 1.001 | 1.042 | 1.000 | 0.933 | 1.000 | 0.244 | 0.012 | 0.003 | 5.33 | 5 | 6 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0015 | 0.0414 | 0.0107 | 1.001 | 1.051 | 1.000 | 0.927 | 1.000 | 0.207 | 0.010 | 0.004 | 5.30 | 5 | 6 | 9 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0343 | 0.0092 | 1.001 | 1.046 | 1.000 | 0.936 | 1.000 | 0.172 | 0.006 | 0.002 | 5.25 | 5 | 6 | 8 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0236 | 0.0021 | 1.001 | 1.012 | 1.000 | 0.985 | 1.000 | 0.147 | 0.004 | 0.001 | 5.17 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0212 | 0.0024 | 1.001 | 1.016 | 1.000 | 0.984 | 1.000 | 0.129 | 0.003 | 0.002 | 5.15 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0165 | 0.0021 | 1.000 | 1.014 | 1.000 | 0.985 | 1.000 | 0.100 | 0.002 | 0.000 | 5.12 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0608 | 0.0154 | 1.002 | 1.055 | 1.000 | 0.895 | 1.000 | 0.304 | 0.021 | 0.004 | 5.44 | 5 | 7 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0020 | 0.0547 | 0.0166 | 1.002 | 1.063 | 1.000 | 0.889 | 1.000 | 0.255 | 0.014 | 0.007 | 5.40 | 5 | 6 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0481 | 0.0169 | 1.002 | 1.063 | 1.000 | 0.884 | 1.000 | 0.212 | 0.013 | 0.002 | 5.35 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0032 | 0.0448 | 0.0088 | 1.001 | 1.035 | 1.000 | 0.938 | 1.000 | 0.244 | 0.012 | 0.003 | 5.32 | 5 | 6 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0015 | 0.0403 | 0.0095 | 1.001 | 1.040 | 1.000 | 0.935 | 1.000 | 0.207 | 0.010 | 0.004 | 5.29 | 5 | 6 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0332 | 0.0081 | 1.001 | 1.035 | 1.000 | 0.943 | 1.000 | 0.172 | 0.006 | 0.002 | 5.24 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0233 | 0.0018 | 1.000 | 1.009 | 1.000 | 0.987 | 1.000 | 0.147 | 0.004 | 0.001 | 5.16 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0208 | 0.0021 | 1.001 | 1.012 | 1.000 | 0.986 | 1.000 | 0.129 | 0.003 | 0.002 | 5.15 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0164 | 0.0020 | 1.000 | 1.012 | 1.000 | 0.986 | 1.000 | 0.100 | 0.002 | 0.000 | 5.12 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1627 | 0.7026 | 0.6785 | 1.037 | 2.402 | 1.000 | 0.000 | 1.000 | 0.188 | 0.192 | 0.203 | 21.10 | 12 | 33 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.1078 | 0.7551 | 0.7410 | 1.049 | 2.738 | 1.000 | 0.001 | 1.000 | 0.130 | 0.103 | 0.127 | 26.44 | 13 | 43 | 78 | - | - | - | - |
| | 300 | 1.0000 | 0.0844 | 0.7822 | 0.7724 | 1.056 | 2.925 | 1.000 | 0.001 | 1.000 | 0.122 | 0.096 | 0.099 | 30.25 | 15 | 50 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0355 | 0.2402 | 0.2324 | 1.016 | 1.636 | 1.000 | 0.337 | 1.000 | 0.043 | 0.038 | 0.050 | 8.52 | 5 | 22 | 40 | - | - | - | - |
| | 200 | 0.9998 | 0.0426 | 0.3974 | 0.3903 | 1.040 | 2.203 | 0.999 | 0.178 | 1.000 | 0.047 | 0.042 | 0.052 | 13.48 | 5 | 34 | 66 | - | - | - | - |
| | 300 | 0.9999 | 0.0417 | 0.4914 | 0.4856 | 1.059 | 2.556 | 1.000 | 0.122 | 1.000 | 0.057 | 0.048 | 0.048 | 17.48 | 5 | 40 | 62 | - | - | - | - |

Notes: See notes to Table 100.

## Table 168: MC findings for DGPIII

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1043 | 0.0152 | 1.001 | 1.069 | 1.000 | 0.891 | 1.000 | 0.588 | 0.054 | 0.008 | 5.77 | 5 | 7 | 9 | 2.010 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0901 | 0.0157 | 1.001 | 1.069 | 1.000 | 0.890 | 1.000 | 0.496 | 0.037 | 0.007 | 5.66 | 5 | 7 | 9 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0855 | 0.0163 | 1.001 | 1.073 | 1.000 | 0.887 | 1.000 | 0.471 | 0.027 | 0.003 | 5.62 | 5 | 7 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0850 | 0.0083 | 1.001 | 1.043 | 1.000 | 0.941 | 1.000 | 0.514 | 0.034 | 0.005 | 5.62 | 5 | 7 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0737 | 0.0077 | 1.001 | 1.038 | 1.000 | 0.945 | 1.000 | 0.442 | 0.026 | 0.006 | 5.53 | 5 | 7 | 9 | 2.005 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0689 | 0.0091 | 1.001 | 1.046 | 1.000 | 0.937 | 1.000 | 0.408 | 0.017 | 0.002 | 5.50 | 5 | 6 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0042 | 0.0579 | 0.0021 | 1.000 | 1.016 | 1.000 | 0.985 | 1.000 | 0.379 | 0.015 | 0.003 | 5.41 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0476 | 0.0014 | 1.001 | 1.014 | 1.000 | 0.991 | 1.000 | 0.316 | 0.010 | 0.002 | 5.34 | 5 | 6 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0439 | 0.0024 | 1.000 | 1.016 | 1.000 | 0.984 | 1.000 | 0.285 | 0.009 | 0.000 | 5.31 | 5 | 6 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1026 | 0.0134 | 1.001 | 1.054 | 1.000 | 0.904 | 1.000 | 0.588 | 0.054 | 0.008 | 5.75 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0887 | 0.0143 | 1.001 | 1.057 | 1.000 | 0.899 | 1.000 | 0.496 | 0.036 | 0.006 | 5.65 | 5 | 7 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0846 | 0.0153 | 1.001 | 1.065 | 1.000 | 0.894 | 1.000 | 0.471 | 0.027 | 0.003 | 5.62 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0839 | 0.0071 | 1.001 | 1.033 | 1.000 | 0.949 | 1.000 | 0.514 | 0.034 | 0.005 | 5.61 | 5 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0026 | 0.0729 | 0.0071 | 1.001 | 1.032 | 1.000 | 0.950 | 1.000 | 0.442 | 0.025 | 0.005 | 5.52 | 5 | 6 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0684 | 0.0086 | 1.001 | 1.041 | 1.000 | 0.941 | 1.000 | 0.408 | 0.017 | 0.002 | 5.49 | 5 | 6 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0576 | 0.0017 | 1.000 | 1.013 | 1.000 | 0.988 | 1.000 | 0.379 | 0.015 | 0.003 | 5.41 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0474 | 0.0011 | 1.000 | 1.011 | 1.000 | 0.993 | 1.000 | 0.316 | 0.010 | 0.002 | 5.34 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0436 | 0.0020 | 1.000 | 1.012 | 1.000 | 0.986 | 1.000 | 0.285 | 0.009 | 0.000 | 5.31 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1646 | 0.7050 | 0.6799 | 1.022 | 2.334 | 1.000 | 0.001 | 1.000 | 0.198 | 0.196 | 0.208 | 21.30 | 12 | 33 | 55 | - | - | - | - |
| | 200 | 1.0000 | 0.1078 | 0.7548 | 0.7412 | 1.028 | 2.631 | 1.000 | 0.000 | 1.000 | 0.149 | 0.114 | 0.135 | 26.46 | 13 | 43 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0823 | 0.7772 | 0.7683 | 1.031 | 2.891 | 1.000 | 0.000 | 1.000 | 0.120 | 0.096 | 0.105 | 29.62 | 14.5 | 51 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0314 | 0.1799 | 0.1740 | 1.009 | 1.567 | 1.000 | 0.544 | 1.000 | 0.036 | 0.041 | 0.045 | 8.11 | 5 | 22 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0375 | 0.3281 | 0.3223 | 1.020 | 2.031 | 1.000 | 0.370 | 1.000 | 0.050 | 0.043 | 0.055 | 12.45 | 5 | 32 | 55 | - | - | - | - |
| | 300 | 1.0000 | 0.0372 | 0.4233 | 0.4181 | 1.031 | 2.443 | 1.000 | 0.272 | 1.000 | 0.051 | 0.042 | 0.048 | 16.12 | 5 | 38 | 63 | - | - | - | - |

Notes: See notes to Table 100.

## Table 169: MC findings for DGPIII

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5493 | 0.0021 | 0.0448 | 0.0328 | 1.114 | 2.394 | 0.136 | 0.117 | 0.795 | 0.047 | 0.007 | 0.007 | 2.96 | 1 | 5 | 8 | 1.326 | 0.30 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4861 | 0.0011 | 0.0464 | 0.0388 | 1.130 | 2.549 | 0.089 | 0.077 | 0.744 | 0.030 | 0.006 | 0.003 | 2.64 | 0 | 5 | 8 | 1.257 | 0.24 | 0.02 | 0.00 |
| | 300 | 0.4430 | 0.0007 | 0.0542 | 0.0456 | 1.143 | 2.602 | 0.059 | 0.051 | 0.714 | 0.032 | 0.004 | 0.003 | 2.44 | 0 | 5 | 7 | 1.194 | 0.18 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.4830 | 0.0013 | 0.0294 | 0.0204 | 1.129 | 2.489 | 0.093 | 0.086 | 0.744 | 0.034 | 0.004 | 0.005 | 2.54 | 0 | 5 | 8 | 1.264 | 0.24 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4203 | 0.0006 | 0.0303 | 0.0243 | 1.143 | 2.630 | 0.055 | 0.049 | 0.689 | 0.023 | 0.003 | 0.003 | 2.23 | 0 | 5 | 8 | 1.190 | 0.17 | 0.02 | 0.00 |
| | 300 | 0.3796 | 0.0004 | 0.0371 | 0.0300 | 1.156 | 2.671 | 0.039 | 0.036 | 0.658 | 0.023 | 0.003 | 0.002 | 2.03 | 0 | 4 | 7 | 1.137 | 0.13 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3497 | 0.0004 | 0.0101 | 0.0048 | 1.162 | 2.665 | 0.036 | 0.035 | 0.613 | 0.018 | 0.001 | 0.002 | 1.78 | 0 | 4 | 6 | 1.154 | 0.14 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2910 | 0.0002 | 0.0102 | 0.0072 | 1.178 | 2.785 | 0.021 | 0.021 | 0.549 | 0.010 | 0.001 | 0.001 | 1.49 | 0 | 4 | 6 | 1.096 | 0.09 | 0.01 | 0.00 |
| | 300 | 0.2643 | 0.0001 | 0.0137 | 0.0091 | 1.186 | 2.791 | 0.011 | 0.011 | 0.527 | 0.014 | 0.001 | 0.002 | 1.36 | 0 | 4 | 5 | 1.083 | 0.08 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5172 | 0.0020 | 0.0440 | 0.0316 | 1.124 | 2.469 | 0.087 | 0.078 | 0.768 | 0.046 | 0.007 | 0.007 | 2.79 | 1 | 5 | 7 | 1.167 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4563 | 0.0010 | 0.0450 | 0.0371 | 1.139 | 2.613 | 0.049 | 0.042 | 0.723 | 0.030 | 0.006 | 0.003 | 2.48 | 0 | 5 | 7 | 1.105 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.4192 | 0.0007 | 0.0541 | 0.0454 | 1.150 | 2.648 | 0.033 | 0.029 | 0.690 | 0.032 | 0.004 | 0.003 | 2.31 | 0 | 5 | 7 | 1.076 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4536 | 0.0012 | 0.0291 | 0.0199 | 1.138 | 2.550 | 0.053 | 0.051 | 0.715 | 0.034 | 0.004 | 0.005 | 2.39 | 0 | 5 | 6 | 1.118 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3944 | 0.0006 | 0.0295 | 0.0233 | 1.152 | 2.677 | 0.028 | 0.025 | 0.660 | 0.023 | 0.003 | 0.003 | 2.09 | 0 | 4 | 7 | 1.065 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.3623 | 0.0004 | 0.0366 | 0.0293 | 1.161 | 2.699 | 0.019 | 0.017 | 0.640 | 0.023 | 0.003 | 0.002 | 1.94 | 0 | 4 | 7 | 1.051 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3278 | 0.0003 | 0.0103 | 0.0048 | 1.169 | 2.699 | 0.016 | 0.016 | 0.588 | 0.018 | 0.001 | 0.002 | 1.67 | 0 | 4 | 5 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2759 | 0.0002 | 0.0097 | 0.0067 | 1.183 | 2.802 | 0.010 | 0.010 | 0.523 | 0.010 | 0.001 | 0.001 | 1.41 | 0 | 4 | 6 | 1.025 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2511 | 0.0001 | 0.0136 | 0.0088 | 1.190 | 2.805 | 0.006 | 0.006 | 0.506 | 0.014 | 0.001 | 0.002 | 1.30 | 0 | 3 | 5 | 1.021 | 0.02 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7710 | 0.0896 | 0.5739 | 0.5524 | 1.122 | 2.431 | 0.281 | 0.001 | 0.981 | 0.101 | 0.092 | 0.110 | 12.73 | 4 | 25 | 56 | - | - | - | - |
| | 200 | 0.7108 | 0.0604 | 0.6475 | 0.6349 | 1.142 | 2.631 | 0.162 | 0.001 | 0.972 | 0.070 | 0.056 | 0.073 | 15.58 | 4 | 33 | 68 | - | - | - | - |
| | 300 | 0.6788 | 0.0486 | 0.6945 | 0.6844 | 1.152 | 2.667 | 0.113 | 0.000 | 0.968 | 0.060 | 0.058 | 0.060 | 17.93 | 5 | 40 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6341 | 0.0333 | 0.3167 | 0.3052 | 1.120 | 2.509 | 0.145 | 0.006 | 0.954 | 0.033 | 0.035 | 0.036 | 6.47 | 2 | 16 | 37 | - | - | - | - |
| | 200 | 0.5932 | 0.0289 | 0.4340 | 0.4262 | 1.159 | 2.833 | 0.094 | 0.001 | 0.946 | 0.033 | 0.022 | 0.036 | 8.72 | 2 | 23 | 61 | - | - | - | - |
| | 300 | 0.5817 | 0.0269 | 0.5093 | 0.5024 | 1.186 | 2.963 | 0.077 | 0.001 | 0.938 | 0.034 | 0.029 | 0.030 | 10.94 | 2 | 30 | 70 | - | - | - | - |

Notes: See notes to Table 100.

## Table 170: MC findings for DGPIII

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9963 | 0.0043 | 0.0582 | 0.0161 | 1.003 | 1.130 | 0.983 | 0.875 | 1.000 | 0.274 | 0.026 | 0.007 | 5.41 | 5 | 7 | 9 | 1.999 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9939 | 0.0020 | 0.0549 | 0.0177 | 1.004 | 1.165 | 0.970 | 0.857 | 1.000 | 0.248 | 0.013 | 0.008 | 5.37 | 5 | 7 | 9 | 2.002 | 0.99 | 0.01 | 0.00 |
| | 300 | 0.9932 | 0.0012 | 0.0506 | 0.0174 | 1.004 | 1.175 | 0.968 | 0.855 | 1.000 | 0.222 | 0.012 | 0.005 | 5.33 | 5 | 6 | 8 | 2.003 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9947 | 0.0031 | 0.0420 | 0.0080 | 1.003 | 1.120 | 0.975 | 0.922 | 1.000 | 0.223 | 0.016 | 0.005 | 5.28 | 5 | 6 | 8 | 1.998 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9899 | 0.0014 | 0.0388 | 0.0102 | 1.004 | 1.186 | 0.953 | 0.890 | 1.000 | 0.191 | 0.010 | 0.006 | 5.23 | 5 | 6 | 8 | 1.998 | 0.99 | 0.01 | 0.00 |
| | 300 | 0.9885 | 0.0008 | 0.0352 | 0.0091 | 1.004 | 1.206 | 0.951 | 0.892 | 1.000 | 0.176 | 0.006 | 0.003 | 5.19 | 5 | 6 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9835 | 0.0015 | 0.0207 | 0.0022 | 1.004 | 1.240 | 0.931 | 0.916 | 1.000 | 0.124 | 0.005 | 0.001 | 5.06 | 4 | 6 | 7 | 1.995 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9749 | 0.0007 | 0.0204 | 0.0022 | 1.006 | 1.338 | 0.897 | 0.885 | 1.000 | 0.118 | 0.007 | 0.003 | 5.02 | 4 | 6 | 8 | 1.988 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9703 | 0.0004 | 0.0169 | 0.0018 | 1.006 | 1.404 | 0.884 | 0.873 | 1.000 | 0.101 | 0.003 | 0.001 | 4.97 | 4 | 6 | 8 | 1.979 | 0.97 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9953 | 0.0042 | 0.0571 | 0.0149 | 1.003 | 1.147 | 0.979 | 0.878 | 1.000 | 0.274 | 0.026 | 0.006 | 5.39 | 5 | 7 | 9 | 1.991 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9912 | 0.0020 | 0.0539 | 0.0166 | 1.005 | 1.218 | 0.958 | 0.854 | 1.000 | 0.248 | 0.013 | 0.008 | 5.35 | 5 | 6 | 9 | 1.984 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9898 | 0.0012 | 0.0496 | 0.0164 | 1.005 | 1.247 | 0.953 | 0.852 | 1.000 | 0.222 | 0.012 | 0.005 | 5.31 | 5 | 6 | 8 | 1.982 | 0.98 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9926 | 0.0030 | 0.0415 | 0.0074 | 1.003 | 1.164 | 0.968 | 0.920 | 1.000 | 0.223 | 0.016 | 0.004 | 5.26 | 5 | 6 | 8 | 1.987 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9858 | 0.0014 | 0.0386 | 0.0098 | 1.005 | 1.275 | 0.937 | 0.879 | 1.000 | 0.191 | 0.010 | 0.006 | 5.20 | 5 | 6 | 8 | 1.977 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9828 | 0.0008 | 0.0349 | 0.0087 | 1.006 | 1.333 | 0.929 | 0.876 | 1.000 | 0.176 | 0.006 | 0.003 | 5.16 | 4 | 6 | 8 | 1.966 | 0.97 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9775 | 0.0014 | 0.0206 | 0.0020 | 1.006 | 1.362 | 0.910 | 0.896 | 1.000 | 0.124 | 0.005 | 0.001 | 5.03 | 4 | 6 | 7 | 1.966 | 0.96 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9658 | 0.0007 | 0.0207 | 0.0023 | 1.009 | 1.518 | 0.865 | 0.854 | 0.999 | 0.118 | 0.007 | 0.003 | 4.97 | 4 | 6 | 8 | 1.944 | 0.94 | 0.00 | 0.00 |
| | 300 | 0.9581 | 0.0004 | 0.0170 | 0.0018 | 1.011 | 1.643 | 0.843 | 0.834 | 1.000 | 0.101 | 0.003 | 0.001 | 4.91 | 4 | 6 | 8 | 1.920 | 0.92 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9973 | 0.1484 | 0.6712 | 0.6472 | 1.039 | 2.511 | 0.988 | 0.003 | 1.000 | 0.180 | 0.170 | 0.180 | 19.68 | 9 | 32 | 50 | - | - | - | - |
| | 200 | 0.9935 | 0.0950 | 0.7168 | 0.7030 | 1.052 | 2.809 | 0.969 | 0.001 | 1.000 | 0.129 | 0.101 | 0.118 | 23.88 | 10 | 41 | 70 | - | - | - | - |
| | 300 | 0.9888 | 0.0721 | 0.7371 | 0.7278 | 1.060 | 3.041 | 0.948 | 0.001 | 1.000 | 0.098 | 0.078 | 0.082 | 26.50 | 10 | 47 | 86 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9745 | 0.0401 | 0.2947 | 0.2842 | 1.026 | 2.111 | 0.904 | 0.178 | 1.000 | 0.039 | 0.049 | 0.051 | 8.84 | 4 | 20 | 35 | - | - | - | - |
| | 200 | 0.9708 | 0.0428 | 0.4391 | 0.4314 | 1.049 | 2.530 | 0.889 | 0.085 | 1.000 | 0.059 | 0.046 | 0.056 | 13.38 | 4 | 33 | 61 | - | - | - | - |
| | 300 | 0.9639 | 0.0416 | 0.5209 | 0.5144 | 1.071 | 2.950 | 0.872 | 0.050 | 1.000 | 0.055 | 0.042 | 0.047 | 17.26 | 4 | 40 | 73 | - | - | - | - |

Notes: See notes to Table 100.

## Table 171: MC findings for DGPIII

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1040 | 0.0140 | 1.002 | 1.073 | 1.000 | 0.901 | 1.000 | 0.596 | 0.048 | 0.010 | 5.76 | 5 | 7 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0033 | 0.0909 | 0.0170 | 1.002 | 1.088 | 1.000 | 0.883 | 1.000 | 0.499 | 0.032 | 0.004 | 5.66 | 5 | 7 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0864 | 0.0142 | 1.002 | 1.077 | 1.000 | 0.899 | 1.000 | 0.486 | 0.029 | 0.006 | 5.63 | 5 | 7 | 9 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0853 | 0.0068 | 1.001 | 1.043 | 1.000 | 0.951 | 1.000 | 0.522 | 0.035 | 0.007 | 5.61 | 5 | 7 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0027 | 0.0739 | 0.0093 | 1.001 | 1.054 | 1.000 | 0.934 | 1.000 | 0.438 | 0.022 | 0.002 | 5.53 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0712 | 0.0071 | 1.001 | 1.045 | 1.000 | 0.950 | 1.000 | 0.433 | 0.022 | 0.005 | 5.51 | 5 | 6 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0575 | 0.0017 | 1.001 | 1.013 | 1.000 | 0.988 | 1.000 | 0.379 | 0.015 | 0.002 | 5.41 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0017 | 0.0468 | 0.0020 | 1.001 | 1.018 | 0.999 | 0.985 | 1.000 | 0.307 | 0.009 | 0.001 | 5.33 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0011 | 0.0464 | 0.0013 | 1.000 | 1.015 | 0.999 | 0.990 | 1.000 | 0.307 | 0.010 | 0.003 | 5.33 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1030 | 0.0128 | 1.002 | 1.063 | 1.000 | 0.909 | 1.000 | 0.596 | 0.048 | 0.010 | 5.75 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0033 | 0.0903 | 0.0163 | 1.002 | 1.082 | 1.000 | 0.887 | 1.000 | 0.498 | 0.032 | 0.004 | 5.66 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0857 | 0.0135 | 1.002 | 1.070 | 1.000 | 0.904 | 1.000 | 0.486 | 0.029 | 0.006 | 5.62 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0846 | 0.0060 | 1.001 | 1.038 | 1.000 | 0.956 | 1.000 | 0.522 | 0.035 | 0.007 | 5.61 | 5 | 7 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0026 | 0.0732 | 0.0086 | 1.001 | 1.047 | 1.000 | 0.938 | 1.000 | 0.438 | 0.022 | 0.002 | 5.53 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0709 | 0.0067 | 1.001 | 1.041 | 1.000 | 0.952 | 1.000 | 0.433 | 0.022 | 0.005 | 5.51 | 5 | 6 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0573 | 0.0015 | 1.001 | 1.012 | 1.000 | 0.989 | 1.000 | 0.379 | 0.015 | 0.002 | 5.41 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0017 | 0.0467 | 0.0019 | 1.001 | 1.016 | 0.999 | 0.986 | 1.000 | 0.307 | 0.009 | 0.001 | 5.33 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0011 | 0.0464 | 0.0013 | 1.001 | 1.019 | 0.998 | 0.989 | 1.000 | 0.307 | 0.010 | 0.003 | 5.33 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1651 | 0.7046 | 0.6797 | 1.022 | 2.335 | 1.000 | 0.000 | 1.000 | 0.195 | 0.183 | 0.185 | 21.34 | 11 | 33 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.1063 | 0.7495 | 0.7362 | 1.028 | 2.636 | 1.000 | 0.002 | 1.000 | 0.138 | 0.121 | 0.122 | 26.15 | 13 | 43 | 63 | - | - | - | - |
| | 300 | 0.9999 | 0.0804 | 0.7707 | 0.7606 | 1.033 | 2.889 | 1.000 | 0.001 | 1.000 | 0.111 | 0.094 | 0.087 | 29.03 | 14 | 49 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9994 | 0.0436 | 0.2725 | 0.2629 | 1.012 | 1.782 | 0.997 | 0.292 | 1.000 | 0.043 | 0.043 | 0.049 | 9.31 | 5 | 24 | 38 | - | - | - | - |
| | 200 | 0.9987 | 0.0475 | 0.4255 | 0.4183 | 1.029 | 2.323 | 0.995 | 0.168 | 1.000 | 0.052 | 0.053 | 0.052 | 14.45 | 5 | 35 | 55 | - | - | - | - |
| | 300 | 0.9989 | 0.0437 | 0.5119 | 0.5053 | 1.040 | 2.714 | 0.995 | 0.126 | 1.000 | 0.056 | 0.054 | 0.051 | 18.05 | 5 | 40 | 65 | - | - | - | - |

Notes: See notes to Table 100.

### 3.2.4 Findings for designs featuring hidden signals and pseudo-signals

## Table 172: MC findings for DGPIV(a)

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9984 | 0.0193 | 0.2348 | 0.0197 | 1.017 | 1.423 | 0.993 | 0.037 | 0.717 | 0.604 | 0.999 | 0.046 | 0.010 | 0.008 | 6.91 | 6 | 8 | 10 | 2.129 | 1.00 | 0.12 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9940 | 0.0091 | 0.2233 | 0.0235 | 1.021 | 1.460 | 0.979 | 0.058 | 0.632 | 0.522 | 0.995 | 0.029 | 0.005 | 0.003 | 6.78 | 5 | 8 | 10 | 2.170 | 1.00 | 0.16 | 0.01 |
| | 300 | 0.9932 | 0.0059 | 0.2208 | 0.0241 | 1.022 | 1.470 | 0.975 | 0.055 | 0.603 | 0.492 | 0.995 | 0.028 | 0.004 | 0.001 | 6.74 | 5 | 8 | 10 | 2.180 | 1.00 | 0.17 | 0.01 |
| $p = 0.05$, | 100 | 0.9958 | 0.0175 | 0.2164 | 0.0122 | 1.016 | 1.427 | 0.985 | 0.059 | 0.642 | 0.580 | 0.998 | 0.038 | 0.005 | 0.006 | 6.71 | 5 | 8 | 9 | 2.144 | 1.00 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9905 | 0.0081 | 0.2031 | 0.0142 | 1.022 | 1.474 | 0.968 | 0.079 | 0.551 | 0.489 | 0.992 | 0.025 | 0.004 | 0.002 | 6.56 | 5 | 8 | 10 | 2.209 | 1.00 | 0.20 | 0.01 |
| | 300 | 0.9876 | 0.0053 | 0.2001 | 0.0146 | 1.025 | 1.522 | 0.958 | 0.078 | 0.522 | 0.462 | 0.992 | 0.021 | 0.002 | 0.001 | 6.51 | 5 | 8 | 9 | 2.208 | 0.99 | 0.20 | 0.01 |
| $p = 0.01$, | 100 | 0.9846 | 0.0137 | 0.1757 | 0.0029 | 1.025 | 1.525 | 0.958 | 0.134 | 0.458 | 0.445 | 0.987 | 0.018 | 0.001 | 0.001 | 6.28 | 5 | 7 | 9 | 2.220 | 0.99 | 0.22 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9707 | 0.0063 | 0.1657 | 0.0046 | 1.039 | 1.687 | 0.917 | 0.144 | 0.375 | 0.363 | 0.972 | 0.014 | 0.001 | 0.000 | 6.11 | 5 | 7 | 9 | 2.280 | 0.98 | 0.28 | 0.02 |
| | 300 | 0.9640 | 0.0040 | 0.1592 | 0.0046 | 1.045 | 1.783 | 0.905 | 0.158 | 0.354 | 0.342 | 0.967 | 0.010 | 0.001 | 0.000 | 6.02 | 4 | 7 | 8 | 2.284 | 0.98 | 0.28 | 0.02 |
| $p = 0.1$, | 100 | 0.9941 | 0.0189 | 0.2310 | 0.0152 | 1.019 | 1.446 | 0.984 | 0.037 | 0.715 | 0.627 | 0.991 | 0.046 | 0.009 | 0.008 | 6.84 | 5 | 8 | 10 | 2.141 | 1.00 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9879 | 0.0089 | 0.2204 | 0.0198 | 1.027 | 1.508 | 0.962 | 0.056 | 0.626 | 0.531 | 0.983 | 0.029 | 0.005 | 0.003 | 6.71 | 5 | 8 | 10 | 2.196 | 1.00 | 0.20 | 0.01 |
| | 300 | 0.9864 | 0.0058 | 0.2176 | 0.0197 | 1.028 | 1.521 | 0.957 | 0.054 | 0.598 | 0.509 | 0.981 | 0.028 | 0.004 | 0.001 | 6.66 | 5 | 8 | 10 | 2.211 | 1.00 | 0.21 | 0.01 |
| $p = 0.05$, | 100 | 0.9916 | 0.0172 | 0.2140 | 0.0094 | 1.020 | 1.455 | 0.978 | 0.059 | 0.641 | 0.593 | 0.988 | 0.038 | 0.005 | 0.005 | 6.66 | 5 | 8 | 9 | 2.184 | 1.00 | 0.18 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9818 | 0.0079 | 0.2014 | 0.0117 | 1.032 | 1.557 | 0.946 | 0.077 | 0.547 | 0.495 | 0.972 | 0.024 | 0.003 | 0.002 | 6.49 | 5 | 8 | 10 | 2.240 | 0.99 | 0.24 | 0.01 |
| | 300 | 0.9770 | 0.0052 | 0.1981 | 0.0119 | 1.036 | 1.630 | 0.934 | 0.075 | 0.516 | 0.468 | 0.969 | 0.021 | 0.002 | 0.001 | 6.43 | 5 | 8 | 9 | 2.246 | 0.99 | 0.25 | 0.01 |
| $p = 0.01$, | 100 | 0.9746 | 0.0136 | 0.1753 | 0.0024 | 1.036 | 1.648 | 0.936 | 0.127 | 0.456 | 0.444 | 0.969 | 0.018 | 0.001 | 0.001 | 6.22 | 5 | 7 | 9 | 2.253 | 0.99 | 0.26 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9504 | 0.0062 | 0.1658 | 0.0040 | 1.063 | 1.917 | 0.875 | 0.133 | 0.367 | 0.357 | 0.931 | 0.013 | 0.001 | 0.000 | 5.99 | 4 | 7 | 9 | 2.290 | 0.97 | 0.31 | 0.01 |
| | 300 | 0.9420 | 0.0040 | 0.1599 | 0.0039 | 1.073 | 2.017 | 0.859 | 0.139 | 0.349 | 0.340 | 0.924 | 0.010 | 0.001 | 0.000 | 5.89 | 3 | 7 | 8 | 2.286 | 0.96 | 0.32 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9978 | 0.1588 | 0.6923 | 0.6370 | 1.141 | 2.809 | 0.991 | 0.003 | 0.105 | 0.000 | 1.000 | 0.186 | 0.181 | 0.183 | 20.71 | 10 | 32 | 49 | - | - | - | - |
| | 200 | 0.9958 | 0.1139 | 0.7592 | 0.7229 | 1.197 | 3.211 | 0.980 | 0.001 | 0.085 | 0.000 | 1.000 | 0.119 | 0.117 | 0.133 | 27.64 | 13 | 46 | 77 | - | - | - | - |
| | 300 | 0.9943 | 0.0915 | 0.7900 | 0.7619 | 1.235 | 3.482 | 0.976 | 0.001 | 0.089 | 0.000 | 0.999 | 0.104 | 0.096 | 0.112 | 32.34 | 14 | 55 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9913 | 0.0422 | 0.2946 | 0.2654 | 1.076 | 2.054 | 0.963 | 0.213 | 0.013 | 0.000 | 0.999 | 0.056 | 0.049 | 0.048 | 9.14 | 5 | 23 | 42 | - | - | - | - |
| | 200 | 0.9878 | 0.0495 | 0.4597 | 0.4347 | 1.147 | 2.572 | 0.954 | 0.103 | 0.021 | 0.001 | 0.998 | 0.051 | 0.056 | 0.065 | 14.80 | 5 | 37 | 59 | - | - | - | - |
| | 300 | 0.9851 | 0.0482 | 0.5570 | 0.5349 | 1.201 | 2.952 | 0.946 | 0.069 | 0.028 | 0.000 | 0.995 | 0.052 | 0.051 | 0.059 | 19.35 | 5 | 42 | 66 | - | - | - | - |

Notes: See notes to Table 145.

## Table 173: MC findings for DGPIV(a)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0247 | 0.2861 | 0.0132 | 1.005 | 1.403 | 1.000 | 0.000 | 1.000 | 0.886 | 1.000 | 0.291 | 0.026 | 0.009 | 7.45 | 7 | 9 | 11 | 2.010 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0120 | 0.2816 | 0.0134 | 1.005 | 1.398 | 1.000 | 0.000 | 1.000 | 0.884 | 1.000 | 0.245 | 0.016 | 0.004 | 7.39 | 7 | 8 | 11 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2764 | 0.0125 | 1.005 | 1.405 | 1.000 | 0.000 | 0.999 | 0.893 | 1.000 | 0.193 | 0.013 | 0.005 | 7.33 | 7 | 8 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0236 | 0.2769 | 0.0078 | 1.005 | 1.389 | 1.000 | 0.000 | 1.000 | 0.932 | 1.000 | 0.234 | 0.018 | 0.008 | 7.33 | 7 | 8 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0114 | 0.2726 | 0.0074 | 1.004 | 1.382 | 1.000 | 0.000 | 0.999 | 0.936 | 1.000 | 0.199 | 0.009 | 0.002 | 7.28 | 7 | 8 | 10 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2688 | 0.0068 | 1.004 | 1.386 | 1.000 | 0.000 | 0.999 | 0.939 | 1.000 | 0.156 | 0.010 | 0.003 | 7.23 | 7 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0219 | 0.2639 | 0.0023 | 1.004 | 1.373 | 1.000 | 0.000 | 0.999 | 0.978 | 1.000 | 0.137 | 0.010 | 0.003 | 7.17 | 7 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0107 | 0.2605 | 0.0012 | 1.004 | 1.362 | 1.000 | 0.000 | 0.999 | 0.988 | 1.000 | 0.114 | 0.004 | 0.001 | 7.13 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2589 | 0.0013 | 1.003 | 1.369 | 1.000 | 0.000 | 0.997 | 0.986 | 1.000 | 0.095 | 0.004 | 0.001 | 7.11 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0246 | 0.2851 | 0.0119 | 1.005 | 1.394 | 1.000 | 0.000 | 1.000 | 0.897 | 1.000 | 0.291 | 0.026 | 0.009 | 7.44 | 7 | 9 | 11 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0119 | 0.2803 | 0.0117 | 1.004 | 1.385 | 1.000 | 0.000 | 1.000 | 0.900 | 1.000 | 0.245 | 0.016 | 0.004 | 7.37 | 7 | 8 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2754 | 0.0111 | 1.004 | 1.393 | 1.000 | 0.000 | 0.999 | 0.905 | 1.000 | 0.193 | 0.013 | 0.005 | 7.31 | 7 | 8 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0235 | 0.2762 | 0.0069 | 1.005 | 1.383 | 1.000 | 0.000 | 1.000 | 0.940 | 1.000 | 0.234 | 0.018 | 0.008 | 7.32 | 7 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0114 | 0.2718 | 0.0063 | 1.004 | 1.373 | 1.000 | 0.000 | 0.999 | 0.944 | 1.000 | 0.199 | 0.009 | 0.002 | 7.27 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0074 | 0.2683 | 0.0061 | 1.004 | 1.379 | 1.000 | 0.000 | 0.999 | 0.945 | 1.000 | 0.156 | 0.010 | 0.003 | 7.22 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0219 | 0.2636 | 0.0020 | 1.004 | 1.370 | 1.000 | 0.000 | 0.999 | 0.982 | 1.000 | 0.137 | 0.010 | 0.003 | 7.17 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2604 | 0.0010 | 1.004 | 1.360 | 1.000 | 0.000 | 0.999 | 0.990 | 1.000 | 0.114 | 0.004 | 0.001 | 7.13 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2587 | 0.0010 | 1.003 | 1.367 | 1.000 | 0.000 | 0.997 | 0.988 | 1.000 | 0.095 | 0.004 | 0.001 | 7.11 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1670 | 0.7097 | 0.6555 | 1.035 | 2.477 | 1.000 | 0.000 | 0.105 | 0.000 | 1.000 | 0.201 | 0.180 | 0.192 | 21.53 | 12 | 33 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.1092 | 0.7568 | 0.7209 | 1.049 | 2.770 | 1.000 | 0.000 | 0.089 | 0.000 | 1.000 | 0.139 | 0.128 | 0.130 | 26.73 | 13 | 44 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0846 | 0.7834 | 0.7541 | 1.057 | 2.984 | 1.000 | 0.000 | 0.088 | 0.000 | 1.000 | 0.110 | 0.084 | 0.092 | 30.31 | 15 | 50 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0321 | 0.1739 | 0.1605 | 1.015 | 1.603 | 1.000 | 0.626 | 0.015 | 0.000 | 1.000 | 0.033 | 0.037 | 0.042 | 8.18 | 5 | 22 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.0353 | 0.3022 | 0.2881 | 1.032 | 1.995 | 1.000 | 0.468 | 0.016 | 0.001 | 1.000 | 0.044 | 0.043 | 0.051 | 12.03 | 5 | 31 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0357 | 0.4081 | 0.3938 | 1.048 | 2.353 | 1.000 | 0.356 | 0.025 | 0.000 | 1.000 | 0.049 | 0.036 | 0.038 | 15.66 | 5 | 36 | 58 | - | - | - | - |

Notes: See notes to Table 145.

## Table 174: MC findings for DGPIV(a)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0279 | 0.3109 | 0.0146 | 1.004 | 1.412 | 1.000 | 0.000 | 1.000 | 0.870 | 1.000 | 0.560 | 0.052 | 0.010 | 7.76 | 7 | 9 | 11 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0133 | 0.3029 | 0.0130 | 1.003 | 1.412 | 1.000 | 0.000 | 1.000 | 0.884 | 1.000 | 0.492 | 0.030 | 0.010 | 7.66 | 7 | 9 | 11 | 2.012 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3012 | 0.0133 | 1.003 | 1.397 | 1.000 | 0.000 | 1.000 | 0.887 | 1.000 | 0.478 | 0.026 | 0.003 | 7.64 | 7 | 9 | 11 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0265 | 0.3001 | 0.0081 | 1.003 | 1.394 | 1.000 | 0.000 | 1.000 | 0.928 | 1.000 | 0.499 | 0.037 | 0.006 | 7.62 | 7 | 9 | 11 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0127 | 0.2923 | 0.0065 | 1.003 | 1.391 | 1.000 | 0.000 | 1.000 | 0.941 | 1.000 | 0.431 | 0.020 | 0.007 | 7.52 | 7 | 8 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2913 | 0.0073 | 1.003 | 1.381 | 1.000 | 0.000 | 1.000 | 0.936 | 1.000 | 0.415 | 0.021 | 0.002 | 7.51 | 7 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2834 | 0.0017 | 1.003 | 1.372 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.370 | 0.017 | 0.004 | 7.41 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0117 | 0.2773 | 0.0018 | 1.003 | 1.374 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.302 | 0.012 | 0.002 | 7.33 | 7 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2766 | 0.0014 | 1.002 | 1.362 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.298 | 0.010 | 0.002 | 7.32 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3096 | 0.0127 | 1.003 | 1.397 | 1.000 | 0.000 | 1.000 | 0.887 | 1.000 | 0.560 | 0.052 | 0.010 | 7.75 | 7 | 9 | 11 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0133 | 0.3015 | 0.0112 | 1.003 | 1.396 | 1.000 | 0.000 | 1.000 | 0.900 | 1.000 | 0.492 | 0.030 | 0.010 | 7.64 | 7 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3004 | 0.0122 | 1.003 | 1.389 | 1.000 | 0.000 | 1.000 | 0.897 | 1.000 | 0.478 | 0.026 | 0.003 | 7.62 | 7 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2992 | 0.0069 | 1.003 | 1.384 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.499 | 0.037 | 0.006 | 7.61 | 7 | 9 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0126 | 0.2918 | 0.0058 | 1.003 | 1.386 | 1.000 | 0.000 | 1.000 | 0.947 | 1.000 | 0.431 | 0.020 | 0.007 | 7.51 | 7 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2908 | 0.0067 | 1.003 | 1.375 | 1.000 | 0.000 | 1.000 | 0.941 | 1.000 | 0.415 | 0.021 | 0.002 | 7.50 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2832 | 0.0014 | 1.003 | 1.370 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.370 | 0.017 | 0.004 | 7.40 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0117 | 0.2771 | 0.0015 | 1.003 | 1.372 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.302 | 0.012 | 0.002 | 7.33 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2765 | 0.0012 | 1.002 | 1.360 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.298 | 0.010 | 0.002 | 7.32 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1668 | 0.7045 | 0.6489 | 1.023 | 2.472 | 1.000 | 0.000 | 0.095 | 0.000 | 1.000 | 0.188 | 0.171 | 0.187 | 21.51 | 12 | 35 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.1081 | 0.7532 | 0.7159 | 1.028 | 2.731 | 1.000 | 0.000 | 0.096 | 0.000 | 1.000 | 0.149 | 0.127 | 0.105 | 26.51 | 12.5 | 42 | 68 | - | - | - | - |
| | 300 | 1.0000 | 0.0814 | 0.7724 | 0.7430 | 1.034 | 2.932 | 1.000 | 0.000 | 0.080 | 0.000 | 1.000 | 0.124 | 0.096 | 0.081 | 29.33 | 14 | 48 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0306 | 0.1687 | 0.1579 | 1.009 | 1.577 | 1.000 | 0.711 | 0.008 | 0.000 | 1.000 | 0.033 | 0.034 | 0.038 | 8.03 | 5 | 21 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0321 | 0.2948 | 0.2810 | 1.017 | 1.907 | 1.000 | 0.556 | 0.015 | 0.000 | 1.000 | 0.043 | 0.043 | 0.031 | 11.40 | 5 | 27 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0308 | 0.3850 | 0.3725 | 1.024 | 2.170 | 1.000 | 0.449 | 0.015 | 0.000 | 1.000 | 0.037 | 0.036 | 0.033 | 14.21 | 5 | 31.5 | 47 | - | - | - | - |

Notes: See notes to Table 145.

## Table 175: MC findings for DGPIV(a)

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9142 | 0.0146 | 0.1907 | 0.0217 | 1.056 | 1.876 | 0.751 | 0.083 | 0.370 | 0.311 | 0.936 | 0.048 | 0.009 | 0.007 | 6.02 | 3 | 8 | 11 | 2.074 | 0.92 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8724 | 0.0063 | 0.1726 | 0.0270 | 1.079 | 2.107 | 0.650 | 0.096 | 0.252 | 0.207 | 0.896 | 0.034 | 0.004 | 0.003 | 5.62 | 2 | 8 | 11 | 2.014 | 0.87 | 0.14 | 0.00 |
| | 300 | 0.8460 | 0.0042 | 0.1764 | 0.0314 | 1.098 | 2.307 | 0.623 | 0.081 | 0.234 | 0.188 | 0.854 | 0.025 | 0.007 | 0.004 | 5.49 | 2 | 8 | 10 | 1.984 | 0.82 | 0.16 | 0.01 |
| $p = 0.05$, | 100 | 0.8779 | 0.0123 | 0.1671 | 0.0126 | 1.072 | 2.041 | 0.678 | 0.099 | 0.287 | 0.259 | 0.903 | 0.036 | 0.006 | 0.005 | 5.60 | 2 | 7 | 10 | 2.046 | 0.88 | 0.15 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8260 | 0.0052 | 0.1478 | 0.0159 | 1.099 | 2.313 | 0.566 | 0.102 | 0.186 | 0.166 | 0.859 | 0.024 | 0.003 | 0.002 | 5.16 | 2 | 7 | 9 | 1.966 | 0.81 | 0.15 | 0.01 |
| | 300 | 0.7963 | 0.0034 | 0.1489 | 0.0181 | 1.119 | 2.507 | 0.536 | 0.104 | 0.172 | 0.154 | 0.806 | 0.018 | 0.004 | 0.002 | 4.99 | 1 | 7 | 10 | 1.905 | 0.76 | 0.14 | 0.01 |
| $p = 0.01$, | 100 | 0.7604 | 0.0083 | 0.1255 | 0.0032 | 1.128 | 2.568 | 0.470 | 0.111 | 0.151 | 0.148 | 0.796 | 0.018 | 0.003 | 0.003 | 4.63 | 1 | 7 | 9 | 1.888 | 0.74 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6773 | 0.0033 | 0.1077 | 0.0050 | 1.171 | 2.916 | 0.351 | 0.095 | 0.082 | 0.077 | 0.722 | 0.008 | 0.001 | 0.001 | 4.05 | 1 | 7 | 8 | 1.738 | 0.61 | 0.12 | 0.00 |
| | 300 | 0.6619 | 0.0021 | 0.1061 | 0.0068 | 1.184 | 3.041 | 0.329 | 0.101 | 0.079 | 0.077 | 0.678 | 0.008 | 0.001 | 0.001 | 3.95 | 1 | 7 | 9 | 1.701 | 0.58 | 0.11 | 0.00 |
| $p = 0.1$, | 100 | 0.8778 | 0.0142 | 0.1916 | 0.0186 | 1.080 | 2.100 | 0.685 | 0.076 | 0.341 | 0.297 | 0.873 | 0.047 | 0.009 | 0.007 | 5.80 | 3 | 8 | 11 | 1.939 | 0.84 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8240 | 0.0061 | 0.1750 | 0.0245 | 1.110 | 2.408 | 0.565 | 0.081 | 0.222 | 0.190 | 0.820 | 0.034 | 0.003 | 0.003 | 5.34 | 2 | 7 | 10 | 1.825 | 0.74 | 0.09 | 0.00 |
| | 300 | 0.7917 | 0.0041 | 0.1795 | 0.0279 | 1.135 | 2.626 | 0.515 | 0.066 | 0.193 | 0.164 | 0.759 | 0.025 | 0.006 | 0.004 | 5.18 | 2 | 7 | 10 | 1.746 | 0.67 | 0.07 | 0.00 |
| $p = 0.05$, | 100 | 0.8342 | 0.0120 | 0.1696 | 0.0108 | 1.101 | 2.302 | 0.603 | 0.085 | 0.256 | 0.237 | 0.826 | 0.036 | 0.006 | 0.005 | 5.36 | 2 | 7 | 10 | 1.872 | 0.77 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7691 | 0.0051 | 0.1523 | 0.0151 | 1.136 | 2.637 | 0.476 | 0.087 | 0.160 | 0.146 | 0.768 | 0.024 | 0.003 | 0.002 | 4.86 | 1 | 7 | 9 | 1.735 | 0.65 | 0.08 | 0.00 |
| | 300 | 0.7397 | 0.0033 | 0.1537 | 0.0166 | 1.158 | 2.825 | 0.432 | 0.088 | 0.137 | 0.127 | 0.706 | 0.018 | 0.004 | 0.002 | 4.69 | 1 | 7 | 10 | 1.672 | 0.60 | 0.07 | 0.00 |
| $p = 0.01$, | 100 | 0.7078 | 0.0082 | 0.1300 | 0.0027 | 1.164 | 2.833 | 0.389 | 0.088 | 0.128 | 0.125 | 0.707 | 0.018 | 0.003 | 0.003 | 4.35 | 1 | 7 | 9 | 1.685 | 0.59 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6250 | 0.0033 | 0.1118 | 0.0049 | 1.206 | 3.152 | 0.284 | 0.074 | 0.066 | 0.062 | 0.629 | 0.008 | 0.001 | 0.000 | 3.78 | 1 | 7 | 8 | 1.525 | 0.45 | 0.07 | 0.00 |
| | 300 | 0.5990 | 0.0021 | 0.1111 | 0.0065 | 1.226 | 3.334 | 0.238 | 0.069 | 0.060 | 0.058 | 0.571 | 0.008 | 0.001 | 0.001 | 3.63 | 1 | 7 | 9 | 1.438 | 0.39 | 0.05 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9443 | 0.1289 | 0.6367 | 0.5793 | 1.153 | 2.863 | 0.774 | 0.002 | 0.067 | 0.000 | 0.997 | 0.139 | 0.132 | 0.147 | 17.48 | 7 | 31 | 53 | - | - | - | - |
| | 200 | 0.9069 | 0.0835 | 0.6924 | 0.6513 | 1.193 | 3.211 | 0.643 | 0.001 | 0.046 | 0.000 | 0.992 | 0.092 | 0.096 | 0.113 | 21.16 | 7 | 40 | 66 | - | - | - | - |
| | 300 | 0.8882 | 0.0669 | 0.7308 | 0.6972 | 1.214 | 3.432 | 0.572 | 0.000 | 0.036 | 0.000 | 0.983 | 0.085 | 0.080 | 0.091 | 24.45 | 8 | 49 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8706 | 0.0433 | 0.3368 | 0.2958 | 1.122 | 2.608 | 0.605 | 0.065 | 0.011 | 0.001 | 0.983 | 0.044 | 0.040 | 0.049 | 8.64 | 3 | 19 | 39 | - | - | - | - |
| | 200 | 0.8340 | 0.0393 | 0.4529 | 0.4208 | 1.182 | 3.065 | 0.500 | 0.026 | 0.010 | 0.001 | 0.976 | 0.039 | 0.048 | 0.056 | 11.99 | 3 | 32 | 54 | - | - | - | - |
| | 300 | 0.8120 | 0.0370 | 0.5302 | 0.5006 | 1.227 | 3.421 | 0.447 | 0.009 | 0.010 | 0.000 | 0.960 | 0.043 | 0.045 | 0.050 | 15.11 | 3 | 40 | 60 | - | - | - | - |

Notes: See notes to Table 145.

## Table 176: MC findings for DGPIV(a)

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0245 | 0.2842 | 0.0129 | 1.005 | 1.408 | 1.000 | 0.000 | 0.993 | 0.884 | 1.000 | 0.281 | 0.024 | 0.009 | 7.43 | 7 | 9 | 11 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0119 | 0.2803 | 0.0134 | 1.005 | 1.413 | 1.000 | 0.000 | 0.990 | 0.874 | 1.000 | 0.242 | 0.016 | 0.005 | 7.38 | 7 | 8 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2773 | 0.0138 | 1.005 | 1.416 | 1.000 | 0.000 | 0.987 | 0.870 | 1.000 | 0.211 | 0.012 | 0.004 | 7.34 | 7 | 8 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0232 | 0.2735 | 0.0061 | 1.005 | 1.385 | 1.000 | 0.000 | 0.990 | 0.937 | 1.000 | 0.226 | 0.015 | 0.005 | 7.29 | 7 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0113 | 0.2700 | 0.0070 | 1.005 | 1.391 | 1.000 | 0.000 | 0.981 | 0.920 | 1.000 | 0.193 | 0.008 | 0.003 | 7.25 | 7 | 8 | 10 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2685 | 0.0080 | 1.005 | 1.394 | 1.000 | 0.001 | 0.979 | 0.911 | 1.000 | 0.172 | 0.007 | 0.003 | 7.23 | 7 | 8 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0215 | 0.2599 | 0.0013 | 1.004 | 1.365 | 1.000 | 0.001 | 0.971 | 0.961 | 1.000 | 0.140 | 0.005 | 0.001 | 7.13 | 7 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2566 | 0.0015 | 1.004 | 1.367 | 1.000 | 0.003 | 0.958 | 0.945 | 1.000 | 0.120 | 0.003 | 0.001 | 7.09 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2551 | 0.0019 | 1.003 | 1.366 | 1.000 | 0.001 | 0.951 | 0.935 | 1.000 | 0.106 | 0.002 | 0.001 | 7.07 | 7 | 8 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0244 | 0.2831 | 0.0113 | 1.005 | 1.397 | 1.000 | 0.000 | 0.993 | 0.897 | 1.000 | 0.281 | 0.024 | 0.009 | 7.41 | 7 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0119 | 0.2794 | 0.0122 | 1.005 | 1.403 | 1.000 | 0.000 | 0.990 | 0.885 | 1.000 | 0.242 | 0.016 | 0.005 | 7.37 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2764 | 0.0124 | 1.005 | 1.405 | 1.000 | 0.000 | 0.987 | 0.883 | 1.000 | 0.211 | 0.012 | 0.004 | 7.33 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0231 | 0.2729 | 0.0051 | 1.004 | 1.377 | 1.000 | 0.000 | 0.990 | 0.945 | 1.000 | 0.226 | 0.015 | 0.005 | 7.28 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0113 | 0.2695 | 0.0063 | 1.004 | 1.385 | 1.000 | 0.000 | 0.981 | 0.926 | 1.000 | 0.193 | 0.008 | 0.003 | 7.24 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0074 | 0.2679 | 0.0071 | 1.004 | 1.386 | 1.000 | 0.001 | 0.979 | 0.918 | 1.000 | 0.172 | 0.007 | 0.003 | 7.22 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0215 | 0.2599 | 0.0012 | 1.004 | 1.364 | 1.000 | 0.001 | 0.971 | 0.961 | 1.000 | 0.140 | 0.005 | 0.001 | 7.13 | 7 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2564 | 0.0013 | 1.004 | 1.365 | 1.000 | 0.003 | 0.958 | 0.946 | 1.000 | 0.120 | 0.003 | 0.001 | 7.09 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2548 | 0.0017 | 1.004 | 1.364 | 1.000 | 0.002 | 0.951 | 0.937 | 1.000 | 0.106 | 0.002 | 0.001 | 7.07 | 7 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1686 | 0.7116 | 0.6589 | 1.038 | 2.485 | 1.000 | 0.000 | 0.097 | 0.000 | 1.000 | 0.198 | 0.171 | 0.189 | 21.69 | 12 | 33 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.1071 | 0.7537 | 0.7179 | 1.049 | 2.811 | 1.000 | 0.001 | 0.087 | 0.000 | 1.000 | 0.140 | 0.124 | 0.137 | 26.31 | 13.5 | 42 | 78 | - | - | - | - |
| | 300 | 0.9999 | 0.0834 | 0.7809 | 0.7519 | 1.055 | 2.965 | 1.000 | 0.001 | 0.079 | 0.000 | 1.000 | 0.123 | 0.105 | 0.094 | 29.94 | 15 | 48 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0378 | 0.2502 | 0.2287 | 1.018 | 1.692 | 0.999 | 0.300 | 0.014 | 0.001 | 1.000 | 0.044 | 0.035 | 0.045 | 8.74 | 5 | 24 | 40 | - | - | - | - |
| | 200 | 0.9999 | 0.0419 | 0.3963 | 0.3761 | 1.039 | 2.193 | 1.000 | 0.179 | 0.023 | 0.000 | 1.000 | 0.054 | 0.054 | 0.051 | 13.33 | 5 | 33 | 67 | - | - | - | - |
| | 300 | 0.9997 | 0.0404 | 0.4809 | 0.4618 | 1.056 | 2.549 | 0.999 | 0.127 | 0.025 | 0.000 | 1.000 | 0.057 | 0.053 | 0.047 | 17.07 | 5 | 39 | 69 | - | - | - | - |

Notes: See notes to Table 145.

## Table 177: MC findings for DGPIV(a)

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3094 | 0.0116 | 1.003 | 1.401 | 1.000 | 0.000 | 1.000 | 0.898 | 1.000 | 0.573 | 0.047 | 0.007 | 7.74 | 7 | 9 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0134 | 0.3039 | 0.0130 | 1.004 | 1.413 | 1.000 | 0.000 | 1.000 | 0.889 | 1.000 | 0.504 | 0.036 | 0.006 | 7.67 | 7 | 9 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3012 | 0.0139 | 1.004 | 1.417 | 1.000 | 0.000 | 1.000 | 0.878 | 1.000 | 0.473 | 0.024 | 0.005 | 7.63 | 7 | 9 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0264 | 0.2998 | 0.0064 | 1.003 | 1.383 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 0.514 | 0.033 | 0.005 | 7.61 | 7 | 9 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0128 | 0.2944 | 0.0073 | 1.003 | 1.392 | 1.000 | 0.000 | 1.000 | 0.936 | 1.000 | 0.444 | 0.030 | 0.003 | 7.55 | 7 | 9 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2890 | 0.0064 | 1.003 | 1.390 | 1.000 | 0.000 | 0.999 | 0.942 | 1.000 | 0.400 | 0.015 | 0.002 | 7.48 | 7 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2833 | 0.0013 | 1.002 | 1.363 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.375 | 0.015 | 0.002 | 7.40 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2787 | 0.0016 | 1.003 | 1.366 | 1.000 | 0.000 | 1.000 | 0.986 | 1.000 | 0.318 | 0.013 | 0.003 | 7.35 | 7 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2751 | 0.0013 | 1.003 | 1.370 | 1.000 | 0.000 | 0.999 | 0.988 | 1.000 | 0.285 | 0.007 | 0.002 | 7.30 | 7 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0276 | 0.3086 | 0.0104 | 1.003 | 1.392 | 1.000 | 0.000 | 1.000 | 0.907 | 1.000 | 0.573 | 0.047 | 0.007 | 7.73 | 7 | 9 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3032 | 0.0119 | 1.004 | 1.403 | 1.000 | 0.000 | 1.000 | 0.898 | 1.000 | 0.504 | 0.036 | 0.006 | 7.66 | 7 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3005 | 0.0128 | 1.003 | 1.408 | 1.000 | 0.000 | 1.000 | 0.887 | 1.000 | 0.473 | 0.024 | 0.005 | 7.62 | 7 | 9 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2994 | 0.0058 | 1.003 | 1.377 | 1.000 | 0.000 | 1.000 | 0.948 | 1.000 | 0.514 | 0.033 | 0.005 | 7.61 | 7 | 9 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0128 | 0.2939 | 0.0066 | 1.003 | 1.385 | 1.000 | 0.000 | 1.000 | 0.943 | 1.000 | 0.444 | 0.030 | 0.003 | 7.54 | 7 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2885 | 0.0058 | 1.003 | 1.384 | 1.000 | 0.000 | 0.999 | 0.947 | 1.000 | 0.400 | 0.015 | 0.002 | 7.47 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2833 | 0.0012 | 1.002 | 1.362 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.375 | 0.015 | 0.002 | 7.40 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0118 | 0.2784 | 0.0013 | 1.003 | 1.363 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.318 | 0.013 | 0.003 | 7.35 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2750 | 0.0011 | 1.003 | 1.368 | 1.000 | 0.000 | 0.999 | 0.989 | 1.000 | 0.285 | 0.007 | 0.002 | 7.30 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1661 | 0.7074 | 0.6527 | 1.021 | 2.416 | 1.000 | 0.000 | 0.108 | 0.000 | 1.000 | 0.199 | 0.186 | 0.194 | 21.45 | 12 | 34 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.1077 | 0.7551 | 0.7174 | 1.029 | 2.747 | 1.000 | 0.000 | 0.093 | 0.000 | 1.000 | 0.144 | 0.111 | 0.121 | 26.44 | 13 | 43 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0835 | 0.7791 | 0.7501 | 1.032 | 2.893 | 1.000 | 0.000 | 0.081 | 0.000 | 1.000 | 0.129 | 0.086 | 0.086 | 29.97 | 15 | 50.5 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0310 | 0.1831 | 0.1671 | 1.009 | 1.579 | 1.000 | 0.514 | 0.006 | 0.000 | 1.000 | 0.042 | 0.039 | 0.043 | 8.07 | 5 | 22 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.0380 | 0.3343 | 0.3178 | 1.022 | 2.079 | 1.000 | 0.331 | 0.018 | 0.000 | 1.000 | 0.045 | 0.032 | 0.045 | 12.56 | 5 | 32 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0375 | 0.4282 | 0.4122 | 1.031 | 2.424 | 1.000 | 0.263 | 0.028 | 0.001 | 1.000 | 0.051 | 0.039 | 0.041 | 16.21 | 5 | 39 | 65 | - | - | - | - |

Notes: See notes to Table 145.

## Table 178: MC findings for DGPIV(a)

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5577 | 0.0080 | 0.1412 | 0.0333 | 1.112 | 2.421 | 0.147 | 0.030 | 0.040 | 0.034 | 0.821 | 0.052 | 0.005 | 0.004 | 3.58 | 1 | 7 | 10 | 1.365 | 0.33 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4768 | 0.0033 | 0.1320 | 0.0411 | 1.133 | 2.575 | 0.087 | 0.023 | 0.023 | 0.020 | 0.757 | 0.029 | 0.004 | 0.003 | 3.05 | 0 | 6 | 9 | 1.242 | 0.22 | 0.02 | 0.00 |
| | 300 | 0.4494 | 0.0021 | 0.1271 | 0.0436 | 1.144 | 2.621 | 0.066 | 0.014 | 0.019 | 0.014 | 0.714 | 0.034 | 0.005 | 0.001 | 2.88 | 0 | 6 | 9 | 1.197 | 0.18 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.4857 | 0.0059 | 0.1123 | 0.0196 | 1.128 | 2.512 | 0.097 | 0.027 | 0.022 | 0.020 | 0.757 | 0.036 | 0.004 | 0.002 | 3.01 | 0 | 6 | 9 | 1.286 | 0.26 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4148 | 0.0024 | 0.1035 | 0.0257 | 1.146 | 2.635 | 0.055 | 0.017 | 0.013 | 0.012 | 0.696 | 0.019 | 0.003 | 0.002 | 2.56 | 0 | 6 | 8 | 1.188 | 0.17 | 0.01 | 0.00 |
| | 300 | 0.3916 | 0.0015 | 0.0949 | 0.0257 | 1.155 | 2.670 | 0.043 | 0.009 | 0.009 | 0.007 | 0.665 | 0.024 | 0.002 | 0.001 | 2.40 | 0 | 6 | 9 | 1.156 | 0.14 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.3399 | 0.0031 | 0.0662 | 0.0050 | 1.163 | 2.689 | 0.029 | 0.010 | 0.004 | 0.004 | 0.606 | 0.016 | 0.002 | 0.001 | 2.00 | 0 | 5 | 7 | 1.139 | 0.13 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2920 | 0.0013 | 0.0615 | 0.0090 | 1.178 | 2.757 | 0.021 | 0.007 | 0.004 | 0.004 | 0.551 | 0.010 | 0.001 | 0.002 | 1.71 | 0 | 5 | 7 | 1.109 | 0.10 | 0.01 | 0.00 |
| | 300 | 0.2758 | 0.0007 | 0.0534 | 0.0092 | 1.185 | 2.783 | 0.013 | 0.005 | 0.002 | 0.002 | 0.528 | 0.012 | 0.001 | 0.001 | 1.60 | 0 | 4 | 7 | 1.088 | 0.08 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5231 | 0.0078 | 0.1413 | 0.0306 | 1.121 | 2.506 | 0.093 | 0.019 | 0.025 | 0.021 | 0.794 | 0.052 | 0.005 | 0.004 | 3.39 | 1 | 6 | 10 | 1.192 | 0.19 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4493 | 0.0033 | 0.1323 | 0.0392 | 1.142 | 2.630 | 0.053 | 0.013 | 0.016 | 0.015 | 0.725 | 0.029 | 0.004 | 0.003 | 2.90 | 0 | 6 | 9 | 1.103 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.4250 | 0.0021 | 0.1275 | 0.0424 | 1.150 | 2.673 | 0.036 | 0.007 | 0.011 | 0.008 | 0.693 | 0.034 | 0.005 | 0.001 | 2.74 | 0 | 6 | 9 | 1.070 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4556 | 0.0057 | 0.1121 | 0.0180 | 1.136 | 2.577 | 0.064 | 0.015 | 0.015 | 0.013 | 0.730 | 0.036 | 0.004 | 0.002 | 2.85 | 0 | 6 | 9 | 1.135 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3917 | 0.0024 | 0.1043 | 0.0252 | 1.154 | 2.678 | 0.033 | 0.010 | 0.008 | 0.007 | 0.665 | 0.019 | 0.003 | 0.002 | 2.43 | 0 | 5.5 | 8 | 1.076 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.3705 | 0.0015 | 0.0952 | 0.0252 | 1.161 | 2.709 | 0.022 | 0.005 | 0.004 | 0.004 | 0.645 | 0.024 | 0.002 | 0.001 | 2.29 | 0 | 5 | 8 | 1.054 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3214 | 0.0030 | 0.0656 | 0.0048 | 1.169 | 2.718 | 0.017 | 0.005 | 0.003 | 0.003 | 0.585 | 0.016 | 0.002 | 0.001 | 1.90 | 0 | 5 | 7 | 1.053 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2762 | 0.0012 | 0.0611 | 0.0086 | 1.183 | 2.776 | 0.011 | 0.003 | 0.003 | 0.003 | 0.528 | 0.010 | 0.001 | 0.002 | 1.63 | 0 | 4 | 7 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2633 | 0.0007 | 0.0538 | 0.0093 | 1.189 | 2.799 | 0.007 | 0.002 | 0.001 | 0.001 | 0.510 | 0.012 | 0.001 | 0.001 | 1.53 | 0 | 4 | 7 | 1.029 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7360 | 0.0927 | 0.5932 | 0.5315 | 1.121 | 2.486 | 0.229 | 0.000 | 0.012 | 0.000 | 0.987 | 0.107 | 0.101 | 0.114 | 12.86 | 4 | 27 | 64 | - | - | - | - |
| | 200 | 0.6761 | 0.0616 | 0.6590 | 0.6149 | 1.144 | 2.630 | 0.135 | 0.000 | 0.007 | 0.000 | 0.975 | 0.075 | 0.073 | 0.081 | 15.63 | 4 | 34 | 78 | - | - | - | - |
| | 300 | 0.6485 | 0.0484 | 0.6970 | 0.6614 | 1.154 | 2.707 | 0.095 | 0.000 | 0.004 | 0.000 | 0.971 | 0.075 | 0.063 | 0.060 | 17.71 | 5 | 40 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5915 | 0.0351 | 0.3465 | 0.2987 | 1.120 | 2.558 | 0.108 | 0.003 | 0.002 | 0.000 | 0.963 | 0.035 | 0.043 | 0.044 | 6.43 | 2 | 15 | 58 | - | - | - | - |
| | 200 | 0.5605 | 0.0300 | 0.4554 | 0.4188 | 1.158 | 2.817 | 0.078 | 0.001 | 0.002 | 0.000 | 0.943 | 0.037 | 0.040 | 0.041 | 8.76 | 2 | 22.5 | 64 | - | - | - | - |
| | 300 | 0.5471 | 0.0262 | 0.5147 | 0.4841 | 1.184 | 2.991 | 0.059 | 0.000 | 0.001 | 0.000 | 0.945 | 0.038 | 0.031 | 0.032 | 10.56 | 2 | 30 | 61 | - | - | - | - |

Notes: See notes to Table 145.

## Table 179: MC findings for DGPIV(a)

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9968 | 0.0229 | 0.2682 | 0.0144 | 1.006 | 1.418 | 0.985 | 0.009 | 0.826 | 0.728 | 1.000 | 0.283 | 0.021 | 0.009 | 7.25 | 6 | 9 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9946 | 0.0106 | 0.2533 | 0.0137 | 1.006 | 1.474 | 0.976 | 0.025 | 0.769 | 0.685 | 1.000 | 0.217 | 0.014 | 0.004 | 7.08 | 6 | 8 | 10 | 1.999 | 0.99 | 0.01 | 0.00 |
| | 300 | 0.9923 | 0.0068 | 0.2469 | 0.0153 | 1.007 | 1.459 | 0.964 | 0.027 | 0.721 | 0.627 | 1.000 | 0.198 | 0.013 | 0.001 | 7.00 | 6 | 8 | 10 | 2.004 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9944 | 0.0209 | 0.2508 | 0.0077 | 1.005 | 1.410 | 0.974 | 0.025 | 0.775 | 0.728 | 1.000 | 0.231 | 0.014 | 0.003 | 7.04 | 6 | 8 | 10 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9906 | 0.0096 | 0.2353 | 0.0068 | 1.006 | 1.480 | 0.957 | 0.036 | 0.703 | 0.668 | 1.000 | 0.167 | 0.007 | 0.003 | 6.86 | 5 | 8 | 9 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9874 | 0.0062 | 0.2280 | 0.0085 | 1.006 | 1.466 | 0.945 | 0.042 | 0.644 | 0.596 | 1.000 | 0.163 | 0.010 | 0.001 | 6.78 | 5 | 8 | 10 | 1.996 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9845 | 0.0172 | 0.2151 | 0.0013 | 1.006 | 1.456 | 0.934 | 0.055 | 0.620 | 0.614 | 1.000 | 0.137 | 0.004 | 0.001 | 6.63 | 5 | 8 | 9 | 1.997 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9786 | 0.0079 | 0.2005 | 0.0016 | 1.007 | 1.554 | 0.909 | 0.076 | 0.541 | 0.534 | 1.000 | 0.100 | 0.003 | 0.000 | 6.46 | 5 | 8 | 9 | 1.988 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9679 | 0.0049 | 0.1906 | 0.0023 | 1.009 | 1.616 | 0.873 | 0.092 | 0.470 | 0.462 | 1.000 | 0.103 | 0.006 | 0.001 | 6.31 | 4 | 8 | 9 | 1.977 | 0.97 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9950 | 0.0227 | 0.2674 | 0.0130 | 1.006 | 1.439 | 0.977 | 0.009 | 0.820 | 0.731 | 1.000 | 0.283 | 0.021 | 0.009 | 7.22 | 6 | 8 | 10 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9918 | 0.0105 | 0.2532 | 0.0129 | 1.007 | 1.527 | 0.962 | 0.025 | 0.757 | 0.681 | 1.000 | 0.217 | 0.014 | 0.004 | 7.05 | 6 | 8 | 10 | 1.982 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9866 | 0.0068 | 0.2468 | 0.0140 | 1.008 | 1.558 | 0.939 | 0.027 | 0.700 | 0.617 | 1.000 | 0.198 | 0.013 | 0.001 | 6.96 | 6 | 8 | 10 | 1.970 | 0.97 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9917 | 0.0208 | 0.2504 | 0.0066 | 1.006 | 1.452 | 0.962 | 0.025 | 0.768 | 0.728 | 1.000 | 0.231 | 0.014 | 0.003 | 7.02 | 6 | 8 | 10 | 1.988 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9868 | 0.0096 | 0.2356 | 0.0064 | 1.007 | 1.555 | 0.940 | 0.035 | 0.690 | 0.658 | 1.000 | 0.167 | 0.007 | 0.003 | 6.84 | 5 | 8 | 9 | 1.974 | 0.97 | 0.00 | 0.00 |
| | 300 | 0.9796 | 0.0061 | 0.2287 | 0.0079 | 1.009 | 1.613 | 0.915 | 0.041 | 0.622 | 0.581 | 0.999 | 0.163 | 0.010 | 0.001 | 6.73 | 5 | 8 | 10 | 1.954 | 0.95 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9784 | 0.0172 | 0.2156 | 0.0010 | 1.008 | 1.567 | 0.912 | 0.052 | 0.609 | 0.605 | 1.000 | 0.137 | 0.004 | 0.001 | 6.59 | 5 | 8 | 9 | 1.967 | 0.96 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9705 | 0.0079 | 0.2012 | 0.0013 | 1.010 | 1.692 | 0.882 | 0.074 | 0.525 | 0.519 | 0.998 | 0.100 | 0.003 | 0.000 | 6.42 | 5 | 8 | 9 | 1.947 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9565 | 0.0049 | 0.1919 | 0.0024 | 1.013 | 1.799 | 0.833 | 0.088 | 0.449 | 0.443 | 0.998 | 0.103 | 0.006 | 0.001 | 6.26 | 4 | 8 | 9 | 1.923 | 0.92 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9950 | 0.1524 | 0.6781 | 0.6223 | 1.040 | 2.569 | 0.976 | 0.003 | 0.101 | 0.000 | 1.000 | 0.176 | 0.162 | 0.176 | 20.06 | 9 | 32 | 53 | - | - | - | - |
| | 200 | 0.9884 | 0.0983 | 0.7272 | 0.6892 | 1.053 | 2.912 | 0.947 | 0.000 | 0.083 | 0.000 | 1.000 | 0.112 | 0.102 | 0.102 | 24.51 | 11 | 42 | 68 | - | - | - | - |
| | 300 | 0.9846 | 0.0737 | 0.7453 | 0.7153 | 1.060 | 3.042 | 0.930 | 0.001 | 0.064 | 0.000 | 1.000 | 0.102 | 0.080 | 0.087 | 26.95 | 10 | 47 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9664 | 0.0433 | 0.3117 | 0.2787 | 1.028 | 2.193 | 0.860 | 0.154 | 0.011 | 0.000 | 1.000 | 0.049 | 0.043 | 0.048 | 9.12 | 4 | 22 | 36 | - | - | - | - |
| | 200 | 0.9629 | 0.0455 | 0.4587 | 0.4310 | 1.051 | 2.651 | 0.856 | 0.068 | 0.026 | 0.000 | 1.000 | 0.051 | 0.045 | 0.050 | 13.87 | 4 | 34 | 56 | - | - | - | - |
| | 300 | 0.9565 | 0.0416 | 0.5280 | 0.5027 | 1.070 | 2.933 | 0.836 | 0.049 | 0.020 | 0.000 | 1.000 | 0.059 | 0.047 | 0.052 | 17.22 | 4 | 40 | 71 | - | - | - | - |

Notes: See notes to Table 145.

## Table 180: MC findings for DGPIV(a)

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0278 | 0.3104 | 0.0126 | 1.004 | 1.437 | 1.000 | 0.000 | 0.995 | 0.880 | 1.000 | 0.580 | 0.048 | 0.008 | 7.75 | 7 | 9 | 11 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0134 | 0.3034 | 0.0126 | 1.003 | 1.418 | 1.000 | 0.000 | 0.989 | 0.877 | 1.000 | 0.520 | 0.029 | 0.008 | 7.67 | 7 | 9 | 11 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2985 | 0.0122 | 1.004 | 1.422 | 1.000 | 0.000 | 0.985 | 0.878 | 1.000 | 0.471 | 0.024 | 0.006 | 7.60 | 7 | 9 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2994 | 0.0073 | 1.003 | 1.414 | 1.000 | 0.000 | 0.989 | 0.925 | 1.000 | 0.514 | 0.032 | 0.005 | 7.61 | 7 | 9 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0127 | 0.2918 | 0.0070 | 1.003 | 1.393 | 1.000 | 0.000 | 0.980 | 0.918 | 1.000 | 0.445 | 0.022 | 0.005 | 7.52 | 7 | 8 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2878 | 0.0065 | 1.003 | 1.394 | 1.000 | 0.001 | 0.972 | 0.915 | 1.000 | 0.416 | 0.016 | 0.004 | 7.47 | 7 | 8 | 11 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0240 | 0.2802 | 0.0014 | 1.003 | 1.382 | 1.000 | 0.002 | 0.969 | 0.956 | 1.000 | 0.378 | 0.014 | 0.002 | 7.37 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0115 | 0.2730 | 0.0015 | 1.002 | 1.366 | 0.999 | 0.002 | 0.953 | 0.940 | 1.000 | 0.313 | 0.012 | 0.002 | 7.29 | 7 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0075 | 0.2682 | 0.0011 | 1.002 | 1.360 | 0.999 | 0.002 | 0.934 | 0.924 | 1.000 | 0.285 | 0.007 | 0.002 | 7.23 | 7 | 8 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3095 | 0.0115 | 1.004 | 1.427 | 1.000 | 0.000 | 0.995 | 0.889 | 1.000 | 0.580 | 0.047 | 0.008 | 7.74 | 7 | 9 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0133 | 0.3026 | 0.0115 | 1.003 | 1.408 | 1.000 | 0.000 | 0.989 | 0.886 | 1.000 | 0.520 | 0.029 | 0.008 | 7.66 | 7 | 9 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0087 | 0.2977 | 0.0111 | 1.003 | 1.415 | 1.000 | 0.000 | 0.984 | 0.886 | 1.000 | 0.471 | 0.024 | 0.006 | 7.59 | 7 | 9 | 11 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2987 | 0.0064 | 1.003 | 1.406 | 1.000 | 0.000 | 0.989 | 0.933 | 1.000 | 0.514 | 0.032 | 0.005 | 7.60 | 7 | 9 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0126 | 0.2913 | 0.0063 | 1.003 | 1.387 | 1.000 | 0.000 | 0.980 | 0.924 | 1.000 | 0.445 | 0.022 | 0.005 | 7.51 | 7 | 8 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0082 | 0.2875 | 0.0060 | 1.003 | 1.392 | 1.000 | 0.001 | 0.972 | 0.920 | 1.000 | 0.416 | 0.016 | 0.004 | 7.46 | 7 | 8 | 11 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0240 | 0.2801 | 0.0013 | 1.002 | 1.381 | 1.000 | 0.002 | 0.969 | 0.957 | 1.000 | 0.378 | 0.014 | 0.002 | 7.37 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0115 | 0.2728 | 0.0012 | 1.002 | 1.366 | 0.999 | 0.002 | 0.952 | 0.942 | 1.000 | 0.313 | 0.012 | 0.002 | 7.29 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0075 | 0.2682 | 0.0011 | 1.002 | 1.363 | 0.999 | 0.002 | 0.933 | 0.924 | 1.000 | 0.285 | 0.007 | 0.002 | 7.23 | 7 | 8 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.1650 | 0.7038 | 0.6483 | 1.022 | 2.488 | 1.000 | 0.000 | 0.094 | 0.000 | 1.000 | 0.197 | 0.180 | 0.182 | 21.33 | 11 | 34 | 50 | - | - | - | - |
| | 200 | 0.9999 | 0.1092 | 0.7569 | 0.7195 | 1.028 | 2.754 | 1.000 | 0.000 | 0.085 | 0.000 | 1.000 | 0.152 | 0.110 | 0.134 | 26.74 | 13 | 43 | 64 | - | - | - | - |
| | 300 | 0.9996 | 0.0812 | 0.7756 | 0.7444 | 1.033 | 2.933 | 0.998 | 0.000 | 0.081 | 0.000 | 1.000 | 0.121 | 0.094 | 0.105 | 29.26 | 14 | 48 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9976 | 0.0411 | 0.2669 | 0.2423 | 1.012 | 1.864 | 0.989 | 0.274 | 0.015 | 0.001 | 1.000 | 0.049 | 0.047 | 0.051 | 9.06 | 5 | 23 | 41 | - | - | - | - |
| | 200 | 0.9977 | 0.0483 | 0.4399 | 0.4169 | 1.027 | 2.384 | 0.991 | 0.138 | 0.019 | 0.000 | 1.000 | 0.062 | 0.050 | 0.061 | 14.60 | 5 | 34 | 51 | - | - | - | - |
| | 300 | 0.9976 | 0.0436 | 0.5188 | 0.4968 | 1.041 | 2.733 | 0.988 | 0.109 | 0.033 | 0.001 | 1.000 | 0.061 | 0.056 | 0.058 | 18.02 | 5 | 39 | 59 | - | - | - | - |

Notes: See notes to Table 145.

## Table 181: MC findings for DGPIV(b)

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9672 | 0.0072 | 0.0973 | 0.0222 | 1.029 | 1.549 | 0.864 | 0.427 | 0.996 | 0.061 | 0.008 | 0.003 | 5.55 | 4 | 7 | 10 | 2.004 | 0.90 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9546 | 0.0030 | 0.0842 | 0.0264 | 1.038 | 1.681 | 0.817 | 0.457 | 0.993 | 0.033 | 0.005 | 0.004 | 5.37 | 4 | 7 | 9 | 1.984 | 0.87 | 0.11 | 0.00 |
| | 300 | 0.9443 | 0.0020 | 0.0821 | 0.0300 | 1.045 | 1.779 | 0.775 | 0.438 | 0.987 | 0.029 | 0.005 | 0.002 | 5.31 | 4 | 7 | 9 | 1.970 | 0.84 | 0.13 | 0.00 |
| $p = 0.05$, | 100 | 0.9555 | 0.0052 | 0.0730 | 0.0111 | 1.032 | 1.635 | 0.822 | 0.499 | 0.994 | 0.045 | 0.007 | 0.001 | 5.29 | 4 | 7 | 8 | 2.002 | 0.87 | 0.13 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9404 | 0.0022 | 0.0622 | 0.0156 | 1.044 | 1.792 | 0.764 | 0.502 | 0.989 | 0.025 | 0.003 | 0.002 | 5.13 | 4 | 6 | 9 | 1.990 | 0.85 | 0.13 | 0.00 |
| | 300 | 0.9291 | 0.0014 | 0.0604 | 0.0179 | 1.051 | 1.881 | 0.725 | 0.479 | 0.982 | 0.022 | 0.004 | 0.001 | 5.06 | 4 | 6 | 8 | 1.960 | 0.82 | 0.14 | 0.00 |
| $p = 0.01$, | 100 | 0.9122 | 0.0027 | 0.0401 | 0.0029 | 1.056 | 1.990 | 0.683 | 0.529 | 0.974 | 0.016 | 0.001 | 0.000 | 4.83 | 3 | 6 | 8 | 1.963 | 0.80 | 0.16 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8937 | 0.0010 | 0.0305 | 0.0045 | 1.067 | 2.138 | 0.619 | 0.510 | 0.973 | 0.010 | 0.001 | 0.002 | 4.67 | 3 | 6 | 8 | 1.961 | 0.79 | 0.17 | 0.00 |
| | 300 | 0.8762 | 0.0006 | 0.0294 | 0.0045 | 1.079 | 2.244 | 0.573 | 0.473 | 0.955 | 0.010 | 0.001 | 0.000 | 4.57 | 3 | 6 | 7 | 1.925 | 0.75 | 0.18 | 0.00 |
| $p = 0.1$, | 100 | 0.9366 | 0.0068 | 0.0955 | 0.0185 | 1.049 | 1.832 | 0.737 | 0.384 | 0.980 | 0.060 | 0.007 | 0.003 | 5.36 | 4 | 7 | 9 | 1.890 | 0.79 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9161 | 0.0028 | 0.0815 | 0.0222 | 1.063 | 1.995 | 0.660 | 0.389 | 0.967 | 0.033 | 0.005 | 0.003 | 5.14 | 4 | 7 | 9 | 1.836 | 0.74 | 0.10 | 0.00 |
| | 300 | 0.9024 | 0.0018 | 0.0804 | 0.0267 | 1.075 | 2.101 | 0.605 | 0.352 | 0.954 | 0.029 | 0.005 | 0.002 | 5.06 | 3 | 7 | 9 | 1.814 | 0.70 | 0.11 | 0.00 |
| $p = 0.05$, | 100 | 0.9197 | 0.0050 | 0.0730 | 0.0096 | 1.058 | 1.949 | 0.677 | 0.424 | 0.970 | 0.043 | 0.006 | 0.001 | 5.09 | 4 | 6 | 8 | 1.872 | 0.76 | 0.12 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9006 | 0.0020 | 0.0608 | 0.0131 | 1.071 | 2.099 | 0.605 | 0.408 | 0.961 | 0.025 | 0.003 | 0.002 | 4.91 | 3 | 6 | 9 | 1.843 | 0.72 | 0.12 | 0.00 |
| | 300 | 0.8829 | 0.0013 | 0.0601 | 0.0160 | 1.085 | 2.219 | 0.546 | 0.371 | 0.939 | 0.022 | 0.003 | 0.001 | 4.81 | 3 | 6 | 8 | 1.796 | 0.67 | 0.13 | 0.00 |
| $p = 0.01$, | 100 | 0.8729 | 0.0027 | 0.0410 | 0.0025 | 1.087 | 2.268 | 0.533 | 0.420 | 0.937 | 0.015 | 0.001 | 0.000 | 4.63 | 3 | 6 | 8 | 1.843 | 0.69 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8480 | 0.0010 | 0.0307 | 0.0038 | 1.101 | 2.427 | 0.451 | 0.371 | 0.924 | 0.010 | 0.001 | 0.001 | 4.43 | 3 | 6 | 8 | 1.795 | 0.65 | 0.14 | 0.00 |
| | 300 | 0.8265 | 0.0006 | 0.0300 | 0.0039 | 1.119 | 2.533 | 0.398 | 0.329 | 0.891 | 0.010 | 0.001 | 0.000 | 4.32 | 3 | 6 | 7 | 1.743 | 0.60 | 0.14 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9804 | 0.1156 | 0.5979 | 0.5283 | 1.126 | 2.462 | 0.906 | 0.010 | 1.000 | 0.135 | 0.135 | 0.138 | 16.34 | 6 | 30 | 49 | - | - | - | - |
| | 200 | 0.9665 | 0.0812 | 0.6747 | 0.6332 | 1.156 | 2.700 | 0.845 | 0.003 | 1.000 | 0.098 | 0.103 | 0.096 | 21.00 | 8 | 39 | 92 | - | - | - | - |
| | 300 | 0.9560 | 0.0637 | 0.7077 | 0.6786 | 1.178 | 2.856 | 0.793 | 0.001 | 1.000 | 0.082 | 0.076 | 0.084 | 23.84 | 8 | 45 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9324 | 0.0359 | 0.2417 | 0.2132 | 1.106 | 2.462 | 0.758 | 0.196 | 0.996 | 0.044 | 0.044 | 0.045 | 8.21 | 3 | 21 | 39 | - | - | - | - |
| | 200 | 0.9251 | 0.0368 | 0.3687 | 0.3455 | 1.153 | 2.785 | 0.736 | 0.118 | 0.996 | 0.047 | 0.046 | 0.050 | 11.94 | 3 | 31 | 63 | - | - | - | - |
| | 300 | 0.9150 | 0.0341 | 0.4481 | 0.4287 | 1.190 | 3.025 | 0.684 | 0.061 | 0.997 | 0.035 | 0.035 | 0.049 | 14.76 | 3 | 35 | 56 | - | - | - | - |

Notes: See notes to Table 100.

## Table 182: MC findings for DGPIV(b)

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0172 | 0.2124 | 0.0142 | 1.004 | 1.210 | 1.000 | 0.022 | 1.000 | 0.295 | 0.031 | 0.008 | 6.70 | 6 | 8 | 11 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0078 | 0.1980 | 0.0145 | 1.004 | 1.210 | 1.000 | 0.040 | 1.000 | 0.248 | 0.024 | 0.008 | 6.56 | 6 | 8 | 10 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1915 | 0.0158 | 1.004 | 1.209 | 1.000 | 0.036 | 1.000 | 0.210 | 0.011 | 0.003 | 6.49 | 6 | 8 | 10 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0151 | 0.1924 | 0.0074 | 1.003 | 1.175 | 1.000 | 0.037 | 1.000 | 0.248 | 0.021 | 0.005 | 6.50 | 6 | 8 | 11 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0070 | 0.1806 | 0.0083 | 1.004 | 1.181 | 1.000 | 0.054 | 1.000 | 0.201 | 0.017 | 0.006 | 6.38 | 6 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.1730 | 0.0084 | 1.003 | 1.177 | 1.000 | 0.060 | 1.000 | 0.171 | 0.007 | 0.002 | 6.31 | 6 | 7 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0118 | 0.1579 | 0.0017 | 1.002 | 1.134 | 1.000 | 0.093 | 1.000 | 0.142 | 0.010 | 0.001 | 6.17 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0055 | 0.1489 | 0.0023 | 1.002 | 1.134 | 1.000 | 0.120 | 1.000 | 0.120 | 0.006 | 0.002 | 6.10 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1435 | 0.0021 | 1.002 | 1.134 | 1.000 | 0.138 | 1.000 | 0.104 | 0.004 | 0.001 | 6.05 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0170 | 0.2104 | 0.0121 | 1.003 | 1.188 | 1.000 | 0.023 | 1.000 | 0.295 | 0.031 | 0.008 | 6.68 | 6 | 8 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0078 | 0.1963 | 0.0126 | 1.004 | 1.192 | 1.000 | 0.040 | 1.000 | 0.248 | 0.024 | 0.007 | 6.54 | 6 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.1903 | 0.0142 | 1.003 | 1.193 | 1.000 | 0.036 | 1.000 | 0.210 | 0.011 | 0.003 | 6.48 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0150 | 0.1914 | 0.0063 | 1.003 | 1.164 | 1.000 | 0.038 | 1.000 | 0.248 | 0.021 | 0.005 | 6.49 | 6 | 8 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0069 | 0.1794 | 0.0070 | 1.003 | 1.168 | 1.000 | 0.055 | 1.000 | 0.201 | 0.017 | 0.006 | 6.37 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.1723 | 0.0076 | 1.003 | 1.169 | 1.000 | 0.060 | 1.000 | 0.171 | 0.007 | 0.002 | 6.30 | 6 | 7 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0118 | 0.1576 | 0.0014 | 1.002 | 1.132 | 1.000 | 0.094 | 1.000 | 0.142 | 0.010 | 0.001 | 6.17 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0055 | 0.1487 | 0.0022 | 1.002 | 1.132 | 1.000 | 0.120 | 1.000 | 0.120 | 0.006 | 0.002 | 6.10 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1433 | 0.0019 | 1.002 | 1.132 | 1.000 | 0.139 | 1.000 | 0.104 | 0.004 | 0.001 | 6.05 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1330 | 0.6492 | 0.5747 | 1.032 | 2.171 | 1.000 | 0.002 | 1.000 | 0.155 | 0.150 | 0.154 | 18.16 | 9 | 31 | 58 | - | - | - | - |
| | 200 | 1.0000 | 0.0893 | 0.7066 | 0.6640 | 1.042 | 2.428 | 1.000 | 0.002 | 1.000 | 0.121 | 0.103 | 0.094 | 22.77 | 10 | 38.5 | 70 | - | - | - | - |
| | 300 | 1.0000 | 0.0673 | 0.7286 | 0.6970 | 1.047 | 2.562 | 1.000 | 0.002 | 1.000 | 0.103 | 0.075 | 0.084 | 25.13 | 11 | 44 | 90 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0410 | 0.2325 | 0.2055 | 1.020 | 1.818 | 1.000 | 0.571 | 1.000 | 0.048 | 0.051 | 0.046 | 9.06 | 5 | 21 | 45 | - | - | - | - |
| | 200 | 0.9999 | 0.0398 | 0.3781 | 0.3552 | 1.037 | 2.204 | 1.000 | 0.390 | 1.000 | 0.050 | 0.047 | 0.048 | 12.92 | 5 | 28 | 56 | - | - | - | - |
| | 300 | 0.9999 | 0.0326 | 0.4341 | 0.4163 | 1.047 | 2.388 | 1.000 | 0.330 | 1.000 | 0.053 | 0.037 | 0.043 | 14.76 | 5 | 32 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 183: MC findings for DGPIV(b)

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0231 | 0.2672 | 0.0120 | 1.003 | 1.245 | 1.000 | 0.001 | 1.000 | 0.584 | 0.046 | 0.011 | 7.29 | 6 | 9 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2506 | 0.0123 | 1.003 | 1.226 | 1.000 | 0.000 | 1.000 | 0.503 | 0.030 | 0.006 | 7.10 | 6 | 9 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2436 | 0.0137 | 1.003 | 1.239 | 1.000 | 0.002 | 1.000 | 0.456 | 0.022 | 0.004 | 7.02 | 6 | 8 | 11 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0207 | 0.2470 | 0.0051 | 1.002 | 1.211 | 1.000 | 0.001 | 1.000 | 0.522 | 0.034 | 0.006 | 7.05 | 6 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0095 | 0.2316 | 0.0066 | 1.002 | 1.197 | 1.000 | 0.001 | 1.000 | 0.436 | 0.021 | 0.004 | 6.89 | 6 | 8 | 11 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0060 | 0.2241 | 0.0065 | 1.002 | 1.207 | 1.000 | 0.003 | 1.000 | 0.400 | 0.013 | 0.003 | 6.81 | 6 | 8 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0171 | 0.2134 | 0.0012 | 1.002 | 1.175 | 1.000 | 0.003 | 1.000 | 0.389 | 0.014 | 0.003 | 6.69 | 6 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0078 | 0.1991 | 0.0014 | 1.002 | 1.161 | 1.000 | 0.004 | 1.000 | 0.303 | 0.011 | 0.002 | 6.55 | 6 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0051 | 0.1959 | 0.0016 | 1.002 | 1.175 | 1.000 | 0.007 | 1.000 | 0.287 | 0.007 | 0.001 | 6.52 | 6 | 8 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0229 | 0.2661 | 0.0104 | 1.003 | 1.231 | 1.000 | 0.001 | 1.000 | 0.584 | 0.046 | 0.011 | 7.27 | 6 | 9 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2496 | 0.0111 | 1.002 | 1.212 | 1.000 | 0.000 | 1.000 | 0.503 | 0.030 | 0.006 | 7.09 | 6 | 9 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2426 | 0.0124 | 1.003 | 1.225 | 1.000 | 0.002 | 1.000 | 0.456 | 0.022 | 0.004 | 7.01 | 6 | 8 | 11 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0207 | 0.2465 | 0.0045 | 1.002 | 1.205 | 1.000 | 0.001 | 1.000 | 0.522 | 0.034 | 0.006 | 7.05 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0095 | 0.2311 | 0.0061 | 1.002 | 1.190 | 1.000 | 0.001 | 1.000 | 0.436 | 0.021 | 0.004 | 6.88 | 6 | 8 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0060 | 0.2234 | 0.0057 | 1.002 | 1.197 | 1.000 | 0.003 | 1.000 | 0.400 | 0.013 | 0.003 | 6.80 | 6 | 8 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0171 | 0.2134 | 0.0012 | 1.002 | 1.174 | 1.000 | 0.003 | 1.000 | 0.389 | 0.014 | 0.003 | 6.69 | 6 | 8 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0078 | 0.1990 | 0.0013 | 1.002 | 1.159 | 1.000 | 0.004 | 1.000 | 0.303 | 0.011 | 0.002 | 6.55 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0051 | 0.1956 | 0.0013 | 1.002 | 1.170 | 1.000 | 0.007 | 1.000 | 0.287 | 0.007 | 0.001 | 6.51 | 6 | 8 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1381 | 0.6467 | 0.5740 | 1.019 | 2.159 | 1.000 | 0.002 | 1.000 | 0.175 | 0.158 | 0.160 | 18.67 | 8 | 30 | 55 | - | - | - | - |
| | 200 | 1.0000 | 0.0838 | 0.6905 | 0.6488 | 1.023 | 2.413 | 1.000 | 0.002 | 1.000 | 0.131 | 0.103 | 0.106 | 21.68 | 10 | 43 | 62 | - | - | - | - |
| | 300 | 1.0000 | 0.0651 | 0.7231 | 0.6927 | 1.026 | 2.534 | 1.000 | 0.001 | 1.000 | 0.106 | 0.069 | 0.070 | 24.46 | 10 | 47.5 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0397 | 0.2389 | 0.2140 | 1.011 | 1.745 | 1.000 | 0.585 | 1.000 | 0.046 | 0.045 | 0.044 | 8.93 | 5 | 19 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0329 | 0.3549 | 0.3337 | 1.017 | 2.013 | 1.000 | 0.412 | 1.000 | 0.042 | 0.036 | 0.039 | 11.55 | 5 | 28 | 41 | - | - | - | - |
| | 300 | 1.0000 | 0.0288 | 0.4377 | 0.4205 | 1.023 | 2.213 | 1.000 | 0.309 | 1.000 | 0.042 | 0.030 | 0.029 | 13.62 | 5 | 29 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 184: MC findings for DGPIV(b)

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8059 | 0.0049 | 0.0759 | 0.0237 | 1.064 | 1.957 | 0.268 | 0.176 | 0.931 | 0.055 | 0.009 | 0.004 | 4.51 | 3 | 6 | 9 | 1.444 | 0.41 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7642 | 0.0021 | 0.0674 | 0.0272 | 1.076 | 2.094 | 0.179 | 0.118 | 0.894 | 0.038 | 0.006 | 0.002 | 4.24 | 3 | 6 | 8 | 1.375 | 0.35 | 0.03 | 0.00 |
| | 300 | 0.7457 | 0.0014 | 0.0687 | 0.0319 | 1.083 | 2.137 | 0.162 | 0.115 | 0.870 | 0.030 | 0.005 | 0.004 | 4.14 | 3 | 6 | 8 | 1.361 | 0.33 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.7777 | 0.0033 | 0.0542 | 0.0145 | 1.069 | 2.011 | 0.213 | 0.162 | 0.911 | 0.040 | 0.006 | 0.003 | 4.22 | 3 | 6 | 8 | 1.414 | 0.38 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7372 | 0.0014 | 0.0470 | 0.0156 | 1.081 | 2.141 | 0.139 | 0.102 | 0.868 | 0.028 | 0.004 | 0.001 | 3.96 | 2 | 6 | 7 | 1.361 | 0.33 | 0.03 | 0.00 |
| | 300 | 0.7110 | 0.0009 | 0.0471 | 0.0182 | 1.090 | 2.194 | 0.111 | 0.090 | 0.836 | 0.019 | 0.004 | 0.003 | 3.82 | 2 | 5 | 8 | 1.319 | 0.30 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.7118 | 0.0014 | 0.0249 | 0.0031 | 1.085 | 2.153 | 0.109 | 0.098 | 0.853 | 0.019 | 0.004 | 0.001 | 3.70 | 2 | 5 | 7 | 1.376 | 0.35 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6691 | 0.0006 | 0.0222 | 0.0052 | 1.100 | 2.279 | 0.066 | 0.057 | 0.787 | 0.014 | 0.002 | 0.001 | 3.47 | 2 | 5 | 6 | 1.339 | 0.32 | 0.02 | 0.00 |
| | 300 | 0.6435 | 0.0003 | 0.0188 | 0.0052 | 1.109 | 2.326 | 0.049 | 0.043 | 0.758 | 0.009 | 0.003 | 0.001 | 3.32 | 2 | 5 | 6 | 1.309 | 0.29 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.7692 | 0.0046 | 0.0737 | 0.0201 | 1.077 | 2.039 | 0.150 | 0.098 | 0.882 | 0.055 | 0.009 | 0.004 | 4.30 | 3 | 6 | 8 | 1.256 | 0.24 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7299 | 0.0020 | 0.0669 | 0.0255 | 1.092 | 2.166 | 0.082 | 0.053 | 0.831 | 0.038 | 0.006 | 0.002 | 4.05 | 3 | 6 | 8 | 1.204 | 0.19 | 0.01 | 0.00 |
| | 300 | 0.7053 | 0.0013 | 0.0672 | 0.0294 | 1.102 | 2.212 | 0.056 | 0.042 | 0.784 | 0.030 | 0.005 | 0.003 | 3.92 | 2 | 5 | 8 | 1.161 | 0.15 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7433 | 0.0032 | 0.0528 | 0.0122 | 1.083 | 2.084 | 0.110 | 0.085 | 0.856 | 0.040 | 0.006 | 0.003 | 4.03 | 3 | 5 | 8 | 1.245 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7036 | 0.0013 | 0.0467 | 0.0142 | 1.098 | 2.199 | 0.058 | 0.042 | 0.790 | 0.028 | 0.004 | 0.001 | 3.78 | 2 | 5 | 7 | 1.196 | 0.19 | 0.01 | 0.00 |
| | 300 | 0.6782 | 0.0009 | 0.0461 | 0.0167 | 1.108 | 2.246 | 0.041 | 0.033 | 0.750 | 0.019 | 0.004 | 0.002 | 3.65 | 2 | 5 | 8 | 1.160 | 0.15 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6821 | 0.0013 | 0.0243 | 0.0023 | 1.101 | 2.199 | 0.050 | 0.045 | 0.774 | 0.018 | 0.004 | 0.001 | 3.54 | 2 | 5 | 7 | 1.236 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6379 | 0.0006 | 0.0224 | 0.0048 | 1.120 | 2.318 | 0.023 | 0.020 | 0.682 | 0.014 | 0.002 | 0.001 | 3.31 | 2 | 5 | 6 | 1.186 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.6166 | 0.0003 | 0.0186 | 0.0047 | 1.128 | 2.352 | 0.023 | 0.020 | 0.654 | 0.009 | 0.003 | 0.001 | 3.18 | 2 | 5 | 6 | 1.177 | 0.17 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8782 | 0.0902 | 0.5473 | 0.4802 | 1.110 | 2.222 | 0.487 | 0.003 | 0.994 | 0.092 | 0.111 | 0.109 | 13.32 | 5 | 26 | 44 | - | - | - | - |
| | 200 | 0.8444 | 0.0635 | 0.6308 | 0.5913 | 1.133 | 2.415 | 0.365 | 0.000 | 0.996 | 0.082 | 0.073 | 0.081 | 16.86 | 5 | 34 | 67 | - | - | - | - |
| | 300 | 0.8272 | 0.0509 | 0.6670 | 0.6364 | 1.147 | 2.486 | 0.318 | 0.000 | 0.990 | 0.081 | 0.061 | 0.065 | 19.36 | 6 | 41 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7681 | 0.0275 | 0.2308 | 0.2000 | 1.105 | 2.418 | 0.301 | 0.036 | 0.971 | 0.026 | 0.034 | 0.038 | 6.56 | 2 | 16 | 41 | - | - | - | - |
| | 200 | 0.7540 | 0.0280 | 0.3559 | 0.3353 | 1.139 | 2.694 | 0.252 | 0.007 | 0.974 | 0.034 | 0.029 | 0.035 | 9.34 | 2 | 26 | 55 | - | - | - | - |
| | 300 | 0.7464 | 0.0266 | 0.4215 | 0.4023 | 1.168 | 2.849 | 0.225 | 0.006 | 0.969 | 0.039 | 0.024 | 0.034 | 11.69 | 2 | 34 | 63 | - | - | - | - |

Notes: See notes to Table 100.

## Table 185: MC findings for DGPIV(b)

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9949 | 0.0143 | 0.1819 | 0.0146 | 1.005 | 1.281 | 0.975 | 0.128 | 1.000 | 0.274 | 0.025 | 0.005 | 6.39 | 5 | 8 | 11 | 1.978 | 0.97 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9924 | 0.0062 | 0.1634 | 0.0141 | 1.005 | 1.305 | 0.962 | 0.165 | 1.000 | 0.212 | 0.015 | 0.006 | 6.21 | 5 | 8 | 10 | 1.967 | 0.96 | 0.01 | 0.00 |
| | 300 | 0.9882 | 0.0041 | 0.1609 | 0.0151 | 1.007 | 1.380 | 0.941 | 0.189 | 1.000 | 0.217 | 0.011 | 0.004 | 6.16 | 5 | 8 | 9 | 1.945 | 0.94 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9921 | 0.0123 | 0.1608 | 0.0079 | 1.005 | 1.293 | 0.961 | 0.169 | 1.000 | 0.220 | 0.016 | 0.003 | 6.18 | 5 | 8 | 9 | 1.963 | 0.96 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9891 | 0.0054 | 0.1440 | 0.0074 | 1.005 | 1.331 | 0.946 | 0.213 | 1.000 | 0.173 | 0.009 | 0.005 | 6.02 | 5 | 7 | 10 | 1.950 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9850 | 0.0035 | 0.1394 | 0.0078 | 1.006 | 1.394 | 0.925 | 0.248 | 1.000 | 0.175 | 0.006 | 0.004 | 5.96 | 5 | 7 | 9 | 1.928 | 0.92 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9849 | 0.0087 | 0.1197 | 0.0013 | 1.006 | 1.371 | 0.925 | 0.298 | 1.000 | 0.132 | 0.005 | 0.002 | 5.79 | 5 | 7 | 9 | 1.925 | 0.92 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9796 | 0.0039 | 0.1095 | 0.0016 | 1.007 | 1.451 | 0.898 | 0.328 | 1.000 | 0.105 | 0.004 | 0.002 | 5.68 | 5 | 7 | 9 | 1.899 | 0.90 | 0.00 | 0.00 |
| | 300 | 0.9746 | 0.0025 | 0.1043 | 0.0013 | 1.008 | 1.524 | 0.873 | 0.344 | 1.000 | 0.094 | 0.003 | 0.002 | 5.61 | 5 | 7 | 9 | 1.874 | 0.87 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9845 | 0.0142 | 0.1821 | 0.0133 | 1.008 | 1.442 | 0.923 | 0.125 | 1.000 | 0.274 | 0.025 | 0.005 | 6.33 | 5 | 8 | 10 | 1.921 | 0.92 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9769 | 0.0062 | 0.1641 | 0.0128 | 1.009 | 1.546 | 0.885 | 0.157 | 1.000 | 0.212 | 0.015 | 0.006 | 6.12 | 5 | 7 | 10 | 1.883 | 0.88 | 0.00 | 0.00 |
| | 300 | 0.9709 | 0.0040 | 0.1618 | 0.0140 | 1.011 | 1.636 | 0.855 | 0.177 | 1.000 | 0.217 | 0.011 | 0.003 | 6.07 | 5 | 7 | 9 | 1.854 | 0.85 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9810 | 0.0122 | 0.1616 | 0.0072 | 1.008 | 1.472 | 0.905 | 0.161 | 1.000 | 0.220 | 0.016 | 0.003 | 6.12 | 5 | 7 | 9 | 1.905 | 0.91 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9715 | 0.0053 | 0.1452 | 0.0064 | 1.010 | 1.601 | 0.858 | 0.198 | 1.000 | 0.173 | 0.009 | 0.005 | 5.92 | 5 | 7 | 10 | 1.857 | 0.86 | 0.00 | 0.00 |
| | 300 | 0.9647 | 0.0034 | 0.1409 | 0.0072 | 1.012 | 1.696 | 0.824 | 0.222 | 1.000 | 0.175 | 0.006 | 0.003 | 5.85 | 5 | 7 | 9 | 1.824 | 0.82 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9679 | 0.0087 | 0.1212 | 0.0012 | 1.011 | 1.640 | 0.840 | 0.270 | 1.000 | 0.132 | 0.005 | 0.002 | 5.70 | 5 | 7 | 9 | 1.840 | 0.84 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9563 | 0.0039 | 0.1114 | 0.0015 | 1.014 | 1.789 | 0.782 | 0.291 | 1.000 | 0.105 | 0.004 | 0.002 | 5.56 | 4 | 7 | 9 | 1.783 | 0.78 | 0.00 | 0.00 |
| | 300 | 0.9483 | 0.0025 | 0.1064 | 0.0012 | 1.016 | 1.888 | 0.742 | 0.298 | 1.000 | 0.094 | 0.003 | 0.002 | 5.48 | 4 | 7 | 9 | 1.742 | 0.74 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9984 | 0.1290 | 0.6382 | 0.5673 | 1.035 | 2.227 | 0.992 | 0.006 | 1.000 | 0.173 | 0.142 | 0.153 | 17.76 | 8 | 30 | 53 | - | - | - | - |
| | 200 | 0.9969 | 0.0816 | 0.6844 | 0.6433 | 1.043 | 2.466 | 0.987 | 0.001 | 1.000 | 0.110 | 0.094 | 0.095 | 21.23 | 9 | 38 | 66 | - | - | - | - |
| | 300 | 0.9939 | 0.0636 | 0.7119 | 0.6818 | 1.050 | 2.627 | 0.970 | 0.002 | 1.000 | 0.096 | 0.076 | 0.077 | 23.99 | 10 | 44 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9854 | 0.0365 | 0.2320 | 0.2085 | 1.026 | 2.103 | 0.938 | 0.345 | 1.000 | 0.043 | 0.038 | 0.040 | 8.54 | 4 | 21 | 44 | - | - | - | - |
| | 200 | 0.9823 | 0.0371 | 0.3674 | 0.3451 | 1.044 | 2.498 | 0.930 | 0.214 | 1.000 | 0.054 | 0.036 | 0.041 | 12.29 | 4 | 30 | 55 | - | - | - | - |
| | 300 | 0.9813 | 0.0352 | 0.4560 | 0.4367 | 1.061 | 2.785 | 0.921 | 0.151 | 1.000 | 0.047 | 0.038 | 0.040 | 15.42 | 4 | 35 | 58 | - | - | - | - |

Notes: See notes to Table 100.

## Table 186: MC findings for DGPIV(b)

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0204 | 0.2436 | 0.0093 | 1.002 | 1.213 | 1.000 | 0.012 | 1.000 | 0.562 | 0.046 | 0.008 | 7.02 | 6 | 8 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0095 | 0.2318 | 0.0117 | 1.003 | 1.224 | 1.000 | 0.015 | 1.000 | 0.492 | 0.036 | 0.007 | 6.90 | 6 | 8 | 11 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0061 | 0.2241 | 0.0133 | 1.003 | 1.220 | 1.000 | 0.019 | 1.000 | 0.462 | 0.024 | 0.005 | 6.81 | 6 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0183 | 0.2241 | 0.0049 | 1.002 | 1.185 | 1.000 | 0.024 | 1.000 | 0.495 | 0.032 | 0.004 | 6.81 | 6 | 8 | 11 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0086 | 0.2141 | 0.0062 | 1.002 | 1.190 | 1.000 | 0.022 | 1.000 | 0.438 | 0.027 | 0.004 | 6.71 | 6 | 8 | 11 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0054 | 0.2063 | 0.0067 | 1.002 | 1.182 | 1.000 | 0.026 | 1.000 | 0.410 | 0.017 | 0.003 | 6.63 | 6 | 8 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0146 | 0.1883 | 0.0011 | 1.002 | 1.144 | 1.000 | 0.051 | 1.000 | 0.351 | 0.011 | 0.001 | 6.45 | 6 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0070 | 0.1823 | 0.0012 | 1.001 | 1.150 | 1.000 | 0.057 | 1.000 | 0.317 | 0.012 | 0.001 | 6.39 | 6 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0044 | 0.1731 | 0.0017 | 1.002 | 1.152 | 0.998 | 0.069 | 1.000 | 0.277 | 0.007 | 0.001 | 6.30 | 5 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0203 | 0.2429 | 0.0085 | 1.002 | 1.206 | 1.000 | 0.012 | 1.000 | 0.562 | 0.046 | 0.008 | 7.01 | 6 | 8 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0095 | 0.2308 | 0.0107 | 1.003 | 1.215 | 1.000 | 0.015 | 1.000 | 0.491 | 0.036 | 0.007 | 6.89 | 6 | 8 | 11 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0060 | 0.2232 | 0.0121 | 1.003 | 1.222 | 0.998 | 0.019 | 1.000 | 0.462 | 0.024 | 0.004 | 6.80 | 6 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0182 | 0.2235 | 0.0043 | 1.002 | 1.178 | 1.000 | 0.024 | 1.000 | 0.495 | 0.032 | 0.004 | 6.80 | 6 | 8 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0085 | 0.2136 | 0.0056 | 1.002 | 1.188 | 0.999 | 0.022 | 1.000 | 0.438 | 0.027 | 0.004 | 6.70 | 6 | 8 | 11 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0054 | 0.2061 | 0.0063 | 1.002 | 1.193 | 0.998 | 0.026 | 1.000 | 0.410 | 0.017 | 0.003 | 6.62 | 6 | 8 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0146 | 0.1882 | 0.0008 | 1.002 | 1.154 | 0.998 | 0.051 | 1.000 | 0.351 | 0.011 | 0.001 | 6.45 | 6 | 8 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9991 | 0.0070 | 0.1823 | 0.0011 | 1.002 | 1.175 | 0.996 | 0.056 | 1.000 | 0.317 | 0.012 | 0.001 | 6.39 | 6 | 7 | 9 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9988 | 0.0044 | 0.1732 | 0.0017 | 1.002 | 1.176 | 0.994 | 0.068 | 1.000 | 0.277 | 0.007 | 0.001 | 6.30 | 5 | 7 | 9 | 1.994 | 0.99 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1349 | 0.6522 | 0.5787 | 1.018 | 2.117 | 1.000 | 0.001 | 1.000 | 0.179 | 0.153 | 0.152 | 18.36 | 9 | 29 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.0859 | 0.7010 | 0.6573 | 1.024 | 2.380 | 1.000 | 0.002 | 1.000 | 0.122 | 0.105 | 0.111 | 22.10 | 10 | 38 | 55 | - | - | - | - |
| | 300 | 1.0000 | 0.0671 | 0.7265 | 0.6966 | 1.028 | 2.504 | 1.000 | 0.001 | 1.000 | 0.101 | 0.078 | 0.080 | 25.06 | 11 | 44 | 86 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9996 | 0.0388 | 0.2243 | 0.2001 | 1.012 | 1.835 | 0.998 | 0.517 | 1.000 | 0.044 | 0.042 | 0.036 | 8.84 | 5 | 22 | 37 | - | - | - | - |
| | 200 | 0.9988 | 0.0372 | 0.3540 | 0.3316 | 1.023 | 2.259 | 0.995 | 0.376 | 1.000 | 0.052 | 0.048 | 0.051 | 12.39 | 5 | 28.5 | 47 | - | - | - | - |
| | 300 | 0.9995 | 0.0363 | 0.4518 | 0.4337 | 1.034 | 2.573 | 0.998 | 0.279 | 1.000 | 0.049 | 0.042 | 0.048 | 15.86 | 5 | 35 | 62 | - | - | - | - |

Notes: See notes to Table 100.

## Table 187: MC findings for DGPIV(b)

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5930 | 0.0034 | 0.0634 | 0.0284 | 1.064 | 1.777 | 0.028 | 0.021 | 0.827 | 0.052 | 0.009 | 0.006 | 3.30 | 1 | 5 | 7 | 1.118 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5465 | 0.0014 | 0.0580 | 0.0317 | 1.077 | 1.844 | 0.009 | 0.007 | 0.771 | 0.038 | 0.005 | 0.004 | 3.02 | 1 | 5 | 8 | 1.102 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.5283 | 0.0010 | 0.0618 | 0.0405 | 1.082 | 1.898 | 0.008 | 0.006 | 0.747 | 0.033 | 0.003 | 0.004 | 2.94 | 1 | 5 | 7 | 1.094 | 0.09 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5513 | 0.0022 | 0.0432 | 0.0176 | 1.071 | 1.814 | 0.017 | 0.015 | 0.789 | 0.037 | 0.008 | 0.004 | 2.97 | 1 | 5 | 7 | 1.118 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5021 | 0.0009 | 0.0391 | 0.0195 | 1.088 | 1.880 | 0.005 | 0.005 | 0.718 | 0.028 | 0.001 | 0.003 | 2.69 | 1 | 4 | 7 | 1.098 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.4832 | 0.0007 | 0.0427 | 0.0266 | 1.092 | 1.929 | 0.005 | 0.004 | 0.687 | 0.025 | 0.002 | 0.002 | 2.61 | 1 | 4 | 6 | 1.090 | 0.09 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4477 | 0.0007 | 0.0168 | 0.0047 | 1.098 | 1.941 | 0.005 | 0.005 | 0.666 | 0.013 | 0.003 | 0.002 | 2.31 | 0 | 4 | 6 | 1.112 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4020 | 0.0003 | 0.0147 | 0.0059 | 1.116 | 1.998 | 0.002 | 0.002 | 0.591 | 0.013 | 0.000 | 0.001 | 2.07 | 0 | 4 | 5 | 1.094 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.3807 | 0.0002 | 0.0153 | 0.0082 | 1.121 | 2.046 | 0.000 | 0.000 | 0.567 | 0.010 | 0.001 | 0.001 | 1.97 | 0 | 4 | 6 | 1.096 | 0.10 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5791 | 0.0033 | 0.0621 | 0.0266 | 1.069 | 1.772 | 0.012 | 0.009 | 0.787 | 0.052 | 0.009 | 0.006 | 3.22 | 1 | 5 | 7 | 1.040 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5330 | 0.0014 | 0.0570 | 0.0304 | 1.083 | 1.840 | 0.003 | 0.003 | 0.725 | 0.037 | 0.005 | 0.004 | 2.94 | 1 | 5 | 8 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.5155 | 0.0010 | 0.0610 | 0.0396 | 1.088 | 1.896 | 0.002 | 0.001 | 0.704 | 0.033 | 0.003 | 0.004 | 2.87 | 1 | 5 | 7 | 1.024 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5369 | 0.0021 | 0.0421 | 0.0163 | 1.077 | 1.810 | 0.008 | 0.007 | 0.741 | 0.037 | 0.008 | 0.004 | 2.89 | 1 | 5 | 7 | 1.040 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4894 | 0.0009 | 0.0385 | 0.0187 | 1.094 | 1.880 | 0.002 | 0.002 | 0.675 | 0.028 | 0.001 | 0.003 | 2.63 | 1 | 4 | 6 | 1.031 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.4706 | 0.0006 | 0.0421 | 0.0259 | 1.098 | 1.932 | 0.001 | 0.001 | 0.648 | 0.025 | 0.002 | 0.002 | 2.54 | 1 | 4 | 6 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4330 | 0.0007 | 0.0164 | 0.0042 | 1.105 | 1.942 | 0.003 | 0.003 | 0.618 | 0.013 | 0.003 | 0.002 | 2.24 | 0 | 4 | 6 | 1.041 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3886 | 0.0003 | 0.0148 | 0.0059 | 1.123 | 2.003 | 0.001 | 0.001 | 0.543 | 0.013 | 0.000 | 0.001 | 2.00 | 0 | 4 | 5 | 1.030 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.3667 | 0.0002 | 0.0155 | 0.0083 | 1.129 | 2.051 | 0.000 | 0.000 | 0.520 | 0.010 | 0.001 | 0.001 | 1.90 | 0 | 4 | 6 | 1.030 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7367 | 0.0776 | 0.5408 | 0.4748 | 1.082 | 1.792 | 0.143 | 0.001 | 0.987 | 0.094 | 0.083 | 0.098 | 11.37 | 4 | 23 | 54 | - | - | - | - |
| | 200 | 0.7053 | 0.0562 | 0.6311 | 0.5904 | 1.101 | 1.893 | 0.083 | 0.000 | 0.984 | 0.061 | 0.060 | 0.072 | 14.70 | 4 | 31 | 61 | - | - | - | - |
| | 300 | 0.6874 | 0.0453 | 0.6721 | 0.6421 | 1.108 | 1.960 | 0.069 | 0.000 | 0.978 | 0.062 | 0.055 | 0.061 | 16.98 | 5 | 38 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6018 | 0.0268 | 0.2687 | 0.2366 | 1.081 | 2.032 | 0.062 | 0.002 | 0.957 | 0.034 | 0.028 | 0.032 | 5.67 | 2 | 14 | 48 | - | - | - | - |
| | 200 | 0.5973 | 0.0251 | 0.3857 | 0.3608 | 1.112 | 2.250 | 0.039 | 0.000 | 0.947 | 0.024 | 0.029 | 0.030 | 7.97 | 2 | 21 | 54 | - | - | - | - |
| | 300 | 0.5900 | 0.0234 | 0.4556 | 0.4358 | 1.132 | 2.419 | 0.040 | 0.001 | 0.947 | 0.032 | 0.028 | 0.030 | 9.94 | 2 | 29 | 61 | - | - | - | - |

Notes: See notes to Table 100.

## Table 188: MC findings for DGPIV(b)

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8983 | 0.0100 | 0.1387 | 0.0139 | 1.016 | 1.828 | 0.501 | 0.221 | 1.000 | 0.282 | 0.023 | 0.006 | 5.48 | 4 | 7 | 9 | 1.508 | 0.51 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8773 | 0.0044 | 0.1260 | 0.0174 | 1.019 | 1.918 | 0.411 | 0.195 | 1.000 | 0.226 | 0.019 | 0.004 | 5.26 | 4 | 7 | 10 | 1.421 | 0.42 | 0.00 | 0.00 |
| | 300 | 0.8724 | 0.0027 | 0.1158 | 0.0177 | 1.018 | 1.984 | 0.388 | 0.212 | 1.000 | 0.208 | 0.015 | 0.002 | 5.16 | 4 | 7 | 10 | 1.394 | 0.39 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8862 | 0.0080 | 0.1147 | 0.0075 | 1.016 | 1.869 | 0.446 | 0.236 | 1.000 | 0.241 | 0.014 | 0.004 | 5.22 | 4 | 7 | 9 | 1.453 | 0.45 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8619 | 0.0034 | 0.1010 | 0.0088 | 1.019 | 1.959 | 0.348 | 0.202 | 1.000 | 0.186 | 0.011 | 0.003 | 4.98 | 4 | 7 | 9 | 1.358 | 0.36 | 0.00 | 0.00 |
| | 300 | 0.8593 | 0.0020 | 0.0908 | 0.0095 | 1.019 | 2.017 | 0.333 | 0.216 | 1.000 | 0.169 | 0.011 | 0.001 | 4.90 | 4 | 6 | 9 | 1.339 | 0.34 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8490 | 0.0048 | 0.0732 | 0.0020 | 1.019 | 2.018 | 0.300 | 0.204 | 1.000 | 0.150 | 0.005 | 0.001 | 4.72 | 4 | 6 | 8 | 1.304 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8312 | 0.0019 | 0.0594 | 0.0018 | 1.021 | 2.062 | 0.233 | 0.176 | 1.000 | 0.105 | 0.004 | 0.000 | 4.53 | 3 | 6 | 8 | 1.240 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.8226 | 0.0011 | 0.0534 | 0.0024 | 1.021 | 2.146 | 0.205 | 0.167 | 1.000 | 0.097 | 0.005 | 0.001 | 4.45 | 3 | 6 | 8 | 1.212 | 0.21 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8611 | 0.0099 | 0.1412 | 0.0130 | 1.020 | 2.022 | 0.316 | 0.137 | 1.000 | 0.282 | 0.023 | 0.006 | 5.28 | 4 | 7 | 9 | 1.317 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8395 | 0.0043 | 0.1282 | 0.0165 | 1.023 | 2.096 | 0.225 | 0.114 | 1.000 | 0.226 | 0.019 | 0.004 | 5.06 | 4 | 7 | 10 | 1.228 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.8312 | 0.0027 | 0.1187 | 0.0177 | 1.023 | 2.182 | 0.184 | 0.107 | 1.000 | 0.208 | 0.015 | 0.002 | 4.95 | 4 | 7 | 9 | 1.186 | 0.19 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8505 | 0.0079 | 0.1170 | 0.0070 | 1.021 | 2.052 | 0.269 | 0.138 | 1.000 | 0.241 | 0.014 | 0.004 | 5.04 | 4 | 7 | 9 | 1.272 | 0.27 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8296 | 0.0034 | 0.1028 | 0.0084 | 1.023 | 2.110 | 0.189 | 0.113 | 1.000 | 0.186 | 0.011 | 0.003 | 4.82 | 4 | 6 | 9 | 1.192 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.8213 | 0.0020 | 0.0930 | 0.0093 | 1.023 | 2.198 | 0.147 | 0.102 | 0.999 | 0.169 | 0.011 | 0.001 | 4.70 | 4 | 6 | 7 | 1.148 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8229 | 0.0048 | 0.0744 | 0.0019 | 1.023 | 2.142 | 0.171 | 0.115 | 0.999 | 0.150 | 0.005 | 0.001 | 4.59 | 4 | 6 | 8 | 1.173 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8071 | 0.0019 | 0.0603 | 0.0017 | 1.024 | 2.164 | 0.118 | 0.089 | 0.999 | 0.105 | 0.004 | 0.000 | 4.41 | 3 | 6 | 7 | 1.119 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.7988 | 0.0011 | 0.0542 | 0.0023 | 1.024 | 2.252 | 0.090 | 0.078 | 0.998 | 0.097 | 0.005 | 0.001 | 4.33 | 3 | 5 | 7 | 1.092 | 0.09 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9490 | 0.1050 | 0.5840 | 0.5146 | 1.033 | 2.209 | 0.767 | 0.005 | 1.000 | 0.147 | 0.103 | 0.123 | 15.14 | 6 | 27 | 61 | - | - | - | - |
| | 200 | 0.9190 | 0.0642 | 0.6245 | 0.5827 | 1.042 | 2.357 | 0.630 | 0.004 | 1.000 | 0.089 | 0.087 | 0.081 | 17.38 | 6 | 34 | 68 | - | - | - | - |
| | 300 | 0.9056 | 0.0486 | 0.6492 | 0.6191 | 1.046 | 2.501 | 0.579 | 0.002 | 1.000 | 0.083 | 0.057 | 0.053 | 19.05 | 6 | 39 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8701 | 0.0317 | 0.2396 | 0.2139 | 1.032 | 2.379 | 0.545 | 0.098 | 1.000 | 0.034 | 0.028 | 0.039 | 7.49 | 3 | 19 | 35 | - | - | - | - |
| | 200 | 0.8464 | 0.0286 | 0.3284 | 0.3075 | 1.047 | 2.644 | 0.475 | 0.036 | 1.000 | 0.032 | 0.040 | 0.034 | 9.92 | 3 | 27 | 62 | - | - | - | - |
| | 300 | 0.8463 | 0.0265 | 0.4012 | 0.3831 | 1.059 | 2.945 | 0.456 | 0.022 | 1.000 | 0.042 | 0.025 | 0.027 | 12.15 | 3 | 33 | 61 | - | - | - | - |

Notes: See notes to Table 100.

## Table 189: MC findings for DGPIV(b)

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9774 | 0.0175 | 0.2180 | 0.0104 | 1.005 | 1.450 | 0.887 | 0.123 | 1.000 | 0.579 | 0.051 | 0.013 | 6.62 | 5 | 8 | 11 | 1.887 | 0.89 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9659 | 0.0077 | 0.1985 | 0.0142 | 1.007 | 1.573 | 0.830 | 0.158 | 1.000 | 0.508 | 0.028 | 0.004 | 6.36 | 5 | 8 | 11 | 1.834 | 0.83 | 0.00 | 0.00 |
| | 300 | 0.9548 | 0.0049 | 0.1907 | 0.0149 | 1.008 | 1.698 | 0.774 | 0.163 | 1.000 | 0.450 | 0.032 | 0.006 | 6.23 | 5 | 8 | 10 | 1.777 | 0.77 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9697 | 0.0154 | 0.1968 | 0.0056 | 1.006 | 1.515 | 0.849 | 0.159 | 1.000 | 0.520 | 0.035 | 0.009 | 6.37 | 5 | 8 | 10 | 1.848 | 0.85 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9560 | 0.0066 | 0.1759 | 0.0074 | 1.007 | 1.640 | 0.781 | 0.194 | 1.000 | 0.442 | 0.022 | 0.003 | 6.10 | 5 | 7 | 10 | 1.782 | 0.78 | 0.00 | 0.00 |
| | 300 | 0.9446 | 0.0043 | 0.1719 | 0.0095 | 1.008 | 1.772 | 0.723 | 0.195 | 1.000 | 0.397 | 0.022 | 0.006 | 6.00 | 5 | 7 | 10 | 1.726 | 0.72 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9473 | 0.0112 | 0.1533 | 0.0009 | 1.008 | 1.714 | 0.739 | 0.242 | 1.000 | 0.378 | 0.016 | 0.003 | 5.85 | 4 | 7 | 9 | 1.739 | 0.74 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9318 | 0.0048 | 0.1350 | 0.0020 | 1.010 | 1.842 | 0.660 | 0.270 | 1.000 | 0.311 | 0.009 | 0.002 | 5.62 | 4 | 7 | 9 | 1.661 | 0.66 | 0.00 | 0.00 |
| | 300 | 0.9208 | 0.0031 | 0.1304 | 0.0026 | 1.011 | 1.952 | 0.606 | 0.261 | 1.000 | 0.287 | 0.013 | 0.002 | 5.52 | 4 | 7 | 9 | 1.606 | 0.61 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9487 | 0.0175 | 0.2218 | 0.0101 | 1.009 | 1.753 | 0.744 | 0.107 | 1.000 | 0.578 | 0.051 | 0.012 | 6.47 | 5 | 8 | 11 | 1.743 | 0.74 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9267 | 0.0077 | 0.2032 | 0.0137 | 1.012 | 1.940 | 0.634 | 0.125 | 1.000 | 0.508 | 0.028 | 0.004 | 6.16 | 5 | 8 | 10 | 1.634 | 0.63 | 0.00 | 0.00 |
| | 300 | 0.9133 | 0.0048 | 0.1955 | 0.0143 | 1.013 | 2.071 | 0.567 | 0.115 | 1.000 | 0.450 | 0.032 | 0.006 | 6.01 | 5 | 8 | 10 | 1.566 | 0.57 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9400 | 0.0153 | 0.2007 | 0.0056 | 1.010 | 1.817 | 0.700 | 0.130 | 1.000 | 0.520 | 0.035 | 0.009 | 6.22 | 5 | 8 | 10 | 1.700 | 0.70 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9145 | 0.0066 | 0.1808 | 0.0070 | 1.013 | 2.020 | 0.573 | 0.149 | 1.000 | 0.442 | 0.022 | 0.003 | 5.89 | 4 | 7 | 10 | 1.574 | 0.57 | 0.00 | 0.00 |
| | 300 | 0.9036 | 0.0042 | 0.1767 | 0.0091 | 1.013 | 2.131 | 0.518 | 0.142 | 1.000 | 0.397 | 0.022 | 0.006 | 5.79 | 4 | 7 | 10 | 1.518 | 0.52 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9136 | 0.0112 | 0.1571 | 0.0009 | 1.012 | 2.027 | 0.571 | 0.184 | 1.000 | 0.378 | 0.016 | 0.003 | 5.68 | 4 | 7 | 9 | 1.571 | 0.57 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8931 | 0.0048 | 0.1386 | 0.0018 | 1.015 | 2.169 | 0.467 | 0.190 | 1.000 | 0.311 | 0.009 | 0.002 | 5.42 | 4 | 7 | 9 | 1.467 | 0.47 | 0.00 | 0.00 |
| | 300 | 0.8801 | 0.0031 | 0.1343 | 0.0026 | 1.016 | 2.289 | 0.402 | 0.180 | 1.000 | 0.287 | 0.013 | 0.002 | 5.32 | 4 | 7 | 9 | 1.402 | 0.40 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9939 | 0.1216 | 0.6187 | 0.5462 | 1.020 | 2.188 | 0.970 | 0.005 | 1.000 | 0.168 | 0.136 | 0.138 | 17.01 | 7 | 29 | 48 | - | - | - | - |
| | 200 | 0.9864 | 0.0766 | 0.6684 | 0.6281 | 1.025 | 2.395 | 0.933 | 0.002 | 1.000 | 0.112 | 0.081 | 0.099 | 20.18 | 8 | 35 | 60 | - | - | - | - |
| | 300 | 0.9761 | 0.0569 | 0.6874 | 0.6571 | 1.028 | 2.567 | 0.883 | 0.001 | 1.000 | 0.092 | 0.061 | 0.071 | 21.90 | 8 | 41 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9620 | 0.0399 | 0.2491 | 0.2209 | 1.019 | 2.262 | 0.847 | 0.268 | 1.000 | 0.054 | 0.050 | 0.046 | 8.76 | 4 | 23 | 41 | - | - | - | - |
| | 200 | 0.9518 | 0.0365 | 0.3678 | 0.3464 | 1.030 | 2.620 | 0.811 | 0.152 | 1.000 | 0.054 | 0.040 | 0.049 | 12.03 | 4 | 29 | 53 | - | - | - | - |
| | 300 | 0.9450 | 0.0309 | 0.4214 | 0.4032 | 1.036 | 2.878 | 0.778 | 0.101 | 1.000 | 0.041 | 0.034 | 0.041 | 13.97 | 4 | 34 | 62 | - | - | - | - |

Notes: See notes to Table 100.

### 3.2.5 Findings for designs featuring many signals

## Table 190: MC findings for DGPV

$T = 100$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3183 | 0.0022 | 0.0339 | 0.0241 | 0.976 | 0.636 | 0.000 | 0.997 | 0.048 | 0.007 | 0.004 | 4.02 | 3 | 6 | 7 | 1.263 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3058 | 0.0012 | 0.0384 | 0.0305 | 0.979 | 0.654 | 0.000 | 0.996 | 0.036 | 0.008 | 0.003 | 3.89 | 3 | 5 | 8 | 1.317 | 0.31 | 0.01 | 0.00 |
| | 300 | 0.3001 | 0.0007 | 0.0373 | 0.0314 | 0.980 | 0.654 | 0.000 | 0.992 | 0.030 | 0.003 | 0.002 | 3.82 | 3 | 5 | 10 | 1.328 | 0.32 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.3069 | 0.0014 | 0.0219 | 0.0144 | 0.975 | 0.621 | 0.000 | 0.997 | 0.036 | 0.005 | 0.003 | 3.81 | 3 | 5 | 7 | 1.310 | 0.31 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2961 | 0.0007 | 0.0235 | 0.0180 | 0.978 | 0.640 | 0.000 | 0.992 | 0.026 | 0.006 | 0.001 | 3.69 | 3 | 5 | 7 | 1.357 | 0.35 | 0.01 | 0.00 |
| | 300 | 0.2910 | 0.0004 | 0.0228 | 0.0182 | 0.980 | 0.641 | 0.000 | 0.988 | 0.024 | 0.002 | 0.001 | 3.62 | 3 | 5 | 8 | 1.379 | 0.38 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2855 | 0.0004 | 0.0067 | 0.0035 | 0.975 | 0.616 | 0.000 | 0.993 | 0.015 | 0.002 | 0.001 | 3.46 | 3 | 5 | 6 | 1.435 | 0.43 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2776 | 0.0002 | 0.0077 | 0.0046 | 0.979 | 0.632 | 0.000 | 0.986 | 0.015 | 0.002 | 0.000 | 3.37 | 3 | 4 | 6 | 1.474 | 0.47 | 0.00 | 0.00 |
| | 300 | 0.2750 | 0.0001 | 0.0075 | 0.0049 | 0.981 | 0.637 | 0.000 | 0.982 | 0.013 | 0.002 | 0.001 | 3.34 | 3 | 4 | 8 | 1.500 | 0.50 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3170 | 0.0019 | 0.0304 | 0.0207 | 0.975 | 0.624 | 0.000 | 0.994 | 0.047 | 0.007 | 0.004 | 3.98 | 3 | 6 | 7 | 1.233 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3044 | 0.0010 | 0.0340 | 0.0265 | 0.979 | 0.639 | 0.000 | 0.989 | 0.035 | 0.007 | 0.003 | 3.85 | 3 | 5 | 8 | 1.279 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.2985 | 0.0007 | 0.0343 | 0.0285 | 0.982 | 0.651 | 0.000 | 0.978 | 0.029 | 0.003 | 0.002 | 3.78 | 3 | 5 | 9 | 1.295 | 0.29 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3056 | 0.0012 | 0.0198 | 0.0125 | 0.975 | 0.618 | 0.000 | 0.991 | 0.035 | 0.005 | 0.003 | 3.78 | 3 | 5 | 7 | 1.288 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2944 | 0.0006 | 0.0213 | 0.0161 | 0.980 | 0.638 | 0.000 | 0.981 | 0.024 | 0.006 | 0.001 | 3.65 | 3 | 5 | 7 | 1.327 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.2894 | 0.0004 | 0.0204 | 0.0158 | 0.983 | 0.645 | 0.000 | 0.973 | 0.023 | 0.002 | 0.001 | 3.59 | 3 | 5 | 8 | 1.351 | 0.35 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2842 | 0.0004 | 0.0061 | 0.0030 | 0.978 | 0.623 | 0.000 | 0.982 | 0.015 | 0.002 | 0.001 | 3.44 | 3 | 5 | 6 | 1.417 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2758 | 0.0002 | 0.0071 | 0.0041 | 0.984 | 0.645 | 0.000 | 0.969 | 0.015 | 0.002 | 0.000 | 3.35 | 3 | 4 | 6 | 1.451 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.2722 | 0.0001 | 0.0068 | 0.0042 | 0.989 | 0.660 | 0.000 | 0.952 | 0.013 | 0.002 | 0.001 | 3.30 | 2 | 4 | 8 | 1.464 | 0.46 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3995 | 0.0720 | 0.4564 | 0.4371 | 1.030 | 0.806 | 0.000 | 1.000 | 0.091 | 0.075 | 0.076 | 11.42 | 4 | 22 | 44 | - | - | - | - |
| | 200 | 0.3804 | 0.0530 | 0.5555 | 0.5436 | 1.047 | 0.872 | 0.000 | 1.000 | 0.082 | 0.062 | 0.071 | 14.73 | 4 | 30 | 54 | - | - | - | - |
| | 300 | 0.3728 | 0.0429 | 0.6085 | 0.5998 | 1.052 | 0.900 | 0.000 | 1.000 | 0.067 | 0.053 | 0.052 | 16.99 | 5 | 37 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2663 | 0.0198 | 0.1376 | 0.1318 | 1.043 | 0.939 | 0.000 | 0.986 | 0.026 | 0.015 | 0.020 | 5.01 | 2 | 16 | 34 | - | - | - | - |
| | 200 | 0.2757 | 0.0202 | 0.2334 | 0.2289 | 1.063 | 1.054 | 0.000 | 0.984 | 0.022 | 0.022 | 0.024 | 7.19 | 2 | 23 | 37 | - | - | - | - |
| | 300 | 0.2797 | 0.0180 | 0.2851 | 0.2813 | 1.072 | 1.123 | 0.000 | 0.983 | 0.021 | 0.021 | 0.023 | 8.60 | 2 | 26 | 46 | - | - | - | - |

Notes: The vector of covariates $\boldsymbol{x}_{nt} = (x_{1t}, x_{2t}, ..., x_{nt})'$ is augmented with four lags of the dependent variable. The number of variables in the augmented set of covariates, $\boldsymbol{x}^*_{nt} = (\boldsymbol{x}'_{nt}, y_{t-1}, ..., y_{t-4})'$, is thus $n + 4$. TPR is the true positive rate, FPR is the false positive rate, FDR is the false discovery rater of the true model, FDR* is the false discovery rater of the approximating model. TPR, FPR, FDR and FDR* are computed assuming covariates $x_{it}$ for $i = 12, 13, ...., n$, and $y_{t-j}$ for $j = 2, 3, 4$ are the noise variables. rRMSFE is an out-of-sample root mean square forecast error relative to the benchmark model containing first 11 covariates in $\boldsymbol{x}_{nt}$ and one lag of the dependent variable. rRMSE$_{\tilde{\beta}}$ is the root mean square error of $\tilde{\boldsymbol{\beta}}$ relative to the benchmark model. $\hat{\pi}_{11}$ is the probability that variables $x_{it}$ for $i = 1, 2, ..., 11$ are among the selected variables. $\hat{\pi}_{lag,j}$, for $j = 1, 2, ..., 4$, is the probability of selecting lag $j$ of the dependent variable. $\overline{\hat{\kappa}}$, $\hat{\kappa}_5$, $\hat{\kappa}_{95}$ and $\hat{\kappa}_{\max}$ are, respectively, the average , 5-the quantile, 95-th quantile and the maximum of the number of selected regressors. Slope coefficients in DGPV are set to $\beta_i = 1/i^2$, for $i = 1, 2, ..., n$. See CKP for details of the MC design.

**Table 191: MC findings for DGPV**

$T = 300$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4113 | 0.0046 | 0.0595 | 0.0161 | 0.996 | 0.737 | 0.000 | 1.000 | 0.278 | 0.024 | 0.006 | 5.36 | 4 | 7 | 10 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4015 | 0.0020 | 0.0535 | 0.0163 | 0.996 | 0.732 | 0.000 | 1.000 | 0.237 | 0.021 | 0.006 | 5.20 | 4 | 7 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3933 | 0.0011 | 0.0472 | 0.0171 | 0.996 | 0.734 | 0.000 | 1.000 | 0.195 | 0.010 | 0.003 | 5.05 | 4 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3995 | 0.0033 | 0.0445 | 0.0091 | 0.996 | 0.724 | 0.000 | 1.000 | 0.223 | 0.017 | 0.005 | 5.10 | 4 | 7 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3900 | 0.0015 | 0.0402 | 0.0096 | 0.996 | 0.721 | 0.000 | 1.000 | 0.195 | 0.012 | 0.004 | 4.96 | 4 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3835 | 0.0008 | 0.0331 | 0.0091 | 0.996 | 0.724 | 0.000 | 1.000 | 0.152 | 0.007 | 0.002 | 4.83 | 4 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3763 | 0.0016 | 0.0225 | 0.0024 | 0.996 | 0.713 | 0.000 | 1.000 | 0.126 | 0.005 | 0.001 | 4.66 | 4 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3690 | 0.0007 | 0.0199 | 0.0016 | 0.996 | 0.710 | 0.000 | 1.000 | 0.113 | 0.006 | 0.001 | 4.56 | 4 | 6 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3653 | 0.0004 | 0.0164 | 0.0021 | 0.996 | 0.719 | 0.000 | 1.000 | 0.090 | 0.001 | 0.000 | 4.49 | 4 | 6 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4107 | 0.0045 | 0.0581 | 0.0147 | 0.996 | 0.727 | 0.000 | 1.000 | 0.278 | 0.024 | 0.006 | 5.34 | 4 | 7 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4006 | 0.0019 | 0.0523 | 0.0150 | 0.996 | 0.722 | 0.000 | 1.000 | 0.237 | 0.021 | 0.006 | 5.18 | 4 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3930 | 0.0011 | 0.0463 | 0.0162 | 0.996 | 0.728 | 0.000 | 1.000 | 0.195 | 0.010 | 0.003 | 5.04 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3990 | 0.0033 | 0.0436 | 0.0081 | 0.995 | 0.716 | 0.000 | 1.000 | 0.223 | 0.017 | 0.005 | 5.09 | 4 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3895 | 0.0014 | 0.0398 | 0.0091 | 0.996 | 0.716 | 0.000 | 1.000 | 0.195 | 0.012 | 0.004 | 4.95 | 4 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3832 | 0.0008 | 0.0328 | 0.0088 | 0.996 | 0.720 | 0.000 | 1.000 | 0.152 | 0.007 | 0.002 | 4.82 | 4 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3760 | 0.0016 | 0.0223 | 0.0021 | 0.996 | 0.710 | 0.000 | 1.000 | 0.126 | 0.005 | 0.001 | 4.66 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3686 | 0.0007 | 0.0199 | 0.0015 | 0.996 | 0.707 | 0.000 | 1.000 | 0.113 | 0.006 | 0.001 | 4.55 | 4 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3650 | 0.0004 | 0.0164 | 0.0021 | 0.996 | 0.717 | 0.000 | 1.000 | 0.090 | 0.001 | 0.000 | 4.48 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.5009 | 0.0796 | 0.4486 | 0.4297 | 1.012 | 0.874 | 0.000 | 1.000 | 0.119 | 0.095 | 0.100 | 13.33 | 6 | 25.5 | 52 | - | - | - | - |
| | 200 | 0.4773 | 0.0498 | 0.5113 | 0.5000 | 1.017 | 0.903 | 0.000 | 1.000 | 0.077 | 0.053 | 0.056 | 15.29 | 6 | 29 | 55 | - | - | - | - |
| | 300 | 0.4640 | 0.0376 | 0.5472 | 0.5386 | 1.020 | 0.938 | 0.000 | 1.000 | 0.072 | 0.053 | 0.044 | 16.55 | 6 | 32 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3763 | 0.0312 | 0.2246 | 0.2163 | 1.020 | 1.088 | 0.000 | 1.000 | 0.043 | 0.034 | 0.040 | 7.38 | 3 | 16 | 32 | - | - | - | - |
| | 200 | 0.3715 | 0.0204 | 0.2763 | 0.2707 | 1.024 | 1.143 | 0.000 | 1.000 | 0.031 | 0.022 | 0.018 | 8.37 | 3 | 19 | 36 | - | - | - | - |
| | 300 | 0.3690 | 0.0161 | 0.3146 | 0.3103 | 1.027 | 1.208 | 0.000 | 1.000 | 0.026 | 0.025 | 0.020 | 9.12 | 3 | 21 | 42 | - | - | - | - |

Notes: See notes to Table 190.

## Table 192: MC findings for DGPV

$T = 500$, $R^2 = 70\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4581 | 0.0079 | 0.0944 | 0.0128 | 0.999 | 0.789 | 0.000 | 1.000 | 0.568 | 0.052 | 0.007 | 6.23 | 5 | 8 | 11 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4458 | 0.0034 | 0.0871 | 0.0134 | 0.999 | 0.793 | 0.000 | 1.000 | 0.519 | 0.031 | 0.004 | 6.01 | 5 | 8 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.4423 | 0.0021 | 0.0835 | 0.0146 | 1.000 | 0.795 | 0.000 | 1.000 | 0.474 | 0.033 | 0.006 | 5.93 | 5 | 8 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4452 | 0.0065 | 0.0799 | 0.0080 | 0.999 | 0.780 | 0.000 | 1.000 | 0.495 | 0.038 | 0.005 | 5.94 | 5 | 8 | 10 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4347 | 0.0028 | 0.0727 | 0.0074 | 0.999 | 0.784 | 0.000 | 1.000 | 0.453 | 0.023 | 0.003 | 5.75 | 4 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4327 | 0.0017 | 0.0693 | 0.0076 | 1.000 | 0.790 | 0.000 | 1.000 | 0.422 | 0.021 | 0.004 | 5.70 | 4 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4212 | 0.0042 | 0.0544 | 0.0023 | 0.999 | 0.767 | 0.000 | 1.000 | 0.351 | 0.017 | 0.000 | 5.44 | 4 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4143 | 0.0018 | 0.0497 | 0.0014 | 0.999 | 0.778 | 0.000 | 1.000 | 0.327 | 0.009 | 0.002 | 5.32 | 4 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4119 | 0.0011 | 0.0467 | 0.0015 | 1.000 | 0.779 | 0.000 | 1.000 | 0.302 | 0.009 | 0.001 | 5.26 | 4 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4568 | 0.0078 | 0.0934 | 0.0116 | 0.999 | 0.777 | 0.000 | 1.000 | 0.568 | 0.052 | 0.007 | 6.20 | 5 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4450 | 0.0034 | 0.0865 | 0.0126 | 0.999 | 0.785 | 0.000 | 1.000 | 0.519 | 0.031 | 0.004 | 5.99 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4415 | 0.0021 | 0.0829 | 0.0139 | 1.000 | 0.788 | 0.000 | 1.000 | 0.474 | 0.033 | 0.006 | 5.92 | 5 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4441 | 0.0065 | 0.0794 | 0.0073 | 0.999 | 0.772 | 0.000 | 1.000 | 0.495 | 0.038 | 0.005 | 5.93 | 5 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4343 | 0.0028 | 0.0723 | 0.0069 | 0.999 | 0.779 | 0.000 | 1.000 | 0.453 | 0.023 | 0.003 | 5.74 | 4 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4320 | 0.0017 | 0.0689 | 0.0071 | 0.999 | 0.782 | 0.000 | 1.000 | 0.422 | 0.021 | 0.004 | 5.68 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4210 | 0.0042 | 0.0540 | 0.0019 | 0.999 | 0.764 | 0.000 | 1.000 | 0.351 | 0.017 | 0.000 | 5.43 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4140 | 0.0018 | 0.0496 | 0.0013 | 0.999 | 0.776 | 0.000 | 1.000 | 0.327 | 0.009 | 0.002 | 5.31 | 4 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4116 | 0.0011 | 0.0464 | 0.0012 | 0.999 | 0.775 | 0.000 | 1.000 | 0.302 | 0.009 | 0.001 | 5.26 | 4 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.5601 | 0.0865 | 0.4418 | 0.4223 | 1.008 | 0.910 | 0.000 | 1.000 | 0.122 | 0.086 | 0.091 | 14.68 | 6 | 25 | 50 | - | - | - | - |
| | 200 | 0.5294 | 0.0498 | 0.4893 | 0.4781 | 1.011 | 0.954 | 0.000 | 1.000 | 0.080 | 0.050 | 0.070 | 15.92 | 7 | 34 | 76 | - | - | - | - |
| | 300 | 0.5190 | 0.0376 | 0.5352 | 0.5262 | 1.013 | 0.972 | 0.000 | 1.000 | 0.080 | 0.037 | 0.041 | 17.20 | 6.5 | 37 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4380 | 0.0297 | 0.2334 | 0.2244 | 1.009 | 1.060 | 0.000 | 1.000 | 0.036 | 0.029 | 0.029 | 7.98 | 3 | 14 | 35 | - | - | - | - |
| | 200 | 0.4297 | 0.0177 | 0.2714 | 0.2652 | 1.011 | 1.113 | 0.000 | 1.000 | 0.024 | 0.016 | 0.023 | 8.55 | 3 | 17 | 31 | - | - | - | - |
| | 300 | 0.4293 | 0.0137 | 0.3148 | 0.3099 | 1.012 | 1.151 | 0.000 | 1.000 | 0.026 | 0.011 | 0.016 | 9.16 | 3 | 18 | 32 | - | - | - | - |

Notes: See notes to Table 190.

## Table 193: MC findings for DGPV

$T = 100$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2835 | 0.0025 | 0.0404 | 0.0293 | 0.976 | 0.602 | 0.000 | 0.959 | 0.050 | 0.007 | 0.007 | 3.63 | 2 | 5 | 8 | 1.210 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2712 | 0.0012 | 0.0438 | 0.0351 | 0.983 | 0.619 | 0.000 | 0.927 | 0.041 | 0.005 | 0.003 | 3.49 | 2 | 5 | 8 | 1.236 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.2646 | 0.0007 | 0.0400 | 0.0337 | 0.983 | 0.621 | 0.000 | 0.921 | 0.031 | 0.002 | 0.001 | 3.39 | 2 | 5 | 7 | 1.255 | 0.25 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2720 | 0.0015 | 0.0253 | 0.0173 | 0.975 | 0.585 | 0.000 | 0.946 | 0.035 | 0.004 | 0.005 | 3.40 | 2 | 5 | 8 | 1.242 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2605 | 0.0008 | 0.0291 | 0.0221 | 0.983 | 0.608 | 0.000 | 0.910 | 0.032 | 0.004 | 0.002 | 3.28 | 2 | 5 | 7 | 1.270 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.2526 | 0.0004 | 0.0241 | 0.0198 | 0.985 | 0.610 | 0.000 | 0.896 | 0.021 | 0.001 | 0.001 | 3.15 | 2 | 4 | 7 | 1.281 | 0.28 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2475 | 0.0005 | 0.0091 | 0.0053 | 0.984 | 0.599 | 0.000 | 0.890 | 0.017 | 0.001 | 0.002 | 3.02 | 2 | 4 | 6 | 1.309 | 0.31 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2377 | 0.0002 | 0.0092 | 0.0052 | 0.991 | 0.613 | 0.000 | 0.854 | 0.019 | 0.001 | 0.001 | 2.90 | 2 | 4 | 7 | 1.331 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.2299 | 0.0001 | 0.0072 | 0.0052 | 0.994 | 0.622 | 0.000 | 0.833 | 0.010 | 0.000 | 0.000 | 2.79 | 2 | 4 | 5 | 1.333 | 0.33 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2793 | 0.0023 | 0.0384 | 0.0274 | 0.982 | 0.613 | 0.000 | 0.913 | 0.050 | 0.007 | 0.006 | 3.57 | 2 | 5 | 8 | 1.148 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2659 | 0.0011 | 0.0404 | 0.0316 | 0.991 | 0.633 | 0.000 | 0.865 | 0.041 | 0.005 | 0.003 | 3.40 | 2 | 5 | 8 | 1.153 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.2578 | 0.0007 | 0.0388 | 0.0326 | 0.996 | 0.651 | 0.000 | 0.841 | 0.030 | 0.002 | 0.001 | 3.30 | 2 | 5 | 7 | 1.167 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2666 | 0.0014 | 0.0240 | 0.0161 | 0.985 | 0.608 | 0.000 | 0.884 | 0.035 | 0.004 | 0.004 | 3.33 | 2 | 5 | 8 | 1.171 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2542 | 0.0007 | 0.0269 | 0.0198 | 0.995 | 0.632 | 0.000 | 0.837 | 0.032 | 0.004 | 0.002 | 3.19 | 2 | 5 | 7 | 1.183 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.2453 | 0.0004 | 0.0232 | 0.0189 | 0.999 | 0.644 | 0.000 | 0.809 | 0.021 | 0.001 | 0.001 | 3.06 | 2 | 4 | 7 | 1.186 | 0.19 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2413 | 0.0005 | 0.0084 | 0.0047 | 0.996 | 0.629 | 0.000 | 0.817 | 0.017 | 0.001 | 0.002 | 2.94 | 2 | 4 | 6 | 1.231 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2290 | 0.0002 | 0.0085 | 0.0045 | 1.009 | 0.655 | 0.000 | 0.751 | 0.019 | 0.001 | 0.001 | 2.79 | 1 | 4 | 7 | 1.223 | 0.22 | 0.00 | 0.00 |
| | 300 | 0.2210 | 0.0001 | 0.0069 | 0.0049 | 1.013 | 0.664 | 0.000 | 0.726 | 0.010 | 0.000 | 0.000 | 2.68 | 1 | 4 | 5 | 1.224 | 0.22 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3401 | 0.0645 | 0.4508 | 0.4323 | 1.022 | 0.735 | 0.000 | 0.997 | 0.090 | 0.074 | 0.081 | 10.01 | 3 | 21 | 52 | - | - | - | - |
| | 200 | 0.3223 | 0.0495 | 0.5660 | 0.5534 | 1.037 | 0.792 | 0.000 | 0.997 | 0.064 | 0.060 | 0.063 | 13.38 | 4 | 29 | 58 | - | - | - | - |
| | 300 | 0.3156 | 0.0410 | 0.6215 | 0.6126 | 1.041 | 0.819 | 0.000 | 0.993 | 0.056 | 0.054 | 0.049 | 15.75 | 4 | 34 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2264 | 0.0161 | 0.1413 | 0.1345 | 1.018 | 0.768 | 0.000 | 0.957 | 0.016 | 0.018 | 0.018 | 4.20 | 2 | 13 | 41 | - | - | - | - |
| | 200 | 0.2356 | 0.0186 | 0.2480 | 0.2428 | 1.043 | 0.928 | 0.000 | 0.959 | 0.020 | 0.018 | 0.018 | 6.40 | 2 | 22.5 | 48 | - | - | - | - |
| | 300 | 0.2411 | 0.0183 | 0.3192 | 0.3151 | 1.052 | 1.012 | 0.000 | 0.956 | 0.019 | 0.023 | 0.023 | 8.23 | 2 | 28 | 56 | - | - | - | - |

Notes: See notes to Table 190.

## Table 194: MC findings for DGPV

$T = 300$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3803 | 0.0049 | 0.0658 | 0.0171 | 0.993 | 0.675 | 0.000 | 1.000 | 0.298 | 0.023 | 0.008 | 5.01 | 4 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3689 | 0.0020 | 0.0586 | 0.0198 | 0.992 | 0.665 | 0.000 | 1.000 | 0.235 | 0.017 | 0.004 | 4.81 | 4 | 6 | 9 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3599 | 0.0013 | 0.0577 | 0.0200 | 0.993 | 0.660 | 0.000 | 1.000 | 0.225 | 0.018 | 0.006 | 4.70 | 4 | 6 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3687 | 0.0035 | 0.0491 | 0.0083 | 0.992 | 0.654 | 0.000 | 1.000 | 0.245 | 0.016 | 0.005 | 4.75 | 4 | 6 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3601 | 0.0014 | 0.0411 | 0.0097 | 0.992 | 0.645 | 0.000 | 1.000 | 0.189 | 0.011 | 0.003 | 4.59 | 3 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3504 | 0.0009 | 0.0407 | 0.0094 | 0.992 | 0.637 | 0.000 | 1.000 | 0.183 | 0.013 | 0.004 | 4.46 | 3 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3477 | 0.0018 | 0.0262 | 0.0019 | 0.992 | 0.630 | 0.000 | 1.000 | 0.144 | 0.007 | 0.001 | 4.34 | 3 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3393 | 0.0007 | 0.0226 | 0.0029 | 0.991 | 0.621 | 0.000 | 1.000 | 0.115 | 0.004 | 0.002 | 4.21 | 3 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3342 | 0.0004 | 0.0211 | 0.0020 | 0.992 | 0.621 | 0.000 | 1.000 | 0.109 | 0.005 | 0.002 | 4.14 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3802 | 0.0048 | 0.0644 | 0.0156 | 0.993 | 0.668 | 0.000 | 1.000 | 0.298 | 0.023 | 0.008 | 5.00 | 4 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3688 | 0.0020 | 0.0570 | 0.0182 | 0.992 | 0.656 | 0.000 | 1.000 | 0.235 | 0.017 | 0.004 | 4.80 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3598 | 0.0013 | 0.0561 | 0.0185 | 0.993 | 0.652 | 0.000 | 1.000 | 0.225 | 0.018 | 0.006 | 4.69 | 4 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3685 | 0.0034 | 0.0484 | 0.0076 | 0.992 | 0.648 | 0.000 | 1.000 | 0.245 | 0.016 | 0.005 | 4.74 | 4 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3599 | 0.0013 | 0.0401 | 0.0087 | 0.991 | 0.639 | 0.000 | 1.000 | 0.189 | 0.011 | 0.003 | 4.58 | 3 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3503 | 0.0009 | 0.0401 | 0.0088 | 0.992 | 0.634 | 0.000 | 1.000 | 0.183 | 0.013 | 0.004 | 4.46 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3476 | 0.0018 | 0.0262 | 0.0019 | 0.992 | 0.630 | 0.000 | 1.000 | 0.144 | 0.007 | 0.001 | 4.33 | 3 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3393 | 0.0007 | 0.0223 | 0.0027 | 0.991 | 0.619 | 0.000 | 1.000 | 0.115 | 0.004 | 0.001 | 4.21 | 3 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3342 | 0.0004 | 0.0211 | 0.0020 | 0.992 | 0.621 | 0.000 | 1.000 | 0.109 | 0.005 | 0.002 | 4.14 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4321 | 0.0748 | 0.4592 | 0.4383 | 1.010 | 0.802 | 0.000 | 1.000 | 0.113 | 0.086 | 0.095 | 12.06 | 5 | 23 | 35 | - | - | - | - |
| | 200 | 0.4060 | 0.0480 | 0.5324 | 0.5208 | 1.013 | 0.834 | 0.000 | 1.000 | 0.089 | 0.051 | 0.066 | 14.10 | 5 | 28.5 | 52 | - | - | - | - |
| | 300 | 0.3879 | 0.0352 | 0.5602 | 0.5503 | 1.018 | 0.858 | 0.000 | 1.000 | 0.071 | 0.036 | 0.045 | 14.92 | 5 | 32 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2919 | 0.0210 | 0.1387 | 0.1331 | 1.014 | 0.986 | 0.000 | 1.000 | 0.028 | 0.018 | 0.020 | 5.43 | 2 | 16 | 28 | - | - | - | - |
| | 200 | 0.2983 | 0.0184 | 0.2178 | 0.2135 | 1.020 | 1.102 | 0.000 | 1.000 | 0.023 | 0.016 | 0.022 | 7.12 | 2 | 21 | 35 | - | - | - | - |
| | 300 | 0.2968 | 0.0148 | 0.2527 | 0.2488 | 1.025 | 1.166 | 0.000 | 1.000 | 0.034 | 0.016 | 0.021 | 7.89 | 2 | 24 | 40 | - | - | - | - |

Notes: See notes to Table 190.

## Table 195: MC findings for DGPV

$T = 500$, $R^2 = 50\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4289 | 0.0080 | 0.0996 | 0.0140 | 0.997 | 0.716 | 0.000 | 1.000 | 0.572 | 0.046 | 0.011 | 5.88 | 4 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4127 | 0.0034 | 0.0905 | 0.0141 | 0.996 | 0.708 | 0.000 | 1.000 | 0.505 | 0.032 | 0.006 | 5.60 | 4 | 7 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4078 | 0.0021 | 0.0870 | 0.0153 | 0.997 | 0.712 | 0.000 | 1.000 | 0.466 | 0.036 | 0.005 | 5.51 | 4 | 7 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4154 | 0.0066 | 0.0853 | 0.0072 | 0.996 | 0.699 | 0.000 | 1.000 | 0.515 | 0.033 | 0.008 | 5.59 | 4 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4020 | 0.0028 | 0.0764 | 0.0073 | 0.996 | 0.692 | 0.000 | 1.000 | 0.451 | 0.023 | 0.003 | 5.35 | 4 | 7 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3977 | 0.0017 | 0.0710 | 0.0075 | 0.997 | 0.695 | 0.000 | 1.000 | 0.408 | 0.026 | 0.003 | 5.26 | 4 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3914 | 0.0045 | 0.0612 | 0.0018 | 0.996 | 0.677 | 0.000 | 1.000 | 0.381 | 0.015 | 0.004 | 5.11 | 4 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3819 | 0.0018 | 0.0521 | 0.0018 | 0.996 | 0.676 | 0.000 | 1.000 | 0.323 | 0.008 | 0.001 | 4.93 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3803 | 0.0011 | 0.0481 | 0.0017 | 0.997 | 0.679 | 0.000 | 1.000 | 0.293 | 0.015 | 0.001 | 4.88 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4286 | 0.0079 | 0.0984 | 0.0127 | 0.996 | 0.709 | 0.000 | 1.000 | 0.572 | 0.046 | 0.011 | 5.87 | 4 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4125 | 0.0033 | 0.0898 | 0.0132 | 0.996 | 0.702 | 0.000 | 1.000 | 0.505 | 0.032 | 0.006 | 5.59 | 4 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4076 | 0.0021 | 0.0867 | 0.0149 | 0.997 | 0.709 | 0.000 | 1.000 | 0.466 | 0.036 | 0.005 | 5.51 | 4 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4151 | 0.0065 | 0.0845 | 0.0062 | 0.996 | 0.693 | 0.000 | 1.000 | 0.515 | 0.033 | 0.008 | 5.58 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4018 | 0.0027 | 0.0761 | 0.0070 | 0.996 | 0.689 | 0.000 | 1.000 | 0.451 | 0.023 | 0.003 | 5.35 | 4 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3976 | 0.0017 | 0.0708 | 0.0073 | 0.997 | 0.693 | 0.000 | 1.000 | 0.408 | 0.026 | 0.003 | 5.26 | 4 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3912 | 0.0045 | 0.0612 | 0.0017 | 0.996 | 0.675 | 0.000 | 1.000 | 0.381 | 0.015 | 0.004 | 5.11 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3818 | 0.0018 | 0.0520 | 0.0017 | 0.996 | 0.675 | 0.000 | 1.000 | 0.323 | 0.008 | 0.001 | 4.93 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3803 | 0.0011 | 0.0481 | 0.0016 | 0.997 | 0.678 | 0.000 | 1.000 | 0.293 | 0.015 | 0.001 | 4.88 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4773 | 0.0757 | 0.4479 | 0.4271 | 1.005 | 0.821 | 0.000 | 1.000 | 0.109 | 0.081 | 0.089 | 12.69 | 5.5 | 23 | 43 | - | - | - | - |
| | 200 | 0.4479 | 0.0487 | 0.5213 | 0.5091 | 1.009 | 0.863 | 0.000 | 1.000 | 0.087 | 0.062 | 0.055 | 14.73 | 6 | 29 | 72 | - | - | - | - |
| | 300 | 0.4350 | 0.0364 | 0.5516 | 0.5424 | 1.011 | 0.887 | 0.000 | 1.000 | 0.074 | 0.049 | 0.046 | 15.86 | 6 | 31.5 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3345 | 0.0250 | 0.1705 | 0.1625 | 1.010 | 1.047 | 0.000 | 1.000 | 0.036 | 0.023 | 0.032 | 6.32 | 2 | 16 | 35 | - | - | - | - |
| | 200 | 0.3351 | 0.0196 | 0.2455 | 0.2401 | 1.014 | 1.150 | 0.000 | 1.000 | 0.034 | 0.022 | 0.019 | 7.79 | 2 | 20 | 45 | - | - | - | - |
| | 300 | 0.3379 | 0.0160 | 0.2881 | 0.2838 | 1.017 | 1.215 | 0.000 | 1.000 | 0.028 | 0.023 | 0.018 | 8.72 | 2 | 21.5 | 42 | - | - | - | - |

Notes: See notes to Table 190.

## Table 196: MC findings for DGPV

$T = 100$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2262 | 0.0025 | 0.0458 | 0.0315 | 0.984 | 0.581 | 0.000 | 0.858 | 0.060 | 0.008 | 0.004 | 2.94 | 1 | 5 | 8 | 1.106 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2068 | 0.0011 | 0.0446 | 0.0359 | 0.995 | 0.601 | 0.000 | 0.801 | 0.035 | 0.004 | 0.003 | 2.68 | 1 | 4 | 7 | 1.100 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.1993 | 0.0007 | 0.0466 | 0.0397 | 0.999 | 0.617 | 0.000 | 0.761 | 0.029 | 0.003 | 0.002 | 2.60 | 1 | 4 | 6 | 1.100 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2111 | 0.0015 | 0.0309 | 0.0201 | 0.987 | 0.575 | 0.000 | 0.814 | 0.043 | 0.006 | 0.002 | 2.67 | 1 | 4 | 6 | 1.119 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1928 | 0.0007 | 0.0298 | 0.0229 | 1.000 | 0.602 | 0.000 | 0.759 | 0.027 | 0.003 | 0.002 | 2.44 | 1 | 4 | 7 | 1.112 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.1877 | 0.0004 | 0.0277 | 0.0225 | 1.002 | 0.608 | 0.000 | 0.721 | 0.021 | 0.002 | 0.001 | 2.37 | 1 | 4 | 6 | 1.117 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1811 | 0.0005 | 0.0105 | 0.0058 | 1.002 | 0.600 | 0.000 | 0.712 | 0.018 | 0.002 | 0.001 | 2.22 | 1 | 4 | 5 | 1.144 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1632 | 0.0002 | 0.0099 | 0.0069 | 1.017 | 0.645 | 0.000 | 0.647 | 0.012 | 0.001 | 0.000 | 2.00 | 1 | 3 | 5 | 1.128 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.1566 | 0.0001 | 0.0087 | 0.0061 | 1.022 | 0.657 | 0.000 | 0.589 | 0.010 | 0.001 | 0.000 | 1.91 | 0 | 3 | 5 | 1.125 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2216 | 0.0023 | 0.0436 | 0.0293 | 0.989 | 0.587 | 0.000 | 0.809 | 0.060 | 0.008 | 0.004 | 2.87 | 1 | 5 | 8 | 1.041 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2019 | 0.0010 | 0.0422 | 0.0335 | 1.001 | 0.607 | 0.000 | 0.748 | 0.035 | 0.004 | 0.003 | 2.61 | 1 | 4 | 7 | 1.030 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.1940 | 0.0007 | 0.0447 | 0.0377 | 1.005 | 0.621 | 0.000 | 0.700 | 0.029 | 0.003 | 0.002 | 2.52 | 1 | 4 | 6 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2057 | 0.0015 | 0.0296 | 0.0188 | 0.995 | 0.588 | 0.000 | 0.757 | 0.043 | 0.006 | 0.002 | 2.60 | 1 | 4 | 6 | 1.049 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1871 | 0.0006 | 0.0286 | 0.0218 | 1.008 | 0.612 | 0.000 | 0.696 | 0.027 | 0.003 | 0.002 | 2.37 | 1 | 4 | 7 | 1.036 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.1812 | 0.0004 | 0.0260 | 0.0207 | 1.010 | 0.620 | 0.000 | 0.648 | 0.021 | 0.002 | 0.001 | 2.28 | 1 | 4 | 6 | 1.032 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1743 | 0.0005 | 0.0102 | 0.0055 | 1.012 | 0.621 | 0.000 | 0.645 | 0.018 | 0.002 | 0.001 | 2.13 | 1 | 3 | 5 | 1.065 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1570 | 0.0002 | 0.0089 | 0.0063 | 1.026 | 0.658 | 0.000 | 0.579 | 0.011 | 0.001 | 0.000 | 1.92 | 1 | 3 | 5 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.1497 | 0.0001 | 0.0085 | 0.0058 | 1.033 | 0.675 | 0.000 | 0.514 | 0.010 | 0.001 | 0.000 | 1.83 | 0 | 3 | 5 | 1.042 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2975 | 0.0671 | 0.4950 | 0.4735 | 1.013 | 0.665 | 0.000 | 0.990 | 0.083 | 0.074 | 0.085 | 9.75 | 3 | 20 | 44 | - | - | - | - |
| | 200 | 0.2763 | 0.0502 | 0.5988 | 0.5867 | 1.028 | 0.722 | 0.000 | 0.979 | 0.067 | 0.056 | 0.070 | 12.96 | 3 | 29 | 58 | - | - | - | - |
| | 300 | 0.2688 | 0.0415 | 0.6513 | 0.6430 | 1.031 | 0.755 | 0.000 | 0.981 | 0.067 | 0.057 | 0.050 | 15.33 | 4 | 36 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2141 | 0.0192 | 0.2057 | 0.1972 | 1.000 | 0.679 | 0.000 | 0.940 | 0.019 | 0.025 | 0.025 | 4.34 | 2 | 11 | 36 | - | - | - | - |
| | 200 | 0.2142 | 0.0211 | 0.3266 | 0.3207 | 1.029 | 0.863 | 0.000 | 0.939 | 0.028 | 0.022 | 0.028 | 6.63 | 2 | 21 | 51 | - | - | - | - |
| | 300 | 0.2172 | 0.0200 | 0.3992 | 0.3946 | 1.043 | 0.963 | 0.000 | 0.941 | 0.030 | 0.025 | 0.028 | 8.44 | 2 | 27 | 60 | - | - | - | - |

Notes: See notes to Table 190.

## Table 197: MC findings for DGPV

$T = 300$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3344 | 0.0045 | 0.0671 | 0.0181 | 0.991 | 0.613 | 0.000 | 1.000 | 0.280 | 0.017 | 0.006 | 4.43 | 3 | 6 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3219 | 0.0020 | 0.0640 | 0.0189 | 0.991 | 0.611 | 0.000 | 1.000 | 0.251 | 0.019 | 0.004 | 4.25 | 3 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3154 | 0.0011 | 0.0545 | 0.0202 | 0.992 | 0.607 | 0.000 | 1.000 | 0.187 | 0.014 | 0.004 | 4.11 | 3 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3226 | 0.0033 | 0.0509 | 0.0097 | 0.990 | 0.589 | 0.000 | 1.000 | 0.233 | 0.013 | 0.001 | 4.18 | 3 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3115 | 0.0015 | 0.0474 | 0.0104 | 0.990 | 0.589 | 0.000 | 1.000 | 0.205 | 0.010 | 0.004 | 4.02 | 3 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3065 | 0.0008 | 0.0391 | 0.0109 | 0.991 | 0.581 | 0.000 | 1.000 | 0.154 | 0.007 | 0.002 | 3.90 | 3 | 5 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2998 | 0.0018 | 0.0293 | 0.0031 | 0.989 | 0.565 | 0.000 | 1.000 | 0.143 | 0.005 | 0.000 | 3.76 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2910 | 0.0007 | 0.0255 | 0.0024 | 0.989 | 0.560 | 0.000 | 0.999 | 0.124 | 0.003 | 0.001 | 3.63 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2874 | 0.0004 | 0.0204 | 0.0030 | 0.990 | 0.553 | 0.000 | 1.000 | 0.093 | 0.003 | 0.001 | 3.56 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3342 | 0.0044 | 0.0662 | 0.0171 | 0.991 | 0.608 | 0.000 | 1.000 | 0.280 | 0.017 | 0.006 | 4.42 | 3 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3218 | 0.0020 | 0.0630 | 0.0178 | 0.991 | 0.606 | 0.000 | 0.999 | 0.251 | 0.019 | 0.004 | 4.24 | 3 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3153 | 0.0011 | 0.0539 | 0.0196 | 0.991 | 0.604 | 0.000 | 1.000 | 0.187 | 0.014 | 0.004 | 4.11 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3224 | 0.0033 | 0.0506 | 0.0093 | 0.990 | 0.587 | 0.000 | 1.000 | 0.233 | 0.013 | 0.001 | 4.17 | 3 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3114 | 0.0014 | 0.0465 | 0.0094 | 0.990 | 0.585 | 0.000 | 0.999 | 0.205 | 0.010 | 0.004 | 4.01 | 3 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3064 | 0.0008 | 0.0385 | 0.0102 | 0.991 | 0.577 | 0.000 | 1.000 | 0.154 | 0.007 | 0.002 | 3.90 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2997 | 0.0018 | 0.0292 | 0.0030 | 0.989 | 0.564 | 0.000 | 0.999 | 0.143 | 0.005 | 0.000 | 3.76 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2910 | 0.0007 | 0.0253 | 0.0022 | 0.989 | 0.560 | 0.000 | 0.998 | 0.124 | 0.003 | 0.001 | 3.63 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2873 | 0.0004 | 0.0201 | 0.0028 | 0.990 | 0.552 | 0.000 | 1.000 | 0.093 | 0.003 | 0.001 | 3.56 | 3 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3700 | 0.0681 | 0.4674 | 0.4475 | 1.006 | 0.726 | 0.000 | 1.000 | 0.099 | 0.064 | 0.094 | 10.71 | 4 | 21 | 40 | - | - | - | - |
| | 200 | 0.3458 | 0.0450 | 0.5389 | 0.5267 | 1.011 | 0.771 | 0.000 | 1.000 | 0.074 | 0.054 | 0.050 | 12.79 | 4 | 27 | 72 | - | - | - | - |
| | 300 | 0.3308 | 0.0345 | 0.5793 | 0.5697 | 1.013 | 0.787 | 0.000 | 1.000 | 0.060 | 0.041 | 0.036 | 14.04 | 4 | 31 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2455 | 0.0156 | 0.1309 | 0.1259 | 1.003 | 0.792 | 0.000 | 1.000 | 0.015 | 0.012 | 0.019 | 4.38 | 2 | 13 | 32 | - | - | - | - |
| | 200 | 0.2491 | 0.0157 | 0.2069 | 0.2031 | 1.012 | 0.966 | 0.000 | 1.000 | 0.020 | 0.019 | 0.017 | 6.00 | 2 | 22 | 58 | - | - | - | - |
| | 300 | 0.2537 | 0.0150 | 0.2694 | 0.2653 | 1.020 | 1.080 | 0.000 | 1.000 | 0.024 | 0.015 | 0.017 | 7.41 | 2 | 25 | 58 | - | - | - | - |

Notes: See notes to Table 190.

## Table 198: MC findings for DGPV

$T = 500$, $R^2 = 30\%$, G, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3777 | 0.0080 | 0.1084 | 0.0141 | 0.996 | 0.646 | 0.000 | 1.000 | 0.578 | 0.048 | 0.006 | 5.27 | 4 | 7 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3705 | 0.0034 | 0.0982 | 0.0142 | 0.996 | 0.653 | 0.000 | 1.000 | 0.522 | 0.028 | 0.004 | 5.10 | 4 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3615 | 0.0022 | 0.0955 | 0.0176 | 0.996 | 0.654 | 0.000 | 1.000 | 0.473 | 0.031 | 0.006 | 4.97 | 4 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3666 | 0.0065 | 0.0919 | 0.0072 | 0.995 | 0.624 | 0.000 | 1.000 | 0.510 | 0.036 | 0.004 | 5.00 | 4 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3594 | 0.0027 | 0.0808 | 0.0060 | 0.995 | 0.629 | 0.000 | 1.000 | 0.457 | 0.020 | 0.002 | 4.83 | 4 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3512 | 0.0017 | 0.0786 | 0.0092 | 0.995 | 0.628 | 0.000 | 1.000 | 0.413 | 0.022 | 0.004 | 4.71 | 3 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3448 | 0.0043 | 0.0642 | 0.0024 | 0.995 | 0.602 | 0.000 | 1.000 | 0.367 | 0.012 | 0.002 | 4.53 | 3 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3383 | 0.0018 | 0.0576 | 0.0012 | 0.995 | 0.608 | 0.000 | 1.000 | 0.333 | 0.008 | 0.002 | 4.41 | 3 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3333 | 0.0011 | 0.0527 | 0.0018 | 0.995 | 0.600 | 0.000 | 1.000 | 0.296 | 0.010 | 0.002 | 4.32 | 3 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3777 | 0.0079 | 0.1080 | 0.0136 | 0.996 | 0.643 | 0.000 | 1.000 | 0.578 | 0.048 | 0.006 | 5.26 | 4 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3705 | 0.0034 | 0.0972 | 0.0131 | 0.995 | 0.648 | 0.000 | 1.000 | 0.522 | 0.028 | 0.004 | 5.09 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3615 | 0.0021 | 0.0950 | 0.0170 | 0.995 | 0.650 | 0.000 | 1.000 | 0.473 | 0.031 | 0.006 | 4.96 | 4 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3665 | 0.0065 | 0.0918 | 0.0071 | 0.995 | 0.623 | 0.000 | 1.000 | 0.510 | 0.036 | 0.004 | 5.00 | 4 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3594 | 0.0027 | 0.0802 | 0.0053 | 0.995 | 0.625 | 0.000 | 1.000 | 0.457 | 0.020 | 0.002 | 4.83 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3512 | 0.0017 | 0.0782 | 0.0088 | 0.995 | 0.625 | 0.000 | 1.000 | 0.413 | 0.022 | 0.004 | 4.71 | 3 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3447 | 0.0043 | 0.0641 | 0.0022 | 0.995 | 0.600 | 0.000 | 1.000 | 0.367 | 0.012 | 0.002 | 4.53 | 3 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3383 | 0.0018 | 0.0573 | 0.0008 | 0.995 | 0.606 | 0.000 | 1.000 | 0.333 | 0.008 | 0.002 | 4.41 | 3 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3332 | 0.0011 | 0.0526 | 0.0016 | 0.995 | 0.598 | 0.000 | 1.000 | 0.296 | 0.010 | 0.002 | 4.32 | 3 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4022 | 0.0702 | 0.4597 | 0.4406 | 1.005 | 0.747 | 0.000 | 1.000 | 0.108 | 0.079 | 0.083 | 11.29 | 5 | 22 | 44 | - | - | - | - |
| | 200 | 0.3817 | 0.0447 | 0.5265 | 0.5140 | 1.007 | 0.787 | 0.000 | 1.000 | 0.079 | 0.051 | 0.057 | 13.15 | 5 | 27 | 60 | - | - | - | - |
| | 300 | 0.3683 | 0.0345 | 0.5621 | 0.5523 | 1.008 | 0.810 | 0.000 | 1.000 | 0.067 | 0.045 | 0.039 | 14.49 | 5 | 31 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2649 | 0.0170 | 0.1193 | 0.1147 | 1.005 | 0.898 | 0.000 | 1.000 | 0.022 | 0.017 | 0.022 | 4.74 | 2 | 16 | 28 | - | - | - | - |
| | 200 | 0.2769 | 0.0156 | 0.1952 | 0.1911 | 1.010 | 1.037 | 0.000 | 1.000 | 0.023 | 0.016 | 0.016 | 6.32 | 2 | 20 | 45 | - | - | - | - |
| | 300 | 0.2763 | 0.0145 | 0.2382 | 0.2344 | 1.014 | 1.151 | 0.000 | 1.000 | 0.026 | 0.017 | 0.017 | 7.56 | 2 | 25 | 49 | - | - | - | - |

Notes: See notes to Table 190.

### 3.3 Dynamic specifications with $\lambda_y = 0.8$

We ordered and numbered individual tables as follows:

**Summary table for experiments with Gaussian innovations (G), and dynamic specifications with $\lambda_y = 0.8$: List of experiments.**

| Table No. | DGP | $\omega$ | $R^2$ | T | Table No. | DGP | $R^2$ | T | Table No. | DGP | $R^2$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 199 | I(a) | - | 70% | 100 | 244 | II(a) | 70% | 100 | 289 | V | 70% | 100 |
| 200 | I(a) | - | 70% | 300 | 245 | II(a) | 70% | 300 | 290 | V | 70% | 300 |
| 201 | I(a) | - | 70% | 500 | 246 | II(a) | 70% | 500 | 291 | V | 70% | 500 |
| 202 | I(a) | - | 50% | 100 | 247 | II(a) | 50% | 100 | 292 | V | 50% | 100 |
| 203 | I(a) | - | 50% | 300 | 248 | II(a) | 50% | 300 | 293 | V | 50% | 300 |
| 204 | I(a) | - | 50% | 500 | 249 | II(a) | 50% | 500 | 294 | V | 50% | 500 |
| 205 | I(a) | - | 30% | 100 | 250 | II(a) | 30% | 100 | 295 | V | 30% | 100 |
| 206 | I(a) | - | 30% | 300 | 251 | II(a) | 30% | 300 | 296 | V | 30% | 300 |
| 207 | I(a) | - | 30% | 500 | 252 | II(a) | 30% | 500 | 297 | V | 30% | 500 |
| 208 | I(b) | - | 70% | 100 | 253 | II(b) | 70% | 100 | | | | |
| 209 | I(b) | - | 70% | 300 | 254 | II(b) | 70% | 300 | | | | |
| 210 | I(b) | - | 70% | 500 | 255 | II(b) | 70% | 500 | | | | |
| 211 | I(b) | - | 50% | 100 | 256 | II(b) | 50% | 100 | | | | |
| 212 | I(b) | - | 50% | 300 | 257 | II(b) | 50% | 300 | | | | |
| 213 | I(b) | - | 50% | 500 | 258 | II(b) | 50% | 500 | | | | |
| 214 | I(b) | - | 30% | 100 | 259 | II(b) | 30% | 100 | | | | |
| 215 | I(b) | - | 30% | 300 | 260 | II(b) | 30% | 300 | | | | |
| 216 | I(b) | - | 30% | 500 | 261 | II(b) | 30% | 500 | | | | |
| 217 | I(c) | - | 70% | 100 | 262 | III | 70% | 100 | | | | |
| 218 | I(c) | - | 70% | 300 | 263 | III | 70% | 300 | | | | |
| 219 | I(c) | - | 70% | 500 | 264 | III | 70% | 500 | | | | |
| 220 | I(c) | - | 50% | 100 | 265 | III | 50% | 100 | | | | |
| 221 | I(c) | - | 50% | 300 | 266 | III | 50% | 300 | | | | |
| 222 | I(c) | - | 50% | 500 | 267 | III | 50% | 500 | | | | |
| 223 | I(c) | - | 30% | 100 | 268 | III | 30% | 100 | | | | |
| 224 | I(c) | - | 30% | 300 | 269 | III | 30% | 300 | | | | |
| 225 | I(c) | - | 30% | 500 | 270 | III | 30% | 500 | | | | |
| 226 | I(d) | low | 70% | 100 | 271 | IV(a) | 70% | 100 | | | | |
| 227 | I(d) | low | 70% | 300 | 272 | IV(a) | 70% | 300 | | | | |
| 228 | I(d) | low | 70% | 500 | 273 | IV(a) | 70% | 500 | | | | |
| 229 | I(d) | low | 50% | 100 | 274 | IV(a) | 50% | 100 | | | | |
| 230 | I(d) | low | 50% | 300 | 275 | IV(a) | 50% | 300 | | | | |
| 231 | I(d) | low | 50% | 500 | 276 | IV(a) | 50% | 500 | | | | |
| 232 | I(d) | low | 30% | 100 | 277 | IV(a) | 30% | 100 | | | | |
| 233 | I(d) | low | 30% | 300 | 278 | IV(a) | 30% | 300 | | | | |
| 234 | I(d) | low | 30% | 500 | 279 | IV(a) | 30% | 500 | | | | |
| 235 | I(d) | high | 70% | 100 | 280 | IV(b) | 70% | 100 | | | | |
| 236 | I(d) | high | 70% | 300 | 281 | IV(b) | 70% | 300 | | | | |
| 237 | I(d) | high | 70% | 500 | 282 | IV(b) | 70% | 500 | | | | |
| 238 | I(d) | high | 50% | 100 | 283 | IV(b) | 50% | 100 | | | | |
| 239 | I(d) | high | 50% | 300 | 284 | IV(b) | 50% | 300 | | | | |
| 240 | I(d) | high | 50% | 500 | 285 | IV(b) | 50% | 500 | | | | |
| 241 | I(d) | high | 30% | 100 | 286 | IV(b) | 30% | 100 | | | | |
| 242 | I(d) | high | 30% | 300 | 287 | IV(b) | 30% | 300 | | | | |
| 243 | I(d) | high | 30% | 500 | 288 | IV(b) | 30% | 500 | | | | |

Notes: $\omega$ is the average pair-wise correlation of the signal variables. The low value is $\omega = 0.2$ and the high value is $\omega = 0.8$. See Section 5 of CKP for a full description of MC design.

#### 3.3.1 Findings for designs featuring no hidden signals and no pseudo-signals

**Table 199: Monte Carlo findings for DGPI(a)**

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9432 | 0.0254 | 0.2969 | 0.0196 | 1.037 | 1.489 | 0.740 | 0.618 | 1.000 | 0.981 | 0.812 | 0.541 | 7.23 | 5 | 9 | 11 | 1.168 | 0.16 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9219 | 0.0125 | 0.2981 | 0.0218 | 1.046 | 1.635 | 0.649 | 0.533 | 1.000 | 0.975 | 0.795 | 0.521 | 7.10 | 5 | 9 | 11 | 1.187 | 0.18 | 0.01 | 0.00 |
| | 300 | 0.9022 | 0.0082 | 0.2990 | 0.0228 | 1.053 | 1.762 | 0.580 | 0.477 | 1.000 | 0.972 | 0.778 | 0.510 | 6.97 | 5 | 9 | 11 | 1.215 | 0.21 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9209 | 0.0237 | 0.2862 | 0.0101 | 1.043 | 1.608 | 0.649 | 0.593 | 1.000 | 0.975 | 0.778 | 0.502 | 6.95 | 5 | 8 | 10 | 1.195 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8959 | 0.0117 | 0.2891 | 0.0126 | 1.054 | 1.778 | 0.550 | 0.490 | 1.000 | 0.971 | 0.765 | 0.482 | 6.81 | 5 | 8 | 11 | 1.221 | 0.22 | 0.01 | 0.00 |
| | 300 | 0.8759 | 0.0076 | 0.2879 | 0.0121 | 1.061 | 1.896 | 0.486 | 0.438 | 1.000 | 0.966 | 0.749 | 0.464 | 6.66 | 5 | 8 | 10 | 1.254 | 0.25 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8706 | 0.0212 | 0.2713 | 0.0030 | 1.061 | 1.893 | 0.466 | 0.452 | 1.000 | 0.956 | 0.702 | 0.414 | 6.45 | 4 | 8 | 9 | 1.300 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8411 | 0.0105 | 0.2751 | 0.0036 | 1.074 | 2.080 | 0.383 | 0.368 | 1.000 | 0.956 | 0.689 | 0.406 | 6.29 | 4 | 8 | 9 | 1.344 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.8288 | 0.0068 | 0.2737 | 0.0037 | 1.077 | 2.148 | 0.352 | 0.342 | 1.000 | 0.947 | 0.684 | 0.387 | 6.19 | 4 | 8 | 9 | 1.379 | 0.38 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9295 | 0.0250 | 0.2970 | 0.0160 | 1.040 | 1.561 | 0.692 | 0.597 | 1.000 | 0.981 | 0.812 | 0.541 | 7.13 | 5 | 9 | 10 | 1.083 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9040 | 0.0124 | 0.2999 | 0.0190 | 1.052 | 1.736 | 0.593 | 0.501 | 1.000 | 0.975 | 0.795 | 0.521 | 6.98 | 5 | 9 | 11 | 1.097 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8807 | 0.0081 | 0.3013 | 0.0197 | 1.060 | 1.879 | 0.523 | 0.443 | 1.000 | 0.972 | 0.778 | 0.510 | 6.84 | 5 | 8 | 11 | 1.117 | 0.12 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9025 | 0.0235 | 0.2886 | 0.0082 | 1.050 | 1.718 | 0.599 | 0.557 | 1.000 | 0.975 | 0.778 | 0.502 | 6.84 | 5 | 8 | 10 | 1.114 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8752 | 0.0116 | 0.2918 | 0.0106 | 1.062 | 1.894 | 0.490 | 0.448 | 1.000 | 0.971 | 0.765 | 0.482 | 6.69 | 5 | 8 | 11 | 1.137 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.8498 | 0.0076 | 0.2919 | 0.0099 | 1.071 | 2.043 | 0.430 | 0.396 | 1.000 | 0.966 | 0.749 | 0.464 | 6.51 | 4 | 8 | 10 | 1.156 | 0.16 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8410 | 0.0211 | 0.2771 | 0.0025 | 1.074 | 2.069 | 0.401 | 0.391 | 1.000 | 0.956 | 0.702 | 0.414 | 6.30 | 4 | 8 | 9 | 1.213 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8108 | 0.0104 | 0.2809 | 0.0030 | 1.089 | 2.255 | 0.319 | 0.311 | 1.000 | 0.956 | 0.689 | 0.406 | 6.13 | 4 | 8 | 9 | 1.258 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.7912 | 0.0068 | 0.2810 | 0.0029 | 1.096 | 2.360 | 0.286 | 0.279 | 1.000 | 0.947 | 0.684 | 0.387 | 6.00 | 4 | 8 | 9 | 1.271 | 0.27 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9979 | 0.0782 | 0.4940 | 0.4649 | 1.087 | 1.397 | 0.990 | 0.052 | 1.000 | 0.194 | 0.111 | 0.097 | 12.73 | 6 | 23 | 39 | - | - | - | - |
| | 200 | 0.9970 | 0.0561 | 0.5735 | 0.5515 | 1.106 | 1.505 | 0.985 | 0.027 | 1.000 | 0.160 | 0.091 | 0.069 | 16.16 | 6 | 31 | 61 | - | - | - | - |
| | 300 | 0.9975 | 0.0457 | 0.6178 | 0.6018 | 1.112 | 1.556 | 0.988 | 0.021 | 1.000 | 0.156 | 0.067 | 0.073 | 18.65 | 7 | 37 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9398 | 0.0320 | 0.2583 | 0.2458 | 1.100 | 1.914 | 0.792 | 0.189 | 1.000 | 0.066 | 0.034 | 0.037 | 7.87 | 3 | 15 | 29 | - | - | - | - |
| | 200 | 0.9455 | 0.0249 | 0.3415 | 0.3312 | 1.113 | 2.059 | 0.801 | 0.125 | 1.000 | 0.059 | 0.032 | 0.026 | 9.69 | 3 | 20 | 34 | - | - | - | - |
| | 300 | 0.9490 | 0.0205 | 0.3923 | 0.3837 | 1.125 | 2.124 | 0.823 | 0.099 | 1.000 | 0.056 | 0.023 | 0.032 | 10.87 | 3 | 22 | 38 | - | - | - | - |

Notes: See notes to Table 100.

## Table 200: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3402 | 0.0133 | 1.006 | 1.065 | 1.000 | 0.880 | 1.000 | 1.000 | 1.000 | 0.977 | 8.11 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0155 | 0.3390 | 0.0114 | 1.005 | 1.058 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 0.978 | 8.09 | 8 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3401 | 0.0139 | 1.006 | 1.073 | 1.000 | 0.870 | 1.000 | 1.000 | 1.000 | 0.971 | 8.11 | 8 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0306 | 0.3349 | 0.0064 | 1.006 | 1.045 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 0.968 | 8.03 | 8 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3352 | 0.0063 | 1.005 | 1.047 | 1.000 | 0.942 | 1.000 | 1.000 | 1.000 | 0.973 | 8.04 | 8 | 9 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3353 | 0.0072 | 1.006 | 1.057 | 1.000 | 0.930 | 1.000 | 1.000 | 1.000 | 0.966 | 8.04 | 8 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3307 | 0.0017 | 1.006 | 1.034 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.955 | 7.97 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3301 | 0.0012 | 1.005 | 1.032 | 1.000 | 0.989 | 1.000 | 1.000 | 0.998 | 0.955 | 7.96 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3299 | 0.0017 | 1.005 | 1.036 | 1.000 | 0.984 | 1.000 | 1.000 | 0.998 | 0.948 | 7.96 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3395 | 0.0122 | 1.006 | 1.052 | 1.000 | 0.891 | 1.000 | 1.000 | 1.000 | 0.977 | 8.10 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3385 | 0.0106 | 1.005 | 1.049 | 1.000 | 0.902 | 1.000 | 1.000 | 1.000 | 0.978 | 8.09 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3393 | 0.0127 | 1.006 | 1.056 | 1.000 | 0.881 | 1.000 | 1.000 | 1.000 | 0.971 | 8.10 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0306 | 0.3346 | 0.0060 | 1.006 | 1.039 | 1.000 | 0.944 | 1.000 | 1.000 | 1.000 | 0.968 | 8.03 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3349 | 0.0058 | 1.005 | 1.040 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 0.973 | 8.03 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3347 | 0.0064 | 1.006 | 1.045 | 1.000 | 0.938 | 1.000 | 1.000 | 1.000 | 0.966 | 8.03 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3306 | 0.0015 | 1.005 | 1.032 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 0.955 | 7.97 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0149 | 0.3301 | 0.0011 | 1.005 | 1.031 | 1.000 | 0.989 | 1.000 | 1.000 | 0.998 | 0.955 | 7.96 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3298 | 0.0015 | 1.005 | 1.033 | 1.000 | 0.985 | 1.000 | 1.000 | 0.998 | 0.948 | 7.96 | 7 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0684 | 0.4573 | 0.4242 | 1.023 | 1.326 | 1.000 | 0.069 | 1.000 | 0.217 | 0.110 | 0.086 | 11.77 | 5 | 21 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.0461 | 0.5116 | 0.4880 | 1.028 | 1.402 | 1.000 | 0.067 | 1.000 | 0.194 | 0.101 | 0.071 | 14.16 | 5.5 | 26.5 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0340 | 0.5399 | 0.5193 | 1.030 | 1.426 | 1.000 | 0.046 | 1.000 | 0.182 | 0.095 | 0.062 | 15.18 | 6 | 32 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9997 | 0.0152 | 0.1635 | 0.1539 | 1.006 | 1.243 | 0.999 | 0.383 | 1.000 | 0.049 | 0.019 | 0.018 | 6.50 | 5 | 10 | 22 | - | - | - | - |
| | 200 | 0.9999 | 0.0101 | 0.2041 | 0.1968 | 1.007 | 1.296 | 1.000 | 0.311 | 1.000 | 0.047 | 0.020 | 0.014 | 7.01 | 5 | 11 | 24 | - | - | - | - |
| | 300 | 0.9998 | 0.0074 | 0.2176 | 0.2109 | 1.008 | 1.336 | 0.999 | 0.284 | 1.000 | 0.041 | 0.021 | 0.015 | 7.20 | 5 | 12 | 24 | - | - | - | - |

Notes: See notes to Table 100.

## Table 201: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3409 | 0.0114 | 1.004 | 1.063 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3400 | 0.0101 | 1.004 | 1.061 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3404 | 0.0106 | 1.004 | 1.063 | 1.000 | 0.902 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3371 | 0.0057 | 1.003 | 1.043 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3367 | 0.0052 | 1.003 | 1.050 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3364 | 0.0046 | 1.004 | 1.047 | 1.000 | 0.955 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0011 | 1.003 | 1.032 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3339 | 0.0011 | 1.003 | 1.036 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3340 | 0.0011 | 1.003 | 1.033 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3403 | 0.0106 | 1.004 | 1.052 | 1.000 | 0.901 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3395 | 0.0094 | 1.004 | 1.050 | 1.000 | 0.910 | 1.000 | 1.000 | 1.000 | 0.999 | 8.09 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3398 | 0.0098 | 1.004 | 1.051 | 1.000 | 0.910 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3369 | 0.0055 | 1.003 | 1.040 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3363 | 0.0047 | 1.003 | 1.042 | 1.000 | 0.955 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3361 | 0.0041 | 1.003 | 1.040 | 1.000 | 0.960 | 1.000 | 1.000 | 1.000 | 1.000 | 8.04 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3339 | 0.0010 | 1.003 | 1.031 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3338 | 0.0010 | 1.003 | 1.034 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3340 | 0.0011 | 1.003 | 1.033 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0675 | 0.3985 | 0.3642 | 1.015 | 1.363 | 1.000 | 0.116 | 1.000 | 0.228 | 0.114 | 0.101 | 11.68 | 5 | 27 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0377 | 0.4521 | 0.4250 | 1.017 | 1.389 | 1.000 | 0.046 | 1.000 | 0.181 | 0.091 | 0.072 | 12.51 | 6 | 35.5 | 57 | - | - | - | - |
| | 300 | 1.0000 | 0.0294 | 0.5080 | 0.4848 | 1.018 | 1.399 | 1.000 | 0.035 | 1.000 | 0.173 | 0.087 | 0.058 | 13.78 | 6 | 28 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0063 | 0.0753 | 0.0709 | 1.001 | 1.113 | 1.000 | 0.669 | 1.000 | 0.017 | 0.015 | 0.010 | 5.62 | 5 | 8 | 14 | - | - | - | - |
| | 200 | 1.0000 | 0.0035 | 0.0840 | 0.0803 | 1.001 | 1.126 | 1.000 | 0.617 | 1.000 | 0.019 | 0.013 | 0.006 | 5.70 | 5 | 8 | 16 | - | - | - | - |
| | 300 | 1.0000 | 0.0026 | 0.0916 | 0.0881 | 1.002 | 1.140 | 1.000 | 0.599 | 1.000 | 0.014 | 0.007 | 0.004 | 5.77 | 5 | 8 | 14 | - | - | - | - |

Notes: See notes to Table 100.

## Table 202: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7978 | 0.0255 | 0.3310 | 0.0194 | 1.051 | 1.700 | 0.345 | 0.291 | 1.000 | 0.987 | 0.823 | 0.552 | 6.51 | 4 | 8 | 10 | 1.254 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7639 | 0.0124 | 0.3324 | 0.0248 | 1.062 | 1.820 | 0.286 | 0.234 | 1.000 | 0.982 | 0.790 | 0.502 | 6.29 | 4 | 8 | 10 | 1.285 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.7539 | 0.0083 | 0.3355 | 0.0285 | 1.066 | 1.869 | 0.273 | 0.221 | 1.000 | 0.978 | 0.784 | 0.491 | 6.25 | 4 | 8 | 12 | 1.313 | 0.31 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7689 | 0.0240 | 0.3236 | 0.0106 | 1.056 | 1.780 | 0.297 | 0.270 | 1.000 | 0.981 | 0.795 | 0.513 | 6.22 | 4 | 8 | 10 | 1.286 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7484 | 0.0115 | 0.3190 | 0.0141 | 1.063 | 1.865 | 0.280 | 0.251 | 1.000 | 0.975 | 0.748 | 0.462 | 6.04 | 4 | 8 | 10 | 1.334 | 0.33 | 0.01 | 0.00 |
| | 300 | 0.7379 | 0.0077 | 0.3223 | 0.0165 | 1.067 | 1.911 | 0.266 | 0.244 | 1.000 | 0.970 | 0.749 | 0.460 | 5.99 | 4 | 8 | 10 | 1.365 | 0.36 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7375 | 0.0216 | 0.3074 | 0.0026 | 1.062 | 1.906 | 0.289 | 0.279 | 1.000 | 0.967 | 0.726 | 0.427 | 5.83 | 4 | 8 | 10 | 1.428 | 0.43 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7364 | 0.0103 | 0.2970 | 0.0044 | 1.067 | 1.928 | 0.327 | 0.316 | 1.000 | 0.961 | 0.670 | 0.381 | 5.73 | 3 | 8 | 9 | 1.465 | 0.46 | 0.00 | 0.00 |
| | 300 | 0.7327 | 0.0068 | 0.2968 | 0.0041 | 1.069 | 1.947 | 0.325 | 0.314 | 1.000 | 0.958 | 0.669 | 0.381 | 5.70 | 3 | 8 | 9 | 1.493 | 0.49 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7740 | 0.0252 | 0.3353 | 0.0168 | 1.056 | 1.767 | 0.318 | 0.277 | 1.000 | 0.987 | 0.823 | 0.552 | 6.37 | 4 | 8 | 10 | 1.169 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7331 | 0.0123 | 0.3379 | 0.0213 | 1.069 | 1.901 | 0.250 | 0.212 | 1.000 | 0.982 | 0.790 | 0.502 | 6.11 | 4 | 8 | 10 | 1.182 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.7218 | 0.0082 | 0.3411 | 0.0247 | 1.072 | 1.947 | 0.237 | 0.198 | 1.000 | 0.978 | 0.784 | 0.491 | 6.06 | 4 | 8 | 12 | 1.211 | 0.21 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7426 | 0.0239 | 0.3294 | 0.0093 | 1.062 | 1.859 | 0.267 | 0.246 | 1.000 | 0.981 | 0.795 | 0.513 | 6.07 | 4 | 8 | 9 | 1.214 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7154 | 0.0114 | 0.3260 | 0.0119 | 1.072 | 1.955 | 0.238 | 0.218 | 1.000 | 0.975 | 0.748 | 0.462 | 5.85 | 3 | 8 | 10 | 1.245 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.6975 | 0.0076 | 0.3311 | 0.0144 | 1.077 | 2.022 | 0.216 | 0.203 | 1.000 | 0.970 | 0.749 | 0.460 | 5.77 | 3 | 8 | 10 | 1.267 | 0.27 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7017 | 0.0216 | 0.3159 | 0.0019 | 1.073 | 2.009 | 0.241 | 0.235 | 1.000 | 0.967 | 0.726 | 0.427 | 5.64 | 3 | 8 | 10 | 1.350 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6931 | 0.0102 | 0.3063 | 0.0034 | 1.077 | 2.043 | 0.249 | 0.243 | 1.000 | 0.961 | 0.670 | 0.381 | 5.50 | 3 | 8 | 9 | 1.390 | 0.39 | 0.00 | 0.00 |
| | 300 | 0.6836 | 0.0068 | 0.3081 | 0.0038 | 1.083 | 2.078 | 0.240 | 0.234 | 1.000 | 0.958 | 0.669 | 0.381 | 5.45 | 3 | 8 | 9 | 1.422 | 0.42 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9575 | 0.0660 | 0.4418 | 0.4158 | 1.091 | 1.357 | 0.800 | 0.081 | 1.000 | 0.176 | 0.099 | 0.087 | 11.32 | 5 | 22 | 40 | - | - | - | - |
| | 200 | 0.9523 | 0.0515 | 0.5413 | 0.5205 | 1.112 | 1.458 | 0.777 | 0.037 | 1.000 | 0.155 | 0.078 | 0.070 | 15.01 | 5 | 31 | 54 | - | - | - | - |
| | 300 | 0.9503 | 0.0432 | 0.5890 | 0.5720 | 1.122 | 1.520 | 0.768 | 0.025 | 1.000 | 0.155 | 0.072 | 0.058 | 17.66 | 5 | 39 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7430 | 0.0252 | 0.1938 | 0.1851 | 1.134 | 1.964 | 0.351 | 0.051 | 1.000 | 0.042 | 0.027 | 0.029 | 6.21 | 1 | 16 | 34 | - | - | - | - |
| | 200 | 0.7736 | 0.0245 | 0.3058 | 0.2980 | 1.145 | 2.124 | 0.389 | 0.026 | 1.000 | 0.057 | 0.025 | 0.021 | 8.74 | 1 | 22 | 39 | - | - | - | - |
| | 300 | 0.7689 | 0.0210 | 0.3528 | 0.3453 | 1.167 | 2.242 | 0.396 | 0.017 | 1.000 | 0.060 | 0.026 | 0.028 | 10.12 | 1 | 26 | 42 | - | - | - | - |

Notes: See notes to Table 100.

## Table 203: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9994 | 0.0314 | 0.3402 | 0.0128 | 1.007 | 1.078 | 0.997 | 0.883 | 1.000 | 1.000 | 1.000 | 0.978 | 8.11 | 8 | 9 | 11 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9993 | 0.0156 | 0.3396 | 0.0120 | 1.006 | 1.071 | 0.997 | 0.886 | 1.000 | 1.000 | 1.000 | 0.978 | 8.10 | 8 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9980 | 0.0104 | 0.3396 | 0.0125 | 1.007 | 1.094 | 0.990 | 0.875 | 1.000 | 1.000 | 1.000 | 0.971 | 8.09 | 8 | 9 | 11 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9988 | 0.0307 | 0.3357 | 0.0070 | 1.006 | 1.064 | 0.994 | 0.930 | 1.000 | 1.000 | 1.000 | 0.970 | 8.03 | 8 | 9 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9981 | 0.0153 | 0.3357 | 0.0062 | 1.006 | 1.067 | 0.991 | 0.931 | 1.000 | 1.000 | 1.000 | 0.974 | 8.03 | 8 | 9 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9969 | 0.0101 | 0.3350 | 0.0064 | 1.006 | 1.083 | 0.985 | 0.924 | 1.000 | 1.000 | 1.000 | 0.962 | 8.01 | 7 | 9 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9961 | 0.0300 | 0.3314 | 0.0016 | 1.006 | 1.071 | 0.981 | 0.965 | 1.000 | 1.000 | 0.999 | 0.956 | 7.95 | 7 | 8 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9923 | 0.0149 | 0.3322 | 0.0012 | 1.006 | 1.113 | 0.964 | 0.952 | 1.000 | 1.000 | 1.000 | 0.958 | 7.93 | 7 | 8 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9895 | 0.0099 | 0.3317 | 0.0017 | 1.007 | 1.142 | 0.949 | 0.934 | 1.000 | 1.000 | 0.999 | 0.943 | 7.91 | 7 | 8 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9993 | 0.0312 | 0.3389 | 0.0108 | 1.006 | 1.056 | 0.997 | 0.899 | 1.000 | 1.000 | 1.000 | 0.978 | 8.09 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9991 | 0.0155 | 0.3392 | 0.0113 | 1.006 | 1.061 | 0.996 | 0.892 | 1.000 | 1.000 | 1.000 | 0.978 | 8.09 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9977 | 0.0103 | 0.3388 | 0.0112 | 1.006 | 1.079 | 0.989 | 0.886 | 1.000 | 1.000 | 1.000 | 0.971 | 8.07 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9987 | 0.0306 | 0.3350 | 0.0060 | 1.006 | 1.053 | 0.994 | 0.939 | 1.000 | 1.000 | 1.000 | 0.970 | 8.02 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9978 | 0.0152 | 0.3354 | 0.0057 | 1.006 | 1.063 | 0.990 | 0.936 | 1.000 | 1.000 | 1.000 | 0.974 | 8.02 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9967 | 0.0101 | 0.3347 | 0.0059 | 1.006 | 1.078 | 0.984 | 0.928 | 1.000 | 1.000 | 1.000 | 0.962 | 8.00 | 7 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9957 | 0.0300 | 0.3314 | 0.0015 | 1.006 | 1.075 | 0.979 | 0.965 | 1.000 | 1.000 | 0.999 | 0.956 | 7.95 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9920 | 0.0149 | 0.3322 | 0.0012 | 1.006 | 1.116 | 0.963 | 0.952 | 1.000 | 1.000 | 1.000 | 0.958 | 7.93 | 7 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9885 | 0.0099 | 0.3318 | 0.0015 | 1.007 | 1.154 | 0.947 | 0.934 | 1.000 | 1.000 | 0.999 | 0.943 | 7.90 | 7 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0735 | 0.4749 | 0.4447 | 1.025 | 1.346 | 1.000 | 0.049 | 1.000 | 0.206 | 0.105 | 0.077 | 12.28 | 6 | 23 | 43 | - | - | - | - |
| | 200 | 0.9999 | 0.0447 | 0.5130 | 0.4872 | 1.029 | 1.393 | 1.000 | 0.045 | 1.000 | 0.190 | 0.098 | 0.065 | 13.89 | 6 | 29 | 67 | - | - | - | - |
| | 300 | 0.9999 | 0.0353 | 0.5483 | 0.5271 | 1.031 | 1.429 | 1.000 | 0.037 | 1.000 | 0.190 | 0.084 | 0.068 | 15.54 | 6 | 31.5 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9897 | 0.0269 | 0.2567 | 0.2428 | 1.015 | 1.535 | 0.965 | 0.200 | 1.000 | 0.071 | 0.035 | 0.021 | 7.62 | 5 | 12 | 21 | - | - | - | - |
| | 200 | 0.9919 | 0.0162 | 0.2887 | 0.2772 | 1.017 | 1.588 | 0.972 | 0.162 | 1.000 | 0.062 | 0.036 | 0.025 | 8.18 | 5 | 14 | 25 | - | - | - | - |
| | 300 | 0.9889 | 0.0128 | 0.3176 | 0.3061 | 1.021 | 1.681 | 0.963 | 0.143 | 1.000 | 0.063 | 0.028 | 0.021 | 8.77 | 5 | 16 | 41 | - | - | - | - |

Notes: See notes to Table 100.

## Table 204: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3409 | 0.0113 | 1.004 | 1.060 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3403 | 0.0105 | 1.003 | 1.054 | 1.000 | 0.902 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3419 | 0.0130 | 1.004 | 1.068 | 1.000 | 0.880 | 1.000 | 1.000 | 1.000 | 0.999 | 8.13 | 8 | 9 | 12 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3369 | 0.0053 | 1.003 | 1.042 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3365 | 0.0048 | 1.003 | 1.039 | 1.000 | 0.953 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3375 | 0.0065 | 1.004 | 1.048 | 1.000 | 0.938 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3342 | 0.0013 | 1.003 | 1.028 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3341 | 0.0013 | 1.003 | 1.029 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3338 | 0.0010 | 1.003 | 1.025 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3402 | 0.0104 | 1.004 | 1.048 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3401 | 0.0102 | 1.003 | 1.050 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3412 | 0.0120 | 1.004 | 1.054 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3365 | 0.0048 | 1.003 | 1.036 | 1.000 | 0.956 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3364 | 0.0047 | 1.003 | 1.036 | 1.000 | 0.955 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3370 | 0.0057 | 1.003 | 1.037 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3341 | 0.0011 | 1.003 | 1.025 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3340 | 0.0012 | 1.003 | 1.028 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3338 | 0.0009 | 1.003 | 1.024 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0686 | 0.4693 | 0.4379 | 1.013 | 1.311 | 1.000 | 0.058 | 1.000 | 0.198 | 0.118 | 0.088 | 11.79 | 6 | 19 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0467 | 0.5187 | 0.4943 | 1.016 | 1.382 | 1.000 | 0.060 | 1.000 | 0.196 | 0.094 | 0.068 | 14.30 | 5 | 26 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0365 | 0.5361 | 0.5145 | 1.018 | 1.420 | 1.000 | 0.055 | 1.000 | 0.182 | 0.088 | 0.058 | 15.92 | 6 | 32 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0147 | 0.1628 | 0.1535 | 1.003 | 1.241 | 1.000 | 0.361 | 1.000 | 0.032 | 0.022 | 0.020 | 6.46 | 5 | 9 | 21 | - | - | - | - |
| | 200 | 0.9997 | 0.0096 | 0.2006 | 0.1924 | 1.005 | 1.307 | 0.999 | 0.303 | 1.000 | 0.036 | 0.017 | 0.016 | 6.92 | 5 | 11 | 25 | - | - | - | - |
| | 300 | 0.9995 | 0.0076 | 0.2219 | 0.2143 | 1.005 | 1.349 | 0.999 | 0.295 | 1.000 | 0.032 | 0.015 | 0.006 | 7.26 | 5 | 12 | 21 | - | - | - | - |

Notes: See notes to Table 100.

## Table 205: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6637 | 0.0258 | 0.3688 | 0.0241 | 1.046 | 1.515 | 0.193 | 0.163 | 1.000 | 0.989 | 0.825 | 0.553 | 5.87 | 3 | 8 | 11 | 1.455 | 0.44 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6247 | 0.0124 | 0.3719 | 0.0255 | 1.054 | 1.589 | 0.157 | 0.132 | 1.000 | 0.982 | 0.797 | 0.507 | 5.59 | 3 | 8 | 10 | 1.495 | 0.48 | 0.01 | 0.00 |
| | 300 | 0.6033 | 0.0082 | 0.3746 | 0.0310 | 1.059 | 1.642 | 0.130 | 0.107 | 1.000 | 0.980 | 0.766 | 0.488 | 5.47 | 3 | 8 | 10 | 1.486 | 0.48 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.6457 | 0.0241 | 0.3587 | 0.0133 | 1.046 | 1.522 | 0.186 | 0.170 | 1.000 | 0.985 | 0.792 | 0.513 | 5.62 | 3 | 8 | 10 | 1.500 | 0.49 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6045 | 0.0116 | 0.3607 | 0.0141 | 1.055 | 1.595 | 0.145 | 0.134 | 1.000 | 0.977 | 0.765 | 0.459 | 5.32 | 3 | 8 | 9 | 1.543 | 0.54 | 0.01 | 0.00 |
| | 300 | 0.5899 | 0.0077 | 0.3640 | 0.0204 | 1.059 | 1.639 | 0.127 | 0.111 | 1.000 | 0.971 | 0.741 | 0.458 | 5.26 | 3 | 8 | 10 | 1.546 | 0.54 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6085 | 0.0216 | 0.3424 | 0.0041 | 1.052 | 1.546 | 0.157 | 0.153 | 1.000 | 0.971 | 0.713 | 0.428 | 5.18 | 3 | 8 | 9 | 1.606 | 0.60 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5649 | 0.0103 | 0.3469 | 0.0042 | 1.063 | 1.603 | 0.127 | 0.124 | 1.000 | 0.960 | 0.696 | 0.378 | 4.88 | 3 | 7 | 9 | 1.618 | 0.61 | 0.00 | 0.00 |
| | 300 | 0.5552 | 0.0068 | 0.3459 | 0.0054 | 1.064 | 1.632 | 0.111 | 0.108 | 1.000 | 0.954 | 0.672 | 0.383 | 4.82 | 2 | 7 | 9 | 1.618 | 0.62 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5947 | 0.0254 | 0.3862 | 0.0212 | 1.056 | 1.583 | 0.119 | 0.106 | 1.000 | 0.989 | 0.825 | 0.552 | 5.49 | 3 | 8 | 10 | 1.357 | 0.36 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5330 | 0.0123 | 0.3972 | 0.0235 | 1.072 | 1.677 | 0.071 | 0.063 | 1.000 | 0.982 | 0.797 | 0.507 | 5.11 | 3 | 7 | 10 | 1.367 | 0.36 | 0.00 | 0.00 |
| | 300 | 0.5112 | 0.0081 | 0.4006 | 0.0297 | 1.078 | 1.740 | 0.052 | 0.041 | 1.000 | 0.980 | 0.766 | 0.488 | 4.99 | 3 | 7 | 9 | 1.358 | 0.36 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5669 | 0.0239 | 0.3803 | 0.0121 | 1.061 | 1.609 | 0.108 | 0.101 | 1.000 | 0.985 | 0.792 | 0.513 | 5.21 | 3 | 8 | 9 | 1.405 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5036 | 0.0115 | 0.3895 | 0.0130 | 1.076 | 1.706 | 0.058 | 0.054 | 1.000 | 0.977 | 0.765 | 0.459 | 4.80 | 3 | 7 | 9 | 1.412 | 0.41 | 0.00 | 0.00 |
| | 300 | 0.4883 | 0.0077 | 0.3938 | 0.0195 | 1.082 | 1.746 | 0.050 | 0.045 | 1.000 | 0.971 | 0.741 | 0.458 | 4.73 | 2 | 7 | 9 | 1.404 | 0.40 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5161 | 0.0216 | 0.3688 | 0.0036 | 1.072 | 1.652 | 0.078 | 0.075 | 1.000 | 0.971 | 0.713 | 0.428 | 4.72 | 2 | 7 | 9 | 1.497 | 0.50 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4580 | 0.0103 | 0.3780 | 0.0038 | 1.088 | 1.727 | 0.052 | 0.051 | 1.000 | 0.960 | 0.696 | 0.378 | 4.35 | 2 | 7 | 9 | 1.481 | 0.48 | 0.00 | 0.00 |
| | 300 | 0.4381 | 0.0068 | 0.3803 | 0.0049 | 1.094 | 1.764 | 0.039 | 0.038 | 1.000 | 0.954 | 0.672 | 0.383 | 4.23 | 2 | 7 | 8 | 1.463 | 0.46 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8141 | 0.0557 | 0.4117 | 0.3820 | 1.093 | 1.199 | 0.351 | 0.029 | 1.000 | 0.157 | 0.079 | 0.067 | 9.59 | 3 | 20 | 34 | - | - | - | - |
| | 200 | 0.7932 | 0.0421 | 0.4881 | 0.4653 | 1.111 | 1.297 | 0.303 | 0.016 | 1.000 | 0.130 | 0.065 | 0.052 | 12.34 | 3 | 28.5 | 57 | - | - | - | - |
| | 300 | 0.7936 | 0.0351 | 0.5322 | 0.5132 | 1.119 | 1.347 | 0.298 | 0.020 | 1.000 | 0.135 | 0.062 | 0.049 | 14.47 | 3 | 34 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5006 | 0.0194 | 0.1523 | 0.1464 | 1.120 | 1.646 | 0.080 | 0.002 | 1.000 | 0.030 | 0.021 | 0.022 | 4.43 | 1 | 15 | 27 | - | - | - | - |
| | 200 | 0.5259 | 0.0185 | 0.2369 | 0.2311 | 1.136 | 1.836 | 0.086 | 0.001 | 1.000 | 0.037 | 0.023 | 0.023 | 6.30 | 1 | 21 | 42 | - | - | - | - |
| | 300 | 0.5340 | 0.0166 | 0.2824 | 0.2773 | 1.146 | 1.949 | 0.090 | 0.000 | 1.000 | 0.037 | 0.021 | 0.017 | 7.64 | 1 | 24 | 47 | - | - | - | - |

Notes: See notes to Table 100.

**Table 206: Monte Carlo findings for DGPI(a)**

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9485 | 0.0315 | 0.3521 | 0.0135 | 1.010 | 1.285 | 0.790 | 0.694 | 1.000 | 1.000 | 1.000 | 0.983 | 7.86 | 7 | 9 | 11 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9268 | 0.0156 | 0.3559 | 0.0135 | 1.011 | 1.384 | 0.723 | 0.639 | 1.000 | 1.000 | 0.998 | 0.972 | 7.74 | 6 | 9 | 11 | 1.039 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9132 | 0.0104 | 0.3587 | 0.0133 | 1.012 | 1.423 | 0.677 | 0.601 | 1.000 | 1.000 | 0.999 | 0.969 | 7.66 | 6 | 9 | 10 | 1.055 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9333 | 0.0308 | 0.3512 | 0.0072 | 1.010 | 1.340 | 0.741 | 0.695 | 1.000 | 1.000 | 1.000 | 0.980 | 7.72 | 6 | 8 | 10 | 1.048 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9038 | 0.0152 | 0.3559 | 0.0064 | 1.012 | 1.462 | 0.641 | 0.602 | 1.000 | 1.000 | 0.998 | 0.965 | 7.54 | 6 | 8 | 10 | 1.049 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.8884 | 0.0101 | 0.3601 | 0.0071 | 1.013 | 1.507 | 0.597 | 0.557 | 1.000 | 1.000 | 0.999 | 0.965 | 7.47 | 6 | 8 | 10 | 1.072 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8758 | 0.0301 | 0.3594 | 0.0016 | 1.014 | 1.571 | 0.559 | 0.551 | 1.000 | 1.000 | 0.999 | 0.964 | 7.36 | 6 | 8 | 9 | 1.082 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8467 | 0.0149 | 0.3650 | 0.0014 | 1.017 | 1.688 | 0.476 | 0.469 | 1.000 | 1.000 | 0.997 | 0.951 | 7.19 | 6 | 8 | 9 | 1.104 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8313 | 0.0099 | 0.3690 | 0.0018 | 1.018 | 1.727 | 0.447 | 0.439 | 1.000 | 1.000 | 0.998 | 0.948 | 7.12 | 5 | 8 | 9 | 1.136 | 0.14 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9453 | 0.0314 | 0.3521 | 0.0122 | 1.010 | 1.292 | 0.788 | 0.702 | 1.000 | 1.000 | 1.000 | 0.983 | 7.83 | 6 | 9 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9239 | 0.0155 | 0.3561 | 0.0125 | 1.012 | 1.392 | 0.720 | 0.642 | 1.000 | 1.000 | 0.998 | 0.972 | 7.71 | 6 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9074 | 0.0103 | 0.3599 | 0.0126 | 1.012 | 1.449 | 0.671 | 0.600 | 1.000 | 1.000 | 0.999 | 0.969 | 7.63 | 6 | 9 | 10 | 1.033 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9288 | 0.0307 | 0.3517 | 0.0063 | 1.010 | 1.356 | 0.734 | 0.694 | 1.000 | 1.000 | 1.000 | 0.980 | 7.68 | 6 | 8 | 10 | 1.029 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8980 | 0.0152 | 0.3572 | 0.0058 | 1.013 | 1.491 | 0.636 | 0.598 | 1.000 | 1.000 | 0.998 | 0.965 | 7.51 | 6 | 8 | 10 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.8811 | 0.0101 | 0.3619 | 0.0067 | 1.014 | 1.542 | 0.591 | 0.553 | 1.000 | 1.000 | 0.999 | 0.965 | 7.43 | 6 | 8 | 10 | 1.046 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8673 | 0.0301 | 0.3619 | 0.0014 | 1.015 | 1.617 | 0.553 | 0.546 | 1.000 | 1.000 | 0.999 | 0.964 | 7.31 | 6 | 8 | 9 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8351 | 0.0149 | 0.3683 | 0.0012 | 1.018 | 1.746 | 0.467 | 0.461 | 1.000 | 1.000 | 0.997 | 0.951 | 7.14 | 5 | 8 | 9 | 1.070 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.8183 | 0.0099 | 0.3729 | 0.0017 | 1.020 | 1.790 | 0.438 | 0.429 | 1.000 | 1.000 | 0.998 | 0.948 | 7.05 | 5 | 8 | 9 | 1.098 | 0.10 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9898 | 0.0696 | 0.4631 | 0.4312 | 1.024 | 1.332 | 0.950 | 0.064 | 1.000 | 0.199 | 0.111 | 0.085 | 11.84 | 5 | 22 | 37 | - | - | - | - |
| | 200 | 0.9857 | 0.0438 | 0.5087 | 0.4848 | 1.029 | 1.383 | 0.930 | 0.043 | 1.000 | 0.183 | 0.089 | 0.076 | 13.65 | 6 | 27 | 48 | - | - | - | - |
| | 300 | 0.9814 | 0.0345 | 0.5422 | 0.5204 | 1.031 | 1.399 | 0.908 | 0.039 | 1.000 | 0.172 | 0.078 | 0.067 | 15.22 | 6 | 33 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8763 | 0.0304 | 0.2724 | 0.2573 | 1.034 | 1.844 | 0.680 | 0.083 | 1.000 | 0.068 | 0.038 | 0.031 | 7.40 | 2 | 14 | 23 | - | - | - | - |
| | 200 | 0.8846 | 0.0195 | 0.3181 | 0.3066 | 1.037 | 1.928 | 0.682 | 0.063 | 1.000 | 0.064 | 0.031 | 0.030 | 8.31 | 2 | 16 | 30 | - | - | - | - |
| | 300 | 0.8818 | 0.0155 | 0.3495 | 0.3390 | 1.041 | 1.990 | 0.678 | 0.057 | 1.000 | 0.065 | 0.031 | 0.024 | 9.04 | 2 | 18 | 36 | - | - | - | - |

Notes: See notes to Table 100.

## Table 207: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9984 | 0.0313 | 0.3401 | 0.0097 | 1.003 | 1.061 | 0.992 | 0.900 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9975 | 0.0156 | 0.3410 | 0.0109 | 1.004 | 1.068 | 0.988 | 0.889 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9952 | 0.0104 | 0.3420 | 0.0117 | 1.004 | 1.094 | 0.976 | 0.871 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9968 | 0.0308 | 0.3375 | 0.0053 | 1.003 | 1.058 | 0.986 | 0.935 | 1.000 | 1.000 | 1.000 | 1.000 | 8.04 | 8 | 9 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9947 | 0.0153 | 0.3380 | 0.0053 | 1.004 | 1.071 | 0.975 | 0.925 | 1.000 | 1.000 | 1.000 | 1.000 | 8.03 | 8 | 8.5 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9914 | 0.0102 | 0.3392 | 0.0062 | 1.004 | 1.103 | 0.958 | 0.899 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9908 | 0.0304 | 0.3360 | 0.0013 | 1.004 | 1.086 | 0.958 | 0.946 | 1.000 | 1.000 | 1.000 | 0.999 | 7.97 | 8 | 8 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9862 | 0.0151 | 0.3369 | 0.0011 | 1.004 | 1.121 | 0.938 | 0.930 | 1.000 | 1.000 | 1.000 | 0.999 | 7.94 | 7 | 8 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9791 | 0.0101 | 0.3385 | 0.0011 | 1.004 | 1.179 | 0.906 | 0.895 | 1.000 | 1.000 | 1.000 | 0.999 | 7.91 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9982 | 0.0312 | 0.3397 | 0.0091 | 1.003 | 1.057 | 0.992 | 0.905 | 1.000 | 1.000 | 1.000 | 1.000 | 8.08 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9974 | 0.0156 | 0.3407 | 0.0103 | 1.004 | 1.061 | 0.987 | 0.894 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9951 | 0.0104 | 0.3418 | 0.0113 | 1.004 | 1.089 | 0.976 | 0.874 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9966 | 0.0308 | 0.3373 | 0.0049 | 1.003 | 1.055 | 0.985 | 0.938 | 1.000 | 1.000 | 1.000 | 1.000 | 8.03 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9947 | 0.0153 | 0.3377 | 0.0050 | 1.004 | 1.067 | 0.975 | 0.929 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9913 | 0.0102 | 0.3391 | 0.0060 | 1.004 | 1.101 | 0.958 | 0.901 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9901 | 0.0304 | 0.3362 | 0.0013 | 1.004 | 1.092 | 0.956 | 0.945 | 1.000 | 1.000 | 1.000 | 0.999 | 7.96 | 8 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9855 | 0.0151 | 0.3371 | 0.0011 | 1.004 | 1.129 | 0.938 | 0.930 | 1.000 | 1.000 | 1.000 | 0.999 | 7.94 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9789 | 0.0101 | 0.3385 | 0.0011 | 1.004 | 1.182 | 0.905 | 0.895 | 1.000 | 1.000 | 1.000 | 0.999 | 7.90 | 7 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9987 | 0.0718 | 0.4616 | 0.4303 | 1.014 | 1.320 | 0.994 | 0.066 | 1.000 | 0.223 | 0.130 | 0.103 | 12.10 | 6 | 22 | 44 | - | - | - | - |
| | 200 | 0.9983 | 0.0451 | 0.5052 | 0.4793 | 1.016 | 1.374 | 0.992 | 0.042 | 1.000 | 0.204 | 0.098 | 0.075 | 13.97 | 6 | 30 | 49 | - | - | - | - |
| | 300 | 0.9985 | 0.0339 | 0.5319 | 0.5093 | 1.018 | 1.413 | 0.993 | 0.032 | 1.000 | 0.197 | 0.084 | 0.063 | 15.14 | 6 | 35 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9759 | 0.0215 | 0.2166 | 0.2032 | 1.009 | 1.510 | 0.924 | 0.261 | 1.000 | 0.059 | 0.042 | 0.035 | 7.01 | 5 | 11 | 24 | - | - | - | - |
| | 200 | 0.9759 | 0.0140 | 0.2582 | 0.2462 | 1.012 | 1.598 | 0.931 | 0.194 | 1.000 | 0.063 | 0.031 | 0.021 | 7.66 | 5 | 14 | 25 | - | - | - | - |
| | 300 | 0.9779 | 0.0105 | 0.2773 | 0.2676 | 1.012 | 1.657 | 0.926 | 0.178 | 1.000 | 0.058 | 0.018 | 0.019 | 8.02 | 5 | 15 | 27 | - | - | - | - |

Notes: See notes to Table 100.

## Table 208: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9163 | 0.0628 | 0.5073 | 0.2870 | 1.106 | 1.937 | 0.619 | 0.022 | 1.000 | 0.995 | 0.900 | 0.669 | 10.80 | 7 | 15 | 21 | 1.205 | 0.20 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8924 | 0.0399 | 0.5692 | 0.3848 | 1.151 | 2.208 | 0.524 | 0.008 | 1.000 | 0.992 | 0.853 | 0.593 | 12.41 | 7 | 18 | 25 | 1.226 | 0.21 | 0.01 | 0.00 |
| | 300 | 0.8689 | 0.0320 | 0.6200 | 0.4531 | 1.200 | 2.460 | 0.444 | 0.002 | 1.000 | 0.992 | 0.866 | 0.593 | 13.92 | 8 | 20 | 33 | 1.217 | 0.21 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8950 | 0.0530 | 0.4693 | 0.2328 | 1.102 | 1.961 | 0.539 | 0.052 | 1.000 | 0.995 | 0.884 | 0.637 | 9.73 | 6 | 14 | 19 | 1.217 | 0.21 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8659 | 0.0328 | 0.5259 | 0.3236 | 1.142 | 2.221 | 0.432 | 0.015 | 1.000 | 0.987 | 0.837 | 0.555 | 10.86 | 7 | 16 | 24 | 1.228 | 0.22 | 0.01 | 0.00 |
| | 300 | 0.8462 | 0.0257 | 0.5713 | 0.3849 | 1.179 | 2.421 | 0.376 | 0.007 | 1.000 | 0.990 | 0.833 | 0.557 | 11.91 | 7 | 18 | 28 | 1.226 | 0.22 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8414 | 0.0383 | 0.4031 | 0.1413 | 1.104 | 2.121 | 0.367 | 0.117 | 1.000 | 0.991 | 0.832 | 0.547 | 8.00 | 5 | 11 | 15 | 1.266 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8157 | 0.0219 | 0.4381 | 0.2022 | 1.133 | 2.312 | 0.288 | 0.052 | 1.000 | 0.981 | 0.780 | 0.484 | 8.44 | 5 | 12 | 18 | 1.276 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.7968 | 0.0167 | 0.4746 | 0.2507 | 1.158 | 2.477 | 0.249 | 0.030 | 1.000 | 0.980 | 0.777 | 0.486 | 8.98 | 5 | 13 | 22 | 1.293 | 0.29 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9015 | 0.0623 | 0.5086 | 0.2859 | 1.108 | 1.977 | 0.567 | 0.022 | 1.000 | 0.995 | 0.900 | 0.668 | 10.67 | 7 | 15 | 21 | 1.106 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8738 | 0.0396 | 0.5713 | 0.3847 | 1.157 | 2.254 | 0.471 | 0.007 | 1.000 | 0.992 | 0.853 | 0.593 | 12.25 | 7 | 18 | 25 | 1.109 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.8489 | 0.0318 | 0.6233 | 0.4544 | 1.206 | 2.515 | 0.392 | 0.001 | 1.000 | 0.992 | 0.866 | 0.593 | 13.76 | 8 | 20 | 33 | 1.099 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8783 | 0.0527 | 0.4717 | 0.2326 | 1.107 | 2.028 | 0.485 | 0.049 | 1.000 | 0.995 | 0.884 | 0.637 | 9.61 | 6 | 14 | 19 | 1.130 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8426 | 0.0326 | 0.5299 | 0.3245 | 1.153 | 2.312 | 0.374 | 0.013 | 1.000 | 0.987 | 0.837 | 0.555 | 10.71 | 6 | 16 | 22 | 1.119 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.8221 | 0.0256 | 0.5759 | 0.3868 | 1.190 | 2.513 | 0.319 | 0.005 | 1.000 | 0.990 | 0.833 | 0.557 | 11.75 | 7 | 17 | 28 | 1.119 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8166 | 0.0382 | 0.4085 | 0.1425 | 1.116 | 2.243 | 0.307 | 0.098 | 1.000 | 0.991 | 0.832 | 0.547 | 7.87 | 5 | 11 | 15 | 1.173 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7865 | 0.0219 | 0.4447 | 0.2045 | 1.150 | 2.454 | 0.234 | 0.041 | 1.000 | 0.981 | 0.780 | 0.484 | 8.29 | 5 | 12 | 18 | 1.183 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.7604 | 0.0167 | 0.4831 | 0.2541 | 1.180 | 2.649 | 0.189 | 0.020 | 1.000 | 0.980 | 0.777 | 0.486 | 8.79 | 5 | 13 | 22 | 1.177 | 0.18 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9936 | 0.0806 | 0.5069 | 0.4775 | 1.117 | 1.507 | 0.968 | 0.030 | 1.000 | 0.199 | 0.101 | 0.090 | 12.95 | 6 | 23 | 47 | - | - | - | - |
| | 200 | 0.9929 | 0.0575 | 0.5871 | 0.5675 | 1.154 | 1.641 | 0.965 | 0.017 | 1.000 | 0.194 | 0.087 | 0.074 | 16.40 | 7 | 32 | 64 | - | - | - | - |
| | 300 | 0.9917 | 0.0476 | 0.6385 | 0.6210 | 1.182 | 1.741 | 0.959 | 0.012 | 1.000 | 0.204 | 0.095 | 0.061 | 19.19 | 7 | 37 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9258 | 0.0331 | 0.2760 | 0.2613 | 1.118 | 1.961 | 0.746 | 0.122 | 1.000 | 0.074 | 0.034 | 0.036 | 7.91 | 3 | 15 | 27 | - | - | - | - |
| | 200 | 0.9274 | 0.0252 | 0.3559 | 0.3456 | 1.153 | 2.142 | 0.761 | 0.077 | 1.000 | 0.078 | 0.034 | 0.028 | 9.66 | 3 | 20 | 37 | - | - | - | - |
| | 300 | 0.9284 | 0.0215 | 0.4156 | 0.4047 | 1.183 | 2.269 | 0.768 | 0.051 | 1.000 | 0.094 | 0.038 | 0.024 | 11.07 | 3 | 22 | 44 | - | - | - | - |

Notes: See notes to Table 100.

## Table 209: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0648 | 0.5035 | 0.2561 | 1.017 | 1.397 | 1.000 | 0.042 | 1.000 | 1.000 | 1.000 | 0.992 | 11.41 | 9 | 15 | 22 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0410 | 0.5615 | 0.3430 | 1.022 | 1.572 | 1.000 | 0.015 | 1.000 | 1.000 | 1.000 | 0.991 | 13.15 | 9 | 18 | 25 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0316 | 0.5972 | 0.3969 | 1.028 | 1.697 | 1.000 | 0.007 | 1.000 | 1.000 | 1.000 | 0.988 | 14.44 | 10 | 20 | 26 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0560 | 0.4685 | 0.2037 | 1.014 | 1.320 | 1.000 | 0.100 | 1.000 | 1.000 | 1.000 | 0.992 | 10.55 | 8 | 14 | 19 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0342 | 0.5178 | 0.2776 | 1.018 | 1.458 | 1.000 | 0.035 | 1.000 | 1.000 | 1.000 | 0.990 | 11.81 | 9 | 16 | 22 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0259 | 0.5490 | 0.3248 | 1.023 | 1.563 | 1.000 | 0.018 | 1.000 | 1.000 | 1.000 | 0.986 | 12.74 | 9 | 17 | 23 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0429 | 0.4062 | 0.1117 | 1.010 | 1.190 | 1.000 | 0.315 | 1.000 | 1.000 | 1.000 | 0.980 | 9.24 | 8 | 12 | 15 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0246 | 0.4395 | 0.1611 | 1.012 | 1.286 | 0.998 | 0.185 | 1.000 | 1.000 | 1.000 | 0.983 | 9.90 | 8 | 13 | 16 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0180 | 0.4613 | 0.1947 | 1.015 | 1.351 | 0.998 | 0.124 | 1.000 | 1.000 | 1.000 | 0.974 | 10.39 | 8 | 13.5 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0646 | 0.5031 | 0.2554 | 1.016 | 1.387 | 1.000 | 0.043 | 1.000 | 1.000 | 1.000 | 0.992 | 11.40 | 9 | 15 | 22 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0409 | 0.5612 | 0.3426 | 1.022 | 1.564 | 1.000 | 0.015 | 1.000 | 1.000 | 1.000 | 0.991 | 13.14 | 9 | 18 | 25 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0316 | 0.5970 | 0.3966 | 1.028 | 1.691 | 1.000 | 0.008 | 1.000 | 1.000 | 1.000 | 0.988 | 14.44 | 10 | 20 | 26 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0560 | 0.4682 | 0.2032 | 1.014 | 1.314 | 1.000 | 0.100 | 1.000 | 1.000 | 1.000 | 0.992 | 10.54 | 8 | 14 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0342 | 0.5176 | 0.2773 | 1.018 | 1.453 | 1.000 | 0.035 | 1.000 | 1.000 | 1.000 | 0.990 | 11.80 | 9 | 16 | 22 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0259 | 0.5488 | 0.3246 | 1.022 | 1.558 | 1.000 | 0.018 | 1.000 | 1.000 | 1.000 | 0.986 | 12.73 | 9 | 17 | 23 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0428 | 0.4062 | 0.1116 | 1.010 | 1.190 | 1.000 | 0.315 | 1.000 | 1.000 | 1.000 | 0.980 | 9.24 | 8 | 12 | 15 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0246 | 0.4394 | 0.1609 | 1.012 | 1.282 | 0.998 | 0.186 | 1.000 | 1.000 | 1.000 | 0.983 | 9.90 | 8 | 13 | 16 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0180 | 0.4613 | 0.1947 | 1.015 | 1.351 | 0.998 | 0.124 | 1.000 | 1.000 | 1.000 | 0.974 | 10.39 | 8 | 13.5 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0623 | 0.4367 | 0.4074 | 1.027 | 1.359 | 1.000 | 0.058 | 1.000 | 0.192 | 0.101 | 0.077 | 11.16 | 6 | 23 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0402 | 0.4992 | 0.4741 | 1.031 | 1.419 | 1.000 | 0.047 | 1.000 | 0.177 | 0.098 | 0.060 | 13.00 | 6 | 22 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.0316 | 0.5141 | 0.4923 | 1.036 | 1.473 | 1.000 | 0.040 | 1.000 | 0.174 | 0.096 | 0.053 | 14.46 | 6 | 33 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0111 | 0.1269 | 0.1195 | 1.005 | 1.211 | 1.000 | 0.475 | 1.000 | 0.028 | 0.019 | 0.015 | 6.10 | 5 | 9 | 18 | - | - | - | - |
| | 200 | 1.0000 | 0.0070 | 0.1535 | 0.1462 | 1.005 | 1.245 | 1.000 | 0.408 | 1.000 | 0.021 | 0.015 | 0.009 | 6.40 | 5 | 10 | 18 | - | - | - | - |
| | 300 | 1.0000 | 0.0055 | 0.1701 | 0.1633 | 1.007 | 1.279 | 1.000 | 0.382 | 1.000 | 0.032 | 0.022 | 0.011 | 6.64 | 5 | 11 | 22 | - | - | - | - |

Notes: See notes to Table 100.

## Table 210: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0636 | 0.4995 | 0.2493 | 1.009 | 1.387 | 1.000 | 0.055 | 1.000 | 1.000 | 1.000 | 1.000 | 11.29 | 8 | 15 | 19 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0400 | 0.5568 | 0.3352 | 1.012 | 1.532 | 1.000 | 0.013 | 1.000 | 1.000 | 1.000 | 1.000 | 12.96 | 9 | 17 | 27 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0309 | 0.5929 | 0.3893 | 1.014 | 1.637 | 1.000 | 0.006 | 1.000 | 1.000 | 1.000 | 1.000 | 14.24 | 10 | 19 | 24 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0553 | 0.4660 | 0.1990 | 1.008 | 1.315 | 1.000 | 0.111 | 1.000 | 1.000 | 1.000 | 1.000 | 10.48 | 8 | 14 | 17 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0334 | 0.5127 | 0.2691 | 1.010 | 1.429 | 1.000 | 0.037 | 1.000 | 1.000 | 1.000 | 1.000 | 11.65 | 9 | 15 | 23 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0253 | 0.5440 | 0.3162 | 1.011 | 1.511 | 1.000 | 0.021 | 1.000 | 1.000 | 1.000 | 0.999 | 12.56 | 9 | 17 | 23 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0428 | 0.4067 | 0.1101 | 1.006 | 1.195 | 1.000 | 0.315 | 1.000 | 1.000 | 1.000 | 1.000 | 9.24 | 8 | 11.5 | 15 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0243 | 0.4367 | 0.1550 | 1.007 | 1.257 | 1.000 | 0.189 | 1.000 | 1.000 | 1.000 | 1.000 | 9.84 | 8 | 13 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0175 | 0.4554 | 0.1832 | 1.007 | 1.298 | 1.000 | 0.129 | 1.000 | 1.000 | 1.000 | 0.998 | 10.22 | 8 | 13 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0635 | 0.4992 | 0.2488 | 1.009 | 1.380 | 1.000 | 0.056 | 1.000 | 1.000 | 1.000 | 1.000 | 11.29 | 8 | 15 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0400 | 0.5565 | 0.3348 | 1.012 | 1.524 | 1.000 | 0.013 | 1.000 | 1.000 | 1.000 | 1.000 | 12.95 | 9 | 17 | 27 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0309 | 0.5927 | 0.3891 | 1.014 | 1.632 | 1.000 | 0.006 | 1.000 | 1.000 | 1.000 | 1.000 | 14.23 | 10 | 19 | 24 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0553 | 0.4658 | 0.1986 | 1.008 | 1.310 | 1.000 | 0.112 | 1.000 | 1.000 | 1.000 | 1.000 | 10.47 | 8 | 14 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0334 | 0.5126 | 0.2689 | 1.010 | 1.426 | 1.000 | 0.037 | 1.000 | 1.000 | 1.000 | 1.000 | 11.65 | 9 | 15 | 23 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0253 | 0.5439 | 0.3160 | 1.011 | 1.507 | 1.000 | 0.021 | 1.000 | 1.000 | 1.000 | 0.999 | 12.55 | 9 | 17 | 23 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0428 | 0.4067 | 0.1100 | 1.006 | 1.193 | 1.000 | 0.316 | 1.000 | 1.000 | 1.000 | 1.000 | 9.24 | 8 | 11.5 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0243 | 0.4366 | 0.1549 | 1.007 | 1.257 | 1.000 | 0.189 | 1.000 | 1.000 | 1.000 | 1.000 | 9.83 | 8 | 13 | 18 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0175 | 0.4553 | 0.1832 | 1.007 | 1.297 | 1.000 | 0.129 | 1.000 | 1.000 | 1.000 | 0.998 | 10.22 | 8 | 13 | 17 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0741 | 0.4155 | 0.3877 | 1.015 | 1.396 | 1.000 | 0.165 | 1.000 | 0.210 | 0.111 | 0.077 | 12.34 | 5 | 25 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0353 | 0.3893 | 0.3642 | 1.019 | 1.416 | 1.000 | 0.125 | 1.000 | 0.182 | 0.083 | 0.065 | 12.03 | 5 | 33 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0256 | 0.4341 | 0.4115 | 1.021 | 1.430 | 1.000 | 0.064 | 1.000 | 0.164 | 0.078 | 0.053 | 12.67 | 5.5 | 39 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0046 | 0.0582 | 0.0551 | 1.001 | 1.113 | 1.000 | 0.713 | 1.000 | 0.014 | 0.007 | 0.005 | 5.46 | 5 | 7 | 11 | - | - | - | - |
| | 200 | 1.0000 | 0.0022 | 0.0532 | 0.0509 | 1.001 | 1.121 | 1.000 | 0.754 | 1.000 | 0.014 | 0.007 | 0.003 | 5.44 | 5 | 7 | 12 | - | - | - | - |
| | 300 | 1.0000 | 0.0016 | 0.0592 | 0.0572 | 1.001 | 1.122 | 1.000 | 0.714 | 1.000 | 0.011 | 0.006 | 0.006 | 5.48 | 5 | 7 | 15 | - | - | - | - |

Notes: See notes to Table 100.

## Table 211: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7838 | 0.0601 | 0.5275 | 0.2949 | 1.119 | 1.975 | 0.266 | 0.017 | 1.000 | 0.993 | 0.873 | 0.621 | 9.86 | 6 | 14 | 24 | 1.157 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7430 | 0.0391 | 0.6006 | 0.4034 | 1.181 | 2.244 | 0.203 | 0.002 | 1.000 | 0.993 | 0.837 | 0.592 | 11.50 | 7 | 17 | 24 | 1.195 | 0.19 | 0.01 | 0.00 |
| | 300 | 0.7205 | 0.0314 | 0.6508 | 0.4745 | 1.226 | 2.425 | 0.171 | 0.000 | 1.000 | 0.995 | 0.849 | 0.569 | 12.99 | 7 | 20 | 26 | 1.203 | 0.19 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7523 | 0.0507 | 0.4929 | 0.2434 | 1.114 | 1.985 | 0.209 | 0.027 | 1.000 | 0.991 | 0.842 | 0.585 | 8.78 | 5 | 13 | 19 | 1.176 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7134 | 0.0321 | 0.5589 | 0.3403 | 1.162 | 2.204 | 0.166 | 0.005 | 1.000 | 0.988 | 0.821 | 0.555 | 9.95 | 6 | 15 | 22 | 1.196 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.6917 | 0.0254 | 0.6075 | 0.4097 | 1.202 | 2.370 | 0.139 | 0.001 | 1.000 | 0.993 | 0.821 | 0.527 | 11.05 | 6 | 17 | 24 | 1.192 | 0.18 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6973 | 0.0361 | 0.4237 | 0.1430 | 1.107 | 2.045 | 0.161 | 0.053 | 1.000 | 0.983 | 0.780 | 0.506 | 7.06 | 4 | 10 | 15 | 1.233 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6710 | 0.0216 | 0.4733 | 0.2174 | 1.137 | 2.185 | 0.143 | 0.029 | 1.000 | 0.979 | 0.768 | 0.473 | 7.66 | 4 | 11 | 16 | 1.267 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.6536 | 0.0165 | 0.5091 | 0.2685 | 1.162 | 2.305 | 0.128 | 0.014 | 1.000 | 0.981 | 0.772 | 0.445 | 8.20 | 4 | 13 | 19 | 1.253 | 0.25 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7681 | 0.0597 | 0.5304 | 0.2952 | 1.123 | 1.996 | 0.253 | 0.016 | 1.000 | 0.993 | 0.872 | 0.621 | 9.75 | 6 | 14 | 23 | 1.078 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7229 | 0.0388 | 0.6044 | 0.4046 | 1.185 | 2.258 | 0.189 | 0.002 | 1.000 | 0.993 | 0.837 | 0.592 | 11.34 | 6 | 17 | 24 | 1.090 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.7002 | 0.0312 | 0.6546 | 0.4763 | 1.229 | 2.431 | 0.156 | 0.000 | 1.000 | 0.995 | 0.849 | 0.569 | 12.83 | 7 | 19 | 25 | 1.088 | 0.09 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7338 | 0.0504 | 0.4970 | 0.2440 | 1.119 | 2.020 | 0.194 | 0.027 | 1.000 | 0.991 | 0.842 | 0.585 | 8.66 | 5 | 13 | 19 | 1.096 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6908 | 0.0319 | 0.5644 | 0.3427 | 1.169 | 2.246 | 0.148 | 0.004 | 1.000 | 0.988 | 0.821 | 0.555 | 9.81 | 5 | 15 | 22 | 1.110 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.6706 | 0.0253 | 0.6125 | 0.4122 | 1.208 | 2.402 | 0.123 | 0.001 | 1.000 | 0.993 | 0.821 | 0.527 | 10.91 | 6 | 17 | 24 | 1.111 | 0.11 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6731 | 0.0360 | 0.4300 | 0.1447 | 1.114 | 2.107 | 0.135 | 0.044 | 1.000 | 0.983 | 0.780 | 0.506 | 6.93 | 4 | 10 | 15 | 1.164 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6374 | 0.0216 | 0.4823 | 0.2207 | 1.150 | 2.268 | 0.109 | 0.021 | 1.000 | 0.979 | 0.768 | 0.472 | 7.49 | 4 | 11 | 16 | 1.186 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.6251 | 0.0165 | 0.5168 | 0.2720 | 1.173 | 2.366 | 0.096 | 0.012 | 1.000 | 0.981 | 0.772 | 0.445 | 8.05 | 4 | 13 | 19 | 1.187 | 0.19 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9326 | 0.0755 | 0.4884 | 0.4621 | 1.129 | 1.457 | 0.691 | 0.031 | 1.000 | 0.186 | 0.088 | 0.073 | 12.14 | 5 | 23 | 40 | - | - | - | - |
| | 200 | 0.9295 | 0.0561 | 0.5800 | 0.5590 | 1.163 | 1.568 | 0.684 | 0.020 | 1.000 | 0.189 | 0.095 | 0.069 | 15.81 | 5 | 31 | 65 | - | - | - | - |
| | 300 | 0.9194 | 0.0475 | 0.6399 | 0.6227 | 1.184 | 1.647 | 0.641 | 0.006 | 1.000 | 0.193 | 0.091 | 0.051 | 18.79 | 6 | 37 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7180 | 0.0298 | 0.2261 | 0.2158 | 1.157 | 2.018 | 0.284 | 0.023 | 1.000 | 0.063 | 0.033 | 0.030 | 6.54 | 1 | 16 | 30 | - | - | - | - |
| | 200 | 0.7367 | 0.0258 | 0.3296 | 0.3199 | 1.196 | 2.192 | 0.316 | 0.011 | 1.000 | 0.078 | 0.038 | 0.031 | 8.82 | 1 | 21 | 47 | - | - | - | - |
| | 300 | 0.7565 | 0.0229 | 0.3953 | 0.3852 | 1.216 | 2.305 | 0.326 | 0.006 | 1.000 | 0.099 | 0.041 | 0.023 | 10.62 | 2 | 25 | 41 | - | - | - | - |

Notes: See notes to Table 100.

## Table 212: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9973 | 0.0643 | 0.5022 | 0.2538 | 1.019 | 1.496 | 0.987 | 0.056 | 1.000 | 1.000 | 1.000 | 0.988 | 11.35 | 8 | 15 | 23 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9969 | 0.0400 | 0.5562 | 0.3347 | 1.028 | 1.652 | 0.985 | 0.016 | 1.000 | 1.000 | 1.000 | 0.990 | 12.95 | 9 | 18 | 24 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9955 | 0.0310 | 0.5932 | 0.3909 | 1.035 | 1.791 | 0.978 | 0.006 | 1.000 | 1.000 | 1.000 | 0.979 | 14.23 | 10 | 19 | 27 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9958 | 0.0550 | 0.4650 | 0.1978 | 1.016 | 1.409 | 0.979 | 0.117 | 1.000 | 1.000 | 1.000 | 0.987 | 10.43 | 8 | 14 | 22 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9953 | 0.0336 | 0.5138 | 0.2710 | 1.023 | 1.548 | 0.977 | 0.045 | 1.000 | 1.000 | 1.000 | 0.987 | 11.66 | 8 | 16 | 21 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9939 | 0.0254 | 0.5448 | 0.3186 | 1.028 | 1.662 | 0.970 | 0.021 | 1.000 | 1.000 | 1.000 | 0.973 | 12.56 | 9 | 17 | 26 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9901 | 0.0423 | 0.4051 | 0.1077 | 1.012 | 1.317 | 0.951 | 0.321 | 1.000 | 1.000 | 0.999 | 0.978 | 9.14 | 8 | 11 | 17 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9872 | 0.0241 | 0.4370 | 0.1552 | 1.016 | 1.415 | 0.936 | 0.187 | 1.000 | 1.000 | 0.999 | 0.975 | 9.74 | 8 | 13 | 18 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9858 | 0.0176 | 0.4579 | 0.1879 | 1.019 | 1.497 | 0.932 | 0.127 | 1.000 | 1.000 | 1.000 | 0.958 | 10.18 | 8 | 13 | 18 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9971 | 0.0642 | 0.5018 | 0.2531 | 1.019 | 1.487 | 0.986 | 0.056 | 1.000 | 1.000 | 1.000 | 0.988 | 11.34 | 8 | 15 | 23 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9965 | 0.0400 | 0.5560 | 0.3343 | 1.027 | 1.648 | 0.983 | 0.016 | 1.000 | 1.000 | 1.000 | 0.990 | 12.94 | 9 | 18 | 24 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9949 | 0.0309 | 0.5931 | 0.3906 | 1.035 | 1.789 | 0.975 | 0.006 | 1.000 | 1.000 | 1.000 | 0.979 | 14.22 | 10 | 19 | 27 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9953 | 0.0550 | 0.4647 | 0.1972 | 1.016 | 1.406 | 0.977 | 0.118 | 1.000 | 1.000 | 1.000 | 0.987 | 10.42 | 8 | 14 | 22 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9950 | 0.0336 | 0.5137 | 0.2708 | 1.023 | 1.546 | 0.975 | 0.046 | 1.000 | 1.000 | 1.000 | 0.987 | 11.65 | 8 | 16 | 21 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9930 | 0.0254 | 0.5449 | 0.3185 | 1.028 | 1.666 | 0.965 | 0.021 | 1.000 | 1.000 | 1.000 | 0.973 | 12.55 | 9 | 17 | 26 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9896 | 0.0422 | 0.4050 | 0.1074 | 1.012 | 1.317 | 0.948 | 0.322 | 1.000 | 1.000 | 0.999 | 0.978 | 9.13 | 8 | 11 | 17 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9867 | 0.0241 | 0.4370 | 0.1550 | 1.016 | 1.417 | 0.934 | 0.186 | 1.000 | 1.000 | 0.999 | 0.975 | 9.74 | 8 | 13 | 18 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9847 | 0.0176 | 0.4581 | 0.1880 | 1.019 | 1.506 | 0.926 | 0.127 | 1.000 | 1.000 | 1.000 | 0.958 | 10.17 | 8 | 13 | 18 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0712 | 0.4681 | 0.4383 | 1.027 | 1.385 | 1.000 | 0.057 | 1.000 | 0.215 | 0.102 | 0.084 | 12.05 | 6 | 21 | 43 | - | - | - | - |
| | 200 | 0.9997 | 0.0421 | 0.5025 | 0.4790 | 1.034 | 1.430 | 0.999 | 0.038 | 1.000 | 0.198 | 0.090 | 0.072 | 13.37 | 6 | 26.5 | 62 | - | - | - | - |
| | 300 | 0.9991 | 0.0326 | 0.5363 | 0.5148 | 1.037 | 1.457 | 0.996 | 0.031 | 1.000 | 0.192 | 0.102 | 0.068 | 14.74 | 6 | 28 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9890 | 0.0233 | 0.2323 | 0.2199 | 1.015 | 1.513 | 0.964 | 0.228 | 1.000 | 0.071 | 0.035 | 0.025 | 7.25 | 5 | 12 | 23 | - | - | - | - |
| | 200 | 0.9891 | 0.0142 | 0.2662 | 0.2548 | 1.017 | 1.575 | 0.964 | 0.189 | 1.000 | 0.063 | 0.033 | 0.023 | 7.77 | 5 | 13 | 27 | - | - | - | - |
| | 300 | 0.9887 | 0.0109 | 0.2899 | 0.2799 | 1.020 | 1.632 | 0.963 | 0.164 | 1.000 | 0.059 | 0.035 | 0.024 | 8.21 | 5 | 15 | 30 | - | - | - | - |

Notes: See notes to Table 100.

**Table 213: Monte Carlo findings for DGPI(b)**

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0632 | 0.4980 | 0.2470 | 1.010 | 1.432 | 1.000 | 0.053 | 1.000 | 1.000 | 1.000 | 1.000 | 11.25 | 8 | 15 | 22 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0394 | 0.5525 | 0.3288 | 1.015 | 1.616 | 1.000 | 0.018 | 1.000 | 1.000 | 1.000 | 1.000 | 12.83 | 9 | 17 | 24 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0305 | 0.5902 | 0.3853 | 1.018 | 1.733 | 1.000 | 0.008 | 1.000 | 1.000 | 1.000 | 1.000 | 14.13 | 10 | 19 | 26 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0545 | 0.4625 | 0.1937 | 1.008 | 1.342 | 1.000 | 0.107 | 1.000 | 1.000 | 1.000 | 1.000 | 10.39 | 8 | 13.5 | 18 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0329 | 0.5083 | 0.2624 | 1.012 | 1.504 | 1.000 | 0.051 | 1.000 | 1.000 | 1.000 | 1.000 | 11.54 | 8 | 15 | 20 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0252 | 0.5431 | 0.3146 | 1.014 | 1.598 | 1.000 | 0.025 | 1.000 | 1.000 | 1.000 | 1.000 | 12.53 | 9 | 17 | 22 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0423 | 0.4035 | 0.1053 | 1.006 | 1.210 | 1.000 | 0.352 | 1.000 | 1.000 | 1.000 | 1.000 | 9.19 | 8 | 11 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0239 | 0.4326 | 0.1489 | 1.008 | 1.309 | 1.000 | 0.213 | 1.000 | 1.000 | 1.000 | 1.000 | 9.76 | 8 | 12 | 17 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0175 | 0.4559 | 0.1838 | 1.009 | 1.369 | 0.999 | 0.128 | 1.000 | 1.000 | 1.000 | 1.000 | 10.24 | 8 | 13 | 18 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0631 | 0.4976 | 0.2463 | 1.010 | 1.423 | 1.000 | 0.053 | 1.000 | 1.000 | 1.000 | 1.000 | 11.24 | 8 | 15 | 22 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0393 | 0.5525 | 0.3287 | 1.014 | 1.614 | 1.000 | 0.018 | 1.000 | 1.000 | 1.000 | 1.000 | 12.83 | 9 | 17 | 24 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0305 | 0.5901 | 0.3851 | 1.018 | 1.728 | 1.000 | 0.008 | 1.000 | 1.000 | 1.000 | 1.000 | 14.12 | 10 | 19 | 26 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0544 | 0.4623 | 0.1935 | 1.008 | 1.339 | 1.000 | 0.108 | 1.000 | 1.000 | 1.000 | 1.000 | 10.39 | 8 | 13.5 | 18 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0328 | 0.5082 | 0.2623 | 1.012 | 1.501 | 1.000 | 0.051 | 1.000 | 1.000 | 1.000 | 1.000 | 11.54 | 8 | 15 | 20 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0252 | 0.5430 | 0.3145 | 1.014 | 1.594 | 1.000 | 0.025 | 1.000 | 1.000 | 1.000 | 1.000 | 12.52 | 9 | 17 | 22 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0423 | 0.4035 | 0.1053 | 1.006 | 1.210 | 1.000 | 0.352 | 1.000 | 1.000 | 1.000 | 1.000 | 9.19 | 8 | 11 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0239 | 0.4326 | 0.1489 | 1.008 | 1.307 | 1.000 | 0.214 | 1.000 | 1.000 | 1.000 | 1.000 | 9.76 | 8 | 12 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0175 | 0.4559 | 0.1838 | 1.009 | 1.366 | 0.999 | 0.128 | 1.000 | 1.000 | 1.000 | 1.000 | 10.24 | 8 | 13 | 18 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0643 | 0.4457 | 0.4150 | 1.014 | 1.347 | 1.000 | 0.057 | 1.000 | 0.220 | 0.103 | 0.092 | 11.36 | 6 | 22 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0416 | 0.5025 | 0.4779 | 1.018 | 1.407 | 1.000 | 0.064 | 1.000 | 0.191 | 0.099 | 0.064 | 13.28 | 6 | 23 | 65 | - | - | - | - |
| | 300 | 1.0000 | 0.0320 | 0.5134 | 0.4923 | 1.021 | 1.443 | 1.000 | 0.066 | 1.000 | 0.182 | 0.088 | 0.056 | 14.56 | 5 | 27 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0116 | 0.1321 | 0.1238 | 1.003 | 1.239 | 1.000 | 0.450 | 1.000 | 0.036 | 0.015 | 0.022 | 6.15 | 5 | 9 | 16 | - | - | - | - |
| | 200 | 1.0000 | 0.0074 | 0.1622 | 0.1546 | 1.004 | 1.284 | 1.000 | 0.376 | 1.000 | 0.029 | 0.019 | 0.013 | 6.46 | 5 | 10 | 23 | - | - | - | - |
| | 300 | 0.9995 | 0.0059 | 0.1843 | 0.1779 | 1.005 | 1.326 | 0.998 | 0.355 | 1.000 | 0.030 | 0.016 | 0.010 | 6.77 | 5 | 11 | 26 | - | - | - | - |

Notes: See notes to Table 100.

## Table 214: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6190 | 0.0580 | 0.5639 | 0.3168 | 1.122 | 1.840 | 0.106 | 0.008 | 1.000 | 0.987 | 0.833 | 0.560 | 8.84 | 5 | 13 | 20 | 1.233 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5839 | 0.0386 | 0.6388 | 0.4296 | 1.179 | 2.066 | 0.079 | 0.002 | 1.000 | 0.985 | 0.836 | 0.554 | 10.61 | 5 | 17 | 23 | 1.276 | 0.27 | 0.01 | 0.00 |
| | 300 | 0.5488 | 0.0298 | 0.6819 | 0.4923 | 1.230 | 2.213 | 0.059 | 0.001 | 1.000 | 0.982 | 0.823 | 0.544 | 11.66 | 6 | 18 | 26 | 1.292 | 0.28 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5933 | 0.0485 | 0.5279 | 0.2598 | 1.112 | 1.804 | 0.091 | 0.014 | 1.000 | 0.985 | 0.808 | 0.525 | 7.77 | 4 | 12 | 17 | 1.263 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5548 | 0.0314 | 0.5984 | 0.3638 | 1.157 | 1.996 | 0.064 | 0.003 | 1.000 | 0.983 | 0.805 | 0.523 | 9.03 | 5 | 14 | 22 | 1.279 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.5250 | 0.0240 | 0.6386 | 0.4249 | 1.201 | 2.116 | 0.050 | 0.001 | 1.000 | 0.975 | 0.799 | 0.502 | 9.80 | 5 | 15 | 20 | 1.302 | 0.30 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5408 | 0.0342 | 0.4579 | 0.1538 | 1.097 | 1.754 | 0.067 | 0.027 | 1.000 | 0.973 | 0.745 | 0.443 | 6.09 | 3 | 10 | 15 | 1.334 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5121 | 0.0208 | 0.5105 | 0.2312 | 1.126 | 1.877 | 0.054 | 0.013 | 1.000 | 0.970 | 0.735 | 0.439 | 6.71 | 3 | 11 | 17 | 1.335 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.4829 | 0.0155 | 0.5463 | 0.2824 | 1.153 | 1.964 | 0.038 | 0.008 | 1.000 | 0.963 | 0.738 | 0.418 | 7.04 | 3 | 11 | 17 | 1.361 | 0.36 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5807 | 0.0578 | 0.5751 | 0.3224 | 1.131 | 1.867 | 0.076 | 0.007 | 1.000 | 0.987 | 0.833 | 0.559 | 8.63 | 5 | 13 | 20 | 1.157 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5425 | 0.0384 | 0.6503 | 0.4356 | 1.188 | 2.083 | 0.056 | 0.001 | 1.000 | 0.985 | 0.836 | 0.554 | 10.36 | 5 | 16 | 23 | 1.170 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.5002 | 0.0297 | 0.6952 | 0.5007 | 1.242 | 2.230 | 0.036 | 0.000 | 1.000 | 0.982 | 0.823 | 0.544 | 11.37 | 6 | 18 | 25 | 1.171 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5501 | 0.0484 | 0.5409 | 0.2653 | 1.122 | 1.841 | 0.058 | 0.011 | 1.000 | 0.985 | 0.808 | 0.525 | 7.54 | 4 | 12 | 17 | 1.188 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5074 | 0.0313 | 0.6130 | 0.3712 | 1.171 | 2.028 | 0.039 | 0.003 | 1.000 | 0.983 | 0.805 | 0.523 | 8.77 | 4 | 14 | 22 | 1.175 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.4701 | 0.0239 | 0.6552 | 0.4346 | 1.219 | 2.154 | 0.025 | 0.000 | 1.000 | 0.975 | 0.799 | 0.502 | 9.50 | 4 | 15 | 20 | 1.186 | 0.19 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4858 | 0.0342 | 0.4754 | 0.1590 | 1.112 | 1.809 | 0.030 | 0.014 | 1.000 | 0.973 | 0.745 | 0.443 | 5.81 | 3 | 9 | 15 | 1.251 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4521 | 0.0208 | 0.5302 | 0.2390 | 1.144 | 1.933 | 0.021 | 0.004 | 1.000 | 0.970 | 0.735 | 0.439 | 6.40 | 3 | 10 | 16 | 1.234 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.4183 | 0.0155 | 0.5683 | 0.2923 | 1.177 | 2.018 | 0.014 | 0.002 | 1.000 | 0.963 | 0.738 | 0.418 | 6.71 | 3 | 11 | 16 | 1.230 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7714 | 0.0621 | 0.4567 | 0.4329 | 1.128 | 1.265 | 0.240 | 0.010 | 1.000 | 0.151 | 0.075 | 0.070 | 10.00 | 3 | 21 | 44 | - | - | - | - |
| | 200 | 0.7588 | 0.0498 | 0.5686 | 0.5492 | 1.151 | 1.354 | 0.220 | 0.002 | 1.000 | 0.188 | 0.100 | 0.060 | 13.70 | 3 | 30 | 55 | - | - | - | - |
| | 300 | 0.7435 | 0.0416 | 0.6266 | 0.6084 | 1.174 | 1.426 | 0.185 | 0.002 | 1.000 | 0.177 | 0.079 | 0.051 | 16.15 | 4 | 35 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4799 | 0.0207 | 0.1653 | 0.1579 | 1.138 | 1.645 | 0.049 | 0.001 | 1.000 | 0.040 | 0.023 | 0.026 | 4.45 | 1 | 15 | 33 | - | - | - | - |
| | 200 | 0.5077 | 0.0206 | 0.2642 | 0.2571 | 1.167 | 1.848 | 0.059 | 0.000 | 1.000 | 0.068 | 0.040 | 0.024 | 6.64 | 1 | 22 | 44 | - | - | - | - |
| | 300 | 0.5193 | 0.0190 | 0.3247 | 0.3175 | 1.196 | 1.980 | 0.052 | 0.000 | 1.000 | 0.085 | 0.034 | 0.019 | 8.28 | 1 | 25 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 215: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9416 | 0.0624 | 0.5074 | 0.2482 | 1.025 | 1.656 | 0.747 | 0.050 | 1.000 | 1.000 | 1.000 | 0.993 | 10.88 | 8 | 15 | 18 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9246 | 0.0393 | 0.5687 | 0.3387 | 1.037 | 1.886 | 0.686 | 0.011 | 1.000 | 1.000 | 1.000 | 0.985 | 12.44 | 9 | 17 | 24 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9107 | 0.0307 | 0.6093 | 0.3990 | 1.045 | 2.057 | 0.636 | 0.004 | 1.000 | 1.000 | 1.000 | 0.977 | 13.72 | 9 | 19 | 25 | 1.022 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9216 | 0.0538 | 0.4765 | 0.1960 | 1.023 | 1.642 | 0.675 | 0.089 | 1.000 | 1.000 | 1.000 | 0.988 | 9.93 | 7 | 13 | 17 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9067 | 0.0330 | 0.5304 | 0.2763 | 1.033 | 1.832 | 0.620 | 0.029 | 1.000 | 1.000 | 1.000 | 0.977 | 11.11 | 8 | 15 | 24 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8875 | 0.0253 | 0.5688 | 0.3318 | 1.040 | 1.997 | 0.560 | 0.010 | 1.000 | 1.000 | 1.000 | 0.971 | 12.00 | 8 | 16 | 21 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8734 | 0.0416 | 0.4289 | 0.1085 | 1.022 | 1.686 | 0.514 | 0.183 | 1.000 | 1.000 | 1.000 | 0.979 | 8.48 | 6 | 11 | 15 | 1.035 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8541 | 0.0238 | 0.4654 | 0.1614 | 1.028 | 1.829 | 0.462 | 0.087 | 1.000 | 1.000 | 1.000 | 0.962 | 9.01 | 6 | 12 | 18 | 1.035 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8340 | 0.0176 | 0.4957 | 0.2036 | 1.033 | 1.963 | 0.420 | 0.045 | 1.000 | 1.000 | 0.999 | 0.957 | 9.43 | 7 | 13 | 18 | 1.037 | 0.04 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9397 | 0.0623 | 0.5075 | 0.2478 | 1.025 | 1.656 | 0.743 | 0.051 | 1.000 | 1.000 | 1.000 | 0.993 | 10.86 | 8 | 15 | 18 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9227 | 0.0393 | 0.5690 | 0.3387 | 1.037 | 1.888 | 0.684 | 0.011 | 1.000 | 1.000 | 1.000 | 0.985 | 12.43 | 9 | 17 | 24 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9083 | 0.0306 | 0.6097 | 0.3991 | 1.046 | 2.060 | 0.633 | 0.004 | 1.000 | 1.000 | 1.000 | 0.977 | 13.70 | 9 | 19 | 25 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9190 | 0.0537 | 0.4769 | 0.1958 | 1.023 | 1.646 | 0.669 | 0.089 | 1.000 | 1.000 | 1.000 | 0.988 | 9.91 | 7 | 13 | 17 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9041 | 0.0330 | 0.5311 | 0.2765 | 1.033 | 1.840 | 0.619 | 0.029 | 1.000 | 1.000 | 1.000 | 0.977 | 11.09 | 8 | 15 | 24 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8842 | 0.0253 | 0.5697 | 0.3321 | 1.040 | 2.009 | 0.556 | 0.010 | 1.000 | 1.000 | 1.000 | 0.971 | 11.98 | 8 | 16 | 21 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8696 | 0.0416 | 0.4299 | 0.1086 | 1.022 | 1.703 | 0.512 | 0.182 | 1.000 | 1.000 | 1.000 | 0.979 | 8.46 | 6 | 11 | 15 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8500 | 0.0238 | 0.4667 | 0.1617 | 1.029 | 1.847 | 0.460 | 0.087 | 1.000 | 1.000 | 1.000 | 0.962 | 8.99 | 6 | 12 | 18 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8291 | 0.0176 | 0.4971 | 0.2041 | 1.033 | 1.983 | 0.416 | 0.044 | 1.000 | 1.000 | 0.999 | 0.957 | 9.41 | 6.5 | 13 | 18 | 1.019 | 0.02 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9799 | 0.0671 | 0.4584 | 0.4265 | 1.030 | 1.371 | 0.902 | 0.057 | 1.000 | 0.206 | 0.097 | 0.090 | 11.54 | 5 | 21 | 38 | - | - | - | - |
| | 200 | 0.9748 | 0.0417 | 0.5028 | 0.4796 | 1.037 | 1.415 | 0.878 | 0.046 | 1.000 | 0.197 | 0.092 | 0.064 | 13.17 | 5 | 25 | 47 | - | - | - | - |
| | 300 | 0.9726 | 0.0317 | 0.5357 | 0.5129 | 1.038 | 1.455 | 0.868 | 0.029 | 1.000 | 0.185 | 0.095 | 0.057 | 14.33 | 6 | 29 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8676 | 0.0281 | 0.2598 | 0.2451 | 1.037 | 1.838 | 0.648 | 0.093 | 1.000 | 0.078 | 0.036 | 0.034 | 7.12 | 2 | 13 | 23 | - | - | - | - |
| | 200 | 0.8688 | 0.0183 | 0.3093 | 0.2968 | 1.042 | 1.924 | 0.629 | 0.070 | 1.000 | 0.077 | 0.033 | 0.026 | 7.98 | 2 | 16 | 29 | - | - | - | - |
| | 300 | 0.8592 | 0.0141 | 0.3409 | 0.3277 | 1.046 | 2.017 | 0.596 | 0.045 | 1.000 | 0.076 | 0.037 | 0.025 | 8.52 | 1 | 17 | 29 | - | - | - | - |

Notes: See notes to Table 100.

## Table 216: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9975 | 0.0615 | 0.4914 | 0.2365 | 1.012 | 1.485 | 0.988 | 0.067 | 1.000 | 1.000 | 1.000 | 1.000 | 11.07 | 8 | 15 | 19 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9939 | 0.0391 | 0.5524 | 0.3274 | 1.017 | 1.731 | 0.971 | 0.016 | 1.000 | 1.000 | 1.000 | 1.000 | 12.75 | 9 | 17 | 23 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0301 | 0.5878 | 0.3806 | 1.021 | 1.844 | 0.970 | 0.004 | 1.000 | 1.000 | 1.000 | 1.000 | 13.96 | 10 | 19 | 27 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9960 | 0.0530 | 0.4558 | 0.1827 | 1.010 | 1.404 | 0.981 | 0.137 | 1.000 | 1.000 | 1.000 | 1.000 | 10.23 | 8 | 13.5 | 18 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9909 | 0.0328 | 0.5105 | 0.2637 | 1.014 | 1.622 | 0.958 | 0.050 | 1.000 | 1.000 | 1.000 | 1.000 | 11.48 | 8 | 15 | 20 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9916 | 0.0247 | 0.5400 | 0.3083 | 1.017 | 1.710 | 0.959 | 0.016 | 1.000 | 1.000 | 1.000 | 1.000 | 12.33 | 9 | 17 | 22 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9904 | 0.0417 | 0.4026 | 0.1015 | 1.008 | 1.302 | 0.956 | 0.346 | 1.000 | 1.000 | 1.000 | 0.998 | 9.08 | 8 | 11 | 15 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9801 | 0.0237 | 0.4358 | 0.1484 | 1.010 | 1.463 | 0.906 | 0.182 | 1.000 | 1.000 | 1.000 | 0.999 | 9.62 | 8 | 12 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9796 | 0.0172 | 0.4553 | 0.1779 | 1.012 | 1.528 | 0.905 | 0.131 | 1.000 | 1.000 | 1.000 | 0.999 | 10.03 | 8 | 13 | 18 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9972 | 0.0614 | 0.4912 | 0.2362 | 1.012 | 1.481 | 0.987 | 0.066 | 1.000 | 1.000 | 1.000 | 1.000 | 11.07 | 8 | 15 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9936 | 0.0390 | 0.5523 | 0.3271 | 1.017 | 1.727 | 0.970 | 0.016 | 1.000 | 1.000 | 1.000 | 1.000 | 12.74 | 9 | 17 | 23 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0300 | 0.5876 | 0.3803 | 1.021 | 1.838 | 0.970 | 0.005 | 1.000 | 1.000 | 1.000 | 1.000 | 13.95 | 10 | 19 | 27 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9958 | 0.0530 | 0.4557 | 0.1825 | 1.010 | 1.402 | 0.980 | 0.138 | 1.000 | 1.000 | 1.000 | 1.000 | 10.22 | 8 | 13 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9907 | 0.0328 | 0.5104 | 0.2635 | 1.014 | 1.619 | 0.957 | 0.050 | 1.000 | 1.000 | 1.000 | 1.000 | 11.48 | 8 | 15 | 20 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9915 | 0.0246 | 0.5399 | 0.3081 | 1.017 | 1.707 | 0.958 | 0.016 | 1.000 | 1.000 | 1.000 | 1.000 | 12.33 | 9 | 16.5 | 22 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9902 | 0.0417 | 0.4026 | 0.1014 | 1.008 | 1.302 | 0.955 | 0.346 | 1.000 | 1.000 | 1.000 | 0.998 | 9.08 | 8 | 11 | 15 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9799 | 0.0237 | 0.4359 | 0.1484 | 1.010 | 1.464 | 0.905 | 0.182 | 1.000 | 1.000 | 1.000 | 0.999 | 9.62 | 8 | 12 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9792 | 0.0172 | 0.4554 | 0.1779 | 1.012 | 1.531 | 0.904 | 0.132 | 1.000 | 1.000 | 1.000 | 0.999 | 10.03 | 8 | 13 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9985 | 0.0723 | 0.4687 | 0.4372 | 1.016 | 1.361 | 0.993 | 0.068 | 1.000 | 0.208 | 0.113 | 0.075 | 12.15 | 5 | 21 | 41 | - | - | - | - |
| | 200 | 0.9980 | 0.0425 | 0.4934 | 0.4686 | 1.019 | 1.427 | 0.990 | 0.046 | 1.000 | 0.202 | 0.092 | 0.063 | 13.46 | 6 | 28 | 66 | - | - | - | - |
| | 300 | 0.9975 | 0.0314 | 0.5206 | 0.4975 | 1.022 | 1.448 | 0.988 | 0.042 | 1.000 | 0.196 | 0.082 | 0.052 | 14.36 | 6 | 32 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9730 | 0.0214 | 0.2182 | 0.2055 | 1.010 | 1.548 | 0.913 | 0.241 | 1.000 | 0.067 | 0.029 | 0.020 | 6.99 | 5 | 11 | 21 | - | - | - | - |
| | 200 | 0.9689 | 0.0127 | 0.2409 | 0.2296 | 1.012 | 1.640 | 0.902 | 0.224 | 1.000 | 0.059 | 0.027 | 0.017 | 7.37 | 5 | 13 | 27 | - | - | - | - |
| | 300 | 0.9669 | 0.0094 | 0.2623 | 0.2530 | 1.014 | 1.684 | 0.886 | 0.164 | 1.000 | 0.054 | 0.022 | 0.020 | 7.65 | 5 | 14 | 25 | - | - | - | - |

Notes: See notes to Table 100.

**Table 217: Monte Carlo findings for DGPI(c)**

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9446 | 0.1029 | 0.4301 | 0.2077 | 1.269 | 10.361 | 0.748 | 0.420 | 1.000 | 0.983 | 0.822 | 0.555 | 14.91 | 6 | 57 | 104 | 1.260 | 0.20 | 0.03 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9265 | 0.1122 | 0.4395 | 0.2267 | 1.522 | 7.866 | 0.671 | 0.364 | 1.000 | 0.983 | 0.799 | 0.526 | 26.96 | 5 | 187 | 204 | 1.920 | 0.29 | 0.11 | 0.09 |
| | 300 | 0.9191 | 0.1121 | 0.4379 | 0.2298 | 1.516 | 7.375 | 0.649 | 0.329 | 1.000 | 0.971 | 0.771 | 0.511 | 38.11 | 5 | 256.5 | 304 | 2.278 | 0.32 | 0.13 | 0.12 |
| $p = 0.05$, | 100 | 0.9236 | 0.0888 | 0.4070 | 0.1792 | 1.182 | 7.556 | 0.661 | 0.407 | 1.000 | 0.981 | 0.795 | 0.511 | 13.41 | 5 | 51 | 104 | 1.253 | 0.21 | 0.02 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9066 | 0.0991 | 0.4137 | 0.1937 | 1.477 | 7.386 | 0.598 | 0.356 | 1.000 | 0.979 | 0.771 | 0.488 | 24.24 | 5 | 186 | 204 | 1.850 | 0.31 | 0.09 | 0.08 |
| | 300 | 0.8924 | 0.0956 | 0.4129 | 0.1981 | 1.456 | 6.847 | 0.551 | 0.314 | 1.000 | 0.962 | 0.737 | 0.475 | 33.05 | 5 | 255.5 | 304 | 2.167 | 0.34 | 0.11 | 0.10 |
| $p = 0.01$, | 100 | 0.8740 | 0.0647 | 0.3639 | 0.1283 | 1.130 | 4.846 | 0.482 | 0.350 | 1.000 | 0.970 | 0.724 | 0.431 | 10.78 | 5 | 39 | 104 | 1.340 | 0.32 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8545 | 0.0689 | 0.3670 | 0.1390 | 1.341 | 6.017 | 0.426 | 0.296 | 1.000 | 0.963 | 0.694 | 0.401 | 17.99 | 4 | 125 | 204 | 1.725 | 0.39 | 0.06 | 0.05 |
| | 300 | 0.8361 | 0.0645 | 0.3683 | 0.1447 | 1.331 | 5.631 | 0.396 | 0.260 | 1.000 | 0.945 | 0.664 | 0.392 | 23.47 | 4 | 248.5 | 304 | 1.924 | 0.42 | 0.07 | 0.06 |
| $p = 0.1$, | 100 | 0.9328 | 0.1013 | 0.4308 | 0.2059 | 1.204 | 7.111 | 0.707 | 0.408 | 1.000 | 0.983 | 0.822 | 0.555 | 14.70 | 5 | 56.5 | 104 | 1.141 | 0.12 | 0.01 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9100 | 0.1085 | 0.4409 | 0.2249 | 1.504 | 7.632 | 0.619 | 0.339 | 1.000 | 0.983 | 0.798 | 0.523 | 26.15 | 5 | 186.5 | 204 | 1.753 | 0.21 | 0.09 | 0.09 |
| | 300 | 0.8991 | 0.1078 | 0.4398 | 0.2278 | 1.503 | 7.242 | 0.593 | 0.312 | 1.000 | 0.971 | 0.768 | 0.508 | 36.72 | 5 | 256 | 304 | 2.119 | 0.23 | 0.11 | 0.11 |
| $p = 0.05$, | 100 | 0.9086 | 0.0879 | 0.4089 | 0.1785 | 1.193 | 6.648 | 0.612 | 0.383 | 1.000 | 0.981 | 0.795 | 0.511 | 13.25 | 5 | 50.5 | 104 | 1.171 | 0.14 | 0.01 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8864 | 0.0939 | 0.4164 | 0.1925 | 1.458 | 7.179 | 0.540 | 0.324 | 1.000 | 0.979 | 0.770 | 0.484 | 23.12 | 5 | 185 | 204 | 1.706 | 0.23 | 0.08 | 0.07 |
| | 300 | 0.8663 | 0.0892 | 0.4166 | 0.1971 | 1.444 | 6.675 | 0.486 | 0.277 | 1.000 | 0.962 | 0.736 | 0.470 | 31.00 | 5 | 253 | 283 | 1.968 | 0.24 | 0.09 | 0.09 |
| $p = 0.01$, | 100 | 0.8451 | 0.0643 | 0.3694 | 0.1290 | 1.149 | 4.429 | 0.401 | 0.288 | 1.000 | 0.969 | 0.724 | 0.431 | 10.59 | 5 | 39 | 93 | 1.246 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8201 | 0.0673 | 0.3734 | 0.1392 | 1.346 | 5.997 | 0.350 | 0.238 | 1.000 | 0.963 | 0.693 | 0.399 | 17.49 | 4 | 72 | 204 | 1.606 | 0.29 | 0.05 | 0.04 |
| | 300 | 0.7969 | 0.0614 | 0.3755 | 0.1450 | 1.335 | 5.578 | 0.317 | 0.205 | 1.000 | 0.945 | 0.663 | 0.391 | 22.35 | 4 | 244 | 304 | 1.762 | 0.31 | 0.06 | 0.06 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9986 | 0.0600 | 0.4353 | 0.4021 | 1.087 | 1.540 | 0.993 | 0.062 | 1.000 | 0.182 | 0.103 | 0.109 | 10.93 | 5 | 20 | 32 | - | - | - | - |
| | 200 | 0.9986 | 0.0421 | 0.5071 | 0.4844 | 1.098 | 1.669 | 0.993 | 0.042 | 1.000 | 0.170 | 0.099 | 0.081 | 13.36 | 6 | 26 | 49 | - | - | - | - |
| | 300 | 0.9986 | 0.0359 | 0.5622 | 0.5417 | 1.111 | 1.799 | 0.993 | 0.021 | 1.000 | 0.168 | 0.088 | 0.075 | 15.73 | 6 | 32 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9265 | 0.0221 | 0.1957 | 0.1837 | 1.108 | 2.191 | 0.744 | 0.224 | 1.000 | 0.055 | 0.030 | 0.040 | 6.82 | 3 | 13 | 21 | - | - | - | - |
| | 200 | 0.9401 | 0.0178 | 0.2731 | 0.2632 | 1.108 | 2.410 | 0.786 | 0.163 | 1.000 | 0.055 | 0.040 | 0.032 | 8.25 | 3 | 17 | 36 | - | - | - | - |
| | 300 | 0.9473 | 0.0154 | 0.3211 | 0.3112 | 1.120 | 2.613 | 0.811 | 0.145 | 1.000 | 0.066 | 0.028 | 0.028 | 9.33 | 3 | 20 | 42 | - | - | - | - |

Notes: See notes to Table 100.

## Table 218: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.1222 | 0.4737 | 0.2130 | 1.026 | 3.245 | 1.000 | 0.589 | 1.000 | 1.000 | 1.000 | 0.978 | 17.09 | 8 | 64 | 87 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0927 | 0.4822 | 0.2264 | 1.047 | 4.612 | 1.000 | 0.588 | 1.000 | 1.000 | 1.000 | 0.970 | 23.45 | 8 | 110.5 | 161 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0822 | 0.4836 | 0.2283 | 1.105 | 8.484 | 1.000 | 0.602 | 1.000 | 1.000 | 1.000 | 0.975 | 29.58 | 8 | 161 | 268 | 1.095 | 0.05 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 1.0000 | 0.1071 | 0.4532 | 0.1830 | 1.023 | 2.958 | 1.000 | 0.644 | 1.000 | 1.000 | 1.000 | 0.972 | 15.60 | 8 | 60 | 85 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0804 | 0.4614 | 0.1965 | 1.039 | 4.135 | 1.000 | 0.647 | 1.000 | 1.000 | 1.000 | 0.961 | 20.99 | 8 | 100.5 | 160 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0713 | 0.4635 | 0.1990 | 1.080 | 7.032 | 1.000 | 0.659 | 1.000 | 1.000 | 1.000 | 0.968 | 26.31 | 8 | 148.5 | 270 | 1.053 | 0.03 | 0.01 | 0.01 |
| $p = 0.01$, | 100 | 1.0000 | 0.0815 | 0.4176 | 0.1315 | 1.017 | 2.410 | 1.000 | 0.746 | 1.000 | 1.000 | 0.999 | 0.958 | 13.07 | 8 | 50 | 83 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0594 | 0.4241 | 0.1435 | 1.028 | 3.325 | 1.000 | 0.744 | 1.000 | 1.000 | 0.999 | 0.939 | 16.82 | 7 | 79 | 152 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0524 | 0.4266 | 0.1461 | 1.051 | 5.144 | 1.000 | 0.748 | 1.000 | 1.000 | 1.000 | 0.947 | 20.66 | 8 | 117 | 251 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.1219 | 0.4732 | 0.2122 | 1.026 | 3.220 | 1.000 | 0.592 | 1.000 | 1.000 | 1.000 | 0.978 | 17.07 | 8 | 64 | 87 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0926 | 0.4819 | 0.2260 | 1.046 | 4.549 | 1.000 | 0.590 | 1.000 | 1.000 | 1.000 | 0.970 | 23.43 | 8 | 110 | 160 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0818 | 0.4833 | 0.2279 | 1.093 | 7.489 | 1.000 | 0.604 | 1.000 | 1.000 | 1.000 | 0.975 | 29.46 | 8 | 161 | 266 | 1.034 | 0.02 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1070 | 0.4528 | 0.1824 | 1.022 | 2.919 | 1.000 | 0.647 | 1.000 | 1.000 | 1.000 | 0.972 | 15.59 | 8 | 60 | 85 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0803 | 0.4613 | 0.1963 | 1.039 | 4.102 | 1.000 | 0.647 | 1.000 | 1.000 | 1.000 | 0.961 | 20.98 | 8 | 100.5 | 159 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0711 | 0.4633 | 0.1987 | 1.076 | 6.569 | 1.000 | 0.661 | 1.000 | 1.000 | 1.000 | 0.968 | 26.24 | 8 | 148.5 | 256 | 1.023 | 0.01 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0815 | 0.4174 | 0.1312 | 1.017 | 2.407 | 1.000 | 0.747 | 1.000 | 1.000 | 0.999 | 0.958 | 13.07 | 8 | 50 | 83 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0594 | 0.4241 | 0.1434 | 1.028 | 3.302 | 1.000 | 0.745 | 1.000 | 1.000 | 0.999 | 0.939 | 16.81 | 7 | 79 | 152 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0523 | 0.4266 | 0.1461 | 1.050 | 4.961 | 1.000 | 0.748 | 1.000 | 1.000 | 1.000 | 0.947 | 20.63 | 8 | 117 | 248 | 1.010 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0494 | 0.3845 | 0.3483 | 1.020 | 1.422 | 1.000 | 0.076 | 1.000 | 0.207 | 0.123 | 0.114 | 9.89 | 5 | 19 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0323 | 0.4477 | 0.4161 | 1.025 | 1.517 | 1.000 | 0.069 | 1.000 | 0.186 | 0.097 | 0.086 | 11.43 | 5 | 20 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0261 | 0.4752 | 0.4475 | 1.028 | 1.597 | 1.000 | 0.051 | 1.000 | 0.193 | 0.107 | 0.075 | 12.80 | 6 | 28 | 45 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9996 | 0.0105 | 0.1211 | 0.1119 | 1.005 | 1.323 | 1.000 | 0.480 | 1.000 | 0.041 | 0.025 | 0.025 | 6.04 | 5 | 9 | 18 | - | - | - | - |
| | 200 | 0.9998 | 0.0071 | 0.1557 | 0.1473 | 1.007 | 1.443 | 0.999 | 0.387 | 1.000 | 0.031 | 0.020 | 0.018 | 6.42 | 5 | 10 | 20 | - | - | - | - |
| | 300 | 0.9997 | 0.0057 | 0.1787 | 0.1699 | 1.008 | 1.521 | 0.999 | 0.357 | 1.000 | 0.035 | 0.018 | 0.014 | 6.71 | 5 | 11 | 22 | - | - | - | - |

Notes: See notes to Table 100.

## Table 219: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.1257 | 0.4754 | 0.2132 | 1.014 | 3.188 | 1.000 | 0.603 | 1.000 | 1.000 | 1.000 | 1.000 | 17.45 | 8 | 64 | 89 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0954 | 0.4843 | 0.2265 | 1.023 | 4.389 | 1.000 | 0.592 | 1.000 | 1.000 | 1.000 | 1.000 | 23.98 | 8 | 115 | 177 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0940 | 0.4962 | 0.2443 | 1.041 | 5.888 | 1.000 | 0.600 | 1.000 | 1.000 | 1.000 | 1.000 | 33.12 | 8 | 173.5 | 257 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1110 | 0.4568 | 0.1851 | 1.013 | 2.911 | 1.000 | 0.661 | 1.000 | 1.000 | 1.000 | 1.000 | 15.99 | 8 | 60 | 88 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0830 | 0.4633 | 0.1951 | 1.020 | 3.979 | 1.000 | 0.654 | 1.000 | 1.000 | 1.000 | 0.999 | 21.53 | 8 | 106 | 171 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0822 | 0.4786 | 0.2180 | 1.035 | 5.373 | 1.000 | 0.652 | 1.000 | 1.000 | 1.000 | 0.999 | 29.57 | 8 | 161 | 255 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0851 | 0.4230 | 0.1346 | 1.010 | 2.415 | 1.000 | 0.749 | 1.000 | 1.000 | 1.000 | 0.998 | 13.43 | 8 | 50 | 87 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0620 | 0.4277 | 0.1418 | 1.015 | 3.227 | 1.000 | 0.752 | 1.000 | 1.000 | 1.000 | 0.999 | 17.34 | 8 | 84.5 | 168 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0608 | 0.4434 | 0.1653 | 1.025 | 4.322 | 1.000 | 0.738 | 1.000 | 1.000 | 1.000 | 0.999 | 23.17 | 8 | 135 | 250 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.1256 | 0.4748 | 0.2123 | 1.014 | 3.176 | 1.000 | 0.610 | 1.000 | 1.000 | 1.000 | 1.000 | 17.43 | 8 | 64 | 89 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0953 | 0.4841 | 0.2261 | 1.023 | 4.363 | 1.000 | 0.593 | 1.000 | 1.000 | 1.000 | 1.000 | 23.97 | 8 | 115 | 177 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0940 | 0.4959 | 0.2438 | 1.040 | 5.867 | 1.000 | 0.603 | 1.000 | 1.000 | 1.000 | 1.000 | 33.11 | 8 | 173.5 | 257 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1109 | 0.4565 | 0.1848 | 1.013 | 2.903 | 1.000 | 0.664 | 1.000 | 1.000 | 1.000 | 1.000 | 15.98 | 8 | 60 | 88 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0830 | 0.4633 | 0.1950 | 1.020 | 3.972 | 1.000 | 0.654 | 1.000 | 1.000 | 1.000 | 0.999 | 21.52 | 8 | 106 | 171 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0822 | 0.4784 | 0.2176 | 1.035 | 5.364 | 1.000 | 0.654 | 1.000 | 1.000 | 1.000 | 0.999 | 29.56 | 8 | 161 | 255 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0851 | 0.4230 | 0.1346 | 1.010 | 2.414 | 1.000 | 0.749 | 1.000 | 1.000 | 1.000 | 0.998 | 13.43 | 8 | 50 | 87 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0620 | 0.4277 | 0.1418 | 1.015 | 3.226 | 1.000 | 0.752 | 1.000 | 1.000 | 1.000 | 0.999 | 17.34 | 8 | 84.5 | 168 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0608 | 0.4434 | 0.1652 | 1.025 | 4.320 | 1.000 | 0.738 | 1.000 | 1.000 | 1.000 | 0.999 | 23.17 | 8 | 135 | 250 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0544 | 0.3746 | 0.3354 | 1.013 | 1.493 | 1.000 | 0.189 | 1.000 | 0.214 | 0.114 | 0.118 | 10.39 | 5 | 20 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0296 | 0.3737 | 0.3381 | 1.015 | 1.547 | 1.000 | 0.126 | 1.000 | 0.209 | 0.099 | 0.079 | 10.90 | 5 | 27 | 42 | - | - | - | - |
| | 300 | 1.0000 | 0.0211 | 0.3921 | 0.3635 | 1.016 | 1.550 | 1.000 | 0.099 | 1.000 | 0.179 | 0.097 | 0.071 | 11.31 | 5 | 31 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0054 | 0.0673 | 0.0608 | 1.001 | 1.160 | 1.000 | 0.688 | 1.000 | 0.021 | 0.012 | 0.009 | 5.53 | 5 | 7 | 10 | - | - | - | - |
| | 200 | 1.0000 | 0.0029 | 0.0700 | 0.0653 | 1.001 | 1.175 | 1.000 | 0.693 | 1.000 | 0.017 | 0.009 | 0.008 | 5.59 | 5 | 8 | 12 | - | - | - | - |
| | 300 | 1.0000 | 0.0020 | 0.0708 | 0.0665 | 1.001 | 1.191 | 1.000 | 0.686 | 1.000 | 0.024 | 0.011 | 0.005 | 5.60 | 5 | 8 | 14 | - | - | - | - |

Notes: See notes to Table 100.

## Table 220: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8015 | 0.0979 | 0.4513 | 0.2109 | 1.185 | 5.603 | 0.350 | 0.186 | 1.000 | 0.981 | 0.800 | 0.523 | 13.70 | 4 | 54 | 104 | 1.358 | 0.30 | 0.04 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7911 | 0.1138 | 0.4655 | 0.2282 | 1.536 | 8.033 | 0.362 | 0.177 | 1.000 | 0.978 | 0.796 | 0.540 | 26.59 | 4 | 188 | 204 | 2.052 | 0.38 | 0.11 | 0.10 |
| | 300 | 0.7786 | 0.1188 | 0.4764 | 0.2448 | 1.515 | 7.461 | 0.351 | 0.149 | 1.000 | 0.971 | 0.786 | 0.533 | 39.42 | 4 | 258 | 304 | 2.455 | 0.41 | 0.13 | 0.13 |
| $p = 0.05$, | 100 | 0.7685 | 0.0831 | 0.4301 | 0.1802 | 1.159 | 4.828 | 0.289 | 0.174 | 1.000 | 0.978 | 0.773 | 0.484 | 12.07 | 4 | 48 | 104 | 1.360 | 0.32 | 0.02 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7708 | 0.0948 | 0.4403 | 0.1972 | 1.452 | 7.177 | 0.340 | 0.186 | 1.000 | 0.970 | 0.767 | 0.495 | 22.71 | 4 | 186 | 201 | 1.959 | 0.41 | 0.10 | 0.08 |
| | 300 | 0.7575 | 0.0995 | 0.4490 | 0.2104 | 1.457 | 6.893 | 0.328 | 0.165 | 1.000 | 0.964 | 0.750 | 0.492 | 33.54 | 4 | 257 | 304 | 2.255 | 0.44 | 0.11 | 0.10 |
| $p = 0.01$, | 100 | 0.7326 | 0.0599 | 0.3832 | 0.1271 | 1.132 | 4.425 | 0.282 | 0.215 | 1.000 | 0.962 | 0.698 | 0.399 | 9.59 | 4 | 36 | 101 | 1.442 | 0.43 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7480 | 0.0657 | 0.3902 | 0.1425 | 1.329 | 5.824 | 0.348 | 0.233 | 1.000 | 0.948 | 0.695 | 0.412 | 16.81 | 3 | 65.5 | 204 | 1.854 | 0.50 | 0.06 | 0.05 |
| | 300 | 0.7388 | 0.0721 | 0.3955 | 0.1537 | 1.381 | 6.055 | 0.352 | 0.229 | 1.000 | 0.943 | 0.677 | 0.403 | 25.27 | 3 | 252 | 280 | 2.119 | 0.53 | 0.08 | 0.07 |
| $p = 0.1$, | 100 | 0.7758 | 0.0962 | 0.4554 | 0.2098 | 1.169 | 4.795 | 0.316 | 0.173 | 1.000 | 0.981 | 0.800 | 0.522 | 13.41 | 4 | 53 | 104 | 1.208 | 0.19 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7552 | 0.1065 | 0.4715 | 0.2269 | 1.503 | 7.734 | 0.317 | 0.156 | 1.000 | 0.978 | 0.795 | 0.536 | 24.98 | 4 | 187 | 204 | 1.819 | 0.28 | 0.09 | 0.08 |
| | 300 | 0.7448 | 0.1120 | 0.4821 | 0.2433 | 1.495 | 7.264 | 0.303 | 0.127 | 1.000 | 0.971 | 0.784 | 0.529 | 37.21 | 4 | 257 | 304 | 2.210 | 0.30 | 0.12 | 0.11 |
| $p = 0.05$, | 100 | 0.7410 | 0.0822 | 0.4355 | 0.1797 | 1.154 | 4.787 | 0.256 | 0.155 | 1.000 | 0.978 | 0.773 | 0.484 | 11.85 | 4 | 48 | 102 | 1.244 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7313 | 0.0899 | 0.4479 | 0.1970 | 1.422 | 6.834 | 0.286 | 0.154 | 1.000 | 0.970 | 0.766 | 0.492 | 21.55 | 4 | 185 | 201 | 1.773 | 0.32 | 0.07 | 0.07 |
| | 300 | 0.7223 | 0.0958 | 0.4559 | 0.2098 | 1.448 | 6.787 | 0.278 | 0.135 | 1.000 | 0.964 | 0.750 | 0.491 | 32.25 | 4 | 255 | 304 | 2.088 | 0.34 | 0.10 | 0.09 |
| $p = 0.01$, | 100 | 0.6954 | 0.0596 | 0.3915 | 0.1279 | 1.129 | 3.372 | 0.229 | 0.173 | 1.000 | 0.962 | 0.698 | 0.399 | 9.37 | 3 | 36 | 88 | 1.345 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7032 | 0.0635 | 0.3994 | 0.1431 | 1.324 | 5.726 | 0.269 | 0.174 | 1.000 | 0.947 | 0.695 | 0.410 | 16.15 | 3 | 64.5 | 204 | 1.732 | 0.43 | 0.05 | 0.04 |
| | 300 | 0.6910 | 0.0696 | 0.4056 | 0.1545 | 1.381 | 6.046 | 0.264 | 0.164 | 1.000 | 0.943 | 0.676 | 0.401 | 24.28 | 3 | 250 | 304 | 2.007 | 0.46 | 0.07 | 0.07 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9622 | 0.0576 | 0.4199 | 0.3923 | 1.096 | 1.524 | 0.820 | 0.065 | 1.000 | 0.169 | 0.104 | 0.101 | 10.52 | 5 | 20 | 36 | - | - | - | - |
| | 200 | 0.9592 | 0.0387 | 0.4781 | 0.4549 | 1.107 | 1.636 | 0.805 | 0.050 | 1.000 | 0.154 | 0.080 | 0.076 | 12.50 | 5 | 25 | 78 | - | - | - | - |
| | 300 | 0.9581 | 0.0340 | 0.5445 | 0.5264 | 1.117 | 1.753 | 0.800 | 0.031 | 1.000 | 0.154 | 0.079 | 0.074 | 14.96 | 5 | 31 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7323 | 0.0206 | 0.1711 | 0.1636 | 1.137 | 2.227 | 0.316 | 0.041 | 1.000 | 0.043 | 0.027 | 0.032 | 5.70 | 1 | 14 | 26 | - | - | - | - |
| | 200 | 0.7456 | 0.0155 | 0.2168 | 0.2100 | 1.144 | 2.479 | 0.347 | 0.040 | 1.000 | 0.040 | 0.022 | 0.030 | 6.81 | 1 | 18 | 40 | - | - | - | - |
| | 300 | 0.7713 | 0.0152 | 0.2891 | 0.2815 | 1.153 | 2.698 | 0.391 | 0.030 | 1.000 | 0.057 | 0.026 | 0.029 | 8.39 | 1 | 22 | 44 | - | - | - | - |

Notes: See notes to Table 100.

**Table 221: Monte Carlo findings for DGPI(c)**

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.1134 | 0.4679 | 0.2049 | 1.024 | 3.104 | 0.999 | 0.582 | 1.000 | 1.000 | 1.000 | 0.971 | 16.22 | 8 | 62.5 | 86 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9980 | 0.0966 | 0.4862 | 0.2319 | 1.049 | 4.817 | 0.990 | 0.565 | 1.000 | 1.000 | 1.000 | 0.972 | 24.22 | 8 | 114.5 | 171 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9980 | 0.0790 | 0.4802 | 0.2231 | 1.104 | 9.414 | 0.990 | 0.594 | 1.000 | 1.000 | 1.000 | 0.971 | 28.61 | 8 | 159.5 | 304 | 1.100 | 0.06 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 0.9992 | 0.0994 | 0.4459 | 0.1725 | 1.021 | 2.814 | 0.996 | 0.643 | 1.000 | 1.000 | 1.000 | 0.966 | 14.83 | 8 | 58 | 86 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9970 | 0.0841 | 0.4659 | 0.2022 | 1.043 | 4.349 | 0.985 | 0.623 | 1.000 | 1.000 | 0.999 | 0.965 | 21.72 | 8 | 107 | 171 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9962 | 0.0682 | 0.4603 | 0.1934 | 1.079 | 7.271 | 0.981 | 0.644 | 1.000 | 1.000 | 1.000 | 0.966 | 25.38 | 8 | 144 | 276 | 1.063 | 0.04 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9965 | 0.0763 | 0.4087 | 0.1183 | 1.016 | 2.322 | 0.983 | 0.740 | 1.000 | 1.000 | 0.998 | 0.950 | 12.54 | 7 | 48 | 83 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9914 | 0.0625 | 0.4290 | 0.1476 | 1.032 | 3.546 | 0.958 | 0.714 | 1.000 | 1.000 | 0.999 | 0.948 | 17.40 | 7 | 85 | 162 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9892 | 0.0496 | 0.4246 | 0.1406 | 1.050 | 5.012 | 0.948 | 0.707 | 1.000 | 1.000 | 0.998 | 0.947 | 19.76 | 7 | 112 | 251 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9997 | 0.1132 | 0.4674 | 0.2041 | 1.024 | 3.072 | 0.999 | 0.588 | 1.000 | 1.000 | 1.000 | 0.971 | 16.21 | 8 | 62 | 86 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9980 | 0.0965 | 0.4859 | 0.2314 | 1.049 | 4.747 | 0.990 | 0.566 | 1.000 | 1.000 | 1.000 | 0.972 | 24.20 | 8 | 114.5 | 171 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9979 | 0.0785 | 0.4799 | 0.2226 | 1.084 | 6.995 | 0.990 | 0.596 | 1.000 | 1.000 | 1.000 | 0.971 | 28.46 | 8 | 159 | 263 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9991 | 0.0993 | 0.4457 | 0.1721 | 1.021 | 2.783 | 0.996 | 0.645 | 1.000 | 1.000 | 1.000 | 0.966 | 14.82 | 8 | 58 | 86 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9970 | 0.0840 | 0.4657 | 0.2018 | 1.042 | 4.305 | 0.985 | 0.626 | 1.000 | 1.000 | 0.999 | 0.965 | 21.70 | 8 | 107 | 171 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9960 | 0.0680 | 0.4601 | 0.1931 | 1.071 | 6.335 | 0.980 | 0.645 | 1.000 | 1.000 | 1.000 | 0.966 | 25.30 | 8 | 143.5 | 260 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9961 | 0.0763 | 0.4087 | 0.1183 | 1.016 | 2.322 | 0.982 | 0.740 | 1.000 | 1.000 | 0.998 | 0.950 | 12.54 | 7 | 48 | 83 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9907 | 0.0625 | 0.4291 | 0.1476 | 1.032 | 3.516 | 0.955 | 0.712 | 1.000 | 1.000 | 0.999 | 0.948 | 17.39 | 7 | 85 | 162 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9884 | 0.0495 | 0.4247 | 0.1406 | 1.048 | 4.917 | 0.944 | 0.705 | 1.000 | 1.000 | 0.998 | 0.947 | 19.75 | 7 | 112 | 249 | 1.008 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0539 | 0.4131 | 0.3750 | 1.022 | 1.444 | 1.000 | 0.069 | 1.000 | 0.215 | 0.125 | 0.101 | 10.33 | 6 | 17 | 36 | - | - | - | - |
| | 200 | 0.9997 | 0.0338 | 0.4532 | 0.4211 | 1.025 | 1.506 | 0.999 | 0.062 | 1.000 | 0.199 | 0.107 | 0.090 | 11.73 | 6 | 22 | 53 | - | - | - | - |
| | 300 | 0.9995 | 0.0271 | 0.4977 | 0.4700 | 1.027 | 1.576 | 0.998 | 0.050 | 1.000 | 0.190 | 0.096 | 0.076 | 13.09 | 6 | 24 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9883 | 0.0193 | 0.2023 | 0.1866 | 1.014 | 1.722 | 0.961 | 0.261 | 1.000 | 0.072 | 0.044 | 0.032 | 6.85 | 5 | 11 | 18 | - | - | - | - |
| | 200 | 0.9898 | 0.0120 | 0.2340 | 0.2192 | 1.015 | 1.832 | 0.963 | 0.226 | 1.000 | 0.069 | 0.029 | 0.032 | 7.33 | 5 | 12.5 | 28 | - | - | - | - |
| | 300 | 0.9881 | 0.0096 | 0.2671 | 0.2559 | 1.018 | 1.975 | 0.962 | 0.182 | 1.000 | 0.059 | 0.026 | 0.028 | 7.80 | 5 | 13 | 27 | - | - | - | - |

Notes: See notes to Table 100.

## Table 222: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.1246 | 0.4765 | 0.2151 | 1.015 | 3.244 | 1.000 | 0.580 | 1.000 | 1.000 | 1.000 | 0.998 | 17.34 | 8 | 65 | 92 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0941 | 0.4914 | 0.2372 | 1.024 | 4.129 | 1.000 | 0.577 | 1.000 | 1.000 | 1.000 | 1.000 | 23.73 | 8 | 110.5 | 179 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0830 | 0.4870 | 0.2307 | 1.036 | 5.373 | 1.000 | 0.596 | 1.000 | 1.000 | 1.000 | 0.999 | 29.83 | 8 | 163.5 | 254 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1099 | 0.4554 | 0.1835 | 1.013 | 2.959 | 1.000 | 0.646 | 1.000 | 1.000 | 1.000 | 0.997 | 15.88 | 8 | 61 | 90 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0807 | 0.4696 | 0.2044 | 1.020 | 3.745 | 1.000 | 0.630 | 1.000 | 1.000 | 1.000 | 1.000 | 21.06 | 8 | 101.5 | 178 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0719 | 0.4666 | 0.2001 | 1.031 | 4.862 | 1.000 | 0.645 | 1.000 | 1.000 | 1.000 | 0.999 | 26.51 | 8 | 151 | 252 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0850 | 0.4201 | 0.1306 | 1.010 | 2.474 | 1.000 | 0.747 | 1.000 | 1.000 | 1.000 | 0.996 | 13.41 | 8 | 52 | 88 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0585 | 0.4284 | 0.1429 | 1.014 | 2.965 | 1.000 | 0.733 | 1.000 | 1.000 | 1.000 | 0.998 | 16.64 | 8 | 79 | 171 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0530 | 0.4299 | 0.1452 | 1.022 | 3.939 | 1.000 | 0.750 | 1.000 | 1.000 | 1.000 | 0.997 | 20.86 | 8 | 119.5 | 235 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.1246 | 0.4763 | 0.2148 | 1.014 | 3.232 | 1.000 | 0.581 | 1.000 | 1.000 | 1.000 | 0.998 | 17.33 | 8 | 65 | 92 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0941 | 0.4913 | 0.2370 | 1.024 | 4.124 | 1.000 | 0.578 | 1.000 | 1.000 | 1.000 | 1.000 | 23.73 | 8 | 110 | 179 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0830 | 0.4868 | 0.2303 | 1.036 | 5.319 | 1.000 | 0.597 | 1.000 | 1.000 | 1.000 | 0.999 | 29.81 | 8 | 163.5 | 254 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1099 | 0.4553 | 0.1833 | 1.013 | 2.955 | 1.000 | 0.647 | 1.000 | 1.000 | 1.000 | 0.997 | 15.88 | 8 | 61 | 90 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0807 | 0.4696 | 0.2043 | 1.020 | 3.743 | 1.000 | 0.630 | 1.000 | 1.000 | 1.000 | 1.000 | 21.06 | 8 | 101.5 | 178 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0719 | 0.4665 | 0.1999 | 1.030 | 4.838 | 1.000 | 0.645 | 1.000 | 1.000 | 1.000 | 0.999 | 26.50 | 8 | 151 | 252 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0850 | 0.4200 | 0.1305 | 1.010 | 2.473 | 1.000 | 0.747 | 1.000 | 1.000 | 1.000 | 0.996 | 13.41 | 8 | 52 | 88 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0585 | 0.4284 | 0.1428 | 1.014 | 2.964 | 1.000 | 0.733 | 1.000 | 1.000 | 1.000 | 0.998 | 16.64 | 8 | 79 | 171 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0530 | 0.4298 | 0.1451 | 1.022 | 3.933 | 1.000 | 0.750 | 1.000 | 1.000 | 1.000 | 0.997 | 20.86 | 8 | 119.5 | 235 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0505 | 0.3887 | 0.3463 | 1.012 | 1.423 | 1.000 | 0.070 | 1.000 | 0.205 | 0.118 | 0.108 | 10.00 | 6 | 21 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0313 | 0.4480 | 0.4160 | 1.014 | 1.457 | 1.000 | 0.062 | 1.000 | 0.199 | 0.114 | 0.076 | 11.22 | 6 | 18 | 45 | - | - | - | - |
| | 300 | 0.9999 | 0.0253 | 0.4835 | 0.4557 | 1.015 | 1.533 | 1.000 | 0.066 | 1.000 | 0.197 | 0.087 | 0.079 | 12.56 | 6 | 21 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9994 | 0.0108 | 0.1253 | 0.1124 | 1.003 | 1.329 | 0.999 | 0.475 | 1.000 | 0.040 | 0.024 | 0.022 | 6.07 | 5 | 9 | 16 | - | - | - | - |
| | 200 | 0.9998 | 0.0066 | 0.1488 | 0.1398 | 1.003 | 1.403 | 0.999 | 0.395 | 1.000 | 0.038 | 0.024 | 0.020 | 6.30 | 5 | 9 | 19 | - | - | - | - |
| | 300 | 0.9997 | 0.0053 | 0.1733 | 0.1648 | 1.003 | 1.487 | 0.999 | 0.342 | 1.000 | 0.040 | 0.017 | 0.014 | 6.59 | 5 | 10 | 27 | - | - | - | - |

Notes: See notes to Table 100.

## Table 223: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6534 | 0.1018 | 0.4906 | 0.2171 | 1.218 | 7.370 | 0.181 | 0.105 | 1.000 | 0.982 | 0.818 | 0.564 | 13.35 | 3 | 54 | 104 | 1.562 | 0.47 | 0.05 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6621 | 0.1225 | 0.5129 | 0.2552 | 1.545 | 8.082 | 0.249 | 0.096 | 1.000 | 0.980 | 0.800 | 0.537 | 27.68 | 3 | 188 | 204 | 2.245 | 0.55 | 0.13 | 0.11 |
| | 300 | 0.6611 | 0.1241 | 0.5238 | 0.2673 | 1.531 | 7.616 | 0.252 | 0.077 | 1.000 | 0.978 | 0.804 | 0.553 | 40.41 | 3 | 259 | 304 | 2.726 | 0.60 | 0.15 | 0.13 |
| $p = 0.05$, | 100 | 0.6324 | 0.0881 | 0.4690 | 0.1882 | 1.177 | 6.251 | 0.167 | 0.100 | 1.000 | 0.976 | 0.789 | 0.519 | 11.88 | 3 | 50 | 104 | 1.564 | 0.51 | 0.03 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6423 | 0.1047 | 0.4880 | 0.2212 | 1.503 | 7.632 | 0.222 | 0.095 | 1.000 | 0.974 | 0.770 | 0.508 | 24.04 | 3 | 187 | 204 | 2.233 | 0.58 | 0.11 | 0.09 |
| | 300 | 0.6336 | 0.1079 | 0.4990 | 0.2300 | 1.472 | 7.083 | 0.225 | 0.082 | 1.000 | 0.972 | 0.781 | 0.515 | 35.42 | 3 | 258 | 304 | 2.550 | 0.62 | 0.13 | 0.11 |
| $p = 0.01$, | 100 | 0.5998 | 0.0645 | 0.4264 | 0.1356 | 1.133 | 4.290 | 0.149 | 0.110 | 1.000 | 0.963 | 0.723 | 0.429 | 9.39 | 3 | 39 | 100 | 1.632 | 0.61 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5881 | 0.0706 | 0.4422 | 0.1603 | 1.381 | 6.331 | 0.174 | 0.097 | 1.000 | 0.960 | 0.689 | 0.419 | 16.99 | 3 | 74 | 204 | 1.967 | 0.63 | 0.06 | 0.05 |
| | 300 | 0.5822 | 0.0782 | 0.4522 | 0.1672 | 1.383 | 6.101 | 0.181 | 0.081 | 1.000 | 0.954 | 0.707 | 0.429 | 26.30 | 2 | 254 | 304 | 2.299 | 0.65 | 0.09 | 0.08 |
| $p = 0.1$, | 100 | 0.5872 | 0.0999 | 0.5066 | 0.2186 | 1.185 | 6.000 | 0.112 | 0.064 | 1.000 | 0.982 | 0.818 | 0.563 | 12.83 | 3 | 54 | 104 | 1.404 | 0.38 | 0.02 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5804 | 0.1171 | 0.5329 | 0.2566 | 1.542 | 7.988 | 0.164 | 0.047 | 1.000 | 0.980 | 0.800 | 0.537 | 26.20 | 3 | 188 | 204 | 2.058 | 0.45 | 0.10 | 0.09 |
| | 300 | 0.5744 | 0.1184 | 0.5460 | 0.2691 | 1.525 | 7.474 | 0.179 | 0.037 | 1.000 | 0.978 | 0.803 | 0.552 | 38.28 | 3 | 259 | 304 | 2.441 | 0.48 | 0.13 | 0.12 |
| $p = 0.05$, | 100 | 0.5561 | 0.0870 | 0.4892 | 0.1906 | 1.166 | 5.144 | 0.092 | 0.053 | 1.000 | 0.976 | 0.789 | 0.518 | 11.39 | 3 | 49 | 104 | 1.436 | 0.41 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5513 | 0.0984 | 0.5110 | 0.2232 | 1.478 | 7.309 | 0.137 | 0.043 | 1.000 | 0.974 | 0.769 | 0.503 | 22.34 | 3 | 186 | 204 | 1.969 | 0.47 | 0.08 | 0.07 |
| | 300 | 0.5407 | 0.1027 | 0.5243 | 0.2323 | 1.481 | 7.022 | 0.150 | 0.032 | 1.000 | 0.972 | 0.780 | 0.514 | 33.42 | 3 | 257 | 304 | 2.324 | 0.49 | 0.11 | 0.10 |
| $p = 0.01$, | 100 | 0.5093 | 0.0641 | 0.4515 | 0.1385 | 1.131 | 3.274 | 0.070 | 0.051 | 1.000 | 0.963 | 0.723 | 0.429 | 8.89 | 2 | 38 | 85 | 1.509 | 0.50 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4907 | 0.0669 | 0.4686 | 0.1632 | 1.355 | 5.907 | 0.093 | 0.038 | 1.000 | 0.960 | 0.688 | 0.417 | 15.77 | 2 | 67 | 204 | 1.814 | 0.52 | 0.05 | 0.04 |
| | 300 | 0.4738 | 0.0742 | 0.4824 | 0.1702 | 1.391 | 6.016 | 0.101 | 0.026 | 1.000 | 0.954 | 0.707 | 0.427 | 24.54 | 2 | 251 | 304 | 2.090 | 0.50 | 0.08 | 0.07 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8231 | 0.0471 | 0.3861 | 0.3558 | 1.098 | 1.361 | 0.364 | 0.029 | 1.000 | 0.146 | 0.081 | 0.074 | 8.78 | 3 | 18 | 45 | - | - | - | - |
| | 200 | 0.8180 | 0.0328 | 0.4529 | 0.4283 | 1.113 | 1.459 | 0.357 | 0.017 | 1.000 | 0.136 | 0.079 | 0.066 | 10.63 | 3 | 23 | 45 | - | - | - | - |
| | 300 | 0.8074 | 0.0269 | 0.4936 | 0.4722 | 1.118 | 1.565 | 0.322 | 0.013 | 1.000 | 0.128 | 0.068 | 0.068 | 12.08 | 3 | 28 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4783 | 0.0126 | 0.1126 | 0.1075 | 1.126 | 1.839 | 0.062 | 0.003 | 1.000 | 0.024 | 0.014 | 0.015 | 3.64 | 1 | 12 | 30 | - | - | - | - |
| | 200 | 0.5040 | 0.0118 | 0.1696 | 0.1641 | 1.134 | 2.101 | 0.086 | 0.002 | 1.000 | 0.028 | 0.019 | 0.022 | 4.88 | 1 | 17 | 34 | - | - | - | - |
| | 300 | 0.5132 | 0.0110 | 0.2089 | 0.2034 | 1.143 | 2.355 | 0.088 | 0.000 | 1.000 | 0.034 | 0.017 | 0.024 | 5.85 | 1 | 21 | 45 | - | - | - | - |

Notes: See notes to Table 100.

## Table 224: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9492 | 0.1207 | 0.4815 | 0.2118 | 1.030 | 3.395 | 0.794 | 0.463 | 1.000 | 1.000 | 1.000 | 0.978 | 16.69 | 7 | 63.5 | 89 | 1.043 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9318 | 0.0932 | 0.4968 | 0.2304 | 1.052 | 4.939 | 0.738 | 0.419 | 1.000 | 1.000 | 1.000 | 0.968 | 23.21 | 6 | 115 | 176 | 1.062 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9192 | 0.0860 | 0.5095 | 0.2466 | 1.107 | 8.090 | 0.693 | 0.404 | 1.000 | 1.000 | 0.999 | 0.977 | 30.32 | 6 | 158.5 | 267 | 1.134 | 0.10 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 0.9275 | 0.1064 | 0.4661 | 0.1830 | 1.028 | 3.143 | 0.720 | 0.470 | 1.000 | 1.000 | 1.000 | 0.973 | 15.17 | 6 | 59.5 | 88 | 1.047 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9073 | 0.0809 | 0.4808 | 0.1998 | 1.046 | 4.501 | 0.661 | 0.416 | 1.000 | 1.000 | 1.000 | 0.960 | 20.63 | 6 | 106.5 | 173 | 1.064 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.8964 | 0.0741 | 0.4936 | 0.2162 | 1.089 | 6.820 | 0.626 | 0.394 | 1.000 | 1.000 | 0.999 | 0.971 | 26.63 | 6 | 144 | 257 | 1.111 | 0.10 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8702 | 0.0822 | 0.4437 | 0.1330 | 1.027 | 2.779 | 0.546 | 0.406 | 1.000 | 1.000 | 0.999 | 0.955 | 12.49 | 6 | 49 | 85 | 1.082 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8480 | 0.0603 | 0.4550 | 0.1446 | 1.040 | 3.776 | 0.496 | 0.361 | 1.000 | 1.000 | 0.999 | 0.937 | 16.23 | 6 | 88 | 164 | 1.110 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.8319 | 0.0534 | 0.4700 | 0.1621 | 1.065 | 5.405 | 0.449 | 0.334 | 1.000 | 1.000 | 0.997 | 0.954 | 20.13 | 6 | 110.5 | 249 | 1.138 | 0.13 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9456 | 0.1205 | 0.4820 | 0.2113 | 1.030 | 3.382 | 0.789 | 0.462 | 1.000 | 1.000 | 1.000 | 0.978 | 16.66 | 7 | 63.5 | 89 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9260 | 0.0931 | 0.4978 | 0.2300 | 1.052 | 4.902 | 0.731 | 0.417 | 1.000 | 1.000 | 1.000 | 0.968 | 23.16 | 6 | 115 | 176 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9137 | 0.0856 | 0.5104 | 0.2462 | 1.100 | 7.420 | 0.690 | 0.405 | 1.000 | 1.000 | 0.999 | 0.977 | 30.17 | 6 | 158.5 | 262 | 1.056 | 0.05 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9221 | 0.1063 | 0.4674 | 0.1828 | 1.028 | 3.152 | 0.717 | 0.467 | 1.000 | 1.000 | 1.000 | 0.973 | 15.14 | 6 | 59.5 | 88 | 1.025 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9014 | 0.0808 | 0.4820 | 0.1997 | 1.047 | 4.428 | 0.658 | 0.415 | 1.000 | 1.000 | 1.000 | 0.960 | 20.59 | 6 | 106.5 | 172 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.8896 | 0.0739 | 0.4950 | 0.2160 | 1.086 | 6.527 | 0.620 | 0.395 | 1.000 | 1.000 | 0.999 | 0.971 | 26.54 | 6 | 144 | 252 | 1.056 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8626 | 0.0822 | 0.4459 | 0.1331 | 1.028 | 2.803 | 0.542 | 0.403 | 1.000 | 1.000 | 0.999 | 0.955 | 12.45 | 6 | 49 | 85 | 1.057 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8382 | 0.0602 | 0.4576 | 0.1449 | 1.042 | 3.790 | 0.488 | 0.355 | 1.000 | 1.000 | 0.999 | 0.937 | 16.18 | 5 | 88 | 164 | 1.078 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8217 | 0.0534 | 0.4727 | 0.1623 | 1.065 | 5.208 | 0.444 | 0.330 | 1.000 | 1.000 | 0.997 | 0.954 | 20.06 | 5 | 110 | 247 | 1.094 | 0.09 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9900 | 0.0549 | 0.4104 | 0.3728 | 1.022 | 1.462 | 0.951 | 0.072 | 1.000 | 0.200 | 0.122 | 0.109 | 10.39 | 5 | 19 | 34 | - | - | - | - |
| | 200 | 0.9897 | 0.0332 | 0.4531 | 0.4233 | 1.026 | 1.526 | 0.949 | 0.059 | 1.000 | 0.193 | 0.092 | 0.090 | 11.56 | 5 | 21 | 55 | - | - | - | - |
| | 300 | 0.9855 | 0.0265 | 0.4883 | 0.4615 | 1.028 | 1.571 | 0.929 | 0.044 | 1.000 | 0.186 | 0.094 | 0.066 | 12.84 | 5 | 26 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8821 | 0.0228 | 0.2243 | 0.2079 | 1.032 | 2.045 | 0.699 | 0.117 | 1.000 | 0.062 | 0.043 | 0.044 | 6.66 | 2 | 12 | 20 | - | - | - | - |
| | 200 | 0.8833 | 0.0143 | 0.2612 | 0.2483 | 1.035 | 2.239 | 0.697 | 0.087 | 1.000 | 0.067 | 0.033 | 0.032 | 7.27 | 2 | 14 | 29 | - | - | - | - |
| | 300 | 0.8844 | 0.0115 | 0.2927 | 0.2809 | 1.036 | 2.356 | 0.695 | 0.067 | 1.000 | 0.066 | 0.034 | 0.024 | 7.86 | 2 | 16 | 34 | - | - | - | - |

Notes: See notes to Table 100.

## Table 225: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9984 | 0.1213 | 0.4722 | 0.2081 | 1.014 | 3.109 | 0.992 | 0.601 | 1.000 | 1.000 | 1.000 | 1.000 | 17.00 | 8 | 64 | 89 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9978 | 0.0989 | 0.4895 | 0.2337 | 1.026 | 4.411 | 0.989 | 0.582 | 1.000 | 1.000 | 1.000 | 1.000 | 24.68 | 8 | 119 | 172 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9957 | 0.0918 | 0.4987 | 0.2474 | 1.038 | 5.585 | 0.980 | 0.569 | 1.000 | 1.000 | 1.000 | 0.996 | 32.42 | 8 | 171 | 239 | 1.022 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9968 | 0.1066 | 0.4529 | 0.1786 | 1.013 | 2.865 | 0.985 | 0.651 | 1.000 | 1.000 | 1.000 | 1.000 | 15.54 | 8 | 59.5 | 88 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9951 | 0.0865 | 0.4696 | 0.2031 | 1.023 | 4.037 | 0.976 | 0.621 | 1.000 | 1.000 | 1.000 | 1.000 | 22.19 | 8 | 111 | 169 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9927 | 0.0798 | 0.4787 | 0.2166 | 1.033 | 5.049 | 0.967 | 0.619 | 1.000 | 1.000 | 1.000 | 0.996 | 28.82 | 8 | 159 | 236 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9897 | 0.0825 | 0.4204 | 0.1278 | 1.010 | 2.415 | 0.954 | 0.724 | 1.000 | 1.000 | 1.000 | 1.000 | 13.12 | 8 | 51 | 82 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9835 | 0.0651 | 0.4352 | 0.1484 | 1.018 | 3.316 | 0.925 | 0.688 | 1.000 | 1.000 | 1.000 | 0.999 | 17.87 | 7 | 92.5 | 161 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9809 | 0.0586 | 0.4449 | 0.1630 | 1.024 | 4.088 | 0.915 | 0.670 | 1.000 | 1.000 | 1.000 | 0.995 | 22.43 | 7 | 128 | 228 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9984 | 0.1212 | 0.4720 | 0.2077 | 1.014 | 3.096 | 0.992 | 0.602 | 1.000 | 1.000 | 1.000 | 1.000 | 16.99 | 8 | 64 | 89 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9978 | 0.0989 | 0.4893 | 0.2334 | 1.026 | 4.398 | 0.989 | 0.583 | 1.000 | 1.000 | 1.000 | 1.000 | 24.67 | 8 | 119 | 172 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9953 | 0.0917 | 0.4984 | 0.2470 | 1.038 | 5.555 | 0.979 | 0.571 | 1.000 | 1.000 | 1.000 | 0.996 | 32.40 | 8 | 171 | 239 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9967 | 0.1066 | 0.4528 | 0.1784 | 1.013 | 2.858 | 0.984 | 0.651 | 1.000 | 1.000 | 1.000 | 1.000 | 15.53 | 8 | 59.5 | 88 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9950 | 0.0865 | 0.4694 | 0.2029 | 1.023 | 4.027 | 0.975 | 0.622 | 1.000 | 1.000 | 1.000 | 1.000 | 22.18 | 8 | 111 | 169 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9922 | 0.0798 | 0.4786 | 0.2164 | 1.033 | 5.029 | 0.966 | 0.620 | 1.000 | 1.000 | 1.000 | 0.996 | 28.81 | 8 | 159 | 236 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9895 | 0.0825 | 0.4204 | 0.1278 | 1.010 | 2.413 | 0.953 | 0.725 | 1.000 | 1.000 | 1.000 | 1.000 | 13.12 | 8 | 51 | 82 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9826 | 0.0651 | 0.4354 | 0.1484 | 1.018 | 3.313 | 0.924 | 0.687 | 1.000 | 1.000 | 1.000 | 0.999 | 17.87 | 7 | 92 | 161 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9796 | 0.0586 | 0.4452 | 0.1631 | 1.024 | 4.083 | 0.912 | 0.668 | 1.000 | 1.000 | 1.000 | 0.995 | 22.42 | 7 | 128 | 228 | 1.005 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9991 | 0.0519 | 0.4015 | 0.3631 | 1.012 | 1.403 | 0.996 | 0.091 | 1.000 | 0.216 | 0.121 | 0.094 | 10.13 | 5 | 16 | 33 | - | - | - | - |
| | 200 | 0.9986 | 0.0348 | 0.4604 | 0.4301 | 1.014 | 1.494 | 0.993 | 0.059 | 1.000 | 0.204 | 0.103 | 0.082 | 11.93 | 6 | 21 | 51 | - | - | - | - |
| | 300 | 0.9991 | 0.0249 | 0.4694 | 0.4420 | 1.015 | 1.535 | 0.996 | 0.054 | 1.000 | 0.186 | 0.103 | 0.071 | 12.44 | 6 | 24.5 | 40 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9768 | 0.0156 | 0.1728 | 0.1599 | 1.009 | 1.626 | 0.927 | 0.299 | 1.000 | 0.063 | 0.029 | 0.029 | 6.43 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9767 | 0.0104 | 0.2164 | 0.2051 | 1.009 | 1.756 | 0.931 | 0.224 | 1.000 | 0.045 | 0.030 | 0.024 | 6.96 | 5 | 11 | 26 | - | - | - | - |
| | 300 | 0.9736 | 0.0076 | 0.2273 | 0.2183 | 1.011 | 1.873 | 0.925 | 0.229 | 1.000 | 0.049 | 0.030 | 0.021 | 7.15 | 5 | 12 | 22 | - | - | - | - |

Notes: See notes to Table 100.

**Table 226: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9771 | 0.0259 | 0.2948 | 0.0206 | 1.033 | 1.459 | 0.891 | 0.738 | 1.000 | 0.988 | 0.821 | 0.560 | 7.45 | 6 | 9 | 12 | 1.986 | 0.90 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9640 | 0.0127 | 0.2931 | 0.0230 | 1.047 | 1.648 | 0.835 | 0.681 | 1.000 | 0.984 | 0.792 | 0.536 | 7.35 | 6 | 9 | 11 | 2.040 | 0.93 | 0.11 | 0.00 |
| | 300 | 0.9570 | 0.0082 | 0.2887 | 0.0233 | 1.050 | 1.723 | 0.807 | 0.650 | 1.000 | 0.981 | 0.772 | 0.495 | 7.25 | 5 | 9 | 12 | 2.087 | 0.95 | 0.13 | 0.00 |
| $p = 0.05$, | 100 | 0.9696 | 0.0243 | 0.2828 | 0.0117 | 1.037 | 1.528 | 0.859 | 0.774 | 1.000 | 0.983 | 0.795 | 0.517 | 7.25 | 6 | 8 | 10 | 2.040 | 0.93 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9546 | 0.0118 | 0.2802 | 0.0129 | 1.052 | 1.725 | 0.799 | 0.715 | 1.000 | 0.978 | 0.765 | 0.493 | 7.12 | 5 | 8 | 10 | 2.086 | 0.95 | 0.13 | 0.01 |
| | 300 | 0.9458 | 0.0077 | 0.2754 | 0.0129 | 1.056 | 1.819 | 0.768 | 0.684 | 1.000 | 0.975 | 0.740 | 0.457 | 7.02 | 5 | 8 | 12 | 2.109 | 0.96 | 0.14 | 0.01 |
| $p = 0.01$, | 100 | 0.9483 | 0.0218 | 0.2646 | 0.0030 | 1.050 | 1.740 | 0.771 | 0.752 | 1.000 | 0.972 | 0.728 | 0.438 | 6.90 | 5 | 8 | 9 | 2.109 | 0.97 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9287 | 0.0107 | 0.2634 | 0.0043 | 1.071 | 1.973 | 0.704 | 0.675 | 1.000 | 0.966 | 0.703 | 0.415 | 6.76 | 5 | 8 | 9 | 2.153 | 0.97 | 0.17 | 0.01 |
| | 300 | 0.9172 | 0.0068 | 0.2561 | 0.0035 | 1.078 | 2.094 | 0.668 | 0.650 | 1.000 | 0.953 | 0.665 | 0.388 | 6.62 | 5 | 8 | 10 | 2.162 | 0.97 | 0.19 | 0.01 |
| $p = 0.1$, | 100 | 0.9426 | 0.0254 | 0.2981 | 0.0162 | 1.058 | 1.823 | 0.746 | 0.646 | 1.000 | 0.988 | 0.821 | 0.560 | 7.23 | 5 | 9 | 11 | 1.942 | 0.84 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9111 | 0.0125 | 0.3003 | 0.0190 | 1.089 | 2.164 | 0.636 | 0.545 | 1.000 | 0.984 | 0.792 | 0.536 | 7.04 | 5 | 9 | 10 | 1.985 | 0.86 | 0.12 | 0.01 |
| | 300 | 0.8920 | 0.0081 | 0.2988 | 0.0205 | 1.102 | 2.355 | 0.580 | 0.490 | 1.000 | 0.981 | 0.772 | 0.495 | 6.89 | 5 | 9 | 11 | 2.033 | 0.88 | 0.15 | 0.01 |
| $p = 0.05$, | 100 | 0.9270 | 0.0240 | 0.2888 | 0.0090 | 1.069 | 1.975 | 0.687 | 0.633 | 1.000 | 0.983 | 0.795 | 0.517 | 7.01 | 5 | 8 | 10 | 2.014 | 0.89 | 0.12 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8909 | 0.0117 | 0.2908 | 0.0104 | 1.103 | 2.338 | 0.571 | 0.525 | 1.000 | 0.978 | 0.765 | 0.493 | 6.78 | 5 | 8 | 10 | 2.048 | 0.88 | 0.16 | 0.01 |
| | 300 | 0.8703 | 0.0076 | 0.2889 | 0.0117 | 1.119 | 2.528 | 0.514 | 0.467 | 1.000 | 0.974 | 0.740 | 0.457 | 6.62 | 4 | 8 | 10 | 2.067 | 0.90 | 0.16 | 0.01 |
| $p = 0.01$, | 100 | 0.8913 | 0.0218 | 0.2750 | 0.0022 | 1.097 | 2.297 | 0.573 | 0.562 | 1.000 | 0.972 | 0.728 | 0.438 | 6.61 | 5 | 8 | 9 | 2.098 | 0.93 | 0.16 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8490 | 0.0106 | 0.2783 | 0.0033 | 1.137 | 2.682 | 0.460 | 0.448 | 1.000 | 0.966 | 0.703 | 0.415 | 6.36 | 4 | 8 | 9 | 2.137 | 0.93 | 0.19 | 0.01 |
| | 300 | 0.8228 | 0.0068 | 0.2741 | 0.0032 | 1.159 | 2.888 | 0.389 | 0.382 | 1.000 | 0.953 | 0.665 | 0.388 | 6.14 | 4 | 8 | 9 | 2.124 | 0.92 | 0.20 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0936 | 0.5449 | 0.5172 | 1.101 | 1.798 | 0.999 | 0.032 | 1.000 | 0.200 | 0.102 | 0.105 | 14.26 | 6 | 26 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0683 | 0.6310 | 0.6120 | 1.125 | 1.992 | 1.000 | 0.018 | 1.000 | 0.180 | 0.100 | 0.079 | 18.60 | 8 | 35 | 63 | - | - | - | - |
| | 300 | 0.9998 | 0.0570 | 0.6782 | 0.6625 | 1.140 | 2.124 | 0.999 | 0.014 | 1.000 | 0.176 | 0.084 | 0.061 | 22.04 | 8 | 42 | 86 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9738 | 0.0406 | 0.3098 | 0.2974 | 1.104 | 2.164 | 0.931 | 0.229 | 1.000 | 0.074 | 0.035 | 0.039 | 8.89 | 4 | 17 | 36 | - | - | - | - |
| | 200 | 0.9752 | 0.0321 | 0.4140 | 0.4040 | 1.127 | 2.411 | 0.939 | 0.140 | 1.000 | 0.072 | 0.037 | 0.036 | 11.26 | 4 | 22 | 40 | - | - | - | - |
| | 300 | 0.9777 | 0.0265 | 0.4631 | 0.4537 | 1.140 | 2.560 | 0.946 | 0.124 | 1.000 | 0.068 | 0.036 | 0.024 | 12.82 | 4 | 25 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 227: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3398 | 0.0115 | 1.006 | 1.111 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 0.986 | 8.10 | 8 | 9 | 11 | 1.032 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3392 | 0.0118 | 1.006 | 1.117 | 1.000 | 0.891 | 1.000 | 1.000 | 1.000 | 0.976 | 8.10 | 8 | 9 | 10 | 1.033 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3379 | 0.0114 | 1.006 | 1.108 | 1.000 | 0.890 | 1.000 | 1.000 | 0.999 | 0.964 | 8.08 | 8 | 9 | 11 | 1.043 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3358 | 0.0058 | 1.006 | 1.086 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 0.983 | 8.04 | 8 | 9 | 11 | 1.032 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3344 | 0.0057 | 1.006 | 1.093 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 0.968 | 8.03 | 8 | 9 | 10 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3334 | 0.0058 | 1.006 | 1.089 | 1.000 | 0.943 | 1.000 | 1.000 | 0.999 | 0.956 | 8.01 | 8 | 9 | 10 | 1.055 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3311 | 0.0014 | 1.005 | 1.073 | 1.000 | 0.987 | 1.000 | 1.000 | 0.999 | 0.963 | 7.98 | 8 | 8 | 11 | 1.081 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3301 | 0.0014 | 1.005 | 1.077 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.951 | 7.96 | 8 | 8 | 9 | 1.110 | 0.11 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3287 | 0.0013 | 1.005 | 1.070 | 1.000 | 0.987 | 1.000 | 1.000 | 0.998 | 0.938 | 7.95 | 7 | 8 | 9 | 1.143 | 0.14 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0312 | 0.3391 | 0.0104 | 1.006 | 1.093 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 0.986 | 8.09 | 8 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3386 | 0.0109 | 1.006 | 1.099 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 0.976 | 8.09 | 8 | 9 | 10 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3374 | 0.0107 | 1.006 | 1.095 | 1.000 | 0.897 | 1.000 | 1.000 | 0.999 | 0.964 | 8.07 | 8 | 9 | 11 | 1.036 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3355 | 0.0054 | 1.006 | 1.080 | 1.000 | 0.950 | 1.000 | 1.000 | 1.000 | 0.983 | 8.04 | 8 | 8 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3341 | 0.0052 | 1.006 | 1.083 | 1.000 | 0.952 | 1.000 | 1.000 | 1.000 | 0.968 | 8.02 | 8 | 8 | 10 | 1.038 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3332 | 0.0055 | 1.006 | 1.082 | 1.000 | 0.947 | 1.000 | 1.000 | 0.999 | 0.956 | 8.01 | 8 | 8.5 | 10 | 1.052 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3310 | 0.0013 | 1.005 | 1.070 | 1.000 | 0.988 | 1.000 | 1.000 | 0.999 | 0.963 | 7.98 | 8 | 8 | 11 | 1.080 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0149 | 0.3299 | 0.0011 | 1.005 | 1.071 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.951 | 7.96 | 8 | 8 | 9 | 1.107 | 0.11 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3287 | 0.0012 | 1.005 | 1.068 | 1.000 | 0.988 | 1.000 | 1.000 | 0.998 | 0.938 | 7.95 | 7 | 8 | 9 | 1.142 | 0.14 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0856 | 0.5250 | 0.4927 | 1.027 | 1.715 | 1.000 | 0.022 | 1.000 | 0.223 | 0.126 | 0.095 | 13.48 | 7 | 27 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.0586 | 0.5954 | 0.5717 | 1.032 | 1.840 | 1.000 | 0.027 | 1.000 | 0.222 | 0.112 | 0.080 | 16.66 | 7 | 29 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.0432 | 0.6034 | 0.5825 | 1.037 | 1.910 | 1.000 | 0.011 | 1.000 | 0.192 | 0.093 | 0.070 | 17.92 | 7 | 41 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0182 | 0.1942 | 0.1841 | 1.006 | 1.312 | 1.000 | 0.303 | 1.000 | 0.050 | 0.027 | 0.019 | 6.81 | 5 | 10 | 17 | - | - | - | - |
| | 200 | 1.0000 | 0.0123 | 0.2419 | 0.2337 | 1.008 | 1.418 | 1.000 | 0.224 | 1.000 | 0.043 | 0.027 | 0.021 | 7.44 | 5 | 12 | 24 | - | - | - | - |
| | 300 | 1.0000 | 0.0093 | 0.2605 | 0.2529 | 1.009 | 1.465 | 1.000 | 0.207 | 1.000 | 0.032 | 0.018 | 0.015 | 7.78 | 5 | 13.5 | 29 | - | - | - | - |

Notes: See notes to Table 100.

## Table 228: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables

$\omega = 0.2$, $T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3406 | 0.0110 | 1.004 | 1.107 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3408 | 0.0113 | 1.003 | 1.099 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3414 | 0.0122 | 1.003 | 1.105 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3369 | 0.0056 | 1.003 | 1.090 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 0.998 | 8.05 | 8 | 9 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3374 | 0.0063 | 1.003 | 1.084 | 1.000 | 0.939 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3375 | 0.0064 | 1.003 | 1.085 | 1.000 | 0.939 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3341 | 0.0014 | 1.003 | 1.069 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3343 | 0.0016 | 1.003 | 1.067 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3337 | 0.0010 | 1.003 | 1.068 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.996 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3399 | 0.0099 | 1.003 | 1.089 | 1.000 | 0.910 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3405 | 0.0108 | 1.003 | 1.090 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3411 | 0.0116 | 1.003 | 1.094 | 1.000 | 0.893 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3365 | 0.0049 | 1.003 | 1.078 | 1.000 | 0.953 | 1.000 | 1.000 | 1.000 | 0.998 | 8.05 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3372 | 0.0059 | 1.003 | 1.077 | 1.000 | 0.943 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3374 | 0.0062 | 1.003 | 1.080 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0014 | 1.003 | 1.068 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3343 | 0.0016 | 1.003 | 1.067 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3336 | 0.0010 | 1.003 | 1.066 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.996 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0989 | 0.4920 | 0.4624 | 1.018 | 1.798 | 1.000 | 0.077 | 1.000 | 0.211 | 0.112 | 0.105 | 14.79 | 5 | 29 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0491 | 0.4988 | 0.4737 | 1.021 | 1.858 | 1.000 | 0.032 | 1.000 | 0.205 | 0.096 | 0.077 | 14.77 | 6 | 41 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.0366 | 0.5514 | 0.5290 | 1.023 | 1.914 | 1.000 | 0.018 | 1.000 | 0.185 | 0.095 | 0.071 | 15.95 | 7 | 47.5 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0090 | 0.1054 | 0.1002 | 1.001 | 1.135 | 1.000 | 0.553 | 1.000 | 0.015 | 0.010 | 0.009 | 5.89 | 5 | 9 | 12 | - | - | - | - |
| | 200 | 1.0000 | 0.0045 | 0.1015 | 0.0969 | 1.002 | 1.139 | 1.000 | 0.582 | 1.000 | 0.017 | 0.008 | 0.008 | 5.90 | 5 | 9 | 20 | - | - | - | - |
| | 300 | 1.0000 | 0.0033 | 0.1123 | 0.1085 | 1.002 | 1.165 | 1.000 | 0.526 | 1.000 | 0.020 | 0.009 | 0.005 | 5.99 | 5 | 9 | 18 | - | - | - | - |

Notes: See notes to Table 100.

**Table 229: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7855 | 0.0258 | 0.3350 | 0.0228 | 1.096 | 2.211 | 0.267 | 0.222 | 1.000 | 0.987 | 0.816 | 0.566 | 6.48 | 4 | 8 | 10 | 1.853 | 0.80 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7420 | 0.0124 | 0.3347 | 0.0249 | 1.113 | 2.407 | 0.202 | 0.169 | 1.000 | 0.980 | 0.774 | 0.510 | 6.17 | 4 | 8 | 11 | 1.869 | 0.81 | 0.06 | 0.00 |
| | 300 | 0.7091 | 0.0083 | 0.3442 | 0.0276 | 1.128 | 2.541 | 0.167 | 0.142 | 1.000 | 0.974 | 0.784 | 0.504 | 6.02 | 4 | 8 | 11 | 1.842 | 0.80 | 0.05 | 0.00 |
| $p = 0.05$, | 100 | 0.7608 | 0.0244 | 0.3276 | 0.0129 | 1.102 | 2.292 | 0.233 | 0.207 | 1.000 | 0.981 | 0.795 | 0.533 | 6.22 | 4 | 8 | 10 | 1.863 | 0.82 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7168 | 0.0116 | 0.3251 | 0.0139 | 1.120 | 2.477 | 0.170 | 0.151 | 1.000 | 0.973 | 0.741 | 0.477 | 5.88 | 3 | 8 | 10 | 1.870 | 0.83 | 0.04 | 0.00 |
| | 300 | 0.6834 | 0.0077 | 0.3349 | 0.0163 | 1.136 | 2.612 | 0.142 | 0.128 | 1.000 | 0.969 | 0.756 | 0.459 | 5.72 | 3 | 8 | 10 | 1.843 | 0.80 | 0.04 | 0.00 |
| $p = 0.01$, | 100 | 0.7067 | 0.0218 | 0.3145 | 0.0039 | 1.121 | 2.479 | 0.156 | 0.152 | 1.000 | 0.963 | 0.730 | 0.437 | 5.69 | 3 | 8 | 9 | 1.902 | 0.86 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6563 | 0.0103 | 0.3130 | 0.0041 | 1.143 | 2.678 | 0.122 | 0.117 | 1.000 | 0.951 | 0.670 | 0.392 | 5.32 | 3 | 8 | 9 | 1.882 | 0.85 | 0.03 | 0.00 |
| | 300 | 0.6191 | 0.0068 | 0.3230 | 0.0045 | 1.163 | 2.809 | 0.090 | 0.089 | 1.000 | 0.953 | 0.684 | 0.378 | 5.14 | 3 | 7 | 9 | 1.844 | 0.81 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.6834 | 0.0255 | 0.3577 | 0.0202 | 1.136 | 2.594 | 0.110 | 0.100 | 1.000 | 0.986 | 0.816 | 0.566 | 5.94 | 4 | 8 | 9 | 1.680 | 0.65 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6205 | 0.0122 | 0.3636 | 0.0223 | 1.165 | 2.834 | 0.062 | 0.052 | 1.000 | 0.980 | 0.774 | 0.510 | 5.53 | 3 | 8 | 10 | 1.654 | 0.63 | 0.03 | 0.00 |
| | 300 | 0.5769 | 0.0082 | 0.3770 | 0.0256 | 1.189 | 2.990 | 0.046 | 0.042 | 1.000 | 0.974 | 0.784 | 0.504 | 5.32 | 3 | 8 | 10 | 1.609 | 0.59 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.6562 | 0.0242 | 0.3524 | 0.0113 | 1.146 | 2.682 | 0.083 | 0.075 | 1.000 | 0.981 | 0.795 | 0.533 | 5.67 | 4 | 8 | 9 | 1.719 | 0.69 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5891 | 0.0115 | 0.3576 | 0.0132 | 1.179 | 2.929 | 0.047 | 0.043 | 1.000 | 0.973 | 0.741 | 0.477 | 5.23 | 3 | 7 | 9 | 1.683 | 0.66 | 0.02 | 0.00 |
| | 300 | 0.5464 | 0.0076 | 0.3708 | 0.0150 | 1.202 | 3.068 | 0.030 | 0.029 | 1.000 | 0.969 | 0.756 | 0.459 | 5.01 | 3 | 7 | 8 | 1.620 | 0.61 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.5915 | 0.0218 | 0.3445 | 0.0036 | 1.175 | 2.886 | 0.053 | 0.051 | 1.000 | 0.963 | 0.730 | 0.437 | 5.11 | 3 | 7 | 9 | 1.766 | 0.74 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5290 | 0.0102 | 0.3465 | 0.0031 | 1.208 | 3.094 | 0.032 | 0.031 | 1.000 | 0.951 | 0.670 | 0.392 | 4.68 | 2 | 7 | 9 | 1.703 | 0.68 | 0.02 | 0.00 |
| | 300 | 0.4847 | 0.0068 | 0.3611 | 0.0044 | 1.232 | 3.233 | 0.017 | 0.016 | 1.000 | 0.953 | 0.684 | 0.378 | 4.46 | 2 | 7 | 9 | 1.646 | 0.63 | 0.02 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9846 | 0.0850 | 0.5041 | 0.4765 | 1.112 | 1.844 | 0.934 | 0.055 | 1.000 | 0.185 | 0.099 | 0.090 | 13.34 | 5 | 25 | 44 | - | - | - | - |
| | 200 | 0.9808 | 0.0614 | 0.5822 | 0.5630 | 1.137 | 2.020 | 0.910 | 0.035 | 1.000 | 0.158 | 0.092 | 0.075 | 17.12 | 5 | 34 | 77 | - | - | - | - |
| | 300 | 0.9756 | 0.0521 | 0.6337 | 0.6172 | 1.154 | 2.131 | 0.889 | 0.023 | 1.000 | 0.178 | 0.080 | 0.065 | 20.47 | 5 | 42 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8192 | 0.0376 | 0.2634 | 0.2529 | 1.153 | 2.505 | 0.600 | 0.092 | 1.000 | 0.063 | 0.035 | 0.040 | 7.81 | 1 | 18 | 34 | - | - | - | - |
| | 200 | 0.8262 | 0.0306 | 0.3517 | 0.3429 | 1.177 | 2.734 | 0.612 | 0.062 | 1.000 | 0.056 | 0.046 | 0.033 | 10.22 | 1 | 24 | 45 | - | - | - | - |
| | 300 | 0.8448 | 0.0272 | 0.4211 | 0.4128 | 1.191 | 2.858 | 0.652 | 0.039 | 1.000 | 0.077 | 0.032 | 0.033 | 12.37 | 1 | 28 | 48 | - | - | - | - |

Notes: See notes to Table 100.

**Table 230: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9989 | 0.0313 | 0.3400 | 0.0120 | 1.006 | 1.124 | 0.995 | 0.887 | 1.000 | 1.000 | 1.000 | 0.982 | 8.10 | 8 | 9 | 11 | 1.202 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9962 | 0.0155 | 0.3394 | 0.0113 | 1.007 | 1.179 | 0.981 | 0.875 | 1.000 | 1.000 | 1.000 | 0.973 | 8.07 | 8 | 9 | 11 | 1.268 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.9957 | 0.0104 | 0.3400 | 0.0131 | 1.007 | 1.198 | 0.979 | 0.861 | 1.000 | 1.000 | 1.000 | 0.965 | 8.08 | 8 | 9 | 11 | 1.285 | 0.28 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9973 | 0.0307 | 0.3360 | 0.0061 | 1.006 | 1.133 | 0.987 | 0.930 | 1.000 | 1.000 | 1.000 | 0.977 | 8.02 | 8 | 9 | 10 | 1.275 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9941 | 0.0152 | 0.3356 | 0.0060 | 1.007 | 1.197 | 0.971 | 0.913 | 1.000 | 1.000 | 1.000 | 0.966 | 8.00 | 7 | 9 | 10 | 1.338 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.9935 | 0.0101 | 0.3359 | 0.0067 | 1.008 | 1.221 | 0.968 | 0.906 | 1.000 | 1.000 | 1.000 | 0.962 | 8.00 | 7 | 9 | 10 | 1.368 | 0.37 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9939 | 0.0300 | 0.3322 | 0.0010 | 1.007 | 1.180 | 0.970 | 0.961 | 1.000 | 1.000 | 1.000 | 0.965 | 7.94 | 7 | 8 | 10 | 1.470 | 0.47 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9870 | 0.0149 | 0.3322 | 0.0014 | 1.009 | 1.317 | 0.936 | 0.925 | 1.000 | 1.000 | 0.999 | 0.945 | 7.89 | 7 | 8 | 9 | 1.551 | 0.55 | 0.00 | 0.00 |
| | 300 | 0.9861 | 0.0099 | 0.3321 | 0.0018 | 1.010 | 1.343 | 0.932 | 0.918 | 1.000 | 1.000 | 0.998 | 0.939 | 7.88 | 7 | 8 | 9 | 1.559 | 0.56 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9960 | 0.0312 | 0.3397 | 0.0106 | 1.007 | 1.164 | 0.980 | 0.888 | 1.000 | 1.000 | 1.000 | 0.982 | 8.07 | 8 | 9 | 11 | 1.179 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9900 | 0.0155 | 0.3402 | 0.0106 | 1.009 | 1.291 | 0.950 | 0.854 | 1.000 | 1.000 | 1.000 | 0.973 | 8.03 | 7 | 9 | 11 | 1.233 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.9889 | 0.0103 | 0.3409 | 0.0123 | 1.009 | 1.320 | 0.945 | 0.838 | 1.000 | 1.000 | 1.000 | 0.965 | 8.03 | 7 | 9 | 10 | 1.252 | 0.25 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9925 | 0.0306 | 0.3365 | 0.0053 | 1.008 | 1.221 | 0.963 | 0.917 | 1.000 | 1.000 | 1.000 | 0.977 | 7.99 | 7 | 8 | 10 | 1.249 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9850 | 0.0152 | 0.3373 | 0.0056 | 1.010 | 1.370 | 0.925 | 0.877 | 1.000 | 1.000 | 1.000 | 0.966 | 7.95 | 7 | 8 | 10 | 1.295 | 0.29 | 0.00 | 0.00 |
| | 300 | 0.9835 | 0.0101 | 0.3375 | 0.0061 | 1.011 | 1.405 | 0.919 | 0.864 | 1.000 | 1.000 | 1.000 | 0.962 | 7.94 | 7 | 9 | 10 | 1.328 | 0.33 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9827 | 0.0300 | 0.3345 | 0.0009 | 1.011 | 1.399 | 0.915 | 0.908 | 1.000 | 1.000 | 1.000 | 0.965 | 7.89 | 7 | 8 | 10 | 1.424 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9708 | 0.0149 | 0.3355 | 0.0014 | 1.014 | 1.604 | 0.858 | 0.850 | 1.000 | 1.000 | 0.999 | 0.945 | 7.81 | 7 | 8 | 9 | 1.497 | 0.49 | 0.00 | 0.00 |
| | 300 | 0.9665 | 0.0099 | 0.3360 | 0.0017 | 1.016 | 1.681 | 0.836 | 0.824 | 1.000 | 1.000 | 0.998 | 0.939 | 7.79 | 7 | 8 | 9 | 1.499 | 0.50 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0946 | 0.5491 | 0.5187 | 1.028 | 1.701 | 1.000 | 0.022 | 1.000 | 0.214 | 0.123 | 0.108 | 14.37 | 7 | 25 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0592 | 0.5920 | 0.5700 | 1.034 | 1.826 | 1.000 | 0.013 | 1.000 | 0.206 | 0.114 | 0.078 | 16.79 | 7 | 33 | 66 | - | - | - | - |
| | 300 | 1.0000 | 0.0457 | 0.6201 | 0.6015 | 1.038 | 1.903 | 1.000 | 0.018 | 1.000 | 0.193 | 0.104 | 0.069 | 18.66 | 7 | 36 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9929 | 0.0342 | 0.3089 | 0.2940 | 1.017 | 1.718 | 0.987 | 0.133 | 1.000 | 0.063 | 0.044 | 0.037 | 8.35 | 5 | 14 | 23 | - | - | - | - |
| | 200 | 0.9970 | 0.0217 | 0.3530 | 0.3427 | 1.019 | 1.822 | 0.992 | 0.108 | 1.000 | 0.069 | 0.034 | 0.029 | 9.30 | 5 | 17 | 30 | - | - | - | - |
| | 300 | 0.9973 | 0.0166 | 0.3844 | 0.3749 | 1.021 | 1.921 | 0.996 | 0.092 | 1.000 | 0.065 | 0.034 | 0.020 | 9.96 | 5 | 18 | 32 | - | - | - | - |

Notes: See notes to Table 100.

**Table 231: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3413 | 0.0120 | 1.004 | 1.102 | 1.000 | 0.891 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3404 | 0.0107 | 1.003 | 1.092 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3414 | 0.0123 | 1.004 | 1.110 | 1.000 | 0.885 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0310 | 0.3376 | 0.0065 | 1.003 | 1.078 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3372 | 0.0059 | 1.003 | 1.072 | 1.000 | 0.943 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3377 | 0.0067 | 1.004 | 1.083 | 1.000 | 0.937 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0305 | 0.3343 | 0.0017 | 1.003 | 1.057 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 8 | 8 | 10 | 1.031 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3342 | 0.0016 | 1.003 | 1.054 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0016 | 1.004 | 1.057 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.060 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3407 | 0.0111 | 1.003 | 1.086 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3401 | 0.0103 | 1.003 | 1.083 | 1.000 | 0.904 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3409 | 0.0114 | 1.004 | 1.094 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3372 | 0.0059 | 1.003 | 1.067 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3370 | 0.0057 | 1.003 | 1.068 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3374 | 0.0062 | 1.004 | 1.074 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0304 | 0.3342 | 0.0015 | 1.003 | 1.058 | 0.999 | 0.985 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3341 | 0.0016 | 1.003 | 1.052 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0101 | 0.3342 | 0.0014 | 1.003 | 1.057 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.058 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0846 | 0.5260 | 0.4945 | 1.015 | 1.671 | 1.000 | 0.022 | 1.000 | 0.229 | 0.124 | 0.109 | 13.37 | 7 | 27 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0586 | 0.5973 | 0.5731 | 1.019 | 1.804 | 1.000 | 0.028 | 1.000 | 0.210 | 0.112 | 0.085 | 16.66 | 7 | 27 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0470 | 0.6175 | 0.5973 | 1.021 | 1.892 | 1.000 | 0.022 | 1.000 | 0.192 | 0.100 | 0.079 | 19.05 | 6 | 34 | 83 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0179 | 0.1931 | 0.1824 | 1.003 | 1.295 | 1.000 | 0.280 | 1.000 | 0.039 | 0.028 | 0.022 | 6.78 | 5 | 10 | 18 | - | - | - | - |
| | 200 | 1.0000 | 0.0119 | 0.2408 | 0.2315 | 1.004 | 1.391 | 1.000 | 0.223 | 1.000 | 0.041 | 0.022 | 0.017 | 7.37 | 5 | 11 | 25 | - | - | - | - |
| | 300 | 1.0000 | 0.0096 | 0.2700 | 0.2634 | 1.005 | 1.461 | 1.000 | 0.192 | 1.000 | 0.038 | 0.016 | 0.015 | 7.87 | 5 | 13 | 27 | - | - | - | - |

Notes: See notes to Table 100.

**Table 232: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5122 | 0.0257 | 0.4109 | 0.0264 | 1.106 | 2.211 | 0.024 | 0.019 | 1.000 | 0.983 | 0.822 | 0.559 | 5.11 | 3 | 7 | 10 | 1.638 | 0.62 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4577 | 0.0126 | 0.4262 | 0.0309 | 1.119 | 2.297 | 0.016 | 0.015 | 1.000 | 0.985 | 0.802 | 0.516 | 4.80 | 3 | 7 | 10 | 1.590 | 0.57 | 0.02 | 0.00 |
| | 300 | 0.4243 | 0.0082 | 0.4286 | 0.0331 | 1.131 | 2.382 | 0.009 | 0.007 | 1.000 | 0.973 | 0.775 | 0.488 | 4.56 | 2 | 7 | 10 | 1.562 | 0.55 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.4792 | 0.0241 | 0.4057 | 0.0159 | 1.112 | 2.243 | 0.021 | 0.018 | 1.000 | 0.977 | 0.794 | 0.509 | 4.78 | 3 | 7 | 9 | 1.635 | 0.62 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4282 | 0.0117 | 0.4183 | 0.0172 | 1.124 | 2.305 | 0.012 | 0.012 | 1.000 | 0.981 | 0.764 | 0.473 | 4.47 | 2 | 7 | 10 | 1.559 | 0.55 | 0.01 | 0.00 |
| | 300 | 0.3967 | 0.0076 | 0.4203 | 0.0191 | 1.134 | 2.390 | 0.006 | 0.004 | 1.000 | 0.970 | 0.741 | 0.445 | 4.25 | 2 | 6 | 9 | 1.535 | 0.52 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.4067 | 0.0216 | 0.4035 | 0.0050 | 1.127 | 2.326 | 0.008 | 0.008 | 1.000 | 0.966 | 0.725 | 0.418 | 4.17 | 2 | 6 | 8 | 1.574 | 0.57 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3588 | 0.0104 | 0.4112 | 0.0050 | 1.138 | 2.368 | 0.006 | 0.005 | 1.000 | 0.960 | 0.691 | 0.387 | 3.86 | 2 | 6 | 8 | 1.472 | 0.47 | 0.00 | 0.00 |
| | 300 | 0.3337 | 0.0067 | 0.4104 | 0.0058 | 1.147 | 2.423 | 0.001 | 0.001 | 1.000 | 0.948 | 0.666 | 0.358 | 3.67 | 2 | 6 | 8 | 1.437 | 0.43 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.4145 | 0.0254 | 0.4423 | 0.0243 | 1.130 | 2.356 | 0.005 | 0.004 | 1.000 | 0.983 | 0.822 | 0.559 | 4.59 | 2 | 7 | 10 | 1.403 | 0.40 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3576 | 0.0124 | 0.4608 | 0.0281 | 1.145 | 2.415 | 0.002 | 0.002 | 1.000 | 0.985 | 0.801 | 0.516 | 4.26 | 2 | 6 | 10 | 1.311 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.3311 | 0.0081 | 0.4616 | 0.0309 | 1.156 | 2.473 | 0.001 | 0.001 | 1.000 | 0.973 | 0.775 | 0.488 | 4.07 | 2 | 6 | 8 | 1.285 | 0.28 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3812 | 0.0239 | 0.4390 | 0.0145 | 1.137 | 2.381 | 0.003 | 0.003 | 1.000 | 0.977 | 0.794 | 0.509 | 4.28 | 2 | 6 | 8 | 1.397 | 0.39 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3304 | 0.0116 | 0.4537 | 0.0160 | 1.150 | 2.421 | 0.001 | 0.001 | 1.000 | 0.981 | 0.764 | 0.473 | 3.96 | 2 | 6 | 10 | 1.295 | 0.29 | 0.00 | 0.00 |
| | 300 | 0.3090 | 0.0075 | 0.4526 | 0.0171 | 1.159 | 2.465 | 0.000 | 0.000 | 1.000 | 0.970 | 0.741 | 0.445 | 3.79 | 2 | 6 | 8 | 1.263 | 0.26 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3230 | 0.0215 | 0.4344 | 0.0043 | 1.150 | 2.423 | 0.002 | 0.002 | 1.000 | 0.966 | 0.725 | 0.418 | 3.75 | 2 | 6 | 8 | 1.356 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2875 | 0.0104 | 0.4388 | 0.0049 | 1.158 | 2.429 | 0.001 | 0.001 | 1.000 | 0.960 | 0.691 | 0.387 | 3.50 | 2 | 5 | 8 | 1.255 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.2662 | 0.0067 | 0.4368 | 0.0052 | 1.167 | 2.462 | 0.000 | 0.000 | 1.000 | 0.948 | 0.666 | 0.358 | 3.33 | 2 | 5 | 7 | 1.205 | 0.20 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8482 | 0.0643 | 0.4341 | 0.4055 | 1.118 | 1.751 | 0.498 | 0.029 | 1.000 | 0.151 | 0.086 | 0.070 | 10.61 | 3 | 23 | 41 | - | - | - | - |
| | 200 | 0.8094 | 0.0456 | 0.4991 | 0.4763 | 1.140 | 1.878 | 0.401 | 0.014 | 1.000 | 0.158 | 0.077 | 0.055 | 13.13 | 3 | 31 | 58 | - | - | - | - |
| | 300 | 0.7977 | 0.0365 | 0.5412 | 0.5228 | 1.153 | 1.958 | 0.362 | 0.009 | 1.000 | 0.142 | 0.062 | 0.051 | 14.92 | 3 | 37 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5337 | 0.0237 | 0.1725 | 0.1657 | 1.142 | 2.274 | 0.183 | 0.007 | 1.000 | 0.034 | 0.020 | 0.022 | 5.01 | 1 | 17 | 33 | - | - | - | - |
| | 200 | 0.5381 | 0.0209 | 0.2458 | 0.2399 | 1.160 | 2.456 | 0.166 | 0.003 | 1.000 | 0.034 | 0.024 | 0.019 | 6.85 | 1 | 23 | 38 | - | - | - | - |
| | 300 | 0.5532 | 0.0181 | 0.2919 | 0.2864 | 1.171 | 2.592 | 0.178 | 0.004 | 1.000 | 0.049 | 0.023 | 0.022 | 8.19 | 1 | 26 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 233: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8983 | 0.0313 | 0.3618 | 0.0130 | 1.020 | 1.827 | 0.558 | 0.495 | 1.000 | 1.000 | 0.999 | 0.980 | 7.59 | 6 | 9 | 10 | 1.539 | 0.53 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8698 | 0.0156 | 0.3678 | 0.0126 | 1.025 | 2.028 | 0.459 | 0.407 | 1.000 | 1.000 | 1.000 | 0.977 | 7.44 | 6 | 9 | 10 | 1.579 | 0.57 | 0.00 | 0.00 |
| | 300 | 0.8609 | 0.0104 | 0.3696 | 0.0137 | 1.027 | 2.082 | 0.424 | 0.370 | 1.000 | 1.000 | 1.000 | 0.968 | 7.40 | 6 | 9 | 10 | 1.603 | 0.59 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8781 | 0.0308 | 0.3626 | 0.0075 | 1.023 | 1.939 | 0.494 | 0.460 | 1.000 | 1.000 | 0.999 | 0.976 | 7.44 | 6 | 8 | 10 | 1.589 | 0.58 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8534 | 0.0152 | 0.3675 | 0.0065 | 1.027 | 2.111 | 0.414 | 0.389 | 1.000 | 1.000 | 1.000 | 0.973 | 7.30 | 6 | 8 | 10 | 1.634 | 0.63 | 0.00 | 0.00 |
| | 300 | 0.8436 | 0.0101 | 0.3691 | 0.0076 | 1.029 | 2.169 | 0.386 | 0.359 | 1.000 | 1.000 | 0.999 | 0.959 | 7.25 | 6 | 8 | 10 | 1.654 | 0.65 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8450 | 0.0301 | 0.3655 | 0.0017 | 1.028 | 2.122 | 0.407 | 0.401 | 1.000 | 1.000 | 0.999 | 0.961 | 7.20 | 6 | 8 | 9 | 1.715 | 0.71 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8262 | 0.0149 | 0.3699 | 0.0016 | 1.031 | 2.260 | 0.370 | 0.365 | 1.000 | 1.000 | 1.000 | 0.957 | 7.10 | 6 | 8 | 9 | 1.746 | 0.74 | 0.00 | 0.00 |
| | 300 | 0.8120 | 0.0099 | 0.3720 | 0.0019 | 1.034 | 2.334 | 0.332 | 0.327 | 1.000 | 1.000 | 0.998 | 0.941 | 7.02 | 6 | 8 | 9 | 1.753 | 0.75 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8453 | 0.0312 | 0.3734 | 0.0120 | 1.029 | 2.136 | 0.399 | 0.359 | 1.000 | 1.000 | 0.999 | 0.980 | 7.32 | 6 | 8 | 10 | 1.395 | 0.39 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8029 | 0.0155 | 0.3834 | 0.0119 | 1.036 | 2.397 | 0.292 | 0.260 | 1.000 | 1.000 | 1.000 | 0.977 | 7.10 | 6 | 8 | 10 | 1.409 | 0.41 | 0.00 | 0.00 |
| | 300 | 0.7783 | 0.0103 | 0.3891 | 0.0129 | 1.040 | 2.519 | 0.228 | 0.201 | 1.000 | 1.000 | 1.000 | 0.968 | 6.98 | 6 | 8 | 10 | 1.419 | 0.42 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8201 | 0.0307 | 0.3760 | 0.0070 | 1.033 | 2.267 | 0.335 | 0.315 | 1.000 | 1.000 | 0.999 | 0.976 | 7.14 | 6 | 8 | 10 | 1.451 | 0.45 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7761 | 0.0152 | 0.3864 | 0.0062 | 1.040 | 2.527 | 0.240 | 0.226 | 1.000 | 1.000 | 1.000 | 0.973 | 6.91 | 6 | 8 | 10 | 1.466 | 0.47 | 0.00 | 0.00 |
| | 300 | 0.7568 | 0.0101 | 0.3903 | 0.0070 | 1.044 | 2.620 | 0.198 | 0.186 | 1.000 | 1.000 | 0.999 | 0.959 | 6.80 | 5 | 8 | 10 | 1.479 | 0.48 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7717 | 0.0300 | 0.3834 | 0.0014 | 1.041 | 2.510 | 0.235 | 0.232 | 1.000 | 1.000 | 0.999 | 0.961 | 6.83 | 5 | 8 | 9 | 1.583 | 0.58 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7360 | 0.0149 | 0.3928 | 0.0016 | 1.047 | 2.723 | 0.194 | 0.191 | 1.000 | 1.000 | 1.000 | 0.957 | 6.65 | 5 | 8 | 9 | 1.601 | 0.60 | 0.00 | 0.00 |
| | 300 | 0.7177 | 0.0099 | 0.3961 | 0.0018 | 1.051 | 2.801 | 0.152 | 0.151 | 1.000 | 1.000 | 0.998 | 0.941 | 6.54 | 5 | 8 | 9 | 1.616 | 0.61 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9982 | 0.0904 | 0.5318 | 0.5034 | 1.028 | 1.709 | 0.992 | 0.040 | 1.000 | 0.229 | 0.115 | 0.107 | 13.94 | 6 | 25 | 47 | - | - | - | - |
| | 200 | 0.9987 | 0.0571 | 0.5768 | 0.5542 | 1.036 | 1.865 | 0.994 | 0.032 | 1.000 | 0.194 | 0.112 | 0.090 | 16.35 | 6 | 32 | 52 | - | - | - | - |
| | 300 | 0.9970 | 0.0452 | 0.6178 | 0.5981 | 1.039 | 1.915 | 0.986 | 0.022 | 1.000 | 0.178 | 0.091 | 0.073 | 18.50 | 7 | 37 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9195 | 0.0388 | 0.3232 | 0.3080 | 1.037 | 2.182 | 0.849 | 0.061 | 1.000 | 0.082 | 0.038 | 0.043 | 8.44 | 1 | 15 | 30 | - | - | - | - |
| | 200 | 0.9154 | 0.0249 | 0.3685 | 0.3568 | 1.044 | 2.402 | 0.846 | 0.053 | 1.000 | 0.066 | 0.046 | 0.033 | 9.52 | 1 | 18 | 33 | - | - | - | - |
| | 300 | 0.9307 | 0.0202 | 0.4151 | 0.4052 | 1.045 | 2.457 | 0.863 | 0.035 | 1.000 | 0.067 | 0.026 | 0.029 | 10.71 | 2 | 21 | 36 | - | - | - | - |

Notes: See notes to Table 100.

**Table 234: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9881 | 0.0314 | 0.3433 | 0.0113 | 1.005 | 1.264 | 0.942 | 0.845 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 7.5 | 9 | 10 | 1.201 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9814 | 0.0157 | 0.3451 | 0.0119 | 1.006 | 1.353 | 0.908 | 0.805 | 1.000 | 1.000 | 1.000 | 1.000 | 8.03 | 7 | 9 | 10 | 1.241 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.9738 | 0.0104 | 0.3459 | 0.0108 | 1.007 | 1.449 | 0.871 | 0.782 | 1.000 | 1.000 | 1.000 | 0.999 | 7.98 | 7 | 9 | 11 | 1.263 | 0.26 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9835 | 0.0308 | 0.3403 | 0.0056 | 1.005 | 1.307 | 0.919 | 0.875 | 1.000 | 1.000 | 1.000 | 0.998 | 7.97 | 7 | 8 | 10 | 1.258 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9745 | 0.0154 | 0.3431 | 0.0068 | 1.007 | 1.424 | 0.875 | 0.816 | 1.000 | 1.000 | 1.000 | 0.999 | 7.94 | 7 | 9 | 10 | 1.305 | 0.30 | 0.00 | 0.00 |
| | 300 | 0.9641 | 0.0102 | 0.3448 | 0.0061 | 1.009 | 1.549 | 0.824 | 0.775 | 1.000 | 1.000 | 1.000 | 0.999 | 7.88 | 7 | 8 | 11 | 1.318 | 0.32 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9649 | 0.0304 | 0.3413 | 0.0012 | 1.008 | 1.541 | 0.830 | 0.821 | 1.000 | 1.000 | 1.000 | 0.997 | 7.83 | 7 | 8 | 9 | 1.403 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9520 | 0.0151 | 0.3440 | 0.0013 | 1.010 | 1.670 | 0.770 | 0.763 | 1.000 | 1.000 | 1.000 | 0.997 | 7.77 | 7 | 8 | 9 | 1.463 | 0.46 | 0.00 | 0.00 |
| | 300 | 0.9409 | 0.0101 | 0.3464 | 0.0013 | 1.012 | 1.793 | 0.719 | 0.709 | 1.000 | 1.000 | 1.000 | 0.998 | 7.71 | 7 | 8 | 10 | 1.477 | 0.48 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9775 | 0.0313 | 0.3448 | 0.0103 | 1.006 | 1.401 | 0.890 | 0.808 | 1.000 | 1.000 | 1.000 | 1.000 | 7.99 | 7 | 9 | 10 | 1.145 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9654 | 0.0156 | 0.3478 | 0.0109 | 1.008 | 1.546 | 0.834 | 0.747 | 1.000 | 1.000 | 1.000 | 1.000 | 7.94 | 7 | 9 | 10 | 1.169 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.9552 | 0.0104 | 0.3494 | 0.0102 | 1.010 | 1.667 | 0.788 | 0.713 | 1.000 | 1.000 | 1.000 | 0.999 | 7.88 | 7 | 9 | 11 | 1.187 | 0.19 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9688 | 0.0308 | 0.3430 | 0.0050 | 1.008 | 1.501 | 0.848 | 0.812 | 1.000 | 1.000 | 1.000 | 0.998 | 7.89 | 7 | 8 | 10 | 1.194 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9540 | 0.0154 | 0.3470 | 0.0062 | 1.010 | 1.667 | 0.779 | 0.731 | 1.000 | 1.000 | 1.000 | 0.999 | 7.83 | 7 | 8 | 10 | 1.218 | 0.22 | 0.00 | 0.00 |
| | 300 | 0.9389 | 0.0102 | 0.3500 | 0.0058 | 1.013 | 1.831 | 0.714 | 0.674 | 1.000 | 1.000 | 1.000 | 0.999 | 7.75 | 7 | 8 | 11 | 1.225 | 0.23 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9398 | 0.0304 | 0.3466 | 0.0011 | 1.012 | 1.837 | 0.720 | 0.712 | 1.000 | 1.000 | 1.000 | 0.997 | 7.71 | 7 | 8 | 9 | 1.321 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9186 | 0.0151 | 0.3512 | 0.0013 | 1.015 | 2.023 | 0.625 | 0.619 | 1.000 | 1.000 | 1.000 | 0.997 | 7.60 | 7 | 8 | 9 | 1.356 | 0.36 | 0.00 | 0.00 |
| | 300 | 0.9044 | 0.0101 | 0.3544 | 0.0012 | 1.017 | 2.155 | 0.568 | 0.562 | 1.000 | 1.000 | 1.000 | 0.998 | 7.53 | 7 | 8 | 10 | 1.367 | 0.37 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0938 | 0.5481 | 0.5191 | 1.015 | 1.705 | 1.000 | 0.029 | 1.000 | 0.226 | 0.127 | 0.106 | 14.29 | 6 | 23 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0624 | 0.5916 | 0.5676 | 1.020 | 1.816 | 1.000 | 0.012 | 1.000 | 0.209 | 0.108 | 0.081 | 17.41 | 7 | 33 | 65 | - | - | - | - |
| | 300 | 0.9999 | 0.0435 | 0.5971 | 0.5753 | 1.023 | 1.879 | 1.000 | 0.013 | 1.000 | 0.197 | 0.098 | 0.084 | 18.01 | 7 | 39 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9887 | 0.0276 | 0.2692 | 0.2567 | 1.009 | 1.679 | 0.980 | 0.163 | 1.000 | 0.056 | 0.037 | 0.032 | 7.68 | 5 | 12 | 21 | - | - | - | - |
| | 200 | 0.9878 | 0.0189 | 0.3198 | 0.3090 | 1.012 | 1.801 | 0.977 | 0.141 | 1.000 | 0.055 | 0.028 | 0.024 | 8.70 | 5 | 16 | 26 | - | - | - | - |
| | 300 | 0.9867 | 0.0133 | 0.3269 | 0.3182 | 1.013 | 1.861 | 0.976 | 0.126 | 1.000 | 0.058 | 0.030 | 0.029 | 8.90 | 5 | 17 | 32 | - | - | - | - |

Notes: See notes to Table 100.

**Table 235: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9959 | 0.0257 | 0.2894 | 0.0192 | 1.018 | 1.060 | 0.983 | 0.821 | 1.000 | 0.980 | 0.824 | 0.555 | 7.52 | 6 | 9 | 11 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9887 | 0.0124 | 0.2850 | 0.0195 | 1.018 | 1.081 | 0.954 | 0.801 | 1.000 | 0.983 | 0.798 | 0.511 | 7.42 | 6 | 9 | 11 | 1.033 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9891 | 0.0083 | 0.2837 | 0.0220 | 1.019 | 1.084 | 0.954 | 0.780 | 1.000 | 0.983 | 0.777 | 0.501 | 7.41 | 6 | 9 | 11 | 1.038 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9907 | 0.0240 | 0.2767 | 0.0112 | 1.016 | 1.058 | 0.961 | 0.869 | 1.000 | 0.975 | 0.792 | 0.510 | 7.33 | 6 | 8 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9812 | 0.0117 | 0.2733 | 0.0116 | 1.017 | 1.091 | 0.927 | 0.839 | 1.000 | 0.980 | 0.766 | 0.469 | 7.23 | 6 | 8 | 11 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9819 | 0.0077 | 0.2710 | 0.0129 | 1.017 | 1.092 | 0.929 | 0.828 | 1.000 | 0.977 | 0.746 | 0.462 | 7.21 | 6 | 9 | 10 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9674 | 0.0217 | 0.2595 | 0.0031 | 1.016 | 1.112 | 0.874 | 0.851 | 1.000 | 0.962 | 0.721 | 0.435 | 6.98 | 5 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9504 | 0.0104 | 0.2562 | 0.0036 | 1.018 | 1.175 | 0.813 | 0.790 | 1.000 | 0.963 | 0.691 | 0.390 | 6.83 | 5 | 8 | 9 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9457 | 0.0068 | 0.2521 | 0.0044 | 1.018 | 1.192 | 0.798 | 0.766 | 1.000 | 0.950 | 0.669 | 0.378 | 6.76 | 5 | 8 | 9 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9958 | 0.0253 | 0.2869 | 0.0159 | 1.016 | 1.046 | 0.983 | 0.846 | 1.000 | 0.980 | 0.824 | 0.555 | 7.49 | 6 | 9 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9886 | 0.0123 | 0.2833 | 0.0170 | 1.017 | 1.069 | 0.954 | 0.820 | 1.000 | 0.983 | 0.798 | 0.511 | 7.39 | 6 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9887 | 0.0082 | 0.2819 | 0.0195 | 1.017 | 1.073 | 0.953 | 0.798 | 1.000 | 0.983 | 0.777 | 0.500 | 7.38 | 6 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9906 | 0.0239 | 0.2753 | 0.0093 | 1.014 | 1.050 | 0.961 | 0.884 | 1.000 | 0.975 | 0.791 | 0.510 | 7.32 | 6 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9811 | 0.0116 | 0.2720 | 0.0098 | 1.016 | 1.084 | 0.927 | 0.852 | 1.000 | 0.980 | 0.766 | 0.469 | 7.21 | 6 | 8 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9815 | 0.0076 | 0.2699 | 0.0113 | 1.015 | 1.086 | 0.928 | 0.839 | 1.000 | 0.977 | 0.746 | 0.462 | 7.19 | 6 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9669 | 0.0216 | 0.2592 | 0.0025 | 1.015 | 1.112 | 0.874 | 0.855 | 1.000 | 0.962 | 0.721 | 0.435 | 6.97 | 5 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9488 | 0.0104 | 0.2562 | 0.0028 | 1.018 | 1.186 | 0.813 | 0.795 | 1.000 | 0.963 | 0.691 | 0.390 | 6.81 | 5 | 8 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9448 | 0.0068 | 0.2518 | 0.0036 | 1.017 | 1.195 | 0.798 | 0.771 | 1.000 | 0.950 | 0.669 | 0.378 | 6.75 | 5 | 8 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9606 | 0.0634 | 0.4356 | 0.4063 | 1.080 | 1.107 | 0.807 | 0.083 | 1.000 | 0.191 | 0.089 | 0.074 | 11.08 | 5 | 22 | 37 | - | - | - | - |
| | 200 | 0.9587 | 0.0443 | 0.5075 | 0.4844 | 1.093 | 1.151 | 0.800 | 0.053 | 1.000 | 0.167 | 0.086 | 0.060 | 13.61 | 5 | 28 | 59 | - | - | - | - |
| | 300 | 0.9611 | 0.0387 | 0.5673 | 0.5487 | 1.104 | 1.175 | 0.811 | 0.040 | 1.000 | 0.169 | 0.083 | 0.056 | 16.37 | 5 | 34 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7716 | 0.0220 | 0.1869 | 0.1776 | 1.089 | 1.752 | 0.303 | 0.049 | 1.000 | 0.050 | 0.024 | 0.023 | 6.03 | 2 | 14 | 25 | - | - | - | - |
| | 200 | 0.7889 | 0.0169 | 0.2507 | 0.2419 | 1.100 | 1.790 | 0.337 | 0.039 | 1.000 | 0.051 | 0.027 | 0.018 | 7.31 | 2 | 17 | 35 | - | - | - | - |
| | 300 | 0.8043 | 0.0163 | 0.3217 | 0.3136 | 1.113 | 1.810 | 0.370 | 0.022 | 1.000 | 0.049 | 0.029 | 0.021 | 8.90 | 2 | 20 | 38 | - | - | - | - |

Notes: See notes to Table 100.

**Table 236: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3409 | 0.0140 | 1.006 | 1.030 | 1.000 | 0.872 | 1.000 | 1.000 | 1.000 | 0.979 | 8.12 | 8 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3398 | 0.0125 | 1.006 | 1.031 | 1.000 | 0.884 | 1.000 | 1.000 | 1.000 | 0.977 | 8.10 | 8 | 9 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3378 | 0.0107 | 1.006 | 1.026 | 1.000 | 0.901 | 1.000 | 1.000 | 0.999 | 0.969 | 8.08 | 8 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3365 | 0.0079 | 1.006 | 1.024 | 1.000 | 0.928 | 1.000 | 1.000 | 1.000 | 0.975 | 8.05 | 8 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3350 | 0.0063 | 1.006 | 1.023 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 0.969 | 8.03 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3336 | 0.0055 | 1.005 | 1.019 | 1.000 | 0.948 | 1.000 | 1.000 | 0.999 | 0.960 | 8.01 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3309 | 0.0017 | 1.006 | 1.016 | 1.000 | 0.984 | 1.000 | 1.000 | 0.998 | 0.960 | 7.97 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3304 | 0.0015 | 1.005 | 1.018 | 1.000 | 0.986 | 1.000 | 1.000 | 0.999 | 0.954 | 7.97 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3286 | 0.0015 | 1.005 | 1.014 | 1.000 | 0.986 | 1.000 | 1.000 | 0.998 | 0.935 | 7.95 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3401 | 0.0129 | 1.006 | 1.024 | 1.000 | 0.882 | 1.000 | 1.000 | 1.000 | 0.979 | 8.11 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3390 | 0.0113 | 1.006 | 1.024 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 0.977 | 8.09 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3372 | 0.0098 | 1.005 | 1.020 | 1.000 | 0.909 | 1.000 | 1.000 | 0.999 | 0.969 | 8.07 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3359 | 0.0070 | 1.006 | 1.019 | 1.000 | 0.935 | 1.000 | 1.000 | 1.000 | 0.975 | 8.05 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3346 | 0.0057 | 1.006 | 1.020 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.969 | 8.03 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3333 | 0.0051 | 1.005 | 1.017 | 1.000 | 0.951 | 1.000 | 1.000 | 0.999 | 0.960 | 8.01 | 8 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3308 | 0.0016 | 1.006 | 1.016 | 1.000 | 0.985 | 1.000 | 1.000 | 0.998 | 0.960 | 7.97 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0149 | 0.3303 | 0.0014 | 1.005 | 1.017 | 1.000 | 0.987 | 1.000 | 1.000 | 0.999 | 0.954 | 7.97 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0098 | 0.3285 | 0.0013 | 1.005 | 1.012 | 1.000 | 0.988 | 1.000 | 1.000 | 0.998 | 0.935 | 7.94 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9995 | 0.0586 | 0.4160 | 0.3827 | 1.021 | 1.112 | 0.998 | 0.116 | 1.000 | 0.208 | 0.113 | 0.080 | 10.80 | 5 | 19 | 40 | - | - | - | - |
| | 200 | 0.9991 | 0.0380 | 0.4568 | 0.4310 | 1.025 | 1.138 | 0.996 | 0.102 | 1.000 | 0.194 | 0.090 | 0.059 | 12.55 | 5 | 24 | 55 | - | - | - | - |
| | 300 | 0.9996 | 0.0287 | 0.4826 | 0.4610 | 1.028 | 1.152 | 0.998 | 0.083 | 1.000 | 0.171 | 0.086 | 0.061 | 13.57 | 5 | 29.5 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9838 | 0.0126 | 0.1406 | 0.1314 | 1.009 | 1.370 | 0.929 | 0.397 | 1.000 | 0.043 | 0.023 | 0.022 | 6.17 | 4 | 10 | 17 | - | - | - | - |
| | 200 | 0.9838 | 0.0081 | 0.1687 | 0.1616 | 1.010 | 1.399 | 0.934 | 0.360 | 1.000 | 0.037 | 0.020 | 0.015 | 6.52 | 5 | 11 | 22 | - | - | - | - |
| | 300 | 0.9853 | 0.0064 | 0.1926 | 0.1858 | 1.011 | 1.415 | 0.938 | 0.307 | 1.000 | 0.029 | 0.019 | 0.015 | 6.84 | 5 | 12 | 22 | - | - | - | - |

Notes: See notes to Table 100.

**Table 237: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3407 | 0.0111 | 1.004 | 1.025 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3405 | 0.0107 | 1.004 | 1.022 | 1.000 | 0.901 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3414 | 0.0121 | 1.004 | 1.027 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3367 | 0.0052 | 1.003 | 1.017 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3371 | 0.0057 | 1.003 | 1.016 | 1.000 | 0.944 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3379 | 0.0068 | 1.003 | 1.021 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3341 | 0.0012 | 1.003 | 1.011 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3339 | 0.0011 | 1.003 | 1.011 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3343 | 0.0015 | 1.003 | 1.014 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3399 | 0.0099 | 1.004 | 1.018 | 1.000 | 0.906 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3401 | 0.0102 | 1.003 | 1.018 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3408 | 0.0112 | 1.003 | 1.021 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3363 | 0.0045 | 1.003 | 1.013 | 1.000 | 0.958 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3370 | 0.0054 | 1.003 | 1.014 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3375 | 0.0063 | 1.003 | 1.017 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3341 | 0.0011 | 1.003 | 1.011 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3338 | 0.0010 | 1.003 | 1.011 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0014 | 1.003 | 1.013 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0563 | 0.3626 | 0.3289 | 1.013 | 1.122 | 1.000 | 0.139 | 1.000 | 0.199 | 0.107 | 0.072 | 10.58 | 5 | 26 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0316 | 0.4223 | 0.3944 | 1.014 | 1.122 | 1.000 | 0.077 | 1.000 | 0.185 | 0.081 | 0.065 | 11.29 | 5 | 23.5 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0245 | 0.4641 | 0.4381 | 1.017 | 1.134 | 1.000 | 0.085 | 1.000 | 0.182 | 0.080 | 0.061 | 12.32 | 5 | 21 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9985 | 0.0053 | 0.0637 | 0.0584 | 1.002 | 1.253 | 0.993 | 0.707 | 1.000 | 0.021 | 0.009 | 0.007 | 5.51 | 5 | 7 | 13 | - | - | - | - |
| | 200 | 0.9988 | 0.0030 | 0.0737 | 0.0702 | 1.003 | 1.255 | 0.995 | 0.648 | 1.000 | 0.014 | 0.005 | 0.005 | 5.60 | 5 | 8 | 16 | - | - | - | - |
| | 300 | 0.9991 | 0.0022 | 0.0814 | 0.0777 | 1.003 | 1.264 | 0.996 | 0.616 | 1.000 | 0.021 | 0.010 | 0.010 | 5.66 | 5 | 8 | 12 | - | - | - | - |

Notes: See notes to Table 100.

**Table 238: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9210 | 0.0259 | 0.3080 | 0.0194 | 1.021 | 1.112 | 0.753 | 0.639 | 1.000 | 0.985 | 0.826 | 0.579 | 7.17 | 5 | 9 | 10 | 1.064 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8966 | 0.0124 | 0.3043 | 0.0231 | 1.023 | 1.161 | 0.696 | 0.567 | 1.000 | 0.983 | 0.780 | 0.498 | 6.95 | 5 | 9 | 11 | 1.078 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8764 | 0.0081 | 0.3056 | 0.0233 | 1.024 | 1.184 | 0.639 | 0.531 | 1.000 | 0.976 | 0.775 | 0.482 | 6.82 | 4 | 9 | 11 | 1.104 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8969 | 0.0243 | 0.3004 | 0.0104 | 1.019 | 1.133 | 0.691 | 0.634 | 1.000 | 0.981 | 0.801 | 0.537 | 6.90 | 5 | 8 | 10 | 1.066 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8762 | 0.0116 | 0.2939 | 0.0136 | 1.022 | 1.187 | 0.654 | 0.586 | 1.000 | 0.977 | 0.749 | 0.457 | 6.68 | 4 | 8 | 10 | 1.095 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.8553 | 0.0076 | 0.2942 | 0.0122 | 1.022 | 1.207 | 0.596 | 0.541 | 1.000 | 0.968 | 0.742 | 0.449 | 6.54 | 4 | 8 | 11 | 1.127 | 0.13 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8444 | 0.0219 | 0.2889 | 0.0026 | 1.020 | 1.207 | 0.573 | 0.561 | 1.000 | 0.969 | 0.733 | 0.449 | 6.39 | 4 | 8 | 9 | 1.136 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8335 | 0.0103 | 0.2792 | 0.0032 | 1.021 | 1.251 | 0.550 | 0.536 | 1.000 | 0.962 | 0.686 | 0.382 | 6.22 | 4 | 8 | 9 | 1.167 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.8114 | 0.0067 | 0.2787 | 0.0033 | 1.022 | 1.269 | 0.510 | 0.499 | 1.000 | 0.952 | 0.658 | 0.379 | 6.07 | 3 | 8 | 9 | 1.215 | 0.21 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9201 | 0.0256 | 0.3062 | 0.0164 | 1.018 | 1.101 | 0.752 | 0.653 | 1.000 | 0.985 | 0.826 | 0.579 | 7.14 | 5 | 9 | 10 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8950 | 0.0123 | 0.3032 | 0.0209 | 1.022 | 1.158 | 0.696 | 0.579 | 1.000 | 0.983 | 0.780 | 0.498 | 6.92 | 5 | 9 | 11 | 1.054 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.8745 | 0.0080 | 0.3037 | 0.0200 | 1.021 | 1.170 | 0.636 | 0.543 | 1.000 | 0.976 | 0.775 | 0.482 | 6.78 | 4 | 8 | 10 | 1.067 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8961 | 0.0242 | 0.2995 | 0.0089 | 1.018 | 1.129 | 0.690 | 0.641 | 1.000 | 0.981 | 0.801 | 0.537 | 6.88 | 5 | 8 | 10 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8741 | 0.0115 | 0.2936 | 0.0123 | 1.021 | 1.186 | 0.651 | 0.590 | 1.000 | 0.977 | 0.749 | 0.457 | 6.66 | 4 | 8 | 10 | 1.079 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8529 | 0.0075 | 0.2934 | 0.0103 | 1.021 | 1.199 | 0.591 | 0.545 | 1.000 | 0.968 | 0.742 | 0.449 | 6.51 | 4 | 8 | 10 | 1.105 | 0.11 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8435 | 0.0219 | 0.2888 | 0.0022 | 1.020 | 1.206 | 0.571 | 0.562 | 1.000 | 0.969 | 0.733 | 0.448 | 6.38 | 4 | 8 | 9 | 1.131 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8318 | 0.0103 | 0.2792 | 0.0026 | 1.021 | 1.248 | 0.546 | 0.535 | 1.000 | 0.962 | 0.686 | 0.382 | 6.21 | 4 | 8 | 9 | 1.160 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.8092 | 0.0067 | 0.2786 | 0.0025 | 1.021 | 1.266 | 0.505 | 0.498 | 1.000 | 0.952 | 0.658 | 0.379 | 6.05 | 3 | 8 | 9 | 1.206 | 0.21 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8607 | 0.0597 | 0.4347 | 0.4069 | 1.079 | 0.978 | 0.415 | 0.046 | 1.000 | 0.178 | 0.089 | 0.078 | 10.21 | 4 | 20 | 42 | - | - | - | - |
| | 200 | 0.8562 | 0.0444 | 0.5184 | 0.4969 | 1.094 | 1.022 | 0.406 | 0.025 | 1.000 | 0.146 | 0.077 | 0.065 | 13.12 | 4 | 28 | 56 | - | - | - | - |
| | 300 | 0.8484 | 0.0384 | 0.5755 | 0.5591 | 1.099 | 1.038 | 0.381 | 0.021 | 1.000 | 0.144 | 0.073 | 0.055 | 15.71 | 4 | 34 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5981 | 0.0196 | 0.1652 | 0.1579 | 1.100 | 1.459 | 0.083 | 0.008 | 1.000 | 0.034 | 0.024 | 0.026 | 4.94 | 2 | 14 | 25 | - | - | - | - |
| | 200 | 0.6239 | 0.0185 | 0.2519 | 0.2450 | 1.116 | 1.534 | 0.093 | 0.005 | 1.000 | 0.040 | 0.020 | 0.026 | 6.80 | 2 | 20 | 36 | - | - | - | - |
| | 300 | 0.6267 | 0.0174 | 0.3154 | 0.3099 | 1.124 | 1.565 | 0.079 | 0.002 | 1.000 | 0.039 | 0.025 | 0.019 | 8.34 | 2 | 23.5 | 41 | - | - | - | - |

Notes: See notes to Table 100.

**Table 239: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3399 | 0.0129 | 1.006 | 1.029 | 1.000 | 0.881 | 1.000 | 1.000 | 1.000 | 0.976 | 8.11 | 8 | 9 | 12 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3391 | 0.0125 | 1.006 | 1.031 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 0.969 | 8.10 | 8 | 9 | 11 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3385 | 0.0121 | 1.006 | 1.030 | 1.000 | 0.890 | 1.000 | 1.000 | 1.000 | 0.965 | 8.09 | 8 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3351 | 0.0066 | 1.006 | 1.019 | 1.000 | 0.937 | 1.000 | 1.000 | 1.000 | 0.969 | 8.03 | 8 | 9 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3346 | 0.0063 | 1.006 | 1.021 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 0.964 | 8.03 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0063 | 1.006 | 1.022 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.960 | 8.02 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3303 | 0.0018 | 1.005 | 1.012 | 1.000 | 0.983 | 1.000 | 1.000 | 0.999 | 0.951 | 7.97 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3295 | 0.0011 | 1.005 | 1.013 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.946 | 7.96 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0099 | 0.3296 | 0.0022 | 1.005 | 1.015 | 1.000 | 0.979 | 1.000 | 1.000 | 1.000 | 0.938 | 7.96 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0312 | 0.3389 | 0.0114 | 1.006 | 1.023 | 1.000 | 0.894 | 1.000 | 1.000 | 1.000 | 0.976 | 8.09 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3384 | 0.0114 | 1.006 | 1.024 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 0.969 | 8.08 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3380 | 0.0113 | 1.006 | 1.024 | 1.000 | 0.898 | 1.000 | 1.000 | 1.000 | 0.965 | 8.08 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0306 | 0.3347 | 0.0060 | 1.006 | 1.016 | 1.000 | 0.943 | 1.000 | 1.000 | 1.000 | 0.969 | 8.03 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3342 | 0.0057 | 1.006 | 1.017 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.964 | 8.02 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3339 | 0.0058 | 1.006 | 1.018 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 0.960 | 8.02 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0299 | 0.3301 | 0.0016 | 1.005 | 1.011 | 1.000 | 0.985 | 1.000 | 1.000 | 0.999 | 0.951 | 7.97 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0148 | 0.3294 | 0.0010 | 1.005 | 1.012 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.946 | 7.96 | 7 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0099 | 0.3295 | 0.0021 | 1.005 | 1.014 | 1.000 | 0.980 | 1.000 | 1.000 | 1.000 | 0.938 | 7.96 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9837 | 0.0616 | 0.4262 | 0.3953 | 1.022 | 1.097 | 0.920 | 0.081 | 1.000 | 0.197 | 0.097 | 0.083 | 11.01 | 5 | 21 | 42 | - | - | - | - |
| | 200 | 0.9815 | 0.0385 | 0.4736 | 0.4484 | 1.025 | 1.116 | 0.909 | 0.065 | 1.000 | 0.170 | 0.079 | 0.071 | 12.58 | 5 | 26 | 49 | - | - | - | - |
| | 300 | 0.9802 | 0.0298 | 0.4944 | 0.4720 | 1.028 | 1.128 | 0.902 | 0.060 | 1.000 | 0.179 | 0.085 | 0.057 | 13.80 | 5 | 30 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8911 | 0.0214 | 0.2156 | 0.2039 | 1.018 | 1.551 | 0.600 | 0.154 | 1.000 | 0.052 | 0.028 | 0.025 | 6.58 | 3 | 12 | 21 | - | - | - | - |
| | 200 | 0.8918 | 0.0136 | 0.2554 | 0.2455 | 1.021 | 1.587 | 0.590 | 0.118 | 1.000 | 0.047 | 0.023 | 0.022 | 7.16 | 3 | 13 | 28 | - | - | - | - |
| | 300 | 0.8951 | 0.0109 | 0.2838 | 0.2736 | 1.022 | 1.588 | 0.587 | 0.111 | 1.000 | 0.052 | 0.032 | 0.017 | 7.72 | 3 | 15 | 40 | - | - | - | - |

Notes: See notes to Table 100.

**Table 240: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3407 | 0.0111 | 1.004 | 1.026 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3409 | 0.0115 | 1.004 | 1.026 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 12 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3409 | 0.0116 | 1.003 | 1.026 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3369 | 0.0053 | 1.003 | 1.017 | 1.000 | 0.948 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3374 | 0.0063 | 1.004 | 1.018 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.998 | 8.06 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3371 | 0.0058 | 1.003 | 1.018 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3339 | 0.0009 | 1.003 | 1.011 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3338 | 0.0013 | 1.004 | 1.010 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.996 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0013 | 1.003 | 1.011 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3401 | 0.0101 | 1.003 | 1.020 | 1.000 | 0.906 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3402 | 0.0104 | 1.004 | 1.020 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3403 | 0.0107 | 1.003 | 1.021 | 1.000 | 0.903 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3366 | 0.0050 | 1.003 | 1.015 | 1.000 | 0.952 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3371 | 0.0059 | 1.004 | 1.015 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.998 | 8.06 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3368 | 0.0054 | 1.003 | 1.016 | 1.000 | 0.950 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3339 | 0.0009 | 1.003 | 1.010 | 1.000 | 0.992 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3338 | 0.0012 | 1.004 | 1.010 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.996 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0013 | 1.003 | 1.011 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9977 | 0.0594 | 0.4188 | 0.3847 | 1.012 | 1.112 | 0.989 | 0.119 | 1.000 | 0.190 | 0.119 | 0.081 | 10.87 | 5 | 19 | 38 | - | - | - | - |
| | 200 | 0.9965 | 0.0384 | 0.4560 | 0.4280 | 1.015 | 1.122 | 0.983 | 0.114 | 1.000 | 0.191 | 0.088 | 0.064 | 12.63 | 5 | 24 | 58 | - | - | - | - |
| | 300 | 0.9970 | 0.0291 | 0.4679 | 0.4449 | 1.017 | 1.140 | 0.985 | 0.082 | 1.000 | 0.169 | 0.082 | 0.055 | 13.68 | 5 | 30 | 98 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9699 | 0.0126 | 0.1434 | 0.1342 | 1.005 | 1.413 | 0.862 | 0.361 | 1.000 | 0.034 | 0.023 | 0.015 | 6.10 | 4 | 9 | 20 | - | - | - | - |
| | 200 | 0.9673 | 0.0081 | 0.1748 | 0.1655 | 1.006 | 1.420 | 0.846 | 0.328 | 1.000 | 0.041 | 0.016 | 0.008 | 6.45 | 4 | 10 | 19 | - | - | - | - |
| | 300 | 0.9656 | 0.0061 | 0.1876 | 0.1806 | 1.007 | 1.445 | 0.837 | 0.318 | 1.000 | 0.034 | 0.017 | 0.015 | 6.66 | 4 | 11 | 33 | - | - | - | - |

Notes: See notes to Table 100.

## Table 241: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables

$\omega = 0.8$, $T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8018 | 0.0252 | 0.3296 | 0.0206 | 1.020 | 1.065 | 0.501 | 0.426 | 1.000 | 0.984 | 0.807 | 0.535 | 6.51 | 4 | 8 | 11 | 1.328 | 0.32 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7874 | 0.0124 | 0.3317 | 0.0225 | 1.022 | 1.046 | 0.491 | 0.401 | 1.000 | 0.983 | 0.793 | 0.505 | 6.40 | 4 | 8 | 11 | 1.404 | 0.40 | 0.01 | 0.00 |
| | 300 | 0.7830 | 0.0081 | 0.3280 | 0.0248 | 1.025 | 1.080 | 0.477 | 0.399 | 1.000 | 0.977 | 0.772 | 0.486 | 6.35 | 3 | 8 | 11 | 1.451 | 0.44 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7853 | 0.0237 | 0.3198 | 0.0113 | 1.019 | 1.063 | 0.476 | 0.434 | 1.000 | 0.978 | 0.782 | 0.493 | 6.27 | 3 | 8 | 9 | 1.388 | 0.38 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7778 | 0.0116 | 0.3196 | 0.0134 | 1.020 | 1.045 | 0.478 | 0.427 | 1.000 | 0.978 | 0.757 | 0.469 | 6.20 | 3 | 8 | 10 | 1.472 | 0.46 | 0.01 | 0.00 |
| | 300 | 0.7711 | 0.0076 | 0.3150 | 0.0150 | 1.023 | 1.060 | 0.456 | 0.413 | 1.000 | 0.972 | 0.735 | 0.444 | 6.12 | 3 | 8 | 10 | 1.504 | 0.50 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.7780 | 0.0212 | 0.2971 | 0.0031 | 1.018 | 1.045 | 0.479 | 0.467 | 1.000 | 0.959 | 0.706 | 0.411 | 5.99 | 3 | 8 | 9 | 1.554 | 0.55 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7586 | 0.0104 | 0.2996 | 0.0039 | 1.022 | 1.015 | 0.461 | 0.449 | 1.000 | 0.960 | 0.681 | 0.395 | 5.86 | 3 | 8 | 9 | 1.595 | 0.59 | 0.00 | 0.00 |
| | 300 | 0.7499 | 0.0067 | 0.2950 | 0.0043 | 1.023 | 1.037 | 0.443 | 0.430 | 1.000 | 0.952 | 0.662 | 0.364 | 5.76 | 3 | 8 | 10 | 1.613 | 0.61 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7703 | 0.0249 | 0.3355 | 0.0178 | 1.022 | 1.046 | 0.437 | 0.385 | 1.000 | 0.984 | 0.807 | 0.535 | 6.32 | 3.5 | 8 | 11 | 1.288 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7326 | 0.0123 | 0.3446 | 0.0211 | 1.026 | 1.033 | 0.403 | 0.344 | 1.000 | 0.983 | 0.793 | 0.505 | 6.11 | 3 | 8 | 10 | 1.349 | 0.35 | 0.00 | 0.00 |
| | 300 | 0.7240 | 0.0080 | 0.3415 | 0.0225 | 1.031 | 1.058 | 0.369 | 0.320 | 1.000 | 0.977 | 0.772 | 0.486 | 6.02 | 3 | 8 | 11 | 1.389 | 0.39 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7463 | 0.0235 | 0.3284 | 0.0094 | 1.021 | 1.047 | 0.397 | 0.370 | 1.000 | 0.978 | 0.782 | 0.493 | 6.06 | 3 | 8 | 9 | 1.351 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7134 | 0.0115 | 0.3353 | 0.0123 | 1.028 | 1.030 | 0.373 | 0.342 | 1.000 | 0.978 | 0.757 | 0.469 | 5.86 | 3 | 8 | 10 | 1.409 | 0.41 | 0.00 | 0.00 |
| | 300 | 0.7023 | 0.0075 | 0.3315 | 0.0130 | 1.031 | 1.046 | 0.339 | 0.313 | 1.000 | 0.972 | 0.735 | 0.444 | 5.76 | 3 | 8 | 10 | 1.437 | 0.44 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7169 | 0.0211 | 0.3122 | 0.0026 | 1.025 | 1.038 | 0.369 | 0.364 | 1.000 | 0.959 | 0.706 | 0.411 | 5.68 | 3 | 8 | 9 | 1.506 | 0.51 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6766 | 0.0103 | 0.3198 | 0.0033 | 1.033 | 1.011 | 0.322 | 0.314 | 1.000 | 0.960 | 0.681 | 0.395 | 5.44 | 3 | 8 | 9 | 1.528 | 0.53 | 0.00 | 0.00 |
| | 300 | 0.6582 | 0.0067 | 0.3174 | 0.0035 | 1.037 | 1.037 | 0.296 | 0.292 | 1.000 | 0.952 | 0.662 | 0.364 | 5.29 | 2 | 8 | 9 | 1.535 | 0.53 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7106 | 0.0557 | 0.4292 | 0.3984 | 1.080 | 0.805 | 0.115 | 0.010 | 1.000 | 0.150 | 0.076 | 0.067 | 9.07 | 3 | 20 | 50 | - | - | - | - |
| | 200 | 0.7010 | 0.0381 | 0.4897 | 0.4671 | 1.090 | 0.816 | 0.111 | 0.007 | 1.000 | 0.126 | 0.060 | 0.062 | 11.08 | 3 | 26 | 60 | - | - | - | - |
| | 300 | 0.6922 | 0.0340 | 0.5478 | 0.5292 | 1.103 | 0.866 | 0.094 | 0.005 | 1.000 | 0.121 | 0.060 | 0.052 | 13.61 | 3 | 33 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4440 | 0.0182 | 0.1549 | 0.1505 | 1.099 | 1.107 | 0.015 | 0.000 | 1.000 | 0.032 | 0.014 | 0.017 | 4.02 | 1 | 14 | 41 | - | - | - | - |
| | 200 | 0.4461 | 0.0148 | 0.2071 | 0.2015 | 1.110 | 1.155 | 0.011 | 0.000 | 1.000 | 0.025 | 0.023 | 0.022 | 5.17 | 1 | 18 | 39 | - | - | - | - |
| | 300 | 0.4702 | 0.0159 | 0.2871 | 0.2816 | 1.124 | 1.283 | 0.011 | 0.000 | 1.000 | 0.033 | 0.024 | 0.023 | 7.12 | 1 | 24 | 48 | - | - | - | - |

Notes: See notes to Table 100.

**Table 242: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9937 | 0.0313 | 0.3409 | 0.0113 | 1.006 | 1.033 | 0.977 | 0.878 | 1.000 | 1.000 | 1.000 | 0.984 | 8.07 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9892 | 0.0156 | 0.3418 | 0.0128 | 1.007 | 1.047 | 0.964 | 0.849 | 1.000 | 1.000 | 0.999 | 0.970 | 8.04 | 7 | 9 | 11 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9861 | 0.0103 | 0.3417 | 0.0120 | 1.007 | 1.049 | 0.952 | 0.848 | 1.000 | 1.000 | 1.000 | 0.967 | 8.02 | 7 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9881 | 0.0307 | 0.3382 | 0.0060 | 1.006 | 1.033 | 0.959 | 0.905 | 1.000 | 1.000 | 1.000 | 0.978 | 7.98 | 7 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9836 | 0.0152 | 0.3384 | 0.0064 | 1.006 | 1.043 | 0.944 | 0.886 | 1.000 | 1.000 | 0.999 | 0.965 | 7.95 | 7 | 9 | 10 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9770 | 0.0101 | 0.3392 | 0.0061 | 1.006 | 1.053 | 0.922 | 0.874 | 1.000 | 1.000 | 0.999 | 0.960 | 7.90 | 7 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9692 | 0.0300 | 0.3377 | 0.0011 | 1.005 | 1.052 | 0.898 | 0.888 | 1.000 | 1.000 | 1.000 | 0.957 | 7.81 | 7 | 8 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9619 | 0.0149 | 0.3388 | 0.0016 | 1.006 | 1.070 | 0.879 | 0.866 | 1.000 | 1.000 | 0.998 | 0.947 | 7.77 | 6 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9540 | 0.0099 | 0.3407 | 0.0017 | 1.006 | 1.092 | 0.862 | 0.848 | 1.000 | 1.000 | 0.997 | 0.945 | 7.73 | 6 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9937 | 0.0312 | 0.3403 | 0.0103 | 1.006 | 1.028 | 0.977 | 0.887 | 1.000 | 1.000 | 1.000 | 0.984 | 8.06 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9891 | 0.0155 | 0.3407 | 0.0111 | 1.006 | 1.038 | 0.964 | 0.862 | 1.000 | 1.000 | 0.999 | 0.970 | 8.03 | 7 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9859 | 0.0103 | 0.3411 | 0.0111 | 1.006 | 1.045 | 0.952 | 0.857 | 1.000 | 1.000 | 1.000 | 0.967 | 8.01 | 7 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9881 | 0.0306 | 0.3378 | 0.0055 | 1.006 | 1.030 | 0.959 | 0.909 | 1.000 | 1.000 | 1.000 | 0.978 | 7.97 | 7 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9836 | 0.0152 | 0.3377 | 0.0053 | 1.006 | 1.036 | 0.944 | 0.896 | 1.000 | 1.000 | 0.999 | 0.965 | 7.94 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9768 | 0.0101 | 0.3390 | 0.0056 | 1.006 | 1.051 | 0.922 | 0.878 | 1.000 | 1.000 | 0.999 | 0.960 | 7.90 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9691 | 0.0300 | 0.3377 | 0.0011 | 1.006 | 1.053 | 0.898 | 0.888 | 1.000 | 1.000 | 1.000 | 0.957 | 7.81 | 7 | 8 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9618 | 0.0149 | 0.3388 | 0.0015 | 1.006 | 1.070 | 0.879 | 0.866 | 1.000 | 1.000 | 0.998 | 0.947 | 7.77 | 6 | 8 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9540 | 0.0099 | 0.3406 | 0.0017 | 1.006 | 1.092 | 0.862 | 0.848 | 1.000 | 1.000 | 0.997 | 0.945 | 7.73 | 6 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9078 | 0.0580 | 0.4256 | 0.3953 | 1.022 | 1.004 | 0.577 | 0.054 | 1.000 | 0.197 | 0.095 | 0.080 | 10.28 | 5 | 20.5 | 35 | - | - | - | - |
| | 200 | 0.9076 | 0.0374 | 0.4750 | 0.4488 | 1.025 | 1.022 | 0.580 | 0.038 | 1.000 | 0.176 | 0.084 | 0.071 | 11.98 | 5 | 25 | 52 | - | - | - | - |
| | 300 | 0.9023 | 0.0295 | 0.5108 | 0.4880 | 1.028 | 1.033 | 0.554 | 0.031 | 1.000 | 0.164 | 0.079 | 0.057 | 13.35 | 5 | 29 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7133 | 0.0230 | 0.2306 | 0.2184 | 1.030 | 1.468 | 0.185 | 0.028 | 1.000 | 0.063 | 0.035 | 0.033 | 5.84 | 2 | 12 | 22 | - | - | - | - |
| | 200 | 0.7266 | 0.0158 | 0.2819 | 0.2709 | 1.031 | 1.520 | 0.192 | 0.023 | 1.000 | 0.063 | 0.025 | 0.025 | 6.77 | 2 | 15 | 33 | - | - | - | - |
| | 300 | 0.7337 | 0.0129 | 0.3233 | 0.3127 | 1.033 | 1.537 | 0.187 | 0.019 | 1.000 | 0.048 | 0.030 | 0.023 | 7.52 | 2 | 17 | 40 | - | - | - | - |

Notes: See notes to Table 100.

**Table 243: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3402 | 0.0103 | 1.004 | 1.023 | 1.000 | 0.903 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3406 | 0.0109 | 1.004 | 1.024 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3411 | 0.0117 | 1.004 | 1.021 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3368 | 0.0052 | 1.004 | 1.015 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3375 | 0.0062 | 1.003 | 1.018 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3372 | 0.0059 | 1.004 | 1.013 | 1.000 | 0.943 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0304 | 0.3340 | 0.0012 | 1.004 | 1.010 | 0.998 | 0.986 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0151 | 0.3341 | 0.0012 | 1.003 | 1.012 | 0.995 | 0.983 | 1.000 | 1.000 | 1.000 | 0.998 | 8.00 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0101 | 0.3340 | 0.0011 | 1.003 | 1.007 | 0.997 | 0.986 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3398 | 0.0096 | 1.004 | 1.019 | 1.000 | 0.909 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3402 | 0.0103 | 1.004 | 1.020 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3407 | 0.0112 | 1.004 | 1.018 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3365 | 0.0049 | 1.004 | 1.013 | 1.000 | 0.954 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3371 | 0.0057 | 1.003 | 1.014 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3371 | 0.0057 | 1.004 | 1.012 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0304 | 0.3340 | 0.0012 | 1.004 | 1.009 | 0.998 | 0.987 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9990 | 0.0151 | 0.3341 | 0.0011 | 1.003 | 1.011 | 0.995 | 0.984 | 1.000 | 1.000 | 1.000 | 0.998 | 8.00 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0101 | 0.3340 | 0.0011 | 1.003 | 1.007 | 0.997 | 0.986 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9627 | 0.0610 | 0.4212 | 0.3882 | 1.013 | 1.067 | 0.820 | 0.082 | 1.000 | 0.188 | 0.101 | 0.081 | 10.85 | 5 | 20 | 40 | - | - | - | - |
| | 200 | 0.9595 | 0.0373 | 0.4629 | 0.4349 | 1.015 | 1.069 | 0.802 | 0.059 | 1.000 | 0.187 | 0.083 | 0.066 | 12.22 | 5 | 27 | 41 | - | - | - | - |
| | 300 | 0.9565 | 0.0275 | 0.4883 | 0.4638 | 1.016 | 1.079 | 0.792 | 0.054 | 1.000 | 0.180 | 0.073 | 0.056 | 13.01 | 5 | 31 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8523 | 0.0181 | 0.1990 | 0.1864 | 1.009 | 1.460 | 0.416 | 0.137 | 1.000 | 0.050 | 0.029 | 0.019 | 6.05 | 3 | 10 | 22 | - | - | - | - |
| | 200 | 0.8495 | 0.0113 | 0.2317 | 0.2199 | 1.010 | 1.470 | 0.389 | 0.106 | 1.000 | 0.051 | 0.021 | 0.022 | 6.50 | 3 | 12 | 21 | - | - | - | - |
| | 300 | 0.8460 | 0.0086 | 0.2587 | 0.2487 | 1.011 | 1.500 | 0.376 | 0.077 | 1.000 | 0.050 | 0.022 | 0.012 | 6.80 | 3 | 13 | 27 | - | - | - | - |

Notes: See notes to Table 100.

### 3.3.2 Findings for designs featuring pseudo-signals

## Table 244: MC findings for DGPII(a)

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9444 | 0.0366 | 0.3780 | 0.0166 | 1.042 | 1.639 | 0.745 | 0.113 | 0.272 | 0.234 | 1.000 | 0.991 | 0.812 | 0.554 | 8.34 | 6 | 10 | 13 | 1.158 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9222 | 0.0171 | 0.3666 | 0.0179 | 1.049 | 1.774 | 0.664 | 0.145 | 0.202 | 0.171 | 1.000 | 0.974 | 0.781 | 0.516 | 8.01 | 6 | 10 | 12 | 1.178 | 0.17 | 0.01 | 0.00 |
| | 300 | 0.9020 | 0.0110 | 0.3638 | 0.0212 | 1.058 | 1.864 | 0.585 | 0.132 | 0.154 | 0.122 | 1.000 | 0.977 | 0.773 | 0.480 | 7.81 | 5 | 10 | 12 | 1.218 | 0.21 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9251 | 0.0337 | 0.3625 | 0.0098 | 1.046 | 1.716 | 0.663 | 0.139 | 0.197 | 0.179 | 1.000 | 0.986 | 0.784 | 0.514 | 7.96 | 6 | 10 | 12 | 1.198 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8981 | 0.0157 | 0.3510 | 0.0108 | 1.055 | 1.885 | 0.574 | 0.153 | 0.145 | 0.136 | 1.000 | 0.970 | 0.751 | 0.477 | 7.61 | 5 | 10 | 11 | 1.210 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.8799 | 0.0101 | 0.3473 | 0.0128 | 1.064 | 1.954 | 0.505 | 0.148 | 0.107 | 0.092 | 1.000 | 0.964 | 0.741 | 0.445 | 7.42 | 5 | 10 | 12 | 1.258 | 0.25 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8682 | 0.0286 | 0.3355 | 0.0029 | 1.064 | 1.985 | 0.457 | 0.163 | 0.088 | 0.088 | 1.000 | 0.976 | 0.724 | 0.435 | 7.18 | 5 | 9 | 10 | 1.290 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8444 | 0.0132 | 0.3216 | 0.0027 | 1.073 | 2.134 | 0.401 | 0.147 | 0.079 | 0.077 | 1.000 | 0.945 | 0.677 | 0.397 | 6.86 | 4 | 9 | 11 | 1.329 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.8260 | 0.0087 | 0.3232 | 0.0036 | 1.083 | 2.216 | 0.359 | 0.139 | 0.064 | 0.062 | 1.000 | 0.949 | 0.678 | 0.369 | 6.73 | 4 | 9 | 11 | 1.382 | 0.38 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9332 | 0.0362 | 0.3783 | 0.0149 | 1.045 | 1.695 | 0.705 | 0.111 | 0.265 | 0.230 | 1.000 | 0.991 | 0.812 | 0.554 | 8.25 | 6 | 10 | 13 | 1.096 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9049 | 0.0169 | 0.3677 | 0.0152 | 1.054 | 1.861 | 0.612 | 0.124 | 0.195 | 0.171 | 1.000 | 0.974 | 0.781 | 0.516 | 7.89 | 5 | 10 | 12 | 1.094 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.8804 | 0.0109 | 0.3648 | 0.0178 | 1.065 | 1.963 | 0.525 | 0.118 | 0.145 | 0.119 | 1.000 | 0.977 | 0.773 | 0.480 | 7.65 | 5 | 10 | 12 | 1.121 | 0.12 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9075 | 0.0334 | 0.3641 | 0.0086 | 1.052 | 1.813 | 0.607 | 0.123 | 0.187 | 0.173 | 1.000 | 0.986 | 0.784 | 0.514 | 7.84 | 5 | 10 | 12 | 1.123 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8773 | 0.0155 | 0.3528 | 0.0091 | 1.063 | 1.998 | 0.519 | 0.131 | 0.138 | 0.133 | 1.000 | 0.970 | 0.751 | 0.477 | 7.47 | 5 | 10 | 11 | 1.130 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.8531 | 0.0099 | 0.3495 | 0.0103 | 1.075 | 2.091 | 0.441 | 0.125 | 0.096 | 0.087 | 1.000 | 0.964 | 0.741 | 0.445 | 7.24 | 5 | 10 | 12 | 1.157 | 0.16 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8424 | 0.0283 | 0.3386 | 0.0026 | 1.075 | 2.126 | 0.389 | 0.137 | 0.077 | 0.077 | 1.000 | 0.976 | 0.724 | 0.435 | 7.01 | 5 | 9 | 10 | 1.218 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8106 | 0.0130 | 0.3256 | 0.0023 | 1.090 | 2.320 | 0.328 | 0.117 | 0.061 | 0.061 | 1.000 | 0.945 | 0.677 | 0.397 | 6.64 | 4 | 9 | 10 | 1.237 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.7896 | 0.0085 | 0.3269 | 0.0028 | 1.101 | 2.412 | 0.285 | 0.110 | 0.045 | 0.045 | 1.000 | 0.949 | 0.678 | 0.369 | 6.49 | 4 | 9 | 10 | 1.285 | 0.29 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9957 | 0.0779 | 0.4964 | 0.4306 | 1.084 | 1.465 | 0.979 | 0.042 | 0.068 | 0.002 | 1.000 | 0.191 | 0.103 | 0.089 | 12.69 | 6 | 23 | 37 | - | - | - | - |
| | 200 | 0.9948 | 0.0569 | 0.5798 | 0.5280 | 1.105 | 1.583 | 0.974 | 0.022 | 0.058 | 0.001 | 1.000 | 0.182 | 0.092 | 0.074 | 16.30 | 6 | 32 | 58 | - | - | - | - |
| | 300 | 0.9937 | 0.0457 | 0.6198 | 0.5763 | 1.118 | 1.639 | 0.969 | 0.019 | 0.051 | 0.001 | 1.000 | 0.173 | 0.082 | 0.055 | 18.64 | 7 | 37 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9363 | 0.0331 | 0.2690 | 0.2340 | 1.095 | 1.956 | 0.762 | 0.166 | 0.014 | 0.001 | 1.000 | 0.062 | 0.039 | 0.033 | 7.95 | 3 | 15 | 25 | - | - | - | - |
| | 200 | 0.9392 | 0.0255 | 0.3537 | 0.3238 | 1.116 | 2.121 | 0.779 | 0.118 | 0.011 | 0.000 | 1.000 | 0.062 | 0.037 | 0.031 | 9.77 | 3 | 19 | 40 | - | - | - | - |
| | 300 | 0.9357 | 0.0214 | 0.4025 | 0.3777 | 1.134 | 2.228 | 0.784 | 0.087 | 0.009 | 0.000 | 1.000 | 0.060 | 0.034 | 0.022 | 11.07 | 3 | 23 | 37 | - | - | - | - |

Notes: See notes to Table 145.

## Table 245: MC findings for DGPII(a)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0514 | 0.4584 | 0.0101 | 1.010 | 1.412 | 1.000 | 0.000 | 0.994 | 0.883 | 1.000 | 1.000 | 1.000 | 0.977 | 10.09 | 10 | 11 | 13 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0256 | 0.4580 | 0.0104 | 1.010 | 1.425 | 1.000 | 0.001 | 0.987 | 0.872 | 1.000 | 1.000 | 1.000 | 0.973 | 10.09 | 10 | 11 | 13 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0170 | 0.4577 | 0.0112 | 1.009 | 1.421 | 1.000 | 0.001 | 0.980 | 0.864 | 1.000 | 1.000 | 1.000 | 0.966 | 10.08 | 10 | 11 | 13 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0508 | 0.4555 | 0.0054 | 1.009 | 1.400 | 1.000 | 0.000 | 0.990 | 0.930 | 1.000 | 1.000 | 1.000 | 0.973 | 10.03 | 10 | 11 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0252 | 0.4543 | 0.0056 | 1.009 | 1.409 | 1.000 | 0.001 | 0.981 | 0.918 | 1.000 | 1.000 | 0.999 | 0.962 | 10.01 | 9 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4537 | 0.0059 | 1.009 | 1.409 | 1.000 | 0.001 | 0.969 | 0.906 | 1.000 | 1.000 | 1.000 | 0.957 | 10.00 | 9 | 11 | 13 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0498 | 0.4506 | 0.0010 | 1.009 | 1.386 | 1.000 | 0.001 | 0.964 | 0.952 | 1.000 | 1.000 | 1.000 | 0.956 | 9.93 | 9 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0246 | 0.4484 | 0.0011 | 1.009 | 1.395 | 1.000 | 0.001 | 0.939 | 0.928 | 1.000 | 1.000 | 0.998 | 0.942 | 9.89 | 9 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0163 | 0.4469 | 0.0016 | 1.008 | 1.390 | 1.000 | 0.003 | 0.919 | 0.903 | 1.000 | 1.000 | 0.997 | 0.934 | 9.87 | 9 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0513 | 0.4578 | 0.0089 | 1.009 | 1.400 | 1.000 | 0.000 | 0.994 | 0.895 | 1.000 | 1.000 | 1.000 | 0.977 | 10.08 | 10 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0255 | 0.4576 | 0.0096 | 1.009 | 1.415 | 1.000 | 0.001 | 0.987 | 0.881 | 1.000 | 1.000 | 1.000 | 0.973 | 10.08 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0170 | 0.4574 | 0.0106 | 1.009 | 1.412 | 1.000 | 0.001 | 0.980 | 0.870 | 1.000 | 1.000 | 1.000 | 0.966 | 10.07 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0507 | 0.4551 | 0.0048 | 1.009 | 1.392 | 1.000 | 0.000 | 0.990 | 0.936 | 1.000 | 1.000 | 1.000 | 0.973 | 10.02 | 10 | 11 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0251 | 0.4541 | 0.0053 | 1.009 | 1.406 | 1.000 | 0.001 | 0.981 | 0.921 | 1.000 | 1.000 | 0.999 | 0.962 | 10.00 | 9 | 11 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4534 | 0.0054 | 1.009 | 1.402 | 1.000 | 0.001 | 0.969 | 0.911 | 1.000 | 1.000 | 1.000 | 0.957 | 9.99 | 9 | 11 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0498 | 0.4506 | 0.0009 | 1.009 | 1.385 | 1.000 | 0.001 | 0.964 | 0.953 | 1.000 | 1.000 | 1.000 | 0.956 | 9.93 | 9 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0246 | 0.4483 | 0.0010 | 1.009 | 1.393 | 1.000 | 0.001 | 0.939 | 0.929 | 1.000 | 1.000 | 0.998 | 0.942 | 9.89 | 9 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0163 | 0.4469 | 0.0014 | 1.008 | 1.388 | 1.000 | 0.003 | 0.919 | 0.905 | 1.000 | 1.000 | 0.997 | 0.934 | 9.86 | 9 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0705 | 0.4725 | 0.4039 | 1.024 | 1.415 | 1.000 | 0.046 | 0.059 | 0.002 | 1.000 | 0.205 | 0.109 | 0.076 | 11.98 | 6 | 21 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0457 | 0.5160 | 0.4576 | 1.028 | 1.469 | 1.000 | 0.042 | 0.059 | 0.002 | 1.000 | 0.193 | 0.093 | 0.082 | 14.09 | 6 | 26 | 71 | - | - | - | - |
| | 300 | 1.0000 | 0.0346 | 0.5436 | 0.4925 | 1.031 | 1.496 | 1.000 | 0.027 | 0.052 | 0.002 | 1.000 | 0.192 | 0.089 | 0.062 | 15.33 | 6 | 34 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0153 | 0.1692 | 0.1437 | 1.006 | 1.276 | 1.000 | 0.348 | 0.004 | 0.000 | 1.000 | 0.041 | 0.019 | 0.016 | 6.52 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9994 | 0.0100 | 0.2025 | 0.1797 | 1.008 | 1.342 | 0.998 | 0.302 | 0.004 | 0.001 | 1.000 | 0.036 | 0.015 | 0.013 | 6.98 | 5 | 11 | 21 | - | - | - | - |
| | 300 | 0.9995 | 0.0078 | 0.2252 | 0.2045 | 1.008 | 1.376 | 0.998 | 0.268 | 0.004 | 0.000 | 1.000 | 0.034 | 0.015 | 0.014 | 7.32 | 5 | 13 | 25 | - | - | - | - |

Notes: See notes to Table 145.

## Table 246: MC findings for DGPII(a)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0518 | 0.4601 | 0.0102 | 1.006 | 1.418 | 1.000 | 0.000 | 1.000 | 0.888 | 1.000 | 1.000 | 1.000 | 0.999 | 10.12 | 10 | 11 | 13 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0256 | 0.4591 | 0.0084 | 1.005 | 1.424 | 1.000 | 0.000 | 1.000 | 0.906 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 13 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4598 | 0.0098 | 1.006 | 1.426 | 1.000 | 0.000 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 0.998 | 10.12 | 10 | 11 | 13 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0511 | 0.4573 | 0.0051 | 1.006 | 1.404 | 1.000 | 0.000 | 1.000 | 0.943 | 1.000 | 1.000 | 1.000 | 0.999 | 10.06 | 10 | 11 | 13 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0254 | 0.4568 | 0.0042 | 1.005 | 1.416 | 1.000 | 0.000 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 1.000 | 10.05 | 10 | 10 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4571 | 0.0048 | 1.005 | 1.414 | 1.000 | 0.000 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.998 | 10.06 | 10 | 11 | 12 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0506 | 0.4551 | 0.0010 | 1.006 | 1.395 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.999 | 10.01 | 10 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0252 | 0.4549 | 0.0010 | 1.005 | 1.409 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.997 | 10.01 | 10 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4548 | 0.0009 | 1.005 | 1.402 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.997 | 10.01 | 10 | 10 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0516 | 0.4595 | 0.0092 | 1.006 | 1.407 | 1.000 | 0.000 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 0.999 | 10.11 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0256 | 0.4589 | 0.0080 | 1.005 | 1.419 | 1.000 | 0.000 | 1.000 | 0.910 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4594 | 0.0091 | 1.005 | 1.417 | 1.000 | 0.000 | 1.000 | 0.900 | 1.000 | 1.000 | 1.000 | 0.998 | 10.11 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0511 | 0.4570 | 0.0047 | 1.006 | 1.399 | 1.000 | 0.000 | 1.000 | 0.948 | 1.000 | 1.000 | 1.000 | 0.999 | 10.06 | 10 | 11 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0254 | 0.4567 | 0.0039 | 1.005 | 1.413 | 1.000 | 0.000 | 1.000 | 0.954 | 1.000 | 1.000 | 1.000 | 1.000 | 10.05 | 10 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4569 | 0.0045 | 1.005 | 1.409 | 1.000 | 0.000 | 1.000 | 0.948 | 1.000 | 1.000 | 1.000 | 0.998 | 10.05 | 10 | 11 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0506 | 0.4550 | 0.0010 | 1.006 | 1.394 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 10.01 | 10 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0252 | 0.4549 | 0.0010 | 1.005 | 1.408 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.997 | 10.01 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4548 | 0.0008 | 1.005 | 1.400 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.997 | 10.01 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0728 | 0.4284 | 0.3526 | 1.016 | 1.441 | 1.000 | 0.063 | 0.072 | 0.007 | 1.000 | 0.201 | 0.091 | 0.086 | 12.20 | 6 | 27.5 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0365 | 0.4648 | 0.4006 | 1.017 | 1.440 | 1.000 | 0.034 | 0.055 | 0.002 | 1.000 | 0.186 | 0.095 | 0.059 | 12.27 | 6 | 31 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0292 | 0.5180 | 0.4607 | 1.017 | 1.459 | 1.000 | 0.032 | 0.054 | 0.001 | 1.000 | 0.176 | 0.075 | 0.066 | 13.74 | 6 | 24 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0068 | 0.0816 | 0.0681 | 1.002 | 1.136 | 1.000 | 0.634 | 0.003 | 0.001 | 1.000 | 0.028 | 0.009 | 0.009 | 5.67 | 5 | 8 | 14 | - | - | - | - |
| | 200 | 1.0000 | 0.0034 | 0.0815 | 0.0687 | 1.001 | 1.142 | 1.000 | 0.621 | 0.001 | 0.000 | 1.000 | 0.019 | 0.007 | 0.005 | 5.67 | 5 | 8 | 16 | - | - | - | - |
| | 300 | 1.0000 | 0.0027 | 0.0950 | 0.0842 | 1.002 | 1.153 | 1.000 | 0.572 | 0.000 | 0.000 | 1.000 | 0.023 | 0.007 | 0.005 | 5.79 | 5 | 8 | 14 | - | - | - | - |

Notes: See notes to Table 145.

**Table 247: MC findings for DGPII(a)**

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7925 | 0.0329 | 0.3873 | 0.0208 | 1.057 | 1.783 | 0.337 | 0.065 | 0.112 | 0.094 | 1.000 | 0.982 | 0.804 | 0.539 | 7.22 | 5 | 10 | 12 | 1.241 | 0.24 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7641 | 0.0155 | 0.3802 | 0.0208 | 1.065 | 1.890 | 0.293 | 0.058 | 0.096 | 0.080 | 1.000 | 0.974 | 0.777 | 0.496 | 6.91 | 4 | 10 | 12 | 1.283 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.7503 | 0.0101 | 0.3791 | 0.0232 | 1.070 | 1.917 | 0.285 | 0.056 | 0.091 | 0.076 | 1.000 | 0.972 | 0.760 | 0.483 | 6.78 | 4 | 10 | 13 | 1.326 | 0.32 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7626 | 0.0307 | 0.3764 | 0.0118 | 1.061 | 1.843 | 0.284 | 0.058 | 0.089 | 0.081 | 1.000 | 0.977 | 0.775 | 0.508 | 6.85 | 4 | 10 | 12 | 1.282 | 0.28 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7476 | 0.0145 | 0.3675 | 0.0120 | 1.066 | 1.926 | 0.283 | 0.069 | 0.087 | 0.077 | 1.000 | 0.969 | 0.749 | 0.459 | 6.63 | 4 | 10 | 11 | 1.334 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.7374 | 0.0094 | 0.3650 | 0.0127 | 1.072 | 1.950 | 0.276 | 0.060 | 0.092 | 0.083 | 1.000 | 0.965 | 0.730 | 0.442 | 6.51 | 4 | 10 | 12 | 1.386 | 0.38 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.7300 | 0.0275 | 0.3571 | 0.0033 | 1.069 | 1.952 | 0.276 | 0.060 | 0.089 | 0.086 | 1.000 | 0.962 | 0.711 | 0.434 | 6.37 | 3 | 9 | 11 | 1.422 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7234 | 0.0129 | 0.3446 | 0.0030 | 1.071 | 2.001 | 0.287 | 0.074 | 0.083 | 0.080 | 1.000 | 0.952 | 0.679 | 0.379 | 6.18 | 3 | 9 | 11 | 1.445 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.7309 | 0.0085 | 0.3412 | 0.0034 | 1.075 | 1.987 | 0.326 | 0.085 | 0.096 | 0.095 | 1.000 | 0.945 | 0.660 | 0.376 | 6.21 | 3 | 9 | 10 | 1.513 | 0.51 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7675 | 0.0322 | 0.3890 | 0.0174 | 1.063 | 1.842 | 0.307 | 0.062 | 0.097 | 0.082 | 1.000 | 0.982 | 0.804 | 0.539 | 7.02 | 4 | 10 | 12 | 1.148 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7319 | 0.0151 | 0.3830 | 0.0181 | 1.072 | 1.968 | 0.255 | 0.056 | 0.068 | 0.059 | 1.000 | 0.974 | 0.777 | 0.496 | 6.67 | 4 | 9 | 11 | 1.175 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.7138 | 0.0098 | 0.3810 | 0.0208 | 1.079 | 1.998 | 0.239 | 0.060 | 0.055 | 0.045 | 1.000 | 0.972 | 0.760 | 0.483 | 6.49 | 4 | 9 | 12 | 1.218 | 0.22 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7359 | 0.0299 | 0.3780 | 0.0102 | 1.069 | 1.914 | 0.256 | 0.062 | 0.066 | 0.061 | 1.000 | 0.977 | 0.775 | 0.508 | 6.64 | 4 | 9 | 12 | 1.201 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7120 | 0.0141 | 0.3707 | 0.0108 | 1.076 | 2.019 | 0.237 | 0.070 | 0.058 | 0.052 | 1.000 | 0.969 | 0.749 | 0.459 | 6.36 | 4 | 9 | 11 | 1.237 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.6964 | 0.0090 | 0.3659 | 0.0113 | 1.082 | 2.041 | 0.224 | 0.066 | 0.047 | 0.041 | 1.000 | 0.965 | 0.730 | 0.442 | 6.18 | 3 | 9 | 11 | 1.286 | 0.29 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6969 | 0.0263 | 0.3564 | 0.0025 | 1.078 | 2.034 | 0.236 | 0.076 | 0.050 | 0.049 | 1.000 | 0.962 | 0.711 | 0.434 | 6.09 | 3 | 9 | 10 | 1.344 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6805 | 0.0123 | 0.3452 | 0.0029 | 1.083 | 2.106 | 0.223 | 0.084 | 0.043 | 0.042 | 1.000 | 0.952 | 0.679 | 0.379 | 5.84 | 3 | 9 | 11 | 1.368 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.6799 | 0.0080 | 0.3404 | 0.0030 | 1.088 | 2.099 | 0.239 | 0.100 | 0.036 | 0.036 | 1.000 | 0.945 | 0.660 | 0.376 | 5.79 | 3 | 9 | 10 | 1.433 | 0.43 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9448 | 0.0717 | 0.4761 | 0.4095 | 1.098 | 1.426 | 0.743 | 0.043 | 0.036 | 0.002 | 1.000 | 0.151 | 0.091 | 0.081 | 11.83 | 5 | 22 | 41 | - | - | - | - |
| | 200 | 0.9437 | 0.0531 | 0.5634 | 0.5096 | 1.109 | 1.511 | 0.739 | 0.027 | 0.038 | 0.001 | 1.000 | 0.159 | 0.086 | 0.063 | 15.28 | 5 | 31 | 59 | - | - | - | - |
| | 300 | 0.9347 | 0.0431 | 0.5970 | 0.5509 | 1.125 | 1.555 | 0.701 | 0.022 | 0.038 | 0.000 | 1.000 | 0.163 | 0.071 | 0.060 | 17.55 | 5 | 37 | 91 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7273 | 0.0281 | 0.2212 | 0.1896 | 1.136 | 2.002 | 0.295 | 0.029 | 0.006 | 0.001 | 1.000 | 0.044 | 0.029 | 0.030 | 6.42 | 1 | 16 | 32 | - | - | - | - |
| | 200 | 0.7588 | 0.0247 | 0.3248 | 0.2948 | 1.145 | 2.155 | 0.355 | 0.024 | 0.005 | 0.000 | 1.000 | 0.057 | 0.030 | 0.024 | 8.71 | 1 | 20 | 41 | - | - | - | - |
| | 300 | 0.7555 | 0.0218 | 0.3748 | 0.3484 | 1.168 | 2.254 | 0.346 | 0.011 | 0.005 | 0.000 | 1.000 | 0.066 | 0.031 | 0.023 | 10.30 | 1 | 25 | 52 | - | - | - | - |

Notes: See notes to Table 145.

## Table 248: MC findings for DGPII(a)

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9995 | 0.0503 | 0.4523 | 0.0099 | 1.009 | 1.401 | 0.998 | 0.006 | 0.887 | 0.788 | 1.000 | 1.000 | 1.000 | 0.977 | 9.97 | 9 | 11 | 12 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9993 | 0.0249 | 0.4513 | 0.0106 | 1.010 | 1.410 | 0.997 | 0.006 | 0.865 | 0.765 | 1.000 | 1.000 | 0.999 | 0.975 | 9.96 | 9 | 11 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9986 | 0.0164 | 0.4490 | 0.0105 | 1.009 | 1.405 | 0.993 | 0.015 | 0.830 | 0.735 | 1.000 | 1.000 | 1.000 | 0.975 | 9.91 | 9 | 11 | 13 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9988 | 0.0491 | 0.4464 | 0.0053 | 1.009 | 1.384 | 0.994 | 0.012 | 0.837 | 0.785 | 1.000 | 1.000 | 1.000 | 0.972 | 9.85 | 9 | 11 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9984 | 0.0243 | 0.4449 | 0.0059 | 1.009 | 1.394 | 0.992 | 0.013 | 0.811 | 0.755 | 1.000 | 1.000 | 0.999 | 0.966 | 9.82 | 9 | 11 | 12 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9975 | 0.0160 | 0.4420 | 0.0054 | 1.008 | 1.386 | 0.988 | 0.024 | 0.771 | 0.721 | 1.000 | 1.000 | 1.000 | 0.965 | 9.76 | 9 | 10 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9953 | 0.0468 | 0.4348 | 0.0014 | 1.008 | 1.374 | 0.978 | 0.040 | 0.701 | 0.691 | 1.000 | 1.000 | 0.999 | 0.960 | 9.61 | 8 | 10 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9939 | 0.0229 | 0.4305 | 0.0011 | 1.009 | 1.375 | 0.970 | 0.043 | 0.645 | 0.636 | 1.000 | 1.000 | 0.997 | 0.946 | 9.52 | 8 | 10 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9920 | 0.0151 | 0.4280 | 0.0011 | 1.008 | 1.387 | 0.961 | 0.052 | 0.602 | 0.594 | 1.000 | 1.000 | 0.999 | 0.943 | 9.46 | 8 | 10 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9994 | 0.0502 | 0.4518 | 0.0089 | 1.009 | 1.391 | 0.997 | 0.005 | 0.887 | 0.797 | 1.000 | 1.000 | 1.000 | 0.977 | 9.96 | 9 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9992 | 0.0248 | 0.4506 | 0.0094 | 1.009 | 1.396 | 0.996 | 0.006 | 0.865 | 0.776 | 1.000 | 1.000 | 0.999 | 0.975 | 9.94 | 9 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9986 | 0.0164 | 0.4486 | 0.0098 | 1.009 | 1.396 | 0.993 | 0.016 | 0.830 | 0.741 | 1.000 | 1.000 | 1.000 | 0.975 | 9.90 | 9 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9988 | 0.0490 | 0.4461 | 0.0047 | 1.008 | 1.377 | 0.994 | 0.012 | 0.837 | 0.790 | 1.000 | 1.000 | 1.000 | 0.972 | 9.85 | 9 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9983 | 0.0242 | 0.4445 | 0.0052 | 1.009 | 1.385 | 0.992 | 0.013 | 0.811 | 0.763 | 1.000 | 1.000 | 0.999 | 0.966 | 9.81 | 9 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9975 | 0.0160 | 0.4419 | 0.0053 | 1.008 | 1.384 | 0.988 | 0.024 | 0.771 | 0.723 | 1.000 | 1.000 | 1.000 | 0.965 | 9.76 | 9 | 10 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9952 | 0.0468 | 0.4347 | 0.0012 | 1.008 | 1.373 | 0.977 | 0.040 | 0.700 | 0.692 | 1.000 | 1.000 | 0.999 | 0.960 | 9.61 | 8 | 10 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9932 | 0.0229 | 0.4306 | 0.0011 | 1.009 | 1.382 | 0.967 | 0.043 | 0.645 | 0.636 | 1.000 | 1.000 | 0.997 | 0.946 | 9.52 | 8 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9911 | 0.0151 | 0.4282 | 0.0011 | 1.009 | 1.393 | 0.958 | 0.049 | 0.602 | 0.595 | 1.000 | 1.000 | 0.999 | 0.943 | 9.46 | 8 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9989 | 0.0755 | 0.4834 | 0.4151 | 1.024 | 1.417 | 0.995 | 0.047 | 0.062 | 0.005 | 1.000 | 0.202 | 0.113 | 0.092 | 12.47 | 6 | 23 | 47 | - | - | - | - |
| | 200 | 0.9989 | 0.0468 | 0.5291 | 0.4707 | 1.029 | 1.473 | 0.995 | 0.034 | 0.051 | 0.001 | 1.000 | 0.178 | 0.102 | 0.063 | 14.31 | 6 | 29 | 68 | - | - | - | - |
| | 300 | 0.9986 | 0.0357 | 0.5534 | 0.5017 | 1.032 | 1.511 | 0.993 | 0.023 | 0.056 | 0.000 | 1.000 | 0.200 | 0.100 | 0.062 | 15.68 | 6 | 32 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9864 | 0.0272 | 0.2577 | 0.2235 | 1.016 | 1.587 | 0.950 | 0.190 | 0.010 | 0.003 | 1.000 | 0.065 | 0.039 | 0.029 | 7.62 | 5 | 13 | 24 | - | - | - | - |
| | 200 | 0.9873 | 0.0172 | 0.3014 | 0.2706 | 1.019 | 1.679 | 0.955 | 0.154 | 0.008 | 0.001 | 1.000 | 0.064 | 0.037 | 0.023 | 8.37 | 5 | 15 | 35 | - | - | - | - |
| | 300 | 0.9855 | 0.0133 | 0.3281 | 0.2985 | 1.021 | 1.754 | 0.945 | 0.121 | 0.010 | 0.000 | 1.000 | 0.072 | 0.033 | 0.024 | 8.91 | 5 | 17 | 34 | - | - | - | - |

Notes: See notes to Table 145.

## Table 249: MC findings for DGPII(a)

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0516 | 0.4594 | 0.0093 | 1.006 | 1.397 | 1.000 | 0.000 | 0.998 | 0.897 | 1.000 | 1.000 | 1.000 | 0.999 | 10.11 | 10 | 11 | 13 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0257 | 0.4593 | 0.0089 | 1.006 | 1.413 | 1.000 | 0.000 | 0.998 | 0.901 | 1.000 | 1.000 | 1.000 | 1.000 | 10.11 | 10 | 11 | 13 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4596 | 0.0102 | 1.006 | 1.426 | 1.000 | 0.000 | 0.992 | 0.880 | 1.000 | 1.000 | 1.000 | 0.999 | 10.12 | 10 | 11 | 13 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0510 | 0.4567 | 0.0046 | 1.005 | 1.388 | 1.000 | 0.000 | 0.996 | 0.944 | 1.000 | 1.000 | 1.000 | 0.999 | 10.05 | 10 | 11 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0253 | 0.4565 | 0.0041 | 1.005 | 1.399 | 1.000 | 0.000 | 0.995 | 0.948 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 10 | 10 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4566 | 0.0053 | 1.006 | 1.413 | 1.000 | 0.001 | 0.987 | 0.927 | 1.000 | 1.000 | 1.000 | 0.999 | 10.05 | 10 | 11 | 13 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0505 | 0.4542 | 0.0010 | 1.005 | 1.376 | 1.000 | 0.000 | 0.986 | 0.975 | 1.000 | 1.000 | 1.000 | 0.998 | 10.00 | 10 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0251 | 0.4540 | 0.0012 | 1.005 | 1.386 | 1.000 | 0.000 | 0.978 | 0.964 | 1.000 | 1.000 | 1.000 | 1.000 | 9.99 | 10 | 10 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4533 | 0.0012 | 1.005 | 1.393 | 1.000 | 0.001 | 0.970 | 0.956 | 1.000 | 1.000 | 1.000 | 0.997 | 9.98 | 10 | 10 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0515 | 0.4591 | 0.0086 | 1.005 | 1.390 | 1.000 | 0.000 | 0.998 | 0.904 | 1.000 | 1.000 | 1.000 | 0.999 | 10.10 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0256 | 0.4588 | 0.0081 | 1.005 | 1.403 | 1.000 | 0.000 | 0.998 | 0.910 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4592 | 0.0095 | 1.006 | 1.417 | 1.000 | 0.000 | 0.992 | 0.888 | 1.000 | 1.000 | 1.000 | 0.999 | 10.11 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0510 | 0.4565 | 0.0042 | 1.005 | 1.384 | 1.000 | 0.000 | 0.996 | 0.948 | 1.000 | 1.000 | 1.000 | 0.999 | 10.04 | 10 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0253 | 0.4562 | 0.0037 | 1.005 | 1.394 | 1.000 | 0.000 | 0.995 | 0.953 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 10 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4563 | 0.0048 | 1.006 | 1.406 | 1.000 | 0.001 | 0.987 | 0.933 | 1.000 | 1.000 | 1.000 | 0.999 | 10.04 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0504 | 0.4541 | 0.0009 | 1.005 | 1.376 | 1.000 | 0.000 | 0.986 | 0.975 | 1.000 | 1.000 | 1.000 | 0.998 | 9.99 | 10 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0251 | 0.4539 | 0.0011 | 1.005 | 1.384 | 1.000 | 0.000 | 0.978 | 0.965 | 1.000 | 1.000 | 1.000 | 1.000 | 9.99 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4533 | 0.0010 | 1.005 | 1.390 | 1.000 | 0.001 | 0.970 | 0.958 | 1.000 | 1.000 | 1.000 | 0.997 | 9.98 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0725 | 0.4885 | 0.4166 | 1.014 | 1.396 | 1.000 | 0.040 | 0.077 | 0.004 | 1.000 | 0.209 | 0.114 | 0.083 | 12.18 | 6 | 20 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0466 | 0.5212 | 0.4620 | 1.017 | 1.465 | 1.000 | 0.058 | 0.056 | 0.003 | 1.000 | 0.198 | 0.085 | 0.073 | 14.27 | 6 | 26 | 58 | - | - | - | - |
| | 300 | 1.0000 | 0.0361 | 0.5364 | 0.4859 | 1.019 | 1.504 | 1.000 | 0.037 | 0.053 | 0.002 | 1.000 | 0.176 | 0.080 | 0.064 | 15.80 | 6 | 32 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9992 | 0.0157 | 0.1736 | 0.1468 | 1.004 | 1.302 | 0.996 | 0.313 | 0.005 | 0.001 | 1.000 | 0.042 | 0.024 | 0.016 | 6.55 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9991 | 0.0097 | 0.2025 | 0.1804 | 1.004 | 1.358 | 0.996 | 0.314 | 0.005 | 0.001 | 1.000 | 0.039 | 0.020 | 0.018 | 6.93 | 5 | 11 | 18 | - | - | - | - |
| | 300 | 0.9989 | 0.0077 | 0.2268 | 0.2052 | 1.005 | 1.400 | 0.995 | 0.272 | 0.005 | 0.001 | 1.000 | 0.040 | 0.014 | 0.010 | 7.30 | 5 | 12 | 21 | - | - | - | - |

Notes: See notes to Table 145.

## Table 250: MC findings for DGPII(a)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6455 | 0.0303 | 0.4093 | 0.0218 | 1.052 | 1.606 | 0.180 | 0.046 | 0.039 | 0.034 | 1.000 | 0.982 | 0.827 | 0.540 | 6.23 | 4 | 9 | 11 | 1.441 | 0.43 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6219 | 0.0145 | 0.4046 | 0.0254 | 1.057 | 1.630 | 0.161 | 0.043 | 0.039 | 0.034 | 1.000 | 0.978 | 0.782 | 0.499 | 5.99 | 3 | 9 | 12 | 1.491 | 0.48 | 0.01 | 0.00 |
| | 300 | 0.6044 | 0.0094 | 0.4048 | 0.0264 | 1.060 | 1.654 | 0.154 | 0.040 | 0.029 | 0.025 | 1.000 | 0.980 | 0.773 | 0.475 | 5.84 | 3 | 9 | 12 | 1.502 | 0.49 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.6311 | 0.0283 | 0.3962 | 0.0124 | 1.052 | 1.596 | 0.169 | 0.050 | 0.031 | 0.030 | 1.000 | 0.977 | 0.797 | 0.500 | 5.96 | 3 | 9 | 11 | 1.493 | 0.49 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6120 | 0.0134 | 0.3877 | 0.0137 | 1.055 | 1.616 | 0.149 | 0.049 | 0.031 | 0.029 | 1.000 | 0.970 | 0.754 | 0.453 | 5.72 | 3 | 9 | 12 | 1.547 | 0.54 | 0.01 | 0.00 |
| | 300 | 0.5897 | 0.0088 | 0.3927 | 0.0159 | 1.061 | 1.643 | 0.143 | 0.046 | 0.025 | 0.022 | 1.000 | 0.972 | 0.744 | 0.452 | 5.58 | 3 | 9 | 12 | 1.552 | 0.55 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.5906 | 0.0249 | 0.3756 | 0.0032 | 1.058 | 1.611 | 0.150 | 0.058 | 0.021 | 0.021 | 1.000 | 0.966 | 0.722 | 0.422 | 5.42 | 3 | 9 | 10 | 1.598 | 0.60 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5658 | 0.0117 | 0.3681 | 0.0035 | 1.062 | 1.629 | 0.127 | 0.052 | 0.020 | 0.020 | 1.000 | 0.948 | 0.675 | 0.382 | 5.16 | 3 | 8 | 11 | 1.625 | 0.62 | 0.00 | 0.00 |
| | 300 | 0.5562 | 0.0077 | 0.3701 | 0.0048 | 1.066 | 1.631 | 0.126 | 0.051 | 0.019 | 0.018 | 1.000 | 0.957 | 0.672 | 0.366 | 5.08 | 2 | 8 | 11 | 1.638 | 0.64 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5714 | 0.0289 | 0.4209 | 0.0195 | 1.063 | 1.662 | 0.101 | 0.033 | 0.013 | 0.012 | 1.000 | 0.982 | 0.827 | 0.539 | 5.71 | 3 | 9 | 11 | 1.338 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5372 | 0.0137 | 0.4195 | 0.0241 | 1.072 | 1.702 | 0.090 | 0.033 | 0.012 | 0.012 | 1.000 | 0.978 | 0.782 | 0.499 | 5.42 | 3 | 8 | 11 | 1.373 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.5084 | 0.0089 | 0.4220 | 0.0256 | 1.078 | 1.734 | 0.068 | 0.024 | 0.008 | 0.007 | 1.000 | 0.980 | 0.773 | 0.475 | 5.20 | 3 | 8 | 11 | 1.378 | 0.38 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5459 | 0.0269 | 0.4106 | 0.0118 | 1.067 | 1.672 | 0.083 | 0.034 | 0.007 | 0.007 | 1.000 | 0.977 | 0.797 | 0.500 | 5.39 | 3 | 8 | 11 | 1.396 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5140 | 0.0127 | 0.4064 | 0.0126 | 1.075 | 1.705 | 0.067 | 0.026 | 0.009 | 0.009 | 1.000 | 0.970 | 0.754 | 0.453 | 5.09 | 3 | 8 | 10 | 1.422 | 0.42 | 0.00 | 0.00 |
| | 300 | 0.4852 | 0.0083 | 0.4121 | 0.0156 | 1.084 | 1.740 | 0.059 | 0.028 | 0.006 | 0.006 | 1.000 | 0.972 | 0.744 | 0.452 | 4.90 | 2 | 8 | 10 | 1.419 | 0.42 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4966 | 0.0236 | 0.3930 | 0.0031 | 1.079 | 1.705 | 0.062 | 0.031 | 0.006 | 0.006 | 1.000 | 0.966 | 0.722 | 0.422 | 4.81 | 2 | 8 | 10 | 1.484 | 0.48 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4556 | 0.0110 | 0.3882 | 0.0035 | 1.088 | 1.741 | 0.043 | 0.022 | 0.004 | 0.004 | 1.000 | 0.948 | 0.675 | 0.382 | 4.46 | 2 | 7 | 10 | 1.478 | 0.48 | 0.00 | 0.00 |
| | 300 | 0.4349 | 0.0073 | 0.3959 | 0.0050 | 1.095 | 1.756 | 0.043 | 0.022 | 0.004 | 0.004 | 1.000 | 0.957 | 0.672 | 0.366 | 4.35 | 2 | 7 | 10 | 1.482 | 0.48 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7920 | 0.0555 | 0.4209 | 0.3508 | 1.101 | 1.257 | 0.289 | 0.019 | 0.008 | 0.000 | 1.000 | 0.160 | 0.080 | 0.063 | 9.45 | 3 | 20 | 46 | - | - | - | - |
| | 200 | 0.7788 | 0.0422 | 0.5035 | 0.4489 | 1.108 | 1.322 | 0.262 | 0.013 | 0.010 | 0.000 | 1.000 | 0.138 | 0.065 | 0.063 | 12.30 | 3 | 28 | 56 | - | - | - | - |
| | 300 | 0.7713 | 0.0364 | 0.5513 | 0.5033 | 1.118 | 1.378 | 0.246 | 0.006 | 0.007 | 0.000 | 1.000 | 0.145 | 0.074 | 0.060 | 14.74 | 3 | 35 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4742 | 0.0179 | 0.1521 | 0.1294 | 1.126 | 1.677 | 0.061 | 0.002 | 0.002 | 0.000 | 1.000 | 0.034 | 0.019 | 0.017 | 4.15 | 1 | 14 | 29 | - | - | - | - |
| | 200 | 0.5005 | 0.0184 | 0.2425 | 0.2201 | 1.132 | 1.839 | 0.058 | 0.002 | 0.001 | 0.000 | 1.000 | 0.037 | 0.021 | 0.026 | 6.16 | 1 | 20 | 38 | - | - | - | - |
| | 300 | 0.5174 | 0.0179 | 0.3082 | 0.2874 | 1.147 | 1.981 | 0.076 | 0.001 | 0.000 | 0.000 | 1.000 | 0.046 | 0.029 | 0.024 | 7.93 | 1 | 24.5 | 42 | - | - | - | - |

Notes: See notes to Table 145.

## Table 251: MC findings for DGPII(a)

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9492 | 0.0443 | 0.4303 | 0.0106 | 1.011 | 1.465 | 0.790 | 0.069 | 0.417 | 0.377 | 1.000 | 1.000 | 1.000 | 0.978 | 9.13 | 7 | 10 | 13 | 1.041 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9262 | 0.0214 | 0.4285 | 0.0116 | 1.013 | 1.533 | 0.720 | 0.077 | 0.335 | 0.295 | 1.000 | 1.000 | 0.999 | 0.975 | 8.90 | 7 | 10 | 12 | 1.048 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9192 | 0.0140 | 0.4259 | 0.0113 | 1.013 | 1.565 | 0.697 | 0.086 | 0.303 | 0.263 | 1.000 | 1.000 | 1.000 | 0.968 | 8.79 | 6 | 10 | 14 | 1.055 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9263 | 0.0423 | 0.4239 | 0.0055 | 1.012 | 1.508 | 0.706 | 0.087 | 0.336 | 0.319 | 1.000 | 1.000 | 1.000 | 0.969 | 8.82 | 7 | 10 | 13 | 1.048 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9046 | 0.0204 | 0.4212 | 0.0066 | 1.014 | 1.573 | 0.650 | 0.104 | 0.264 | 0.245 | 1.000 | 1.000 | 0.999 | 0.971 | 8.58 | 6 | 10 | 12 | 1.065 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.8942 | 0.0134 | 0.4212 | 0.0060 | 1.015 | 1.624 | 0.625 | 0.100 | 0.243 | 0.225 | 1.000 | 1.000 | 1.000 | 0.961 | 8.48 | 6 | 10 | 12 | 1.064 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8694 | 0.0386 | 0.4157 | 0.0015 | 1.016 | 1.665 | 0.532 | 0.118 | 0.186 | 0.183 | 1.000 | 1.000 | 1.000 | 0.952 | 8.17 | 6 | 10 | 11 | 1.089 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8422 | 0.0187 | 0.4167 | 0.0014 | 1.018 | 1.765 | 0.478 | 0.099 | 0.150 | 0.147 | 1.000 | 1.000 | 0.998 | 0.957 | 7.94 | 6 | 10 | 11 | 1.111 | 0.11 | 0.00 | 0.00 |
| | 300 | 0.8356 | 0.0124 | 0.4160 | 0.0018 | 1.019 | 1.810 | 0.467 | 0.113 | 0.138 | 0.136 | 1.000 | 1.000 | 0.997 | 0.942 | 7.87 | 6 | 10 | 11 | 1.120 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9451 | 0.0442 | 0.4304 | 0.0097 | 1.011 | 1.473 | 0.783 | 0.070 | 0.415 | 0.379 | 1.000 | 1.000 | 1.000 | 0.978 | 9.10 | 7 | 10 | 13 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9214 | 0.0213 | 0.4289 | 0.0105 | 1.013 | 1.546 | 0.717 | 0.077 | 0.334 | 0.298 | 1.000 | 1.000 | 0.999 | 0.975 | 8.85 | 6 | 10 | 12 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9131 | 0.0140 | 0.4267 | 0.0104 | 1.014 | 1.587 | 0.692 | 0.085 | 0.299 | 0.262 | 1.000 | 1.000 | 1.000 | 0.968 | 8.74 | 6 | 10 | 14 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9199 | 0.0422 | 0.4251 | 0.0051 | 1.013 | 1.534 | 0.698 | 0.085 | 0.335 | 0.320 | 1.000 | 1.000 | 1.000 | 0.969 | 8.77 | 6 | 10 | 13 | 1.026 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8983 | 0.0203 | 0.4222 | 0.0059 | 1.014 | 1.595 | 0.644 | 0.102 | 0.263 | 0.246 | 1.000 | 1.000 | 0.999 | 0.971 | 8.53 | 6 | 10 | 12 | 1.038 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8875 | 0.0134 | 0.4221 | 0.0055 | 1.015 | 1.653 | 0.618 | 0.100 | 0.237 | 0.219 | 1.000 | 1.000 | 1.000 | 0.961 | 8.43 | 6 | 10 | 12 | 1.039 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8603 | 0.0384 | 0.4171 | 0.0012 | 1.017 | 1.705 | 0.524 | 0.116 | 0.179 | 0.176 | 1.000 | 1.000 | 1.000 | 0.952 | 8.11 | 6 | 10 | 11 | 1.059 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8302 | 0.0186 | 0.4193 | 0.0013 | 1.020 | 1.820 | 0.474 | 0.099 | 0.142 | 0.140 | 1.000 | 1.000 | 0.998 | 0.957 | 7.86 | 5 | 10 | 11 | 1.073 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.8234 | 0.0123 | 0.4183 | 0.0017 | 1.021 | 1.865 | 0.458 | 0.114 | 0.126 | 0.125 | 1.000 | 1.000 | 0.997 | 0.942 | 7.79 | 5 | 10 | 11 | 1.086 | 0.09 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9791 | 0.0737 | 0.4837 | 0.4110 | 1.025 | 1.384 | 0.896 | 0.036 | 0.056 | 0.003 | 1.000 | 0.213 | 0.119 | 0.086 | 12.19 | 6 | 23 | 44 | - | - | - | - |
| | 200 | 0.9749 | 0.0454 | 0.5208 | 0.4624 | 1.028 | 1.428 | 0.876 | 0.041 | 0.043 | 0.003 | 1.000 | 0.178 | 0.081 | 0.072 | 13.90 | 5 | 27 | 52 | - | - | - | - |
| | 300 | 0.9753 | 0.0353 | 0.5492 | 0.4974 | 1.033 | 1.477 | 0.881 | 0.031 | 0.049 | 0.003 | 1.000 | 0.184 | 0.089 | 0.053 | 15.44 | 6 | 32.5 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8669 | 0.0320 | 0.2854 | 0.2449 | 1.034 | 1.847 | 0.624 | 0.075 | 0.006 | 0.001 | 1.000 | 0.074 | 0.047 | 0.034 | 7.50 | 2 | 14 | 30 | - | - | - | - |
| | 200 | 0.8604 | 0.0197 | 0.3220 | 0.2895 | 1.039 | 1.966 | 0.604 | 0.057 | 0.003 | 0.001 | 1.000 | 0.065 | 0.027 | 0.027 | 8.22 | 2 | 16 | 30 | - | - | - | - |
| | 300 | 0.8601 | 0.0161 | 0.3590 | 0.3274 | 1.044 | 2.077 | 0.607 | 0.043 | 0.007 | 0.001 | 1.000 | 0.066 | 0.029 | 0.023 | 9.11 | 2 | 19 | 35 | - | - | - | - |

Notes: See notes to Table 145.

## Table 252: MC findings for DGPII(a)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9986 | 0.0502 | 0.4524 | 0.0084 | 1.006 | 1.394 | 0.993 | 0.005 | 0.878 | 0.793 | 1.000 | 1.000 | 1.000 | 1.000 | 9.97 | 9 | 11 | 12 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9973 | 0.0248 | 0.4500 | 0.0095 | 1.005 | 1.411 | 0.987 | 0.017 | 0.830 | 0.748 | 1.000 | 1.000 | 1.000 | 1.000 | 9.91 | 9 | 11 | 13 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9931 | 0.0163 | 0.4483 | 0.0100 | 1.006 | 1.392 | 0.968 | 0.016 | 0.778 | 0.694 | 1.000 | 1.000 | 1.000 | 0.999 | 9.84 | 9 | 11 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9960 | 0.0492 | 0.4477 | 0.0041 | 1.005 | 1.389 | 0.981 | 0.008 | 0.826 | 0.785 | 1.000 | 1.000 | 1.000 | 1.000 | 9.85 | 9 | 10 | 12 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9942 | 0.0241 | 0.4438 | 0.0055 | 1.005 | 1.402 | 0.974 | 0.029 | 0.762 | 0.719 | 1.000 | 1.000 | 1.000 | 0.999 | 9.77 | 8.5 | 10 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9912 | 0.0159 | 0.4415 | 0.0053 | 1.005 | 1.376 | 0.960 | 0.030 | 0.713 | 0.667 | 1.000 | 1.000 | 1.000 | 0.998 | 9.70 | 8 | 10 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9887 | 0.0469 | 0.4370 | 0.0010 | 1.006 | 1.392 | 0.950 | 0.036 | 0.674 | 0.666 | 1.000 | 1.000 | 1.000 | 1.000 | 9.59 | 8 | 10 | 12 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9853 | 0.0228 | 0.4316 | 0.0012 | 1.006 | 1.405 | 0.935 | 0.063 | 0.601 | 0.593 | 1.000 | 1.000 | 1.000 | 0.999 | 9.47 | 8 | 10 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9797 | 0.0150 | 0.4291 | 0.0010 | 1.006 | 1.393 | 0.910 | 0.065 | 0.552 | 0.547 | 1.000 | 1.000 | 1.000 | 0.998 | 9.37 | 8 | 10 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9985 | 0.0501 | 0.4519 | 0.0074 | 1.006 | 1.385 | 0.993 | 0.005 | 0.878 | 0.802 | 1.000 | 1.000 | 1.000 | 1.000 | 9.95 | 9 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9973 | 0.0247 | 0.4496 | 0.0088 | 1.005 | 1.403 | 0.987 | 0.017 | 0.830 | 0.754 | 1.000 | 1.000 | 1.000 | 1.000 | 9.91 | 9 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9928 | 0.0163 | 0.4481 | 0.0096 | 1.006 | 1.389 | 0.967 | 0.016 | 0.777 | 0.696 | 1.000 | 1.000 | 1.000 | 0.999 | 9.84 | 9 | 11 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9960 | 0.0491 | 0.4474 | 0.0036 | 1.005 | 1.384 | 0.981 | 0.008 | 0.826 | 0.790 | 1.000 | 1.000 | 1.000 | 1.000 | 9.84 | 9 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9939 | 0.0241 | 0.4436 | 0.0050 | 1.005 | 1.396 | 0.972 | 0.029 | 0.762 | 0.724 | 1.000 | 1.000 | 1.000 | 0.999 | 9.76 | 8 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9912 | 0.0158 | 0.4413 | 0.0050 | 1.005 | 1.372 | 0.960 | 0.031 | 0.713 | 0.670 | 1.000 | 1.000 | 1.000 | 0.998 | 9.69 | 8 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9886 | 0.0469 | 0.4369 | 0.0009 | 1.006 | 1.391 | 0.950 | 0.037 | 0.674 | 0.667 | 1.000 | 1.000 | 1.000 | 1.000 | 9.59 | 8 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9847 | 0.0228 | 0.4317 | 0.0011 | 1.006 | 1.409 | 0.934 | 0.062 | 0.601 | 0.594 | 1.000 | 1.000 | 1.000 | 0.999 | 9.46 | 8 | 10 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9792 | 0.0150 | 0.4292 | 0.0010 | 1.006 | 1.396 | 0.910 | 0.065 | 0.552 | 0.547 | 1.000 | 1.000 | 1.000 | 0.998 | 9.37 | 8 | 10 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9971 | 0.0757 | 0.4823 | 0.4093 | 1.014 | 1.410 | 0.986 | 0.043 | 0.076 | 0.004 | 1.000 | 0.207 | 0.111 | 0.096 | 12.48 | 6 | 22 | 38 | - | - | - | - |
| | 200 | 0.9959 | 0.0471 | 0.5211 | 0.4615 | 1.017 | 1.476 | 0.980 | 0.040 | 0.062 | 0.001 | 1.000 | 0.192 | 0.108 | 0.058 | 14.36 | 6 | 31 | 48 | - | - | - | - |
| | 300 | 0.9960 | 0.0352 | 0.5452 | 0.4907 | 1.019 | 1.470 | 0.980 | 0.029 | 0.048 | 0.000 | 1.000 | 0.181 | 0.092 | 0.066 | 15.51 | 6 | 36 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9673 | 0.0233 | 0.2360 | 0.1988 | 1.010 | 1.601 | 0.882 | 0.215 | 0.006 | 0.001 | 1.000 | 0.057 | 0.032 | 0.028 | 7.14 | 5 | 11 | 17 | - | - | - | - |
| | 200 | 0.9689 | 0.0148 | 0.2700 | 0.2394 | 1.012 | 1.692 | 0.894 | 0.185 | 0.006 | 0.001 | 1.000 | 0.049 | 0.033 | 0.018 | 7.79 | 5 | 14 | 24 | - | - | - | - |
| | 300 | 0.9666 | 0.0110 | 0.2905 | 0.2631 | 1.012 | 1.702 | 0.879 | 0.152 | 0.005 | 0.001 | 1.000 | 0.054 | 0.019 | 0.021 | 8.13 | 5 | 15 | 31 | - | - | - | - |

Notes: See notes to Table 145.

## Table 253: MC findings for DGPII(b)

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9360 | 0.0271 | 0.3123 | 0.0200 | 1.049 | 1.715 | 0.716 | 0.533 | 1.000 | 0.989 | 0.822 | 0.573 | 7.36 | 5 | 9 | 11 | 1.564 | 0.52 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8972 | 0.0126 | 0.3045 | 0.0196 | 1.066 | 1.972 | 0.582 | 0.460 | 1.000 | 0.978 | 0.780 | 0.513 | 7.00 | 5 | 9 | 11 | 1.594 | 0.54 | 0.06 | 0.00 |
| | 300 | 0.8899 | 0.0083 | 0.3034 | 0.0235 | 1.070 | 2.012 | 0.559 | 0.440 | 1.000 | 0.980 | 0.766 | 0.475 | 6.93 | 5 | 9 | 11 | 1.632 | 0.57 | 0.06 | 0.00 |
| $p = 0.05$, | 100 | 0.9177 | 0.0253 | 0.3012 | 0.0118 | 1.055 | 1.835 | 0.647 | 0.537 | 1.000 | 0.987 | 0.790 | 0.540 | 7.09 | 5 | 9 | 10 | 1.632 | 0.58 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8811 | 0.0118 | 0.2931 | 0.0111 | 1.072 | 2.069 | 0.529 | 0.454 | 1.000 | 0.971 | 0.752 | 0.473 | 6.75 | 5 | 8 | 10 | 1.636 | 0.58 | 0.06 | 0.00 |
| | 300 | 0.8738 | 0.0077 | 0.2912 | 0.0143 | 1.076 | 2.102 | 0.506 | 0.440 | 1.000 | 0.971 | 0.738 | 0.439 | 6.68 | 5 | 8 | 11 | 1.684 | 0.60 | 0.08 | 0.00 |
| $p = 0.01$, | 100 | 0.8658 | 0.0223 | 0.2839 | 0.0030 | 1.076 | 2.181 | 0.487 | 0.455 | 1.000 | 0.974 | 0.722 | 0.450 | 6.54 | 4 | 8 | 10 | 1.735 | 0.65 | 0.08 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8442 | 0.0104 | 0.2740 | 0.0030 | 1.087 | 2.304 | 0.431 | 0.405 | 1.000 | 0.948 | 0.688 | 0.388 | 6.30 | 4 | 8 | 10 | 1.744 | 0.67 | 0.07 | 0.00 |
| | 300 | 0.8380 | 0.0068 | 0.2714 | 0.0040 | 1.091 | 2.318 | 0.426 | 0.400 | 1.000 | 0.951 | 0.664 | 0.363 | 6.22 | 4 | 8 | 10 | 1.767 | 0.69 | 0.08 | 0.00 |
| $p = 0.1$, | 100 | 0.8987 | 0.0265 | 0.3160 | 0.0166 | 1.064 | 1.966 | 0.574 | 0.452 | 1.000 | 0.989 | 0.822 | 0.573 | 7.12 | 5 | 9 | 11 | 1.398 | 0.37 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8542 | 0.0124 | 0.3101 | 0.0169 | 1.085 | 2.234 | 0.430 | 0.350 | 1.000 | 0.978 | 0.780 | 0.513 | 6.74 | 5 | 9 | 10 | 1.414 | 0.39 | 0.02 | 0.00 |
| | 300 | 0.8435 | 0.0081 | 0.3096 | 0.0211 | 1.090 | 2.281 | 0.410 | 0.341 | 1.000 | 0.980 | 0.766 | 0.475 | 6.65 | 5 | 8 | 11 | 1.447 | 0.42 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.8766 | 0.0249 | 0.3068 | 0.0096 | 1.073 | 2.104 | 0.501 | 0.430 | 1.000 | 0.987 | 0.790 | 0.540 | 6.85 | 5 | 8 | 10 | 1.472 | 0.44 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8346 | 0.0116 | 0.3001 | 0.0097 | 1.094 | 2.352 | 0.375 | 0.333 | 1.000 | 0.971 | 0.752 | 0.473 | 6.49 | 4 | 8 | 10 | 1.464 | 0.44 | 0.02 | 0.00 |
| | 300 | 0.8184 | 0.0076 | 0.2999 | 0.0126 | 1.102 | 2.420 | 0.344 | 0.308 | 1.000 | 0.971 | 0.738 | 0.439 | 6.37 | 4 | 8 | 10 | 1.493 | 0.46 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.8206 | 0.0221 | 0.2920 | 0.0024 | 1.098 | 2.453 | 0.357 | 0.336 | 1.000 | 0.974 | 0.722 | 0.450 | 6.29 | 4 | 8 | 10 | 1.590 | 0.54 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7921 | 0.0104 | 0.2833 | 0.0027 | 1.112 | 2.607 | 0.297 | 0.285 | 1.000 | 0.948 | 0.688 | 0.388 | 6.02 | 4 | 8 | 10 | 1.611 | 0.57 | 0.04 | 0.00 |
| | 300 | 0.7761 | 0.0067 | 0.2819 | 0.0034 | 1.122 | 2.663 | 0.263 | 0.255 | 1.000 | 0.951 | 0.664 | 0.363 | 5.89 | 4 | 8 | 9 | 1.616 | 0.58 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9994 | 0.0864 | 0.5212 | 0.4480 | 1.093 | 1.572 | 0.997 | 0.039 | 1.000 | 0.186 | 0.110 | 0.099 | 13.56 | 6 | 25 | 48 | - | - | - | - |
| | 200 | 0.9979 | 0.0624 | 0.6031 | 0.5593 | 1.116 | 1.702 | 0.990 | 0.021 | 1.000 | 0.182 | 0.091 | 0.078 | 17.42 | 7 | 33 | 81 | - | - | - | - |
| | 300 | 0.9985 | 0.0508 | 0.6488 | 0.6132 | 1.124 | 1.729 | 0.993 | 0.014 | 1.000 | 0.179 | 0.082 | 0.066 | 20.18 | 8 | 40 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9498 | 0.0363 | 0.2822 | 0.2471 | 1.103 | 2.068 | 0.838 | 0.193 | 1.000 | 0.058 | 0.033 | 0.037 | 8.35 | 3 | 16 | 37 | - | - | - | - |
| | 200 | 0.9552 | 0.0283 | 0.3723 | 0.3469 | 1.122 | 2.196 | 0.855 | 0.134 | 1.000 | 0.067 | 0.030 | 0.039 | 10.41 | 3 | 21 | 45 | - | - | - | - |
| | 300 | 0.9578 | 0.0233 | 0.4261 | 0.4046 | 1.129 | 2.247 | 0.861 | 0.086 | 1.000 | 0.071 | 0.034 | 0.026 | 11.75 | 3.5 | 24 | 38 | - | - | - | - |

Notes: See notes to Table 100.

## Table 254: MC findings for DGPII(b)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0351 | 0.3636 | 0.0089 | 1.006 | 1.123 | 1.000 | 0.577 | 1.000 | 1.000 | 1.000 | 0.974 | 8.47 | 8 | 10 | 11 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0171 | 0.3587 | 0.0107 | 1.007 | 1.122 | 1.000 | 0.640 | 1.000 | 1.000 | 1.000 | 0.975 | 8.40 | 8 | 10 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0112 | 0.3565 | 0.0128 | 1.006 | 1.121 | 1.000 | 0.663 | 1.000 | 1.000 | 1.000 | 0.971 | 8.36 | 8 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0337 | 0.3548 | 0.0042 | 1.006 | 1.095 | 1.000 | 0.672 | 1.000 | 1.000 | 1.000 | 0.969 | 8.33 | 8 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0164 | 0.3502 | 0.0059 | 1.006 | 1.095 | 1.000 | 0.730 | 1.000 | 1.000 | 1.000 | 0.968 | 8.26 | 8 | 9 | 12 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0108 | 0.3476 | 0.0065 | 1.005 | 1.087 | 1.000 | 0.760 | 1.000 | 1.000 | 1.000 | 0.963 | 8.23 | 8 | 9 | 11 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0316 | 0.3411 | 0.0007 | 1.005 | 1.065 | 1.000 | 0.831 | 1.000 | 1.000 | 0.999 | 0.955 | 8.13 | 8 | 9 | 10 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0155 | 0.3381 | 0.0013 | 1.006 | 1.061 | 1.000 | 0.866 | 1.000 | 1.000 | 1.000 | 0.946 | 8.08 | 8 | 9 | 11 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0102 | 0.3364 | 0.0017 | 1.005 | 1.068 | 1.000 | 0.885 | 1.000 | 1.000 | 1.000 | 0.940 | 8.06 | 7 | 9 | 10 | 1.039 | 0.04 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0349 | 0.3628 | 0.0078 | 1.006 | 1.108 | 1.000 | 0.583 | 1.000 | 1.000 | 1.000 | 0.974 | 8.46 | 8 | 10 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0170 | 0.3580 | 0.0097 | 1.006 | 1.107 | 1.000 | 0.646 | 1.000 | 1.000 | 1.000 | 0.975 | 8.38 | 8 | 9 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0112 | 0.3558 | 0.0117 | 1.006 | 1.104 | 1.000 | 0.670 | 1.000 | 1.000 | 1.000 | 0.971 | 8.35 | 8 | 9 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0336 | 0.3546 | 0.0039 | 1.006 | 1.090 | 1.000 | 0.675 | 1.000 | 1.000 | 1.000 | 0.969 | 8.33 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0164 | 0.3498 | 0.0053 | 1.006 | 1.086 | 1.000 | 0.735 | 1.000 | 1.000 | 1.000 | 0.968 | 8.26 | 8 | 9 | 12 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0108 | 0.3475 | 0.0063 | 1.005 | 1.086 | 1.000 | 0.762 | 1.000 | 1.000 | 1.000 | 0.963 | 8.22 | 8 | 9 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0316 | 0.3410 | 0.0007 | 1.005 | 1.064 | 1.000 | 0.832 | 1.000 | 1.000 | 0.999 | 0.955 | 8.13 | 8 | 9 | 10 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0155 | 0.3380 | 0.0011 | 1.006 | 1.063 | 1.000 | 0.867 | 1.000 | 1.000 | 1.000 | 0.946 | 8.08 | 8 | 9 | 11 | 1.032 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0102 | 0.3362 | 0.0015 | 1.005 | 1.072 | 0.999 | 0.887 | 1.000 | 1.000 | 1.000 | 0.940 | 8.05 | 7 | 9 | 10 | 1.037 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0762 | 0.4971 | 0.4272 | 1.024 | 1.470 | 1.000 | 0.037 | 1.000 | 0.211 | 0.114 | 0.099 | 12.55 | 6 | 22.5 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0506 | 0.5511 | 0.5010 | 1.030 | 1.562 | 1.000 | 0.034 | 1.000 | 0.205 | 0.101 | 0.085 | 15.07 | 6 | 27 | 70 | - | - | - | - |
| | 300 | 1.0000 | 0.0386 | 0.5719 | 0.5332 | 1.034 | 1.612 | 1.000 | 0.031 | 1.000 | 0.176 | 0.091 | 0.073 | 16.53 | 6 | 38 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0169 | 0.1806 | 0.1590 | 1.006 | 1.261 | 1.000 | 0.327 | 1.000 | 0.044 | 0.020 | 0.018 | 6.67 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9999 | 0.0111 | 0.2211 | 0.2022 | 1.007 | 1.331 | 1.000 | 0.280 | 1.000 | 0.039 | 0.017 | 0.019 | 7.21 | 5 | 12 | 25 | - | - | - | - |
| | 300 | 1.0000 | 0.0085 | 0.2443 | 0.2296 | 1.009 | 1.374 | 1.000 | 0.232 | 1.000 | 0.035 | 0.021 | 0.016 | 7.56 | 5 | 13 | 25 | - | - | - | - |

Notes: See notes to Table 100.

## Table 255: MC findings for DGPII(b)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0392 | 0.3894 | 0.0104 | 1.004 | 1.168 | 1.000 | 0.296 | 1.000 | 1.000 | 1.000 | 1.000 | 8.88 | 8 | 10 | 14 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0188 | 0.3813 | 0.0102 | 1.004 | 1.150 | 1.000 | 0.376 | 1.000 | 1.000 | 1.000 | 1.000 | 8.74 | 8 | 10 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0125 | 0.3800 | 0.0109 | 1.005 | 1.149 | 1.000 | 0.390 | 1.000 | 1.000 | 1.000 | 0.999 | 8.72 | 8 | 10 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0375 | 0.3797 | 0.0052 | 1.004 | 1.140 | 1.000 | 0.379 | 1.000 | 1.000 | 1.000 | 1.000 | 8.71 | 8 | 10 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0181 | 0.3728 | 0.0051 | 1.004 | 1.128 | 1.000 | 0.459 | 1.000 | 1.000 | 1.000 | 1.000 | 8.60 | 8 | 10 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0120 | 0.3710 | 0.0058 | 1.004 | 1.127 | 1.000 | 0.484 | 1.000 | 1.000 | 1.000 | 0.999 | 8.58 | 8 | 10 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0350 | 0.3643 | 0.0009 | 1.003 | 1.101 | 1.000 | 0.553 | 1.000 | 1.000 | 1.000 | 0.999 | 8.47 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0170 | 0.3589 | 0.0010 | 1.004 | 1.093 | 1.000 | 0.629 | 1.000 | 1.000 | 1.000 | 0.999 | 8.39 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0113 | 0.3579 | 0.0011 | 1.004 | 1.093 | 1.000 | 0.645 | 1.000 | 1.000 | 1.000 | 0.998 | 8.37 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0390 | 0.3888 | 0.0094 | 1.004 | 1.154 | 1.000 | 0.298 | 1.000 | 1.000 | 1.000 | 1.000 | 8.86 | 8 | 10 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0188 | 0.3808 | 0.0094 | 1.004 | 1.138 | 1.000 | 0.379 | 1.000 | 1.000 | 1.000 | 1.000 | 8.74 | 8 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0124 | 0.3796 | 0.0102 | 1.004 | 1.138 | 1.000 | 0.394 | 1.000 | 1.000 | 1.000 | 0.999 | 8.72 | 8 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0374 | 0.3793 | 0.0047 | 1.004 | 1.132 | 1.000 | 0.381 | 1.000 | 1.000 | 1.000 | 1.000 | 8.71 | 8 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0181 | 0.3725 | 0.0045 | 1.004 | 1.120 | 1.000 | 0.461 | 1.000 | 1.000 | 1.000 | 1.000 | 8.60 | 8 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0120 | 0.3708 | 0.0054 | 1.004 | 1.121 | 1.000 | 0.486 | 1.000 | 1.000 | 1.000 | 0.999 | 8.57 | 8 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0350 | 0.3643 | 0.0008 | 1.003 | 1.101 | 1.000 | 0.553 | 1.000 | 1.000 | 1.000 | 0.999 | 8.47 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0170 | 0.3589 | 0.0009 | 1.003 | 1.092 | 1.000 | 0.630 | 1.000 | 1.000 | 1.000 | 0.999 | 8.39 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0113 | 0.3578 | 0.0010 | 1.004 | 1.091 | 1.000 | 0.646 | 1.000 | 1.000 | 1.000 | 0.998 | 8.37 | 8 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0797 | 0.4355 | 0.3694 | 1.016 | 1.513 | 1.000 | 0.101 | 1.000 | 0.196 | 0.126 | 0.096 | 12.89 | 5 | 28 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0421 | 0.4740 | 0.4221 | 1.019 | 1.563 | 1.000 | 0.032 | 1.000 | 0.191 | 0.096 | 0.069 | 13.38 | 6 | 38 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0306 | 0.5188 | 0.4748 | 1.020 | 1.568 | 1.000 | 0.024 | 1.000 | 0.193 | 0.088 | 0.074 | 14.14 | 6 | 30 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0075 | 0.0880 | 0.0762 | 1.001 | 1.122 | 1.000 | 0.623 | 1.000 | 0.021 | 0.012 | 0.012 | 5.74 | 5 | 8 | 13 | - | - | - | - |
| | 200 | 1.0000 | 0.0040 | 0.0913 | 0.0826 | 1.001 | 1.129 | 1.000 | 0.613 | 1.000 | 0.023 | 0.005 | 0.004 | 5.80 | 5 | 9 | 16 | - | - | - | - |
| | 300 | 1.0000 | 0.0028 | 0.0979 | 0.0897 | 1.002 | 1.142 | 1.000 | 0.576 | 1.000 | 0.019 | 0.008 | 0.007 | 5.84 | 5 | 8 | 17 | - | - | - | - |

Notes: See notes to Table 100.

## Table 256: MC findings for DGPII(b)

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7777 | 0.0261 | 0.3388 | 0.0203 | 1.066 | 1.932 | 0.262 | 0.207 | 1.000 | 0.986 | 0.820 | 0.550 | 6.48 | 4 | 8 | 12 | 1.503 | 0.48 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7352 | 0.0125 | 0.3391 | 0.0211 | 1.077 | 2.051 | 0.197 | 0.155 | 1.000 | 0.976 | 0.784 | 0.511 | 6.16 | 4 | 8 | 11 | 1.498 | 0.48 | 0.02 | 0.00 |
| | 300 | 0.7334 | 0.0084 | 0.3395 | 0.0266 | 1.081 | 2.075 | 0.197 | 0.154 | 1.000 | 0.974 | 0.773 | 0.500 | 6.17 | 4 | 8 | 11 | 1.547 | 0.53 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.7535 | 0.0244 | 0.3298 | 0.0115 | 1.070 | 1.994 | 0.230 | 0.198 | 1.000 | 0.982 | 0.788 | 0.515 | 6.19 | 4 | 8 | 10 | 1.534 | 0.52 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7238 | 0.0117 | 0.3265 | 0.0128 | 1.078 | 2.076 | 0.188 | 0.165 | 1.000 | 0.970 | 0.756 | 0.471 | 5.94 | 4 | 8 | 11 | 1.553 | 0.54 | 0.01 | 0.00 |
| | 300 | 0.7178 | 0.0078 | 0.3272 | 0.0153 | 1.083 | 2.111 | 0.192 | 0.163 | 1.000 | 0.966 | 0.749 | 0.462 | 5.92 | 4 | 8 | 11 | 1.593 | 0.58 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.7239 | 0.0218 | 0.3096 | 0.0029 | 1.076 | 2.082 | 0.204 | 0.195 | 1.000 | 0.967 | 0.717 | 0.430 | 5.77 | 3 | 8 | 9 | 1.629 | 0.62 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7095 | 0.0104 | 0.3031 | 0.0036 | 1.080 | 2.117 | 0.205 | 0.196 | 1.000 | 0.955 | 0.683 | 0.390 | 5.62 | 3 | 8 | 9 | 1.651 | 0.64 | 0.01 | 0.00 |
| | 300 | 0.6989 | 0.0069 | 0.3030 | 0.0037 | 1.087 | 2.143 | 0.190 | 0.179 | 1.000 | 0.947 | 0.680 | 0.378 | 5.54 | 3 | 8 | 10 | 1.674 | 0.67 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.7220 | 0.0257 | 0.3491 | 0.0174 | 1.080 | 2.088 | 0.162 | 0.134 | 1.000 | 0.986 | 0.820 | 0.550 | 6.16 | 4 | 8 | 10 | 1.355 | 0.35 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6779 | 0.0123 | 0.3505 | 0.0191 | 1.094 | 2.203 | 0.105 | 0.088 | 1.000 | 0.976 | 0.784 | 0.511 | 5.84 | 4 | 8 | 10 | 1.374 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.6656 | 0.0082 | 0.3532 | 0.0243 | 1.101 | 2.256 | 0.098 | 0.082 | 1.000 | 0.974 | 0.773 | 0.500 | 5.79 | 3 | 8 | 11 | 1.401 | 0.40 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.6973 | 0.0242 | 0.3415 | 0.0102 | 1.085 | 2.157 | 0.139 | 0.126 | 1.000 | 0.982 | 0.788 | 0.515 | 5.88 | 4 | 8 | 10 | 1.411 | 0.41 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6622 | 0.0115 | 0.3396 | 0.0113 | 1.097 | 2.243 | 0.100 | 0.091 | 1.000 | 0.970 | 0.756 | 0.471 | 5.61 | 3 | 8 | 10 | 1.437 | 0.43 | 0.00 | 0.00 |
| | 300 | 0.6483 | 0.0077 | 0.3413 | 0.0130 | 1.104 | 2.294 | 0.092 | 0.083 | 1.000 | 0.966 | 0.749 | 0.462 | 5.53 | 3 | 8 | 9 | 1.462 | 0.46 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6662 | 0.0217 | 0.3225 | 0.0024 | 1.095 | 2.246 | 0.116 | 0.111 | 1.000 | 0.967 | 0.717 | 0.430 | 5.48 | 3 | 8 | 9 | 1.534 | 0.53 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6318 | 0.0103 | 0.3212 | 0.0034 | 1.106 | 2.330 | 0.095 | 0.093 | 1.000 | 0.955 | 0.683 | 0.390 | 5.22 | 3 | 7 | 9 | 1.550 | 0.55 | 0.00 | 0.00 |
| | 300 | 0.6193 | 0.0068 | 0.3210 | 0.0034 | 1.112 | 2.359 | 0.082 | 0.078 | 1.000 | 0.947 | 0.680 | 0.378 | 5.13 | 3 | 7 | 10 | 1.583 | 0.58 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9671 | 0.0768 | 0.4816 | 0.4153 | 1.099 | 1.536 | 0.847 | 0.042 | 1.000 | 0.171 | 0.095 | 0.083 | 12.44 | 5 | 24 | 58 | - | - | - | - |
| | 200 | 0.9596 | 0.0574 | 0.5672 | 0.5208 | 1.121 | 1.644 | 0.817 | 0.027 | 1.000 | 0.169 | 0.093 | 0.078 | 16.23 | 5 | 33 | 86 | - | - | - | - |
| | 300 | 0.9555 | 0.0467 | 0.6156 | 0.5781 | 1.134 | 1.724 | 0.796 | 0.023 | 1.000 | 0.165 | 0.071 | 0.067 | 18.75 | 5 | 39 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7749 | 0.0318 | 0.2315 | 0.2031 | 1.138 | 2.160 | 0.435 | 0.055 | 1.000 | 0.050 | 0.028 | 0.026 | 7.02 | 1 | 17 | 38 | - | - | - | - |
| | 200 | 0.7875 | 0.0270 | 0.3227 | 0.2992 | 1.157 | 2.292 | 0.453 | 0.031 | 1.000 | 0.060 | 0.031 | 0.031 | 9.31 | 1 | 23 | 39 | - | - | - | - |
| | 300 | 0.7933 | 0.0230 | 0.3804 | 0.3604 | 1.171 | 2.416 | 0.458 | 0.017 | 1.000 | 0.066 | 0.029 | 0.030 | 10.84 | 1 | 26 | 46 | - | - | - | - |

Notes: See notes to Table 100.

## Table 257: MC findings for DGPII(b)

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9945 | 0.0335 | 0.3547 | 0.0111 | 1.008 | 1.178 | 0.973 | 0.695 | 1.000 | 1.000 | 1.000 | 0.984 | 8.29 | 8 | 9 | 12 | 1.052 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9905 | 0.0165 | 0.3532 | 0.0126 | 1.009 | 1.244 | 0.953 | 0.699 | 1.000 | 1.000 | 1.000 | 0.975 | 8.23 | 8 | 9 | 12 | 1.078 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.9877 | 0.0108 | 0.3506 | 0.0121 | 1.010 | 1.273 | 0.939 | 0.720 | 1.000 | 1.000 | 0.999 | 0.970 | 8.17 | 7 | 9 | 12 | 1.079 | 0.08 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9903 | 0.0323 | 0.3483 | 0.0058 | 1.008 | 1.209 | 0.952 | 0.755 | 1.000 | 1.000 | 0.999 | 0.979 | 8.15 | 7 | 9 | 12 | 1.068 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9852 | 0.0159 | 0.3470 | 0.0067 | 1.009 | 1.297 | 0.927 | 0.756 | 1.000 | 1.000 | 1.000 | 0.968 | 8.09 | 7 | 9 | 12 | 1.098 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.9812 | 0.0105 | 0.3452 | 0.0070 | 1.010 | 1.336 | 0.908 | 0.760 | 1.000 | 1.000 | 0.999 | 0.961 | 8.04 | 7 | 9 | 10 | 1.099 | 0.10 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9755 | 0.0309 | 0.3420 | 0.0015 | 1.010 | 1.372 | 0.883 | 0.796 | 1.000 | 1.000 | 0.999 | 0.966 | 7.94 | 7 | 9 | 10 | 1.129 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9650 | 0.0152 | 0.3410 | 0.0016 | 1.013 | 1.520 | 0.835 | 0.777 | 1.000 | 1.000 | 0.999 | 0.946 | 7.84 | 7 | 9 | 10 | 1.151 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.9577 | 0.0100 | 0.3409 | 0.0019 | 1.014 | 1.594 | 0.804 | 0.754 | 1.000 | 1.000 | 0.999 | 0.938 | 7.78 | 7 | 8 | 10 | 1.158 | 0.16 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9915 | 0.0334 | 0.3547 | 0.0102 | 1.008 | 1.208 | 0.958 | 0.690 | 1.000 | 1.000 | 1.000 | 0.984 | 8.26 | 8 | 9 | 12 | 1.029 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9856 | 0.0164 | 0.3535 | 0.0116 | 1.009 | 1.299 | 0.931 | 0.693 | 1.000 | 1.000 | 1.000 | 0.975 | 8.20 | 7 | 9 | 12 | 1.045 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9814 | 0.0108 | 0.3512 | 0.0111 | 1.011 | 1.342 | 0.910 | 0.706 | 1.000 | 1.000 | 0.999 | 0.970 | 8.13 | 7 | 9 | 12 | 1.039 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9860 | 0.0323 | 0.3489 | 0.0056 | 1.009 | 1.265 | 0.931 | 0.740 | 1.000 | 1.000 | 0.999 | 0.979 | 8.13 | 7 | 9 | 12 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9784 | 0.0159 | 0.3481 | 0.0063 | 1.011 | 1.379 | 0.895 | 0.739 | 1.000 | 1.000 | 1.000 | 0.968 | 8.05 | 7 | 9 | 12 | 1.060 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9732 | 0.0104 | 0.3465 | 0.0065 | 1.012 | 1.431 | 0.870 | 0.732 | 1.000 | 1.000 | 0.999 | 0.961 | 7.99 | 7 | 9 | 10 | 1.055 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9668 | 0.0309 | 0.3436 | 0.0012 | 1.012 | 1.476 | 0.841 | 0.759 | 1.000 | 1.000 | 0.999 | 0.966 | 7.89 | 7 | 9 | 10 | 1.085 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9531 | 0.0152 | 0.3434 | 0.0015 | 1.016 | 1.653 | 0.781 | 0.729 | 1.000 | 1.000 | 0.999 | 0.946 | 7.78 | 7 | 8.5 | 10 | 1.095 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.9451 | 0.0100 | 0.3434 | 0.0018 | 1.017 | 1.732 | 0.746 | 0.699 | 1.000 | 1.000 | 0.999 | 0.938 | 7.72 | 7 | 8 | 10 | 1.099 | 0.10 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0828 | 0.5125 | 0.4409 | 1.026 | 1.469 | 0.999 | 0.032 | 1.000 | 0.228 | 0.124 | 0.101 | 13.20 | 6 | 23 | 41 | - | - | - | - |
| | 200 | 0.9999 | 0.0528 | 0.5583 | 0.5099 | 1.031 | 1.572 | 1.000 | 0.024 | 1.000 | 0.201 | 0.104 | 0.081 | 15.50 | 6 | 31 | 51 | - | - | - | - |
| | 300 | 0.9999 | 0.0401 | 0.5842 | 0.5467 | 1.035 | 1.614 | 1.000 | 0.023 | 1.000 | 0.177 | 0.081 | 0.071 | 16.99 | 6 | 33 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9902 | 0.0296 | 0.2764 | 0.2406 | 1.016 | 1.579 | 0.974 | 0.166 | 1.000 | 0.070 | 0.034 | 0.034 | 7.88 | 5 | 13 | 21 | - | - | - | - |
| | 200 | 0.9915 | 0.0190 | 0.3190 | 0.2950 | 1.019 | 1.693 | 0.973 | 0.138 | 1.000 | 0.074 | 0.036 | 0.029 | 8.75 | 5 | 16 | 28 | - | - | - | - |
| | 300 | 0.9920 | 0.0148 | 0.3530 | 0.3331 | 1.022 | 1.774 | 0.979 | 0.116 | 1.000 | 0.070 | 0.025 | 0.021 | 9.40 | 5 | 17 | 36 | - | - | - | - |

Notes: See notes to Table 100.

## Table 258: MC findings for DGPII(b)

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0358 | 0.3685 | 0.0093 | 1.004 | 1.127 | 1.000 | 0.539 | 1.000 | 1.000 | 1.000 | 1.000 | 8.54 | 8 | 10 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0176 | 0.3655 | 0.0111 | 1.004 | 1.125 | 1.000 | 0.573 | 1.000 | 1.000 | 1.000 | 1.000 | 8.50 | 8 | 10 | 12 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0116 | 0.3632 | 0.0104 | 1.004 | 1.109 | 1.000 | 0.605 | 1.000 | 1.000 | 1.000 | 1.000 | 8.46 | 8 | 10 | 12 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0344 | 0.3597 | 0.0040 | 1.004 | 1.098 | 1.000 | 0.636 | 1.000 | 1.000 | 1.000 | 0.999 | 8.40 | 8 | 9 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0168 | 0.3565 | 0.0054 | 1.004 | 1.095 | 1.000 | 0.678 | 1.000 | 1.000 | 1.000 | 1.000 | 8.35 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0112 | 0.3557 | 0.0054 | 1.004 | 1.085 | 1.000 | 0.692 | 1.000 | 1.000 | 1.000 | 0.999 | 8.34 | 8 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0326 | 0.3481 | 0.0008 | 1.003 | 1.070 | 0.999 | 0.781 | 1.000 | 1.000 | 1.000 | 0.998 | 8.22 | 8 | 9 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0160 | 0.3451 | 0.0011 | 1.003 | 1.080 | 0.996 | 0.826 | 1.000 | 1.000 | 1.000 | 0.998 | 8.17 | 8 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0106 | 0.3454 | 0.0013 | 1.003 | 1.061 | 0.999 | 0.825 | 1.000 | 1.000 | 1.000 | 0.999 | 8.18 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0357 | 0.3679 | 0.0086 | 1.004 | 1.115 | 1.000 | 0.545 | 1.000 | 1.000 | 1.000 | 1.000 | 8.53 | 8 | 10 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0175 | 0.3651 | 0.0103 | 1.004 | 1.120 | 0.999 | 0.578 | 1.000 | 1.000 | 1.000 | 1.000 | 8.49 | 8 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0116 | 0.3629 | 0.0098 | 1.004 | 1.100 | 1.000 | 0.609 | 1.000 | 1.000 | 1.000 | 1.000 | 8.46 | 8 | 10 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0343 | 0.3594 | 0.0037 | 1.003 | 1.091 | 1.000 | 0.639 | 1.000 | 1.000 | 1.000 | 0.999 | 8.40 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0168 | 0.3563 | 0.0050 | 1.003 | 1.091 | 0.999 | 0.680 | 1.000 | 1.000 | 1.000 | 1.000 | 8.35 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0112 | 0.3554 | 0.0051 | 1.003 | 1.079 | 1.000 | 0.695 | 1.000 | 1.000 | 1.000 | 0.999 | 8.34 | 8 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9997 | 0.0326 | 0.3481 | 0.0008 | 1.003 | 1.071 | 0.999 | 0.781 | 1.000 | 1.000 | 1.000 | 0.998 | 8.22 | 8 | 9 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9989 | 0.0159 | 0.3451 | 0.0010 | 1.003 | 1.086 | 0.995 | 0.825 | 1.000 | 1.000 | 1.000 | 0.998 | 8.17 | 8 | 9 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0106 | 0.3454 | 0.0012 | 1.003 | 1.070 | 0.997 | 0.824 | 1.000 | 1.000 | 1.000 | 0.999 | 8.18 | 8 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0762 | 0.4983 | 0.4282 | 1.013 | 1.456 | 1.000 | 0.037 | 1.000 | 0.236 | 0.127 | 0.103 | 12.54 | 6 | 21.5 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0532 | 0.5632 | 0.5150 | 1.017 | 1.546 | 1.000 | 0.039 | 1.000 | 0.193 | 0.105 | 0.078 | 15.59 | 6 | 27 | 70 | - | - | - | - |
| | 300 | 1.0000 | 0.0390 | 0.5596 | 0.5218 | 1.021 | 1.589 | 1.000 | 0.041 | 1.000 | 0.186 | 0.087 | 0.063 | 16.66 | 6 | 32 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0155 | 0.1703 | 0.1469 | 1.003 | 1.261 | 0.999 | 0.331 | 1.000 | 0.052 | 0.021 | 0.023 | 6.53 | 5 | 10 | 20 | - | - | - | - |
| | 200 | 0.9991 | 0.0114 | 0.2284 | 0.2091 | 1.005 | 1.361 | 0.998 | 0.258 | 1.000 | 0.034 | 0.025 | 0.022 | 7.26 | 5 | 12 | 22 | - | - | - | - |
| | 300 | 0.9999 | 0.0079 | 0.2303 | 0.2152 | 1.005 | 1.366 | 1.000 | 0.282 | 1.000 | 0.035 | 0.018 | 0.014 | 7.38 | 5 | 12 | 22 | - | - | - | - |

Notes: See notes to Table 100.

## Table 259: MC findings for DGPII(b)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5955 | 0.0259 | 0.3860 | 0.0218 | 1.066 | 1.720 | 0.073 | 0.060 | 1.000 | 0.981 | 0.824 | 0.555 | 5.54 | 3 | 8 | 9 | 1.525 | 0.51 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5624 | 0.0125 | 0.3880 | 0.0273 | 1.073 | 1.782 | 0.054 | 0.042 | 1.000 | 0.985 | 0.785 | 0.493 | 5.29 | 3 | 8 | 10 | 1.567 | 0.55 | 0.01 | 0.00 |
| | 300 | 0.5348 | 0.0083 | 0.3954 | 0.0301 | 1.081 | 1.803 | 0.037 | 0.031 | 1.000 | 0.979 | 0.772 | 0.503 | 5.14 | 3 | 7 | 10 | 1.579 | 0.57 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5698 | 0.0244 | 0.3789 | 0.0134 | 1.069 | 1.736 | 0.053 | 0.046 | 1.000 | 0.978 | 0.794 | 0.516 | 5.26 | 3 | 7 | 9 | 1.559 | 0.55 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5372 | 0.0116 | 0.3784 | 0.0146 | 1.076 | 1.793 | 0.047 | 0.040 | 1.000 | 0.977 | 0.756 | 0.463 | 4.99 | 3 | 7 | 9 | 1.583 | 0.58 | 0.01 | 0.00 |
| | 300 | 0.5147 | 0.0077 | 0.3857 | 0.0177 | 1.085 | 1.797 | 0.037 | 0.034 | 1.000 | 0.972 | 0.742 | 0.470 | 4.88 | 3 | 7 | 10 | 1.590 | 0.58 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.5226 | 0.0217 | 0.3652 | 0.0032 | 1.077 | 1.771 | 0.048 | 0.046 | 1.000 | 0.963 | 0.717 | 0.438 | 4.76 | 2 | 7 | 9 | 1.632 | 0.63 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4842 | 0.0104 | 0.3665 | 0.0039 | 1.085 | 1.830 | 0.027 | 0.027 | 1.000 | 0.956 | 0.686 | 0.390 | 4.48 | 2 | 7 | 8 | 1.616 | 0.61 | 0.00 | 0.00 |
| | 300 | 0.4553 | 0.0068 | 0.3733 | 0.0050 | 1.097 | 1.824 | 0.017 | 0.016 | 1.000 | 0.951 | 0.669 | 0.390 | 4.32 | 2 | 7 | 9 | 1.586 | 0.58 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5149 | 0.0255 | 0.4076 | 0.0192 | 1.082 | 1.815 | 0.026 | 0.023 | 1.000 | 0.981 | 0.823 | 0.555 | 5.10 | 3 | 7 | 9 | 1.377 | 0.38 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4719 | 0.0123 | 0.4143 | 0.0248 | 1.094 | 1.886 | 0.016 | 0.013 | 1.000 | 0.985 | 0.785 | 0.493 | 4.80 | 3 | 7 | 10 | 1.408 | 0.41 | 0.00 | 0.00 |
| | 300 | 0.4332 | 0.0081 | 0.4271 | 0.0283 | 1.108 | 1.904 | 0.006 | 0.005 | 1.000 | 0.979 | 0.772 | 0.503 | 4.60 | 2 | 7 | 10 | 1.372 | 0.37 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4884 | 0.0241 | 0.4025 | 0.0119 | 1.087 | 1.836 | 0.022 | 0.020 | 1.000 | 0.978 | 0.794 | 0.516 | 4.83 | 3 | 7 | 9 | 1.425 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4430 | 0.0115 | 0.4073 | 0.0135 | 1.099 | 1.904 | 0.011 | 0.010 | 1.000 | 0.977 | 0.756 | 0.463 | 4.50 | 2 | 7 | 9 | 1.428 | 0.43 | 0.00 | 0.00 |
| | 300 | 0.4111 | 0.0076 | 0.4183 | 0.0161 | 1.113 | 1.902 | 0.006 | 0.005 | 1.000 | 0.972 | 0.742 | 0.470 | 4.34 | 2 | 6 | 9 | 1.394 | 0.39 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4275 | 0.0216 | 0.3951 | 0.0024 | 1.102 | 1.886 | 0.014 | 0.014 | 1.000 | 0.963 | 0.717 | 0.438 | 4.28 | 2 | 6 | 8 | 1.472 | 0.47 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3893 | 0.0103 | 0.3972 | 0.0034 | 1.113 | 1.932 | 0.005 | 0.005 | 1.000 | 0.956 | 0.686 | 0.390 | 4.00 | 2 | 6 | 8 | 1.443 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.3587 | 0.0068 | 0.4054 | 0.0042 | 1.125 | 1.917 | 0.003 | 0.003 | 1.000 | 0.951 | 0.669 | 0.390 | 3.83 | 2 | 6 | 8 | 1.393 | 0.39 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8101 | 0.0578 | 0.4174 | 0.3553 | 1.106 | 1.383 | 0.355 | 0.023 | 1.000 | 0.153 | 0.070 | 0.061 | 9.78 | 3 | 21 | 51 | - | - | - | - |
| | 200 | 0.7893 | 0.0434 | 0.4919 | 0.4508 | 1.121 | 1.479 | 0.311 | 0.013 | 1.000 | 0.144 | 0.070 | 0.066 | 12.59 | 3 | 30 | 59 | - | - | - | - |
| | 300 | 0.7824 | 0.0370 | 0.5499 | 0.5130 | 1.133 | 1.501 | 0.284 | 0.006 | 1.000 | 0.144 | 0.061 | 0.061 | 14.97 | 3 | 36 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5029 | 0.0198 | 0.1535 | 0.1361 | 1.131 | 1.828 | 0.099 | 0.007 | 1.000 | 0.036 | 0.014 | 0.016 | 4.48 | 1 | 15 | 37 | - | - | - | - |
| | 200 | 0.5203 | 0.0197 | 0.2402 | 0.2251 | 1.148 | 2.025 | 0.110 | 0.001 | 1.000 | 0.042 | 0.021 | 0.025 | 6.52 | 1 | 22 | 41 | - | - | - | - |
| | 300 | 0.5345 | 0.0173 | 0.2891 | 0.2757 | 1.156 | 2.081 | 0.100 | 0.002 | 1.000 | 0.042 | 0.018 | 0.023 | 7.84 | 1 | 26 | 49 | - | - | - | - |

Notes: See notes to Table 100.

## Table 260: MC findings for DGPII(b)

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8891 | 0.0322 | 0.3695 | 0.0114 | 1.016 | 1.624 | 0.539 | 0.426 | 1.000 | 1.000 | 0.999 | 0.980 | 7.63 | 6 | 9 | 11 | 1.138 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8602 | 0.0158 | 0.3736 | 0.0119 | 1.018 | 1.761 | 0.439 | 0.361 | 1.000 | 1.000 | 1.000 | 0.970 | 7.45 | 6 | 9 | 11 | 1.159 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.8437 | 0.0106 | 0.3791 | 0.0147 | 1.021 | 1.858 | 0.405 | 0.331 | 1.000 | 1.000 | 0.999 | 0.971 | 7.39 | 6 | 9 | 12 | 1.198 | 0.20 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8608 | 0.0313 | 0.3705 | 0.0060 | 1.018 | 1.739 | 0.446 | 0.380 | 1.000 | 1.000 | 0.999 | 0.974 | 7.40 | 6 | 9 | 10 | 1.165 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8324 | 0.0154 | 0.3744 | 0.0065 | 1.020 | 1.867 | 0.360 | 0.319 | 1.000 | 1.000 | 1.000 | 0.964 | 7.22 | 6 | 8 | 11 | 1.190 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.8178 | 0.0103 | 0.3795 | 0.0082 | 1.023 | 1.957 | 0.340 | 0.305 | 1.000 | 1.000 | 0.999 | 0.967 | 7.17 | 6 | 8 | 11 | 1.225 | 0.22 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7987 | 0.0302 | 0.3777 | 0.0009 | 1.023 | 1.984 | 0.281 | 0.270 | 1.000 | 1.000 | 0.998 | 0.956 | 6.99 | 6 | 8 | 10 | 1.277 | 0.27 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7771 | 0.0150 | 0.3821 | 0.0014 | 1.026 | 2.084 | 0.252 | 0.242 | 1.000 | 1.000 | 1.000 | 0.945 | 6.86 | 5 | 8 | 9 | 1.310 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.7673 | 0.0100 | 0.3852 | 0.0012 | 1.028 | 2.167 | 0.244 | 0.234 | 1.000 | 1.000 | 0.998 | 0.951 | 6.81 | 5 | 8 | 9 | 1.316 | 0.32 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8753 | 0.0320 | 0.3718 | 0.0101 | 1.017 | 1.674 | 0.495 | 0.397 | 1.000 | 1.000 | 0.999 | 0.980 | 7.55 | 6 | 9 | 11 | 1.077 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8417 | 0.0157 | 0.3773 | 0.0110 | 1.020 | 1.833 | 0.392 | 0.322 | 1.000 | 1.000 | 1.000 | 0.970 | 7.34 | 6 | 9 | 11 | 1.096 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8210 | 0.0106 | 0.3840 | 0.0140 | 1.023 | 1.945 | 0.352 | 0.293 | 1.000 | 1.000 | 0.999 | 0.971 | 7.26 | 6 | 9 | 12 | 1.119 | 0.12 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8434 | 0.0312 | 0.3742 | 0.0055 | 1.020 | 1.807 | 0.399 | 0.345 | 1.000 | 1.000 | 0.999 | 0.974 | 7.31 | 6 | 9 | 10 | 1.109 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8119 | 0.0153 | 0.3790 | 0.0061 | 1.023 | 1.949 | 0.314 | 0.278 | 1.000 | 1.000 | 1.000 | 0.964 | 7.11 | 6 | 8 | 11 | 1.127 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.7926 | 0.0103 | 0.3855 | 0.0078 | 1.026 | 2.056 | 0.284 | 0.256 | 1.000 | 1.000 | 0.999 | 0.967 | 7.04 | 6 | 8 | 11 | 1.151 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7728 | 0.0302 | 0.3843 | 0.0009 | 1.027 | 2.089 | 0.235 | 0.226 | 1.000 | 1.000 | 0.998 | 0.956 | 6.85 | 5 | 8 | 10 | 1.203 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7480 | 0.0149 | 0.3895 | 0.0012 | 1.030 | 2.192 | 0.204 | 0.199 | 1.000 | 1.000 | 1.000 | 0.945 | 6.71 | 5 | 8 | 9 | 1.225 | 0.22 | 0.00 | 0.00 |
| | 300 | 0.7326 | 0.0099 | 0.3942 | 0.0013 | 1.033 | 2.300 | 0.182 | 0.177 | 1.000 | 1.000 | 0.998 | 0.951 | 6.64 | 5 | 8 | 9 | 1.229 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9891 | 0.0778 | 0.4933 | 0.4224 | 1.026 | 1.470 | 0.948 | 0.039 | 1.000 | 0.186 | 0.106 | 0.093 | 12.64 | 6 | 24 | 52 | - | - | - | - |
| | 200 | 0.9873 | 0.0496 | 0.5445 | 0.4977 | 1.033 | 1.530 | 0.941 | 0.033 | 1.000 | 0.197 | 0.102 | 0.076 | 14.80 | 6 | 29 | 50 | - | - | - | - |
| | 300 | 0.9865 | 0.0381 | 0.5753 | 0.5350 | 1.035 | 1.592 | 0.935 | 0.023 | 1.000 | 0.179 | 0.085 | 0.059 | 16.31 | 6 | 33 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8859 | 0.0334 | 0.2883 | 0.2491 | 1.037 | 1.936 | 0.730 | 0.073 | 1.000 | 0.068 | 0.048 | 0.034 | 7.74 | 2 | 15 | 32 | - | - | - | - |
| | 200 | 0.8915 | 0.0218 | 0.3406 | 0.3150 | 1.042 | 2.040 | 0.745 | 0.046 | 1.000 | 0.074 | 0.043 | 0.036 | 8.79 | 2 | 17 | 33 | - | - | - | - |
| | 300 | 0.9003 | 0.0168 | 0.3743 | 0.3516 | 1.042 | 2.141 | 0.755 | 0.042 | 1.000 | 0.064 | 0.030 | 0.018 | 9.52 | 2 | 19 | 36 | - | - | - | - |

Notes: See notes to Table 100.

## Table 261: MC findings for DGPII(b)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9857 | 0.0336 | 0.3575 | 0.0099 | 1.005 | 1.220 | 0.931 | 0.663 | 1.000 | 1.000 | 1.000 | 1.000 | 8.25 | 7 | 9 | 12 | 1.048 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9774 | 0.0165 | 0.3561 | 0.0118 | 1.006 | 1.308 | 0.893 | 0.678 | 1.000 | 1.000 | 1.000 | 1.000 | 8.16 | 7 | 9 | 12 | 1.045 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9732 | 0.0109 | 0.3554 | 0.0115 | 1.006 | 1.353 | 0.871 | 0.669 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 7 | 9 | 12 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9769 | 0.0324 | 0.3519 | 0.0055 | 1.005 | 1.279 | 0.889 | 0.708 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 7 | 9 | 11 | 1.053 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9668 | 0.0160 | 0.3523 | 0.0062 | 1.007 | 1.379 | 0.844 | 0.702 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 7 | 9 | 10 | 1.047 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9613 | 0.0106 | 0.3526 | 0.0068 | 1.007 | 1.441 | 0.818 | 0.689 | 1.000 | 1.000 | 1.000 | 0.999 | 7.97 | 7 | 9 | 11 | 1.055 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9491 | 0.0311 | 0.3497 | 0.0011 | 1.008 | 1.493 | 0.763 | 0.689 | 1.000 | 1.000 | 1.000 | 0.999 | 7.83 | 7 | 9 | 10 | 1.070 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9365 | 0.0154 | 0.3516 | 0.0016 | 1.009 | 1.605 | 0.715 | 0.658 | 1.000 | 1.000 | 1.000 | 0.998 | 7.75 | 7 | 9 | 10 | 1.087 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.9253 | 0.0102 | 0.3529 | 0.0012 | 1.010 | 1.712 | 0.675 | 0.636 | 1.000 | 1.000 | 1.000 | 0.997 | 7.68 | 7 | 8 | 10 | 1.090 | 0.09 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9820 | 0.0335 | 0.3575 | 0.0090 | 1.005 | 1.244 | 0.913 | 0.653 | 1.000 | 1.000 | 1.000 | 1.000 | 8.22 | 7 | 9 | 11 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9728 | 0.0164 | 0.3567 | 0.0112 | 1.007 | 1.343 | 0.872 | 0.666 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 7 | 9 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9697 | 0.0108 | 0.3557 | 0.0109 | 1.006 | 1.377 | 0.855 | 0.661 | 1.000 | 1.000 | 1.000 | 0.999 | 8.09 | 7 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9720 | 0.0323 | 0.3526 | 0.0050 | 1.006 | 1.319 | 0.866 | 0.691 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 7 | 9 | 11 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9627 | 0.0160 | 0.3529 | 0.0059 | 1.007 | 1.412 | 0.828 | 0.691 | 1.000 | 1.000 | 1.000 | 0.999 | 7.99 | 7 | 9 | 10 | 1.025 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9553 | 0.0106 | 0.3536 | 0.0064 | 1.008 | 1.486 | 0.792 | 0.668 | 1.000 | 1.000 | 1.000 | 0.999 | 7.94 | 7 | 9 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9430 | 0.0311 | 0.3509 | 0.0011 | 1.008 | 1.541 | 0.738 | 0.664 | 1.000 | 1.000 | 1.000 | 0.999 | 7.80 | 7 | 9 | 10 | 1.041 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9269 | 0.0154 | 0.3536 | 0.0014 | 1.010 | 1.675 | 0.679 | 0.625 | 1.000 | 1.000 | 1.000 | 0.998 | 7.70 | 7 | 9 | 10 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9147 | 0.0102 | 0.3552 | 0.0011 | 1.011 | 1.789 | 0.632 | 0.594 | 1.000 | 1.000 | 1.000 | 0.997 | 7.63 | 6 | 8 | 10 | 1.046 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0839 | 0.5138 | 0.4442 | 1.015 | 1.457 | 1.000 | 0.040 | 1.000 | 0.212 | 0.105 | 0.102 | 13.31 | 6 | 22 | 46 | - | - | - | - |
| | 200 | 0.9992 | 0.0519 | 0.5441 | 0.4945 | 1.017 | 1.540 | 0.996 | 0.026 | 1.000 | 0.192 | 0.103 | 0.071 | 15.32 | 6 | 31 | 71 | - | - | - | - |
| | 300 | 0.9995 | 0.0380 | 0.5671 | 0.5270 | 1.020 | 1.590 | 0.998 | 0.021 | 1.000 | 0.198 | 0.096 | 0.063 | 16.37 | 6 | 38 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9831 | 0.0255 | 0.2514 | 0.2210 | 1.009 | 1.568 | 0.955 | 0.190 | 1.000 | 0.051 | 0.034 | 0.028 | 7.44 | 5 | 12 | 24 | - | - | - | - |
| | 200 | 0.9839 | 0.0160 | 0.2854 | 0.2620 | 1.011 | 1.647 | 0.959 | 0.160 | 1.000 | 0.054 | 0.031 | 0.020 | 8.11 | 5 | 14 | 25 | - | - | - | - |
| | 300 | 0.9822 | 0.0116 | 0.3013 | 0.2813 | 1.012 | 1.732 | 0.958 | 0.133 | 1.000 | 0.051 | 0.026 | 0.017 | 8.38 | 5 | 16 | 28 | - | - | - | - |

Notes: See notes to Table 100.

### 3.3.3 Findings for designs featuring hidden signals

## Table 262: MC findings for DGPIII

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9731 | 0.0259 | 0.2969 | 0.0212 | 1.046 | 1.719 | 0.933 | 0.771 | 1.000 | 0.989 | 0.823 | 0.550 | 7.43 | 6 | 9 | 12 | 2.695 | 0.97 | 0.67 | 0.06 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9492 | 0.0125 | 0.2964 | 0.0227 | 1.071 | 2.083 | 0.886 | 0.724 | 1.000 | 0.987 | 0.792 | 0.507 | 7.24 | 5 | 9 | 12 | 2.694 | 0.93 | 0.68 | 0.08 |
| | 300 | 0.9358 | 0.0083 | 0.2974 | 0.0258 | 1.086 | 2.301 | 0.855 | 0.689 | 1.000 | 0.977 | 0.779 | 0.493 | 7.16 | 5 | 9 | 11 | 2.724 | 0.91 | 0.71 | 0.10 |
| $p = 0.05$, | 100 | 0.9589 | 0.0242 | 0.2863 | 0.0123 | 1.058 | 1.953 | 0.908 | 0.815 | 1.000 | 0.984 | 0.794 | 0.507 | 7.19 | 5 | 9 | 11 | 2.747 | 0.94 | 0.72 | 0.09 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9322 | 0.0117 | 0.2859 | 0.0132 | 1.086 | 2.297 | 0.848 | 0.754 | 1.000 | 0.979 | 0.765 | 0.469 | 6.99 | 5 | 9 | 11 | 2.714 | 0.91 | 0.72 | 0.09 |
| | 300 | 0.9124 | 0.0077 | 0.2871 | 0.0157 | 1.107 | 2.578 | 0.803 | 0.706 | 1.000 | 0.973 | 0.743 | 0.446 | 6.86 | 4 | 8 | 11 | 2.707 | 0.88 | 0.72 | 0.10 |
| $p = 0.01$, | 100 | 0.9166 | 0.0217 | 0.2726 | 0.0036 | 1.099 | 2.531 | 0.820 | 0.792 | 1.000 | 0.968 | 0.724 | 0.425 | 6.73 | 4 | 8 | 10 | 2.770 | 0.88 | 0.77 | 0.12 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8945 | 0.0104 | 0.2702 | 0.0039 | 1.120 | 2.738 | 0.770 | 0.746 | 1.000 | 0.963 | 0.696 | 0.385 | 6.55 | 4 | 8 | 10 | 2.746 | 0.86 | 0.77 | 0.12 |
| | 300 | 0.8682 | 0.0068 | 0.2700 | 0.0041 | 1.146 | 3.047 | 0.707 | 0.686 | 1.000 | 0.957 | 0.668 | 0.370 | 6.37 | 3 | 8 | 10 | 2.698 | 0.83 | 0.75 | 0.12 |
| $p = 0.1$, | 100 | 0.9289 | 0.0254 | 0.3034 | 0.0166 | 1.088 | 2.378 | 0.836 | 0.725 | 1.000 | 0.988 | 0.823 | 0.550 | 7.16 | 5 | 9 | 11 | 2.577 | 0.90 | 0.60 | 0.07 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8794 | 0.0123 | 0.3096 | 0.0189 | 1.138 | 2.911 | 0.731 | 0.632 | 1.000 | 0.987 | 0.792 | 0.507 | 6.84 | 4 | 9 | 11 | 2.484 | 0.84 | 0.56 | 0.08 |
| | 300 | 0.8523 | 0.0081 | 0.3134 | 0.0216 | 1.167 | 3.218 | 0.667 | 0.572 | 1.000 | 0.977 | 0.779 | 0.493 | 6.69 | 4 | 9 | 10 | 2.457 | 0.81 | 0.56 | 0.09 |
| $p = 0.05$, | 100 | 0.9034 | 0.0239 | 0.2969 | 0.0095 | 1.112 | 2.691 | 0.782 | 0.725 | 1.000 | 0.984 | 0.794 | 0.506 | 6.88 | 4 | 8 | 10 | 2.583 | 0.87 | 0.63 | 0.08 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8530 | 0.0116 | 0.3030 | 0.0116 | 1.160 | 3.171 | 0.679 | 0.626 | 1.000 | 0.979 | 0.765 | 0.469 | 6.57 | 4 | 8 | 11 | 2.474 | 0.81 | 0.58 | 0.08 |
| | 300 | 0.8183 | 0.0076 | 0.3067 | 0.0133 | 1.198 | 3.529 | 0.603 | 0.547 | 1.000 | 0.973 | 0.743 | 0.446 | 6.36 | 3 | 8 | 10 | 2.423 | 0.77 | 0.56 | 0.09 |
| $p = 0.01$, | 100 | 0.8434 | 0.0216 | 0.2881 | 0.0024 | 1.172 | 3.323 | 0.665 | 0.650 | 1.000 | 0.968 | 0.724 | 0.425 | 6.35 | 3 | 8 | 10 | 2.554 | 0.79 | 0.64 | 0.12 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8017 | 0.0104 | 0.2911 | 0.0036 | 1.210 | 3.621 | 0.574 | 0.562 | 1.000 | 0.963 | 0.696 | 0.385 | 6.08 | 3 | 8 | 10 | 2.470 | 0.76 | 0.62 | 0.09 |
| | 300 | 0.7556 | 0.0068 | 0.2952 | 0.0037 | 1.254 | 4.037 | 0.490 | 0.481 | 1.000 | 0.957 | 0.668 | 0.370 | 5.80 | 3 | 8 | 9 | 2.365 | 0.71 | 0.56 | 0.10 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9974 | 0.1545 | 0.6735 | 0.6483 | 1.165 | 2.807 | 0.989 | 0.006 | 1.000 | 0.217 | 0.149 | 0.159 | 20.28 | 8 | 33 | 53 | - | - | - | - |
| | 200 | 0.9938 | 0.1057 | 0.7311 | 0.7137 | 1.217 | 3.210 | 0.973 | 0.002 | 1.000 | 0.203 | 0.103 | 0.102 | 26.00 | 10 | 45 | 77 | - | - | - | - |
| | 300 | 0.9914 | 0.0863 | 0.7644 | 0.7507 | 1.260 | 3.553 | 0.964 | 0.002 | 1.000 | 0.191 | 0.104 | 0.091 | 30.76 | 10 | 53.5 | 90 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9695 | 0.0665 | 0.4236 | 0.4096 | 1.133 | 2.545 | 0.931 | 0.149 | 1.000 | 0.082 | 0.055 | 0.061 | 11.43 | 4 | 21 | 31 | - | - | - | - |
| | 200 | 0.9623 | 0.0493 | 0.5190 | 0.5087 | 1.177 | 2.809 | 0.916 | 0.077 | 1.000 | 0.089 | 0.045 | 0.049 | 14.62 | 3 | 27 | 43 | - | - | - | - |
| | 300 | 0.9563 | 0.0408 | 0.5760 | 0.5677 | 1.208 | 3.066 | 0.905 | 0.045 | 1.000 | 0.078 | 0.042 | 0.039 | 16.97 | 3 | 31 | 45 | - | - | - | - |

Notes: See notes to Table 100.

## Table 263: MC findings for DGPIII

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $RMSE_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3399 | 0.0122 | 1.006 | 1.118 | 1.000 | 0.885 | 1.000 | 1.000 | 1.000 | 0.982 | 8.11 | 8 | 9 | 11 | 2.019 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3407 | 0.0141 | 1.006 | 1.115 | 1.000 | 0.872 | 1.000 | 1.000 | 0.999 | 0.977 | 8.12 | 8 | 9 | 11 | 2.024 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3403 | 0.0135 | 1.006 | 1.113 | 1.000 | 0.875 | 1.000 | 1.000 | 0.999 | 0.976 | 8.11 | 8 | 9 | 11 | 2.020 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3359 | 0.0067 | 1.006 | 1.100 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 0.977 | 8.04 | 8 | 9 | 11 | 2.018 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3362 | 0.0082 | 1.005 | 1.097 | 1.000 | 0.921 | 1.000 | 1.000 | 0.998 | 0.971 | 8.05 | 8 | 9 | 10 | 2.027 | 1.00 | 0.03 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3351 | 0.0069 | 1.006 | 1.096 | 1.000 | 0.935 | 1.000 | 1.000 | 0.999 | 0.968 | 8.04 | 8 | 9 | 10 | 2.029 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3305 | 0.0013 | 1.005 | 1.082 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.956 | 7.97 | 8 | 8 | 9 | 2.029 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0150 | 0.3310 | 0.0020 | 1.005 | 1.077 | 1.000 | 0.981 | 1.000 | 1.000 | 0.998 | 0.959 | 7.98 | 8 | 8 | 10 | 2.056 | 1.00 | 0.06 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3296 | 0.0014 | 1.005 | 1.074 | 1.000 | 0.986 | 1.000 | 1.000 | 0.998 | 0.947 | 7.96 | 7 | 8 | 9 | 2.051 | 1.00 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0311 | 0.3384 | 0.0099 | 1.006 | 1.098 | 1.000 | 0.908 | 1.000 | 1.000 | 1.000 | 0.982 | 8.08 | 8 | 9 | 11 | 2.011 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3395 | 0.0123 | 1.005 | 1.094 | 1.000 | 0.886 | 1.000 | 1.000 | 0.999 | 0.977 | 8.10 | 8 | 9 | 11 | 2.016 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3389 | 0.0115 | 1.005 | 1.091 | 1.000 | 0.892 | 1.000 | 1.000 | 0.999 | 0.976 | 8.09 | 8 | 9 | 11 | 2.012 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0306 | 0.3349 | 0.0052 | 1.006 | 1.087 | 1.000 | 0.950 | 1.000 | 1.000 | 1.000 | 0.977 | 8.03 | 8 | 8 | 11 | 2.014 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3355 | 0.0071 | 1.005 | 1.084 | 1.000 | 0.932 | 1.000 | 1.000 | 0.998 | 0.971 | 8.04 | 8 | 9 | 10 | 2.023 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0056 | 1.005 | 1.082 | 1.000 | 0.946 | 1.000 | 1.000 | 0.999 | 0.968 | 8.02 | 8 | 9 | 10 | 2.026 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3304 | 0.0011 | 1.005 | 1.079 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.956 | 7.97 | 8 | 8 | 9 | 2.032 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0149 | 0.3308 | 0.0017 | 1.005 | 1.073 | 1.000 | 0.984 | 1.000 | 1.000 | 0.998 | 0.959 | 7.97 | 8 | 8 | 10 | 2.064 | 1.00 | 0.06 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3296 | 0.0014 | 1.005 | 1.074 | 1.000 | 0.986 | 1.000 | 1.000 | 0.998 | 0.947 | 7.96 | 7 | 8 | 9 | 2.060 | 1.00 | 0.06 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1581 | 0.6612 | 0.6337 | 1.044 | 2.546 | 1.000 | 0.002 | 1.000 | 0.252 | 0.157 | 0.155 | 20.65 | 9 | 37 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.0926 | 0.7108 | 0.6909 | 1.051 | 2.820 | 1.000 | 0.000 | 1.000 | 0.211 | 0.137 | 0.114 | 23.43 | 11 | 49 | 67 | - | - | - | - |
| | 300 | 1.0000 | 0.0837 | 0.7534 | 0.7378 | 1.061 | 3.010 | 1.000 | 0.001 | 1.000 | 0.229 | 0.121 | 0.094 | 30.02 | 11 | 54 | 101 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9996 | 0.0326 | 0.2998 | 0.2874 | 1.009 | 1.369 | 1.000 | 0.130 | 1.000 | 0.050 | 0.031 | 0.031 | 8.23 | 5 | 13.5 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0193 | 0.3329 | 0.3245 | 1.010 | 1.402 | 1.000 | 0.103 | 1.000 | 0.045 | 0.025 | 0.025 | 8.83 | 5 | 15 | 26 | - | - | - | - |
| | 300 | 1.0000 | 0.0168 | 0.3901 | 0.3825 | 1.014 | 1.517 | 1.000 | 0.081 | 1.000 | 0.047 | 0.023 | 0.022 | 10.03 | 5 | 18 | 33 | - | - | - | - |

Notes: See notes to Table 100.

## Table 264: MC findings for DGPIII

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3407 | 0.0110 | 1.004 | 1.100 | 1.000 | 0.898 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3412 | 0.0119 | 1.004 | 1.106 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 10 | 2.011 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3419 | 0.0129 | 1.004 | 1.111 | 1.000 | 0.879 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3371 | 0.0057 | 1.003 | 1.088 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3375 | 0.0064 | 1.003 | 1.089 | 1.000 | 0.939 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 2.005 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3377 | 0.0066 | 1.004 | 1.094 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3341 | 0.0013 | 1.003 | 1.075 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3341 | 0.0014 | 1.003 | 1.075 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0014 | 1.003 | 1.077 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3397 | 0.0095 | 1.003 | 1.088 | 1.000 | 0.913 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3400 | 0.0102 | 1.003 | 1.089 | 1.000 | 0.904 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3411 | 0.0117 | 1.003 | 1.096 | 1.000 | 0.891 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3365 | 0.0049 | 1.003 | 1.079 | 1.000 | 0.953 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3370 | 0.0057 | 1.003 | 1.081 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3372 | 0.0059 | 1.003 | 1.085 | 1.000 | 0.944 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0011 | 1.003 | 1.072 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3340 | 0.0012 | 1.003 | 1.073 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3339 | 0.0012 | 1.003 | 1.075 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1788 | 0.7129 | 0.6865 | 1.021 | 2.335 | 1.000 | 0.008 | 1.000 | 0.251 | 0.170 | 0.183 | 22.70 | 8 | 32 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.1177 | 0.7005 | 0.6798 | 1.033 | 2.818 | 1.000 | 0.006 | 1.000 | 0.239 | 0.141 | 0.129 | 28.43 | 8 | 50 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0813 | 0.6908 | 0.6736 | 1.039 | 3.060 | 1.000 | 0.002 | 1.000 | 0.199 | 0.116 | 0.112 | 29.32 | 8 | 63 | 93 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0151 | 0.1710 | 0.1643 | 1.002 | 1.151 | 1.000 | 0.320 | 1.000 | 0.025 | 0.016 | 0.015 | 6.49 | 5 | 9 | 15 | - | - | - | - |
| | 200 | 1.0000 | 0.0101 | 0.2065 | 0.2018 | 1.002 | 1.192 | 1.000 | 0.291 | 1.000 | 0.027 | 0.009 | 0.015 | 7.00 | 5 | 11 | 20 | - | - | - | - |
| | 300 | 1.0000 | 0.0071 | 0.2073 | 0.2030 | 1.003 | 1.206 | 1.000 | 0.323 | 1.000 | 0.014 | 0.009 | 0.012 | 7.13 | 5 | 12 | 29 | - | - | - | - |

Notes: See notes to Table 100.

## Table 265: MC findings for DGPIII

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7893 | 0.0260 | 0.3405 | 0.0238 | 1.110 | 2.551 | 0.442 | 0.368 | 1.000 | 0.988 | 0.831 | 0.556 | 6.52 | 4 | 9 | 11 | 2.364 | 0.79 | 0.52 | 0.05 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7406 | 0.0125 | 0.3444 | 0.0248 | 1.131 | 2.814 | 0.363 | 0.299 | 1.000 | 0.975 | 0.801 | 0.516 | 6.19 | 3 | 8 | 11 | 2.270 | 0.75 | 0.49 | 0.04 |
| | 300 | 0.6925 | 0.0082 | 0.3537 | 0.0291 | 1.159 | 3.082 | 0.309 | 0.254 | 1.000 | 0.973 | 0.778 | 0.491 | 5.92 | 3 | 8 | 11 | 2.172 | 0.69 | 0.44 | 0.04 |
| $p = 0.05$, | 100 | 0.7528 | 0.0243 | 0.3346 | 0.0133 | 1.124 | 2.725 | 0.385 | 0.348 | 1.000 | 0.982 | 0.802 | 0.519 | 6.17 | 3 | 8 | 10 | 2.310 | 0.75 | 0.51 | 0.04 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7099 | 0.0117 | 0.3372 | 0.0140 | 1.142 | 2.943 | 0.326 | 0.292 | 1.000 | 0.970 | 0.772 | 0.478 | 5.87 | 3 | 8 | 10 | 2.246 | 0.72 | 0.49 | 0.03 |
| | 300 | 0.6720 | 0.0077 | 0.3432 | 0.0168 | 1.165 | 3.151 | 0.285 | 0.255 | 1.000 | 0.963 | 0.749 | 0.456 | 5.65 | 3 | 8 | 10 | 2.156 | 0.69 | 0.44 | 0.03 |
| $p = 0.01$, | 100 | 0.6935 | 0.0218 | 0.3252 | 0.0034 | 1.148 | 2.994 | 0.306 | 0.297 | 1.000 | 0.972 | 0.735 | 0.430 | 5.63 | 3 | 8 | 9 | 2.252 | 0.72 | 0.50 | 0.03 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6494 | 0.0105 | 0.3283 | 0.0037 | 1.169 | 3.198 | 0.252 | 0.242 | 1.000 | 0.957 | 0.705 | 0.398 | 5.33 | 3 | 8 | 9 | 2.174 | 0.71 | 0.44 | 0.02 |
| | 300 | 0.6110 | 0.0068 | 0.3316 | 0.0047 | 1.190 | 3.392 | 0.214 | 0.209 | 1.000 | 0.943 | 0.680 | 0.384 | 5.09 | 2 | 8 | 9 | 2.093 | 0.69 | 0.39 | 0.01 |
| $p = 0.1$, | 100 | 0.6809 | 0.0255 | 0.3651 | 0.0197 | 1.158 | 3.061 | 0.263 | 0.232 | 1.000 | 0.988 | 0.831 | 0.556 | 5.93 | 3 | 8 | 10 | 2.001 | 0.65 | 0.33 | 0.03 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6096 | 0.0123 | 0.3771 | 0.0225 | 1.191 | 3.385 | 0.183 | 0.155 | 1.000 | 0.975 | 0.800 | 0.516 | 5.50 | 3 | 8 | 10 | 1.848 | 0.58 | 0.26 | 0.01 |
| | 300 | 0.5573 | 0.0081 | 0.3867 | 0.0250 | 1.219 | 3.630 | 0.140 | 0.123 | 1.000 | 0.973 | 0.778 | 0.491 | 5.19 | 3 | 8 | 10 | 1.729 | 0.51 | 0.21 | 0.01 |
| $p = 0.05$, | 100 | 0.6396 | 0.0240 | 0.3625 | 0.0108 | 1.174 | 3.230 | 0.218 | 0.204 | 1.000 | 0.982 | 0.802 | 0.519 | 5.58 | 3 | 8 | 10 | 1.955 | 0.61 | 0.32 | 0.03 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5707 | 0.0116 | 0.3736 | 0.0132 | 1.208 | 3.522 | 0.153 | 0.140 | 1.000 | 0.970 | 0.772 | 0.478 | 5.16 | 3 | 8 | 10 | 1.822 | 0.56 | 0.25 | 0.01 |
| | 300 | 0.5307 | 0.0075 | 0.3790 | 0.0141 | 1.228 | 3.713 | 0.120 | 0.110 | 1.000 | 0.963 | 0.749 | 0.456 | 4.91 | 2 | 8 | 10 | 1.724 | 0.52 | 0.20 | 0.01 |
| $p = 0.01$, | 100 | 0.5690 | 0.0218 | 0.3581 | 0.0029 | 1.205 | 3.502 | 0.156 | 0.153 | 1.000 | 0.972 | 0.735 | 0.430 | 5.00 | 3 | 8 | 9 | 1.888 | 0.59 | 0.28 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5071 | 0.0105 | 0.3668 | 0.0035 | 1.238 | 3.742 | 0.111 | 0.107 | 1.000 | 0.957 | 0.705 | 0.398 | 4.62 | 2 | 7 | 9 | 1.763 | 0.56 | 0.20 | 0.01 |
| | 300 | 0.4712 | 0.0068 | 0.3689 | 0.0035 | 1.254 | 3.903 | 0.073 | 0.072 | 1.000 | 0.943 | 0.680 | 0.384 | 4.38 | 2 | 7 | 8 | 1.695 | 0.53 | 0.16 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9254 | 0.1110 | 0.5711 | 0.5442 | 1.181 | 2.958 | 0.718 | 0.005 | 1.000 | 0.187 | 0.117 | 0.100 | 15.62 | 4 | 30 | 47 | - | - | - | - |
| | 200 | 0.8882 | 0.0724 | 0.6196 | 0.5992 | 1.227 | 3.267 | 0.605 | 0.001 | 1.000 | 0.169 | 0.083 | 0.084 | 18.85 | 4 | 39 | 72 | - | - | - | - |
| | 300 | 0.8599 | 0.0550 | 0.6447 | 0.6271 | 1.255 | 3.499 | 0.515 | 0.000 | 1.000 | 0.162 | 0.088 | 0.074 | 20.75 | 4 | 45 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7503 | 0.0480 | 0.3009 | 0.2908 | 1.198 | 3.141 | 0.512 | 0.046 | 1.000 | 0.061 | 0.041 | 0.039 | 8.50 | 1 | 21 | 34 | - | - | - | - |
| | 200 | 0.7247 | 0.0347 | 0.3629 | 0.3561 | 1.238 | 3.407 | 0.459 | 0.016 | 1.000 | 0.057 | 0.030 | 0.034 | 10.54 | 1 | 26.5 | 48 | - | - | - | - |
| | 300 | 0.7052 | 0.0281 | 0.4113 | 0.4048 | 1.268 | 3.627 | 0.415 | 0.008 | 1.000 | 0.061 | 0.034 | 0.035 | 11.92 | 1 | 30 | 45 | - | - | - | - |

Notes: See notes to Table 100.

## Table 266: MC findings for DGPIII

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9999 | 0.0313 | 0.3398 | 0.0124 | 1.006 | 1.105 | 1.000 | 0.884 | 1.000 | 1.000 | 1.000 | 0.978 | 8.10 | 8 | 9 | 11 | 2.108 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3398 | 0.0124 | 1.006 | 1.103 | 1.000 | 0.886 | 1.000 | 1.000 | 0.999 | 0.979 | 8.10 | 8 | 9 | 11 | 2.136 | 1.00 | 0.14 | 0.00 |
| | 300 | 0.9989 | 0.0104 | 0.3400 | 0.0130 | 1.007 | 1.135 | 0.995 | 0.874 | 1.000 | 1.000 | 1.000 | 0.974 | 8.10 | 8 | 9 | 11 | 2.178 | 1.00 | 0.18 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0306 | 0.3351 | 0.0063 | 1.006 | 1.093 | 0.998 | 0.938 | 1.000 | 1.000 | 0.999 | 0.972 | 8.03 | 8 | 9 | 10 | 2.141 | 1.00 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9993 | 0.0153 | 0.3355 | 0.0062 | 1.006 | 1.106 | 0.997 | 0.939 | 1.000 | 1.000 | 0.999 | 0.976 | 8.03 | 8 | 9 | 11 | 2.185 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9976 | 0.0102 | 0.3357 | 0.0067 | 1.007 | 1.150 | 0.989 | 0.924 | 1.000 | 1.000 | 1.000 | 0.969 | 8.02 | 8 | 9 | 10 | 2.227 | 1.00 | 0.23 | 0.00 |
| $p = 0.01$, | 100 | 0.9983 | 0.0300 | 0.3306 | 0.0016 | 1.006 | 1.110 | 0.992 | 0.977 | 1.000 | 1.000 | 0.999 | 0.952 | 7.96 | 7 | 8 | 10 | 2.262 | 1.00 | 0.26 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9966 | 0.0149 | 0.3311 | 0.0015 | 1.007 | 1.173 | 0.988 | 0.973 | 1.000 | 1.000 | 0.998 | 0.954 | 7.95 | 7 | 8 | 9 | 2.340 | 1.00 | 0.34 | 0.00 |
| | 300 | 0.9958 | 0.0099 | 0.3304 | 0.0013 | 1.007 | 1.192 | 0.984 | 0.971 | 1.000 | 1.000 | 0.999 | 0.944 | 7.93 | 7 | 8 | 9 | 2.390 | 1.00 | 0.39 | 0.01 |
| $p = 0.1$, | 100 | 0.9993 | 0.0312 | 0.3388 | 0.0107 | 1.006 | 1.103 | 0.997 | 0.896 | 1.000 | 1.000 | 1.000 | 0.978 | 8.08 | 8 | 9 | 11 | 2.103 | 1.00 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9980 | 0.0155 | 0.3392 | 0.0108 | 1.007 | 1.151 | 0.993 | 0.893 | 1.000 | 1.000 | 0.999 | 0.979 | 8.08 | 8 | 9 | 11 | 2.135 | 1.00 | 0.14 | 0.00 |
| | 300 | 0.9966 | 0.0103 | 0.3396 | 0.0116 | 1.007 | 1.187 | 0.984 | 0.877 | 1.000 | 1.000 | 1.000 | 0.974 | 8.07 | 8 | 9 | 11 | 2.178 | 1.00 | 0.18 | 0.00 |
| $p = 0.05$, | 100 | 0.9987 | 0.0305 | 0.3347 | 0.0053 | 1.006 | 1.108 | 0.994 | 0.943 | 1.000 | 1.000 | 0.999 | 0.972 | 8.02 | 8 | 8.5 | 10 | 2.144 | 1.00 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9968 | 0.0152 | 0.3354 | 0.0053 | 1.007 | 1.174 | 0.988 | 0.939 | 1.000 | 1.000 | 0.999 | 0.976 | 8.01 | 8 | 8 | 11 | 2.188 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9929 | 0.0101 | 0.3362 | 0.0059 | 1.008 | 1.280 | 0.971 | 0.915 | 1.000 | 1.000 | 1.000 | 0.969 | 7.99 | 7 | 9 | 10 | 2.230 | 1.00 | 0.23 | 0.01 |
| $p = 0.01$, | 100 | 0.9948 | 0.0299 | 0.3313 | 0.0014 | 1.008 | 1.222 | 0.979 | 0.966 | 1.000 | 1.000 | 0.999 | 0.952 | 7.94 | 7 | 8 | 9 | 2.274 | 1.00 | 0.27 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9902 | 0.0149 | 0.3325 | 0.0015 | 1.009 | 1.358 | 0.964 | 0.950 | 1.000 | 1.000 | 0.998 | 0.954 | 7.92 | 7 | 8 | 9 | 2.340 | 0.99 | 0.34 | 0.01 |
| | 300 | 0.9789 | 0.0099 | 0.3345 | 0.0011 | 1.014 | 1.660 | 0.937 | 0.927 | 1.000 | 1.000 | 0.999 | 0.944 | 7.85 | 7 | 8 | 9 | 2.353 | 0.98 | 0.37 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1530 | 0.6837 | 0.6583 | 1.040 | 2.456 | 1.000 | 0.002 | 1.000 | 0.248 | 0.139 | 0.150 | 20.15 | 10 | 35 | 51 | - | - | - | - |
| | 200 | 1.0000 | 0.1063 | 0.7437 | 0.7247 | 1.052 | 2.768 | 1.000 | 0.003 | 1.000 | 0.229 | 0.128 | 0.112 | 26.16 | 11 | 41 | 85 | - | - | - | - |
| | 300 | 0.9998 | 0.0794 | 0.7629 | 0.7475 | 1.059 | 2.978 | 0.999 | 0.003 | 1.000 | 0.205 | 0.122 | 0.095 | 28.73 | 13 | 53 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9965 | 0.0531 | 0.4175 | 0.4031 | 1.019 | 1.730 | 0.993 | 0.045 | 1.000 | 0.079 | 0.046 | 0.054 | 10.24 | 5.5 | 17 | 29 | - | - | - | - |
| | 200 | 0.9956 | 0.0373 | 0.4990 | 0.4875 | 1.029 | 1.955 | 0.991 | 0.026 | 1.000 | 0.072 | 0.040 | 0.039 | 12.40 | 6 | 21 | 38 | - | - | - | - |
| | 300 | 0.9961 | 0.0282 | 0.5276 | 0.5187 | 1.032 | 2.059 | 0.992 | 0.019 | 1.000 | 0.068 | 0.031 | 0.031 | 13.42 | 6 | 23 | 40 | - | - | - | - |

Notes: See notes to Table 100.

## Table 267: MC findings for DGPIII

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3404 | 0.0106 | 1.004 | 1.093 | 1.000 | 0.901 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0158 | 0.3423 | 0.0135 | 1.003 | 1.099 | 1.000 | 0.874 | 1.000 | 1.000 | 1.000 | 1.000 | 8.14 | 8 | 9 | 11 | 2.010 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3421 | 0.0131 | 1.004 | 1.103 | 1.000 | 0.880 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 10 | 2.011 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3372 | 0.0058 | 1.003 | 1.078 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3380 | 0.0071 | 1.003 | 1.079 | 1.000 | 0.933 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 2.011 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3375 | 0.0064 | 1.004 | 1.080 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3341 | 0.0013 | 1.003 | 1.059 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3338 | 0.0009 | 1.003 | 1.054 | 1.000 | 0.992 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.021 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0014 | 1.003 | 1.059 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.017 | 1.00 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0312 | 0.3394 | 0.0091 | 1.003 | 1.076 | 1.000 | 0.914 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0157 | 0.3412 | 0.0119 | 1.003 | 1.082 | 1.000 | 0.890 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3411 | 0.0117 | 1.004 | 1.085 | 1.000 | 0.894 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3365 | 0.0048 | 1.003 | 1.067 | 1.000 | 0.954 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3374 | 0.0062 | 1.003 | 1.068 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3370 | 0.0056 | 1.003 | 1.070 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0011 | 1.003 | 1.056 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3337 | 0.0007 | 1.003 | 1.052 | 1.000 | 0.994 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.023 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0013 | 1.003 | 1.057 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.019 | 1.00 | 0.02 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1600 | 0.6547 | 0.6278 | 1.025 | 2.523 | 1.000 | 0.003 | 1.000 | 0.263 | 0.147 | 0.169 | 20.84 | 9 | 38 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.0878 | 0.7043 | 0.6845 | 1.029 | 2.764 | 1.000 | 0.000 | 1.000 | 0.232 | 0.114 | 0.110 | 22.47 | 12 | 50 | 72 | - | - | - | - |
| | 300 | 1.0000 | 0.0717 | 0.7504 | 0.7331 | 1.034 | 2.932 | 1.000 | 0.001 | 1.000 | 0.220 | 0.127 | 0.100 | 26.45 | 13 | 41 | 92 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0319 | 0.2908 | 0.2798 | 1.005 | 1.351 | 1.000 | 0.163 | 1.000 | 0.062 | 0.022 | 0.039 | 8.16 | 5 | 13 | 22 | - | - | - | - |
| | 200 | 1.0000 | 0.0179 | 0.3198 | 0.3115 | 1.005 | 1.379 | 1.000 | 0.105 | 1.000 | 0.050 | 0.022 | 0.020 | 8.57 | 5 | 15 | 26 | - | - | - | - |
| | 300 | 1.0000 | 0.0146 | 0.3678 | 0.3591 | 1.007 | 1.488 | 1.000 | 0.074 | 1.000 | 0.039 | 0.021 | 0.020 | 9.36 | 5 | 16 | 34 | - | - | - | - |

Notes: See notes to Table 100.

## Table 268: MC findings for DGPIII

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4849 | 0.0255 | 0.4248 | 0.0274 | 1.121 | 2.595 | 0.059 | 0.052 | 1.000 | 0.987 | 0.824 | 0.538 | 4.95 | 3 | 7 | 10 | 1.670 | 0.52 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4300 | 0.0123 | 0.4337 | 0.0283 | 1.133 | 2.707 | 0.037 | 0.031 | 1.000 | 0.978 | 0.792 | 0.497 | 4.60 | 2 | 7 | 9 | 1.566 | 0.46 | 0.10 | 0.01 |
| | 300 | 0.3988 | 0.0081 | 0.4398 | 0.0316 | 1.144 | 2.748 | 0.026 | 0.021 | 1.000 | 0.974 | 0.764 | 0.487 | 4.41 | 2 | 7 | 10 | 1.510 | 0.44 | 0.07 | 0.00 |
| $p = 0.05$, | 100 | 0.4504 | 0.0239 | 0.4194 | 0.0145 | 1.125 | 2.647 | 0.043 | 0.039 | 1.000 | 0.984 | 0.791 | 0.501 | 4.62 | 2 | 7 | 9 | 1.626 | 0.51 | 0.12 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3966 | 0.0115 | 0.4281 | 0.0168 | 1.137 | 2.748 | 0.025 | 0.023 | 1.000 | 0.972 | 0.758 | 0.458 | 4.27 | 2 | 7 | 9 | 1.511 | 0.44 | 0.07 | 0.00 |
| | 300 | 0.3707 | 0.0076 | 0.4321 | 0.0187 | 1.146 | 2.773 | 0.018 | 0.016 | 1.000 | 0.969 | 0.732 | 0.448 | 4.11 | 2 | 7 | 9 | 1.466 | 0.42 | 0.05 | 0.00 |
| $p = 0.01$, | 100 | 0.3770 | 0.0215 | 0.4173 | 0.0043 | 1.139 | 2.753 | 0.019 | 0.018 | 1.000 | 0.970 | 0.722 | 0.416 | 4.02 | 2 | 6 | 8 | 1.500 | 0.45 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3387 | 0.0102 | 0.4177 | 0.0048 | 1.148 | 2.819 | 0.012 | 0.012 | 1.000 | 0.957 | 0.676 | 0.378 | 3.73 | 2 | 6 | 8 | 1.402 | 0.37 | 0.03 | 0.00 |
| | 300 | 0.3155 | 0.0067 | 0.4189 | 0.0053 | 1.156 | 2.836 | 0.007 | 0.007 | 1.000 | 0.945 | 0.665 | 0.366 | 3.58 | 2 | 6 | 8 | 1.355 | 0.33 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.3861 | 0.0253 | 0.4569 | 0.0260 | 1.142 | 2.766 | 0.016 | 0.015 | 1.000 | 0.987 | 0.824 | 0.538 | 4.44 | 2 | 7 | 9 | 1.368 | 0.34 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3360 | 0.0122 | 0.4651 | 0.0269 | 1.154 | 2.852 | 0.008 | 0.008 | 1.000 | 0.978 | 0.792 | 0.497 | 4.10 | 2 | 6 | 8 | 1.270 | 0.26 | 0.01 | 0.00 |
| | 300 | 0.3114 | 0.0080 | 0.4704 | 0.0309 | 1.164 | 2.873 | 0.004 | 0.003 | 1.000 | 0.974 | 0.764 | 0.487 | 3.95 | 2 | 6 | 8 | 1.229 | 0.22 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.3560 | 0.0237 | 0.4511 | 0.0133 | 1.146 | 2.802 | 0.009 | 0.008 | 1.000 | 0.984 | 0.791 | 0.501 | 4.13 | 2 | 6 | 9 | 1.345 | 0.32 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3134 | 0.0114 | 0.4573 | 0.0158 | 1.157 | 2.871 | 0.005 | 0.005 | 1.000 | 0.972 | 0.758 | 0.458 | 3.84 | 2 | 6 | 8 | 1.254 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.2903 | 0.0075 | 0.4612 | 0.0182 | 1.165 | 2.885 | 0.002 | 0.001 | 1.000 | 0.969 | 0.732 | 0.448 | 3.70 | 2 | 6 | 8 | 1.212 | 0.20 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.3044 | 0.0215 | 0.4435 | 0.0038 | 1.157 | 2.860 | 0.003 | 0.003 | 1.000 | 0.970 | 0.722 | 0.416 | 3.65 | 2 | 6 | 8 | 1.284 | 0.28 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2766 | 0.0102 | 0.4405 | 0.0047 | 1.164 | 2.907 | 0.001 | 0.001 | 1.000 | 0.957 | 0.676 | 0.378 | 3.42 | 2 | 5 | 8 | 1.216 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.2598 | 0.0067 | 0.4398 | 0.0048 | 1.170 | 2.906 | 0.001 | 0.001 | 1.000 | 0.945 | 0.665 | 0.366 | 3.30 | 2 | 5 | 7 | 1.171 | 0.17 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6831 | 0.0610 | 0.4359 | 0.4030 | 1.159 | 2.553 | 0.171 | 0.000 | 1.000 | 0.139 | 0.086 | 0.074 | 9.45 | 2 | 23 | 50 | - | - | - | - |
| | 200 | 0.6347 | 0.0420 | 0.5090 | 0.4847 | 1.177 | 2.665 | 0.107 | 0.001 | 1.000 | 0.122 | 0.068 | 0.044 | 11.53 | 2 | 29.5 | 58 | - | - | - | - |
| | 300 | 0.6141 | 0.0333 | 0.5430 | 0.5241 | 1.192 | 2.697 | 0.071 | 0.000 | 1.000 | 0.137 | 0.062 | 0.053 | 13.02 | 2 | 34 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4213 | 0.0204 | 0.1519 | 0.1465 | 1.168 | 2.784 | 0.087 | 0.002 | 1.000 | 0.028 | 0.016 | 0.021 | 4.12 | 1 | 16 | 36 | - | - | - | - |
| | 200 | 0.4173 | 0.0173 | 0.2134 | 0.2087 | 1.183 | 2.912 | 0.066 | 0.001 | 1.000 | 0.033 | 0.018 | 0.014 | 5.52 | 1 | 22 | 40 | - | - | - | - |
| | 300 | 0.4116 | 0.0149 | 0.2544 | 0.2504 | 1.198 | 2.976 | 0.043 | 0.000 | 1.000 | 0.041 | 0.023 | 0.017 | 6.52 | 1 | 24 | 51 | - | - | - | - |

Notes: See notes to Table 100.

## Table 269: MC findings for DGPIII

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9358 | 0.0313 | 0.3542 | 0.0123 | 1.018 | 1.759 | 0.758 | 0.674 | 1.000 | 1.000 | 0.999 | 0.977 | 7.78 | 6 | 9 | 10 | 2.329 | 0.96 | 0.36 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9069 | 0.0156 | 0.3623 | 0.0139 | 1.024 | 2.052 | 0.675 | 0.596 | 1.000 | 1.000 | 1.000 | 0.975 | 7.64 | 5 | 9 | 10 | 2.335 | 0.93 | 0.40 | 0.01 |
| | 300 | 0.8878 | 0.0104 | 0.3679 | 0.0143 | 1.027 | 2.197 | 0.640 | 0.558 | 1.000 | 1.000 | 1.000 | 0.978 | 7.55 | 5 | 9 | 11 | 2.308 | 0.90 | 0.40 | 0.01 |
| $p = 0.05$, | 100 | 0.9119 | 0.0306 | 0.3560 | 0.0061 | 1.021 | 1.969 | 0.703 | 0.662 | 1.000 | 1.000 | 0.999 | 0.972 | 7.59 | 5 | 8 | 10 | 2.337 | 0.92 | 0.40 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8768 | 0.0153 | 0.3659 | 0.0079 | 1.029 | 2.299 | 0.614 | 0.571 | 1.000 | 1.000 | 1.000 | 0.970 | 7.43 | 5 | 8 | 10 | 2.324 | 0.88 | 0.43 | 0.01 |
| | 300 | 0.8602 | 0.0102 | 0.3700 | 0.0074 | 1.031 | 2.406 | 0.581 | 0.547 | 1.000 | 1.000 | 1.000 | 0.970 | 7.34 | 5 | 8 | 10 | 2.293 | 0.86 | 0.43 | 0.01 |
| $p = 0.01$, | 100 | 0.8552 | 0.0300 | 0.3665 | 0.0012 | 1.032 | 2.422 | 0.588 | 0.581 | 1.000 | 1.000 | 0.998 | 0.958 | 7.24 | 5 | 8 | 9 | 2.324 | 0.84 | 0.48 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8267 | 0.0149 | 0.3747 | 0.0026 | 1.038 | 2.677 | 0.532 | 0.522 | 1.000 | 1.000 | 0.999 | 0.952 | 7.11 | 5 | 8 | 10 | 2.306 | 0.80 | 0.50 | 0.01 |
| | 300 | 0.8132 | 0.0099 | 0.3778 | 0.0014 | 1.041 | 2.744 | 0.510 | 0.504 | 1.000 | 1.000 | 0.999 | 0.955 | 7.03 | 5 | 8 | 9 | 2.295 | 0.79 | 0.50 | 0.01 |
| $p = 0.1$, | 100 | 0.8851 | 0.0311 | 0.3663 | 0.0107 | 1.027 | 2.196 | 0.641 | 0.580 | 1.000 | 1.000 | 0.999 | 0.977 | 7.50 | 5 | 9 | 10 | 2.145 | 0.89 | 0.25 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8396 | 0.0155 | 0.3787 | 0.0126 | 1.037 | 2.581 | 0.522 | 0.469 | 1.000 | 1.000 | 1.000 | 0.975 | 7.29 | 5 | 9 | 10 | 2.090 | 0.83 | 0.26 | 0.00 |
| | 300 | 0.8179 | 0.0104 | 0.3855 | 0.0137 | 1.040 | 2.710 | 0.485 | 0.430 | 1.000 | 1.000 | 1.000 | 0.978 | 7.19 | 5 | 9 | 11 | 2.058 | 0.80 | 0.26 | 0.01 |
| $p = 0.05$, | 100 | 0.8509 | 0.0305 | 0.3716 | 0.0054 | 1.033 | 2.459 | 0.575 | 0.545 | 1.000 | 1.000 | 0.999 | 0.972 | 7.28 | 5 | 8 | 10 | 2.112 | 0.83 | 0.28 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8047 | 0.0152 | 0.3841 | 0.0070 | 1.044 | 2.819 | 0.458 | 0.430 | 1.000 | 1.000 | 1.000 | 0.970 | 7.05 | 5 | 8 | 10 | 2.069 | 0.77 | 0.29 | 0.00 |
| | 300 | 0.7892 | 0.0101 | 0.3881 | 0.0067 | 1.045 | 2.895 | 0.431 | 0.411 | 1.000 | 1.000 | 1.000 | 0.970 | 6.97 | 5 | 8 | 10 | 2.047 | 0.75 | 0.29 | 0.00 |
| $p = 0.01$, | 100 | 0.7909 | 0.0299 | 0.3834 | 0.0010 | 1.045 | 2.864 | 0.455 | 0.451 | 1.000 | 1.000 | 0.998 | 0.958 | 6.92 | 5 | 8 | 9 | 2.105 | 0.74 | 0.36 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7517 | 0.0149 | 0.3947 | 0.0025 | 1.054 | 3.159 | 0.381 | 0.374 | 1.000 | 1.000 | 0.999 | 0.952 | 6.73 | 5 | 8 | 9 | 2.078 | 0.70 | 0.38 | 0.01 |
| | 300 | 0.7282 | 0.0099 | 0.4008 | 0.0011 | 1.058 | 3.272 | 0.350 | 0.346 | 1.000 | 1.000 | 0.999 | 0.955 | 6.60 | 5 | 8 | 9 | 2.015 | 0.66 | 0.35 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9919 | 0.1402 | 0.6410 | 0.6146 | 1.043 | 2.573 | 0.964 | 0.008 | 1.000 | 0.229 | 0.149 | 0.145 | 18.83 | 7 | 31 | 51 | - | - | - | - |
| | 200 | 0.9854 | 0.0894 | 0.6854 | 0.6663 | 1.059 | 2.957 | 0.939 | 0.004 | 1.000 | 0.201 | 0.111 | 0.107 | 22.72 | 7 | 43 | 65 | - | - | - | - |
| | 300 | 0.9787 | 0.0675 | 0.6999 | 0.6830 | 1.065 | 3.099 | 0.908 | 0.006 | 1.000 | 0.197 | 0.109 | 0.088 | 25.06 | 6 | 47 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9031 | 0.0567 | 0.4060 | 0.3929 | 1.044 | 2.552 | 0.823 | 0.020 | 1.000 | 0.086 | 0.053 | 0.054 | 10.13 | 1 | 18 | 29 | - | - | - | - |
| | 200 | 0.9019 | 0.0386 | 0.4689 | 0.4588 | 1.055 | 2.761 | 0.822 | 0.007 | 1.000 | 0.074 | 0.045 | 0.041 | 12.19 | 1 | 23 | 41 | - | - | - | - |
| | 300 | 0.8855 | 0.0291 | 0.4868 | 0.4777 | 1.062 | 2.916 | 0.789 | 0.009 | 1.000 | 0.065 | 0.036 | 0.040 | 13.13 | 1 | 26 | 47 | - | - | - | - |

Notes: See notes to Table 100.

## Table 270: MC findings for DGPIII

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9975 | 0.0315 | 0.3416 | 0.0117 | 1.004 | 1.127 | 0.988 | 0.877 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 10 | 2.110 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9936 | 0.0156 | 0.3422 | 0.0113 | 1.005 | 1.205 | 0.969 | 0.867 | 1.000 | 1.000 | 1.000 | 1.000 | 8.08 | 8 | 9 | 11 | 2.154 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9912 | 0.0105 | 0.3435 | 0.0127 | 1.005 | 1.253 | 0.957 | 0.841 | 1.000 | 1.000 | 1.000 | 0.999 | 8.08 | 8 | 9 | 10 | 2.173 | 1.00 | 0.17 | 0.00 |
| $p = 0.05$, | 100 | 0.9951 | 0.0310 | 0.3387 | 0.0067 | 1.005 | 1.157 | 0.976 | 0.915 | 1.000 | 1.000 | 1.000 | 0.999 | 8.04 | 8 | 9 | 10 | 2.147 | 1.00 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9890 | 0.0154 | 0.3399 | 0.0064 | 1.005 | 1.277 | 0.949 | 0.890 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 7.5 | 9 | 10 | 2.185 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9854 | 0.0103 | 0.3410 | 0.0070 | 1.006 | 1.350 | 0.933 | 0.871 | 1.000 | 1.000 | 1.000 | 0.999 | 8.00 | 7 | 9 | 10 | 2.222 | 1.00 | 0.22 | 0.00 |
| $p = 0.01$, | 100 | 0.9871 | 0.0304 | 0.3369 | 0.0016 | 1.005 | 1.295 | 0.939 | 0.925 | 1.000 | 1.000 | 1.000 | 0.998 | 7.95 | 7 | 8 | 9 | 2.270 | 1.00 | 0.27 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9748 | 0.0151 | 0.3397 | 0.0013 | 1.007 | 1.520 | 0.891 | 0.882 | 1.000 | 1.000 | 1.000 | 0.999 | 7.89 | 7 | 8 | 9 | 2.314 | 0.99 | 0.32 | 0.01 |
| | 300 | 0.9689 | 0.0101 | 0.3409 | 0.0012 | 1.008 | 1.631 | 0.875 | 0.864 | 1.000 | 1.000 | 1.000 | 0.997 | 7.85 | 7 | 8 | 9 | 2.320 | 0.99 | 0.33 | 0.01 |
| $p = 0.1$, | 100 | 0.9936 | 0.0313 | 0.3414 | 0.0102 | 1.005 | 1.190 | 0.968 | 0.875 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 10 | 2.099 | 1.00 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9852 | 0.0156 | 0.3431 | 0.0098 | 1.006 | 1.357 | 0.934 | 0.849 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 7 | 9 | 11 | 2.119 | 1.00 | 0.12 | 0.00 |
| | 300 | 0.9799 | 0.0104 | 0.3454 | 0.0117 | 1.007 | 1.460 | 0.913 | 0.812 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 7 | 9 | 10 | 2.136 | 0.99 | 0.14 | 0.00 |
| $p = 0.05$, | 100 | 0.9891 | 0.0309 | 0.3394 | 0.0058 | 1.005 | 1.268 | 0.949 | 0.899 | 1.000 | 1.000 | 1.000 | 0.999 | 8.00 | 8 | 8.5 | 10 | 2.131 | 1.00 | 0.13 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9773 | 0.0154 | 0.3422 | 0.0058 | 1.007 | 1.492 | 0.903 | 0.855 | 1.000 | 1.000 | 1.000 | 1.000 | 7.94 | 7 | 8 | 10 | 2.147 | 0.99 | 0.15 | 0.00 |
| | 300 | 0.9689 | 0.0102 | 0.3443 | 0.0061 | 1.009 | 1.640 | 0.874 | 0.824 | 1.000 | 1.000 | 1.000 | 0.999 | 7.90 | 7 | 9 | 10 | 2.165 | 0.99 | 0.18 | 0.00 |
| $p = 0.01$, | 100 | 0.9719 | 0.0304 | 0.3403 | 0.0012 | 1.008 | 1.575 | 0.885 | 0.875 | 1.000 | 1.000 | 1.000 | 0.998 | 7.87 | 7 | 8 | 9 | 2.219 | 0.99 | 0.23 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9489 | 0.0151 | 0.3460 | 0.0012 | 1.012 | 1.940 | 0.811 | 0.804 | 1.000 | 1.000 | 1.000 | 0.999 | 7.76 | 7 | 8 | 9 | 2.221 | 0.97 | 0.25 | 0.01 |
| | 300 | 0.9384 | 0.0101 | 0.3483 | 0.0010 | 1.014 | 2.096 | 0.783 | 0.775 | 1.000 | 1.000 | 1.000 | 0.997 | 7.70 | 7 | 8 | 9 | 2.211 | 0.95 | 0.25 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9997 | 0.1443 | 0.6597 | 0.6333 | 1.025 | 2.460 | 0.999 | 0.008 | 1.000 | 0.232 | 0.137 | 0.128 | 19.29 | 10 | 39 | 51 | - | - | - | - |
| | 200 | 0.9999 | 0.1031 | 0.7363 | 0.7179 | 1.030 | 2.722 | 1.000 | 0.002 | 1.000 | 0.225 | 0.130 | 0.109 | 25.51 | 10 | 39 | 85 | - | - | - | - |
| | 300 | 0.9994 | 0.0801 | 0.7463 | 0.7300 | 1.036 | 2.956 | 0.997 | 0.007 | 1.000 | 0.206 | 0.123 | 0.092 | 28.94 | 10 | 48 | 99 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9835 | 0.0423 | 0.3579 | 0.3447 | 1.014 | 1.870 | 0.967 | 0.053 | 1.000 | 0.062 | 0.039 | 0.036 | 9.11 | 5 | 16 | 26 | - | - | - | - |
| | 200 | 0.9856 | 0.0301 | 0.4466 | 0.4366 | 1.016 | 1.973 | 0.970 | 0.027 | 1.000 | 0.070 | 0.030 | 0.035 | 10.92 | 5 | 18 | 32 | - | - | - | - |
| | 300 | 0.9794 | 0.0237 | 0.4738 | 0.4655 | 1.019 | 2.161 | 0.964 | 0.027 | 1.000 | 0.058 | 0.035 | 0.025 | 11.98 | 5 | 21 | 34 | - | - | - | - |

Notes: See notes to Table 100.

### 3.3.4 Findings for designs featuring hidden signals and pseudo-signals

## Table 271: MC findings for DGPIV(a)

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9668 | 0.0356 | 0.3678 | 0.0188 | 1.056 | 1.916 | 0.905 | 0.211 | 0.224 | 0.183 | 1.000 | 0.981 | 0.842 | 0.557 | 8.35 | 6 | 10 | 12 | 2.673 | 0.97 | 0.64 | 0.07 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9421 | 0.0170 | 0.3635 | 0.0248 | 1.084 | 2.271 | 0.855 | 0.206 | 0.184 | 0.148 | 1.000 | 0.976 | 0.795 | 0.514 | 8.10 | 5 | 10 | 13 | 2.700 | 0.93 | 0.68 | 0.09 |
| | 300 | 0.9311 | 0.0110 | 0.3583 | 0.0238 | 1.091 | 2.410 | 0.827 | 0.217 | 0.155 | 0.112 | 1.000 | 0.976 | 0.789 | 0.503 | 7.94 | 5 | 10 | 12 | 2.746 | 0.92 | 0.70 | 0.12 |
| $p = 0.05$, | 100 | 0.9503 | 0.0333 | 0.3564 | 0.0115 | 1.070 | 2.151 | 0.876 | 0.238 | 0.199 | 0.176 | 1.000 | 0.976 | 0.810 | 0.522 | 8.05 | 5 | 10 | 12 | 2.724 | 0.94 | 0.70 | 0.08 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9243 | 0.0157 | 0.3492 | 0.0140 | 1.098 | 2.475 | 0.822 | 0.241 | 0.157 | 0.139 | 1.000 | 0.969 | 0.761 | 0.474 | 7.75 | 5 | 10 | 12 | 2.712 | 0.90 | 0.71 | 0.10 |
| | 300 | 0.9123 | 0.0103 | 0.3476 | 0.0141 | 1.108 | 2.624 | 0.791 | 0.235 | 0.148 | 0.124 | 1.000 | 0.971 | 0.760 | 0.468 | 7.64 | 4 | 10 | 12 | 2.755 | 0.89 | 0.73 | 0.13 |
| $p = 0.01$, | 100 | 0.9079 | 0.0290 | 0.3321 | 0.0035 | 1.111 | 2.681 | 0.803 | 0.309 | 0.141 | 0.138 | 1.000 | 0.957 | 0.736 | 0.430 | 7.41 | 4 | 10 | 11 | 2.750 | 0.88 | 0.75 | 0.12 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8793 | 0.0138 | 0.3281 | 0.0042 | 1.139 | 2.956 | 0.736 | 0.287 | 0.134 | 0.129 | 1.000 | 0.953 | 0.688 | 0.387 | 7.14 | 4 | 10 | 11 | 2.688 | 0.84 | 0.74 | 0.11 |
| | 300 | 0.8747 | 0.0091 | 0.3268 | 0.0039 | 1.144 | 3.008 | 0.721 | 0.264 | 0.133 | 0.129 | 1.000 | 0.952 | 0.686 | 0.393 | 7.11 | 3 | 10 | 11 | 2.731 | 0.85 | 0.76 | 0.13 |
| $p = 0.1$, | 100 | 0.9199 | 0.0337 | 0.3671 | 0.0147 | 1.102 | 2.537 | 0.809 | 0.225 | 0.157 | 0.137 | 1.000 | 0.981 | 0.842 | 0.557 | 7.94 | 5 | 10 | 12 | 2.550 | 0.90 | 0.57 | 0.08 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8719 | 0.0158 | 0.3647 | 0.0200 | 1.149 | 3.039 | 0.704 | 0.224 | 0.116 | 0.101 | 1.000 | 0.976 | 0.795 | 0.514 | 7.51 | 4 | 10 | 13 | 2.463 | 0.84 | 0.56 | 0.07 |
| | 300 | 0.8441 | 0.0101 | 0.3628 | 0.0200 | 1.175 | 3.308 | 0.651 | 0.240 | 0.087 | 0.065 | 1.000 | 0.976 | 0.789 | 0.503 | 7.25 | 4 | 10 | 12 | 2.474 | 0.81 | 0.56 | 0.10 |
| $p = 0.05$, | 100 | 0.8938 | 0.0314 | 0.3569 | 0.0089 | 1.126 | 2.827 | 0.762 | 0.261 | 0.124 | 0.115 | 1.000 | 0.976 | 0.810 | 0.522 | 7.58 | 4 | 10 | 12 | 2.573 | 0.86 | 0.62 | 0.09 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8442 | 0.0146 | 0.3517 | 0.0118 | 1.176 | 3.294 | 0.649 | 0.256 | 0.088 | 0.079 | 1.000 | 0.969 | 0.761 | 0.474 | 7.12 | 4 | 10 | 12 | 2.464 | 0.80 | 0.58 | 0.08 |
| | 300 | 0.8112 | 0.0095 | 0.3542 | 0.0116 | 1.206 | 3.592 | 0.588 | 0.242 | 0.070 | 0.062 | 1.000 | 0.971 | 0.760 | 0.468 | 6.88 | 3 | 10 | 12 | 2.435 | 0.77 | 0.57 | 0.10 |
| $p = 0.01$, | 100 | 0.8304 | 0.0270 | 0.3362 | 0.0025 | 1.185 | 3.444 | 0.641 | 0.305 | 0.077 | 0.077 | 1.000 | 0.957 | 0.736 | 0.430 | 6.83 | 3 | 9 | 10 | 2.513 | 0.78 | 0.62 | 0.11 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7872 | 0.0127 | 0.3329 | 0.0033 | 1.227 | 3.776 | 0.547 | 0.265 | 0.061 | 0.059 | 1.000 | 0.953 | 0.688 | 0.387 | 6.46 | 3 | 9 | 11 | 2.428 | 0.74 | 0.59 | 0.10 |
| | 300 | 0.7720 | 0.0083 | 0.3306 | 0.0034 | 1.245 | 3.894 | 0.511 | 0.261 | 0.046 | 0.045 | 1.000 | 0.952 | 0.686 | 0.393 | 6.33 | 3 | 9 | 10 | 2.446 | 0.74 | 0.59 | 0.11 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9964 | 0.1558 | 0.6762 | 0.6215 | 1.166 | 2.911 | 0.984 | 0.008 | 0.100 | 0.000 | 1.000 | 0.211 | 0.143 | 0.142 | 20.41 | 9 | 34 | 48 | - | - | - | - |
| | 200 | 0.9924 | 0.1084 | 0.7378 | 0.6989 | 1.223 | 3.333 | 0.969 | 0.003 | 0.073 | 0.000 | 1.000 | 0.198 | 0.114 | 0.121 | 26.54 | 10 | 46 | 76 | - | - | - | - |
| | 300 | 0.9860 | 0.0866 | 0.7662 | 0.7322 | 1.259 | 3.628 | 0.940 | 0.002 | 0.073 | 0.000 | 1.000 | 0.189 | 0.103 | 0.091 | 30.82 | 10 | 54 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9636 | 0.0673 | 0.4256 | 0.3921 | 1.138 | 2.652 | 0.918 | 0.140 | 0.024 | 0.000 | 1.000 | 0.082 | 0.061 | 0.063 | 11.48 | 3 | 21 | 32 | - | - | - | - |
| | 200 | 0.9591 | 0.0511 | 0.5288 | 0.5017 | 1.182 | 2.908 | 0.902 | 0.070 | 0.019 | 0.000 | 1.000 | 0.077 | 0.044 | 0.052 | 14.96 | 3 | 28 | 45 | - | - | - | - |
| | 300 | 0.9504 | 0.0407 | 0.5754 | 0.5520 | 1.211 | 3.132 | 0.886 | 0.045 | 0.013 | 0.000 | 1.000 | 0.073 | 0.048 | 0.045 | 16.92 | 3 | 31 | 51 | - | - | - | - |

Notes: See notes to Table 145.

## Table 272: MC findings for DGPIV(a)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0498 | 0.4493 | 0.0105 | 1.009 | 1.433 | 1.000 | 0.012 | 0.843 | 0.746 | 1.000 | 1.000 | 0.999 | 0.974 | 9.93 | 9 | 11 | 13 | 2.013 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0247 | 0.4486 | 0.0121 | 1.009 | 1.431 | 1.000 | 0.016 | 0.819 | 0.715 | 1.000 | 1.000 | 1.000 | 0.971 | 9.92 | 9 | 11 | 13 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0161 | 0.4431 | 0.0114 | 1.008 | 1.395 | 1.000 | 0.028 | 0.751 | 0.663 | 1.000 | 1.000 | 0.999 | 0.964 | 9.82 | 9 | 11 | 13 | 2.020 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0484 | 0.4426 | 0.0055 | 1.009 | 1.410 | 1.000 | 0.020 | 0.785 | 0.739 | 1.000 | 1.000 | 0.999 | 0.968 | 9.80 | 9 | 10 | 12 | 2.013 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0239 | 0.4407 | 0.0063 | 1.009 | 1.405 | 1.000 | 0.028 | 0.756 | 0.704 | 1.000 | 1.000 | 1.000 | 0.964 | 9.76 | 9 | 11 | 12 | 2.018 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0156 | 0.4351 | 0.0060 | 1.008 | 1.371 | 1.000 | 0.039 | 0.682 | 0.641 | 1.000 | 1.000 | 0.999 | 0.957 | 9.66 | 9 | 10 | 13 | 2.025 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0457 | 0.4277 | 0.0011 | 1.008 | 1.362 | 1.000 | 0.063 | 0.630 | 0.622 | 1.000 | 1.000 | 0.997 | 0.954 | 9.53 | 8 | 10 | 11 | 2.022 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0225 | 0.4242 | 0.0013 | 1.008 | 1.364 | 1.000 | 0.080 | 0.589 | 0.582 | 1.000 | 1.000 | 1.000 | 0.945 | 9.47 | 8 | 10 | 12 | 2.037 | 1.00 | 0.04 | 0.00 |
| | 300 | 1.0000 | 0.0147 | 0.4194 | 0.0014 | 1.007 | 1.327 | 1.000 | 0.097 | 0.530 | 0.524 | 1.000 | 1.000 | 0.999 | 0.940 | 9.38 | 8 | 10 | 11 | 2.055 | 1.00 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0495 | 0.4481 | 0.0083 | 1.009 | 1.416 | 1.000 | 0.012 | 0.842 | 0.763 | 1.000 | 1.000 | 0.999 | 0.974 | 9.90 | 9 | 11 | 12 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0246 | 0.4478 | 0.0106 | 1.009 | 1.418 | 1.000 | 0.016 | 0.819 | 0.727 | 1.000 | 1.000 | 1.000 | 0.971 | 9.90 | 9 | 11 | 13 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0160 | 0.4423 | 0.0098 | 1.008 | 1.381 | 1.000 | 0.028 | 0.752 | 0.677 | 1.000 | 1.000 | 0.999 | 0.964 | 9.80 | 9 | 11 | 13 | 2.013 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0483 | 0.4420 | 0.0045 | 1.008 | 1.401 | 1.000 | 0.020 | 0.785 | 0.748 | 1.000 | 1.000 | 0.999 | 0.968 | 9.78 | 9 | 10 | 11 | 2.011 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0239 | 0.4404 | 0.0056 | 1.009 | 1.404 | 1.000 | 0.029 | 0.757 | 0.711 | 1.000 | 1.000 | 1.000 | 0.964 | 9.76 | 9 | 10 | 12 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0156 | 0.4347 | 0.0053 | 1.008 | 1.363 | 1.000 | 0.039 | 0.683 | 0.648 | 1.000 | 1.000 | 0.999 | 0.957 | 9.66 | 9 | 10 | 13 | 2.025 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0458 | 0.4279 | 0.0009 | 1.008 | 1.359 | 1.000 | 0.061 | 0.632 | 0.625 | 1.000 | 1.000 | 0.997 | 0.954 | 9.53 | 8 | 10 | 11 | 2.027 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0225 | 0.4243 | 0.0010 | 1.008 | 1.362 | 1.000 | 0.078 | 0.591 | 0.584 | 1.000 | 1.000 | 1.000 | 0.945 | 9.47 | 8 | 10 | 12 | 2.047 | 1.00 | 0.05 | 0.00 |
| | 300 | 0.9999 | 0.0147 | 0.4196 | 0.0013 | 1.007 | 1.331 | 1.000 | 0.096 | 0.533 | 0.528 | 1.000 | 1.000 | 0.999 | 0.940 | 9.39 | 8 | 10 | 11 | 2.067 | 1.00 | 0.07 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1616 | 0.6710 | 0.6138 | 1.042 | 2.591 | 1.000 | 0.001 | 0.115 | 0.000 | 1.000 | 0.242 | 0.150 | 0.157 | 20.99 | 9 | 37 | 51 | - | - | - | - |
| | 200 | 1.0000 | 0.0944 | 0.7166 | 0.6702 | 1.054 | 2.957 | 1.000 | 0.001 | 0.086 | 0.000 | 1.000 | 0.205 | 0.128 | 0.097 | 23.78 | 12 | 48.5 | 72 | - | - | - | - |
| | 300 | 1.0000 | 0.0834 | 0.7556 | 0.7195 | 1.061 | 3.072 | 1.000 | 0.000 | 0.076 | 0.000 | 1.000 | 0.218 | 0.128 | 0.100 | 29.94 | 11 | 54 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0336 | 0.3072 | 0.2808 | 1.008 | 1.367 | 1.000 | 0.130 | 0.008 | 0.001 | 1.000 | 0.049 | 0.033 | 0.034 | 8.33 | 5 | 14 | 23 | - | - | - | - |
| | 200 | 1.0000 | 0.0204 | 0.3480 | 0.3253 | 1.012 | 1.474 | 1.000 | 0.090 | 0.005 | 0.001 | 1.000 | 0.040 | 0.022 | 0.018 | 9.06 | 5 | 16 | 26 | - | - | - | - |
| | 300 | 1.0000 | 0.0171 | 0.3975 | 0.3789 | 1.014 | 1.551 | 1.000 | 0.065 | 0.005 | 0.000 | 1.000 | 0.047 | 0.024 | 0.019 | 10.10 | 5 | 18 | 32 | - | - | - | - |

Notes: See notes to Table 145.

## Table 273: MC findings for DGPIV(a)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0516 | 0.4594 | 0.0093 | 1.006 | 1.447 | 1.000 | 0.000 | 0.996 | 0.892 | 1.000 | 1.000 | 1.000 | 1.000 | 10.11 | 10 | 11 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0256 | 0.4591 | 0.0096 | 1.006 | 1.455 | 1.000 | 0.000 | 0.987 | 0.877 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 12 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4599 | 0.0107 | 1.006 | 1.448 | 1.000 | 0.000 | 0.992 | 0.875 | 1.000 | 1.000 | 1.000 | 1.000 | 10.12 | 10 | 11 | 13 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0510 | 0.4567 | 0.0047 | 1.005 | 1.433 | 1.000 | 0.000 | 0.993 | 0.940 | 1.000 | 1.000 | 1.000 | 1.000 | 10.05 | 10 | 11 | 12 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0253 | 0.4562 | 0.0049 | 1.005 | 1.441 | 1.000 | 0.000 | 0.981 | 0.926 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 10 | 11 | 12 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4566 | 0.0054 | 1.005 | 1.435 | 1.000 | 0.001 | 0.985 | 0.926 | 1.000 | 1.000 | 1.000 | 1.000 | 10.05 | 10 | 11 | 13 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0504 | 0.4539 | 0.0011 | 1.005 | 1.421 | 1.000 | 0.001 | 0.978 | 0.965 | 1.000 | 1.000 | 1.000 | 0.999 | 9.99 | 10 | 10 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0249 | 0.4525 | 0.0010 | 1.005 | 1.425 | 1.000 | 0.001 | 0.955 | 0.943 | 1.000 | 1.000 | 1.000 | 0.999 | 9.97 | 10 | 10 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4527 | 0.0017 | 1.005 | 1.417 | 1.000 | 0.003 | 0.955 | 0.936 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 10 | 10 | 12 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0514 | 0.4587 | 0.0079 | 1.005 | 1.435 | 1.000 | 0.000 | 0.996 | 0.908 | 1.000 | 1.000 | 1.000 | 1.000 | 10.09 | 10 | 11 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0256 | 0.4584 | 0.0083 | 1.005 | 1.441 | 1.000 | 0.000 | 0.987 | 0.893 | 1.000 | 1.000 | 1.000 | 1.000 | 10.09 | 10 | 11 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4592 | 0.0094 | 1.005 | 1.435 | 1.000 | 0.000 | 0.992 | 0.887 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 13 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0509 | 0.4563 | 0.0039 | 1.005 | 1.425 | 1.000 | 0.000 | 0.993 | 0.950 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 10 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0253 | 0.4559 | 0.0044 | 1.005 | 1.433 | 1.000 | 0.000 | 0.981 | 0.932 | 1.000 | 1.000 | 1.000 | 1.000 | 10.03 | 10 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4562 | 0.0048 | 1.005 | 1.427 | 1.000 | 0.001 | 0.985 | 0.931 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 10 | 11 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0504 | 0.4537 | 0.0009 | 1.005 | 1.418 | 1.000 | 0.001 | 0.978 | 0.968 | 1.000 | 1.000 | 1.000 | 0.999 | 9.99 | 10 | 10 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0249 | 0.4525 | 0.0010 | 1.005 | 1.424 | 1.000 | 0.001 | 0.955 | 0.944 | 1.000 | 1.000 | 1.000 | 0.999 | 9.96 | 10 | 10 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4525 | 0.0014 | 1.005 | 1.414 | 1.000 | 0.003 | 0.955 | 0.939 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 10 | 10 | 11 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1843 | 0.7215 | 0.6669 | 1.022 | 2.440 | 1.000 | 0.003 | 0.103 | 0.001 | 1.000 | 0.257 | 0.177 | 0.173 | 23.25 | 9 | 33 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.1166 | 0.7019 | 0.6577 | 1.034 | 2.934 | 1.000 | 0.005 | 0.091 | 0.001 | 1.000 | 0.224 | 0.129 | 0.127 | 28.21 | 8 | 50 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.0796 | 0.6868 | 0.6448 | 1.039 | 3.172 | 1.000 | 0.003 | 0.074 | 0.001 | 1.000 | 0.202 | 0.120 | 0.104 | 28.79 | 8 | 64 | 90 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0156 | 0.1780 | 0.1622 | 1.002 | 1.165 | 1.000 | 0.289 | 0.003 | 0.001 | 1.000 | 0.025 | 0.017 | 0.014 | 6.55 | 5 | 9 | 14 | - | - | - | - |
| | 200 | 1.0000 | 0.0098 | 0.2042 | 0.1918 | 1.002 | 1.201 | 1.000 | 0.297 | 0.001 | 0.001 | 1.000 | 0.019 | 0.007 | 0.011 | 6.96 | 5 | 11 | 18 | - | - | - | - |
| | 300 | 1.0000 | 0.0069 | 0.2009 | 0.1901 | 1.003 | 1.218 | 1.000 | 0.333 | 0.001 | 0.000 | 1.000 | 0.015 | 0.008 | 0.006 | 7.06 | 5 | 12 | 22 | - | - | - | - |

Notes: See notes to Table 145.

## Table 274: MC findings for DGPIV(a)

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7746 | 0.0324 | 0.3929 | 0.0232 | 1.118 | 2.722 | 0.434 | 0.116 | 0.100 | 0.084 | 1.000 | 0.990 | 0.816 | 0.550 | 7.08 | 4 | 10 | 13 | 2.297 | 0.76 | 0.49 | 0.05 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7347 | 0.0151 | 0.3862 | 0.0242 | 1.135 | 2.845 | 0.347 | 0.107 | 0.068 | 0.056 | 1.000 | 0.985 | 0.771 | 0.505 | 6.68 | 3 | 10 | 12 | 2.287 | 0.74 | 0.50 | 0.05 |
| | 300 | 0.6980 | 0.0098 | 0.3889 | 0.0245 | 1.156 | 3.045 | 0.305 | 0.100 | 0.052 | 0.042 | 1.000 | 0.974 | 0.771 | 0.488 | 6.41 | 3 | 9 | 12 | 2.191 | 0.70 | 0.45 | 0.04 |
| $p = 0.05$, | 100 | 0.7501 | 0.0301 | 0.3820 | 0.0129 | 1.127 | 2.822 | 0.387 | 0.122 | 0.082 | 0.076 | 1.000 | 0.986 | 0.784 | 0.512 | 6.73 | 4 | 10 | 12 | 2.288 | 0.74 | 0.50 | 0.04 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7043 | 0.0140 | 0.3764 | 0.0148 | 1.147 | 2.969 | 0.310 | 0.104 | 0.052 | 0.045 | 1.000 | 0.977 | 0.740 | 0.462 | 6.31 | 3 | 9 | 11 | 2.250 | 0.71 | 0.49 | 0.05 |
| | 300 | 0.6673 | 0.0091 | 0.3793 | 0.0145 | 1.167 | 3.162 | 0.264 | 0.098 | 0.038 | 0.034 | 1.000 | 0.967 | 0.746 | 0.454 | 6.05 | 3 | 9 | 11 | 2.155 | 0.69 | 0.44 | 0.03 |
| $p = 0.01$, | 100 | 0.6881 | 0.0262 | 0.3640 | 0.0035 | 1.151 | 3.083 | 0.297 | 0.116 | 0.053 | 0.052 | 1.000 | 0.972 | 0.712 | 0.425 | 6.04 | 3 | 9 | 11 | 2.230 | 0.71 | 0.48 | 0.03 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6301 | 0.0122 | 0.3630 | 0.0047 | 1.179 | 3.261 | 0.231 | 0.097 | 0.029 | 0.028 | 1.000 | 0.962 | 0.669 | 0.391 | 5.57 | 2 | 9 | 11 | 2.128 | 0.69 | 0.42 | 0.02 |
| | 300 | 0.6059 | 0.0079 | 0.3615 | 0.0044 | 1.194 | 3.397 | 0.202 | 0.092 | 0.023 | 0.021 | 1.000 | 0.946 | 0.682 | 0.378 | 5.39 | 2 | 9 | 11 | 2.074 | 0.69 | 0.37 | 0.02 |
| $p = 0.1$, | 100 | 0.6656 | 0.0302 | 0.4070 | 0.0192 | 1.165 | 3.209 | 0.246 | 0.083 | 0.045 | 0.040 | 1.000 | 0.990 | 0.816 | 0.550 | 6.32 | 3 | 9 | 12 | 1.933 | 0.62 | 0.30 | 0.02 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5893 | 0.0141 | 0.4114 | 0.0218 | 1.201 | 3.446 | 0.170 | 0.059 | 0.026 | 0.022 | 1.000 | 0.985 | 0.771 | 0.505 | 5.75 | 3 | 9 | 11 | 1.801 | 0.55 | 0.24 | 0.01 |
| | 300 | 0.5532 | 0.0091 | 0.4149 | 0.0240 | 1.223 | 3.621 | 0.130 | 0.052 | 0.016 | 0.013 | 1.000 | 0.974 | 0.771 | 0.487 | 5.49 | 3 | 9 | 11 | 1.720 | 0.51 | 0.20 | 0.01 |
| $p = 0.05$, | 100 | 0.6329 | 0.0280 | 0.3978 | 0.0109 | 1.178 | 3.336 | 0.213 | 0.083 | 0.033 | 0.032 | 1.000 | 0.986 | 0.784 | 0.512 | 5.94 | 3 | 9 | 11 | 1.913 | 0.60 | 0.29 | 0.02 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5563 | 0.0130 | 0.4017 | 0.0134 | 1.214 | 3.557 | 0.136 | 0.055 | 0.016 | 0.015 | 1.000 | 0.977 | 0.740 | 0.462 | 5.37 | 2 | 9 | 10 | 1.782 | 0.54 | 0.23 | 0.01 |
| | 300 | 0.5233 | 0.0085 | 0.4058 | 0.0142 | 1.234 | 3.718 | 0.111 | 0.054 | 0.009 | 0.007 | 1.000 | 0.967 | 0.746 | 0.453 | 5.15 | 2 | 8 | 11 | 1.704 | 0.50 | 0.19 | 0.01 |
| $p = 0.01$, | 100 | 0.5584 | 0.0246 | 0.3875 | 0.0032 | 1.210 | 3.604 | 0.150 | 0.075 | 0.017 | 0.017 | 1.000 | 0.972 | 0.712 | 0.425 | 5.23 | 3 | 8 | 11 | 1.848 | 0.59 | 0.25 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4922 | 0.0114 | 0.3887 | 0.0041 | 1.242 | 3.756 | 0.087 | 0.044 | 0.005 | 0.005 | 1.000 | 0.962 | 0.669 | 0.391 | 4.73 | 2 | 8 | 10 | 1.725 | 0.53 | 0.19 | 0.00 |
| | 300 | 0.4699 | 0.0074 | 0.3884 | 0.0047 | 1.261 | 3.873 | 0.073 | 0.042 | 0.003 | 0.003 | 1.000 | 0.946 | 0.682 | 0.377 | 4.56 | 2 | 8 | 10 | 1.675 | 0.51 | 0.16 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9161 | 0.1135 | 0.5863 | 0.5232 | 1.185 | 3.070 | 0.698 | 0.004 | 0.060 | 0.002 | 1.000 | 0.182 | 0.111 | 0.104 | 15.82 | 4 | 30 | 48 | - | - | - | - |
| | 200 | 0.8737 | 0.0743 | 0.6367 | 0.5868 | 1.229 | 3.309 | 0.558 | 0.001 | 0.045 | 0.000 | 1.000 | 0.171 | 0.105 | 0.082 | 19.16 | 4 | 40 | 77 | - | - | - | - |
| | 300 | 0.8453 | 0.0548 | 0.6516 | 0.6072 | 1.261 | 3.523 | 0.468 | 0.001 | 0.032 | 0.000 | 1.000 | 0.163 | 0.085 | 0.075 | 20.62 | 4 | 45 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7405 | 0.0503 | 0.3147 | 0.2835 | 1.202 | 3.243 | 0.481 | 0.039 | 0.017 | 0.001 | 1.000 | 0.055 | 0.042 | 0.039 | 8.68 | 1 | 21 | 38 | - | - | - | - |
| | 200 | 0.7112 | 0.0373 | 0.3936 | 0.3674 | 1.239 | 3.420 | 0.414 | 0.016 | 0.012 | 0.000 | 1.000 | 0.070 | 0.045 | 0.036 | 10.98 | 1 | 27 | 49 | - | - | - | - |
| | 300 | 0.6814 | 0.0278 | 0.4150 | 0.3922 | 1.274 | 3.660 | 0.351 | 0.009 | 0.009 | 0.000 | 1.000 | 0.069 | 0.035 | 0.032 | 11.73 | 1 | 29 | 57 | - | - | - | - |

Notes: See notes to Table 145.

## Table 275: MC findings for DGPIV(a)

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9995 | 0.0463 | 0.4301 | 0.0112 | 1.009 | 1.382 | 0.998 | 0.077 | 0.569 | 0.506 | 1.000 | 1.000 | 1.000 | 0.974 | 9.58 | 8 | 11 | 13 | 2.102 | 1.00 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9984 | 0.0225 | 0.4244 | 0.0126 | 1.009 | 1.405 | 0.992 | 0.099 | 0.471 | 0.411 | 1.000 | 1.000 | 1.000 | 0.977 | 9.47 | 8 | 11 | 13 | 2.150 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9973 | 0.0149 | 0.4231 | 0.0129 | 1.009 | 1.388 | 0.987 | 0.116 | 0.467 | 0.407 | 1.000 | 1.000 | 0.999 | 0.972 | 9.44 | 8 | 11 | 13 | 2.171 | 1.00 | 0.17 | 0.00 |
| $p = 0.05$, | 100 | 0.9986 | 0.0445 | 0.4203 | 0.0061 | 1.008 | 1.367 | 0.993 | 0.111 | 0.488 | 0.458 | 1.000 | 1.000 | 1.000 | 0.965 | 9.40 | 8 | 10 | 12 | 2.132 | 1.00 | 0.13 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9974 | 0.0216 | 0.4148 | 0.0074 | 1.009 | 1.386 | 0.987 | 0.141 | 0.403 | 0.376 | 1.000 | 1.000 | 1.000 | 0.970 | 9.29 | 8 | 10 | 12 | 2.193 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9964 | 0.0142 | 0.4120 | 0.0072 | 1.009 | 1.380 | 0.984 | 0.164 | 0.385 | 0.355 | 1.000 | 1.000 | 0.999 | 0.962 | 9.24 | 8 | 10 | 13 | 2.233 | 1.00 | 0.23 | 0.00 |
| $p = 0.01$, | 100 | 0.9969 | 0.0413 | 0.4021 | 0.0013 | 1.008 | 1.361 | 0.986 | 0.204 | 0.334 | 0.329 | 1.000 | 1.000 | 0.999 | 0.948 | 9.07 | 8 | 10 | 11 | 2.271 | 1.00 | 0.27 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9939 | 0.0200 | 0.3963 | 0.0014 | 1.009 | 1.413 | 0.971 | 0.256 | 0.279 | 0.276 | 1.000 | 1.000 | 0.999 | 0.952 | 8.95 | 8 | 10 | 12 | 2.343 | 1.00 | 0.34 | 0.01 |
| | 300 | 0.9900 | 0.0132 | 0.3948 | 0.0012 | 1.010 | 1.487 | 0.959 | 0.272 | 0.263 | 0.259 | 1.000 | 1.000 | 0.998 | 0.947 | 8.89 | 8 | 10 | 11 | 2.396 | 1.00 | 0.39 | 0.01 |
| $p = 0.1$, | 100 | 0.9986 | 0.0460 | 0.4289 | 0.0094 | 1.009 | 1.384 | 0.993 | 0.080 | 0.564 | 0.511 | 1.000 | 1.000 | 1.000 | 0.974 | 9.55 | 8 | 11 | 12 | 2.101 | 1.00 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9963 | 0.0223 | 0.4225 | 0.0111 | 1.010 | 1.437 | 0.984 | 0.107 | 0.455 | 0.404 | 1.000 | 1.000 | 1.000 | 0.977 | 9.42 | 8 | 11 | 13 | 2.147 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9950 | 0.0148 | 0.4214 | 0.0112 | 1.009 | 1.422 | 0.976 | 0.124 | 0.455 | 0.406 | 1.000 | 1.000 | 0.999 | 0.972 | 9.39 | 8 | 11 | 13 | 2.169 | 1.00 | 0.17 | 0.00 |
| $p = 0.05$, | 100 | 0.9970 | 0.0442 | 0.4192 | 0.0050 | 1.008 | 1.395 | 0.987 | 0.117 | 0.481 | 0.457 | 1.000 | 1.000 | 1.000 | 0.965 | 9.36 | 8 | 10 | 12 | 2.138 | 1.00 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9942 | 0.0215 | 0.4139 | 0.0065 | 1.010 | 1.449 | 0.973 | 0.147 | 0.392 | 0.369 | 1.000 | 1.000 | 1.000 | 0.970 | 9.24 | 8 | 10 | 12 | 2.196 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9914 | 0.0141 | 0.4111 | 0.0062 | 1.010 | 1.491 | 0.967 | 0.171 | 0.369 | 0.346 | 1.000 | 1.000 | 0.999 | 0.962 | 9.17 | 8 | 10 | 13 | 2.230 | 1.00 | 0.23 | 0.00 |
| $p = 0.01$, | 100 | 0.9931 | 0.0409 | 0.4009 | 0.0009 | 1.009 | 1.452 | 0.971 | 0.216 | 0.321 | 0.317 | 1.000 | 1.000 | 0.999 | 0.948 | 9.02 | 8 | 10 | 11 | 2.275 | 1.00 | 0.28 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9847 | 0.0198 | 0.3961 | 0.0012 | 1.013 | 1.630 | 0.938 | 0.260 | 0.258 | 0.255 | 1.000 | 1.000 | 0.999 | 0.952 | 8.86 | 8 | 10 | 11 | 2.332 | 0.99 | 0.33 | 0.01 |
| | 300 | 0.9768 | 0.0130 | 0.3950 | 0.0010 | 1.015 | 1.786 | 0.918 | 0.274 | 0.232 | 0.229 | 1.000 | 1.000 | 0.998 | 0.947 | 8.77 | 7 | 10 | 11 | 2.367 | 0.98 | 0.37 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1540 | 0.6853 | 0.6278 | 1.041 | 2.576 | 1.000 | 0.003 | 0.102 | 0.000 | 1.000 | 0.242 | 0.148 | 0.148 | 20.25 | 11 | 35 | 52 | - | - | - | - |
| | 200 | 0.9998 | 0.1073 | 0.7460 | 0.7029 | 1.052 | 2.848 | 0.999 | 0.001 | 0.096 | 0.000 | 1.000 | 0.232 | 0.133 | 0.120 | 26.34 | 12 | 42 | 77 | - | - | - | - |
| | 300 | 0.9996 | 0.0816 | 0.7700 | 0.7340 | 1.062 | 3.038 | 0.999 | 0.001 | 0.075 | 0.000 | 1.000 | 0.195 | 0.113 | 0.093 | 29.38 | 13.5 | 52.5 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9953 | 0.0536 | 0.4233 | 0.3893 | 1.020 | 1.821 | 0.989 | 0.034 | 0.015 | 0.000 | 1.000 | 0.068 | 0.050 | 0.050 | 10.29 | 6 | 17 | 28 | - | - | - | - |
| | 200 | 0.9953 | 0.0376 | 0.5018 | 0.4720 | 1.028 | 1.979 | 0.990 | 0.021 | 0.012 | 0.000 | 1.000 | 0.077 | 0.033 | 0.040 | 12.46 | 6 | 21 | 41 | - | - | - | - |
| | 300 | 0.9962 | 0.0289 | 0.5362 | 0.5120 | 1.032 | 2.062 | 0.991 | 0.017 | 0.010 | 0.000 | 1.000 | 0.067 | 0.037 | 0.037 | 13.64 | 7 | 23.5 | 39 | - | - | - | - |

Notes: See notes to Table 145.

## Table 276: MC findings for DGPIV(a)

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0510 | 0.4560 | 0.0106 | 1.006 | 1.418 | 1.000 | 0.003 | 0.924 | 0.818 | 1.000 | 1.000 | 1.000 | 1.000 | 10.05 | 9 | 11 | 12 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0251 | 0.4533 | 0.0092 | 1.006 | 1.418 | 1.000 | 0.008 | 0.896 | 0.802 | 1.000 | 1.000 | 1.000 | 1.000 | 10.00 | 9 | 11 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4531 | 0.0113 | 1.006 | 1.440 | 1.000 | 0.009 | 0.873 | 0.766 | 1.000 | 1.000 | 1.000 | 0.999 | 10.00 | 9 | 11 | 13 | 2.012 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0500 | 0.4509 | 0.0054 | 1.005 | 1.396 | 1.000 | 0.006 | 0.887 | 0.833 | 1.000 | 1.000 | 1.000 | 1.000 | 9.95 | 9 | 11 | 12 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0246 | 0.4483 | 0.0048 | 1.005 | 1.399 | 1.000 | 0.016 | 0.858 | 0.812 | 1.000 | 1.000 | 1.000 | 1.000 | 9.90 | 9 | 10 | 12 | 2.010 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0163 | 0.4472 | 0.0058 | 1.005 | 1.414 | 1.000 | 0.015 | 0.829 | 0.772 | 1.000 | 1.000 | 1.000 | 0.998 | 9.88 | 9 | 11 | 12 | 2.012 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0479 | 0.4404 | 0.0009 | 1.005 | 1.361 | 1.000 | 0.022 | 0.761 | 0.754 | 1.000 | 1.000 | 1.000 | 0.998 | 9.75 | 9 | 10 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0236 | 0.4373 | 0.0009 | 1.005 | 1.359 | 1.000 | 0.036 | 0.721 | 0.713 | 1.000 | 1.000 | 1.000 | 0.999 | 9.69 | 9 | 10 | 11 | 2.019 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9999 | 0.0156 | 0.4349 | 0.0015 | 1.005 | 1.378 | 1.000 | 0.045 | 0.684 | 0.672 | 1.000 | 1.000 | 1.000 | 0.997 | 9.65 | 9 | 10 | 11 | 2.027 | 1.00 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0508 | 0.4553 | 0.0092 | 1.005 | 1.405 | 1.000 | 0.003 | 0.924 | 0.832 | 1.000 | 1.000 | 1.000 | 1.000 | 10.03 | 9 | 11 | 12 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0250 | 0.4527 | 0.0080 | 1.006 | 1.406 | 1.000 | 0.008 | 0.896 | 0.815 | 1.000 | 1.000 | 1.000 | 1.000 | 9.98 | 9 | 11 | 12 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4524 | 0.0101 | 1.005 | 1.427 | 1.000 | 0.009 | 0.873 | 0.777 | 1.000 | 1.000 | 1.000 | 0.999 | 9.98 | 9 | 11 | 13 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0499 | 0.4506 | 0.0048 | 1.005 | 1.390 | 1.000 | 0.006 | 0.887 | 0.838 | 1.000 | 1.000 | 1.000 | 1.000 | 9.94 | 9 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0246 | 0.4478 | 0.0040 | 1.005 | 1.389 | 1.000 | 0.016 | 0.858 | 0.821 | 1.000 | 1.000 | 1.000 | 1.000 | 9.89 | 9 | 10 | 12 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0163 | 0.4468 | 0.0051 | 1.005 | 1.406 | 1.000 | 0.015 | 0.828 | 0.780 | 1.000 | 1.000 | 1.000 | 0.998 | 9.87 | 9 | 10 | 12 | 2.009 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0479 | 0.4404 | 0.0008 | 1.005 | 1.361 | 1.000 | 0.022 | 0.762 | 0.756 | 1.000 | 1.000 | 1.000 | 0.998 | 9.75 | 9 | 10 | 11 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0236 | 0.4370 | 0.0006 | 1.005 | 1.356 | 1.000 | 0.036 | 0.719 | 0.713 | 1.000 | 1.000 | 1.000 | 0.999 | 9.69 | 9 | 10 | 11 | 2.020 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9998 | 0.0155 | 0.4347 | 0.0013 | 1.005 | 1.378 | 0.999 | 0.046 | 0.684 | 0.674 | 1.000 | 1.000 | 1.000 | 0.997 | 9.65 | 9 | 10 | 11 | 2.029 | 1.00 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1636 | 0.6649 | 0.6064 | 1.025 | 2.563 | 1.000 | 0.001 | 0.113 | 0.000 | 1.000 | 0.251 | 0.150 | 0.155 | 21.19 | 9 | 38 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.0889 | 0.7092 | 0.6634 | 1.030 | 2.870 | 1.000 | 0.001 | 0.087 | 0.000 | 1.000 | 0.208 | 0.118 | 0.114 | 22.70 | 12 | 49 | 74 | - | - | - | - |
| | 300 | 1.0000 | 0.0760 | 0.7636 | 0.7258 | 1.035 | 3.021 | 1.000 | 0.000 | 0.077 | 0.000 | 1.000 | 0.227 | 0.111 | 0.094 | 27.72 | 14 | 43 | 93 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0328 | 0.2998 | 0.2737 | 1.005 | 1.366 | 1.000 | 0.140 | 0.008 | 0.001 | 1.000 | 0.057 | 0.027 | 0.038 | 8.25 | 5 | 14 | 21 | - | - | - | - |
| | 200 | 1.0000 | 0.0182 | 0.3276 | 0.3059 | 1.006 | 1.424 | 1.000 | 0.087 | 0.004 | 0.000 | 1.000 | 0.038 | 0.018 | 0.021 | 8.63 | 5 | 14 | 26 | - | - | - | - |
| | 300 | 1.0000 | 0.0156 | 0.3852 | 0.3649 | 1.008 | 1.540 | 1.000 | 0.053 | 0.006 | 0.000 | 1.000 | 0.048 | 0.023 | 0.022 | 9.65 | 6 | 16 | 43 | - | - | - | - |

Notes: See notes to Table 145.

## Table 277: MC findings for DGPIV(a)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4706 | 0.0288 | 0.4564 | 0.0256 | 1.127 | 2.650 | 0.061 | 0.021 | 0.011 | 0.010 | 1.000 | 0.986 | 0.819 | 0.558 | 5.21 | 3 | 8 | 12 | 1.648 | 0.51 | 0.13 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4199 | 0.0134 | 0.4546 | 0.0290 | 1.136 | 2.749 | 0.031 | 0.010 | 0.007 | 0.005 | 1.000 | 0.981 | 0.763 | 0.493 | 4.78 | 2 | 8 | 11 | 1.562 | 0.48 | 0.08 | 0.00 |
| | 300 | 0.3943 | 0.0087 | 0.4583 | 0.0335 | 1.142 | 2.758 | 0.021 | 0.007 | 0.003 | 0.002 | 1.000 | 0.972 | 0.757 | 0.483 | 4.59 | 2 | 7 | 11 | 1.518 | 0.44 | 0.07 | 0.00 |
| $p = 0.05$, | 100 | 0.4392 | 0.0268 | 0.4491 | 0.0157 | 1.131 | 2.686 | 0.045 | 0.018 | 0.006 | 0.006 | 1.000 | 0.981 | 0.795 | 0.518 | 4.85 | 2 | 8 | 11 | 1.608 | 0.49 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3898 | 0.0124 | 0.4432 | 0.0176 | 1.141 | 2.782 | 0.020 | 0.008 | 0.005 | 0.004 | 1.000 | 0.971 | 0.731 | 0.452 | 4.41 | 2 | 7 | 11 | 1.520 | 0.46 | 0.06 | 0.00 |
| | 300 | 0.3651 | 0.0081 | 0.4478 | 0.0193 | 1.144 | 2.779 | 0.014 | 0.006 | 0.002 | 0.002 | 1.000 | 0.961 | 0.722 | 0.453 | 4.24 | 2 | 7 | 10 | 1.460 | 0.41 | 0.05 | 0.00 |
| $p = 0.01$, | 100 | 0.3698 | 0.0233 | 0.4365 | 0.0041 | 1.144 | 2.781 | 0.018 | 0.008 | 0.002 | 0.002 | 1.000 | 0.968 | 0.724 | 0.433 | 4.15 | 2 | 7 | 10 | 1.479 | 0.43 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3330 | 0.0107 | 0.4256 | 0.0041 | 1.151 | 2.845 | 0.008 | 0.004 | 0.001 | 0.001 | 1.000 | 0.950 | 0.669 | 0.379 | 3.80 | 2 | 6 | 9 | 1.407 | 0.38 | 0.03 | 0.00 |
| | 300 | 0.3138 | 0.0070 | 0.4285 | 0.0047 | 1.153 | 2.828 | 0.006 | 0.005 | 0.000 | 0.000 | 1.000 | 0.943 | 0.655 | 0.372 | 3.66 | 2 | 6 | 9 | 1.354 | 0.33 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.3736 | 0.0274 | 0.4793 | 0.0240 | 1.147 | 2.803 | 0.020 | 0.009 | 0.004 | 0.004 | 1.000 | 0.986 | 0.818 | 0.557 | 4.58 | 2 | 7 | 12 | 1.343 | 0.31 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3326 | 0.0128 | 0.4752 | 0.0275 | 1.156 | 2.873 | 0.004 | 0.002 | 0.001 | 0.001 | 1.000 | 0.981 | 0.763 | 0.493 | 4.20 | 2 | 7 | 9 | 1.288 | 0.27 | 0.02 | 0.00 |
| | 300 | 0.3078 | 0.0084 | 0.4807 | 0.0316 | 1.162 | 2.870 | 0.004 | 0.001 | 0.000 | 0.000 | 1.000 | 0.972 | 0.757 | 0.483 | 4.04 | 2 | 6 | 9 | 1.234 | 0.22 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.3493 | 0.0256 | 0.4708 | 0.0151 | 1.151 | 2.825 | 0.014 | 0.007 | 0.003 | 0.003 | 1.000 | 0.981 | 0.795 | 0.518 | 4.28 | 2 | 7 | 11 | 1.326 | 0.30 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3082 | 0.0118 | 0.4636 | 0.0160 | 1.160 | 2.893 | 0.002 | 0.001 | 0.001 | 0.001 | 1.000 | 0.971 | 0.731 | 0.452 | 3.89 | 2 | 6 | 9 | 1.254 | 0.25 | 0.01 | 0.00 |
| | 300 | 0.2869 | 0.0078 | 0.4694 | 0.0190 | 1.164 | 2.880 | 0.002 | 0.002 | 0.000 | 0.000 | 1.000 | 0.961 | 0.722 | 0.453 | 3.76 | 2 | 6 | 8 | 1.205 | 0.20 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.3023 | 0.0225 | 0.4546 | 0.0039 | 1.161 | 2.875 | 0.007 | 0.003 | 0.001 | 0.001 | 1.000 | 0.968 | 0.724 | 0.433 | 3.74 | 2 | 6 | 9 | 1.262 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2696 | 0.0104 | 0.4443 | 0.0034 | 1.167 | 2.925 | 0.003 | 0.002 | 0.001 | 0.001 | 1.000 | 0.950 | 0.669 | 0.379 | 3.42 | 2 | 5 | 9 | 1.200 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.2564 | 0.0068 | 0.4445 | 0.0044 | 1.167 | 2.896 | 0.000 | 0.000 | 0.000 | 0.000 | 1.000 | 0.943 | 0.655 | 0.372 | 3.32 | 2 | 5 | 7 | 1.165 | 0.16 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6634 | 0.0666 | 0.4740 | 0.4047 | 1.163 | 2.596 | 0.146 | 0.000 | 0.011 | 0.000 | 1.000 | 0.152 | 0.091 | 0.065 | 9.91 | 2 | 23 | 44 | - | - | - | - |
| | 200 | 0.6152 | 0.0421 | 0.5174 | 0.4595 | 1.182 | 2.706 | 0.082 | 0.000 | 0.008 | 0.000 | 1.000 | 0.129 | 0.053 | 0.050 | 11.46 | 2 | 30 | 58 | - | - | - | - |
| | 300 | 0.6001 | 0.0344 | 0.5632 | 0.5107 | 1.192 | 2.712 | 0.072 | 0.000 | 0.002 | 0.000 | 1.000 | 0.134 | 0.068 | 0.043 | 13.29 | 2 | 35 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4041 | 0.0210 | 0.1624 | 0.1421 | 1.173 | 2.824 | 0.062 | 0.002 | 0.001 | 0.000 | 1.000 | 0.028 | 0.018 | 0.017 | 4.10 | 1 | 17 | 34 | - | - | - | - |
| | 200 | 0.3997 | 0.0181 | 0.2303 | 0.2122 | 1.189 | 2.953 | 0.038 | 0.000 | 0.002 | 0.000 | 1.000 | 0.035 | 0.014 | 0.019 | 5.60 | 1 | 21 | 46 | - | - | - | - |
| | 300 | 0.4080 | 0.0158 | 0.2705 | 0.2512 | 1.202 | 2.994 | 0.043 | 0.000 | 0.000 | 0.000 | 1.000 | 0.035 | 0.023 | 0.015 | 6.75 | 1 | 25 | 48 | - | - | - | - |

Notes: See notes to Table 145.

## Table 278: MC findings for DGPIV(a)

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9320 | 0.0411 | 0.4162 | 0.0129 | 1.019 | 1.927 | 0.746 | 0.175 | 0.221 | 0.199 | 1.000 | 1.000 | 1.000 | 0.984 | 8.73 | 7 | 10 | 12 | 2.350 | 0.96 | 0.38 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9010 | 0.0198 | 0.4162 | 0.0114 | 1.025 | 2.177 | 0.666 | 0.170 | 0.186 | 0.167 | 1.000 | 1.000 | 0.999 | 0.971 | 8.44 | 6 | 10 | 12 | 2.326 | 0.92 | 0.39 | 0.01 |
| | 300 | 0.8865 | 0.0130 | 0.4174 | 0.0144 | 1.028 | 2.268 | 0.618 | 0.162 | 0.154 | 0.137 | 1.000 | 1.000 | 1.000 | 0.973 | 8.33 | 5 | 10 | 12 | 2.323 | 0.91 | 0.40 | 0.01 |
| $p = 0.05$, | 100 | 0.9078 | 0.0392 | 0.4116 | 0.0068 | 1.022 | 2.116 | 0.684 | 0.193 | 0.173 | 0.165 | 1.000 | 1.000 | 1.000 | 0.978 | 8.42 | 6 | 10 | 12 | 2.341 | 0.93 | 0.40 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8800 | 0.0192 | 0.4145 | 0.0057 | 1.028 | 2.334 | 0.621 | 0.176 | 0.160 | 0.154 | 1.000 | 1.000 | 0.999 | 0.964 | 8.21 | 5 | 10 | 12 | 2.352 | 0.89 | 0.44 | 0.02 |
| | 300 | 0.8621 | 0.0126 | 0.4165 | 0.0086 | 1.032 | 2.439 | 0.573 | 0.173 | 0.136 | 0.126 | 1.000 | 1.000 | 1.000 | 0.966 | 8.08 | 5 | 10 | 12 | 2.318 | 0.87 | 0.43 | 0.01 |
| $p = 0.01$, | 100 | 0.8573 | 0.0375 | 0.4145 | 0.0016 | 1.032 | 2.507 | 0.589 | 0.186 | 0.156 | 0.155 | 1.000 | 1.000 | 0.999 | 0.962 | 8.00 | 5 | 10 | 11 | 2.359 | 0.86 | 0.49 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8233 | 0.0182 | 0.4185 | 0.0009 | 1.039 | 2.741 | 0.536 | 0.171 | 0.131 | 0.130 | 1.000 | 1.000 | 0.999 | 0.947 | 7.74 | 5 | 10 | 11 | 2.309 | 0.80 | 0.50 | 0.01 |
| | 300 | 0.8073 | 0.0120 | 0.4193 | 0.0018 | 1.043 | 2.812 | 0.486 | 0.160 | 0.107 | 0.107 | 1.000 | 1.000 | 0.999 | 0.944 | 7.61 | 5 | 10 | 11 | 2.282 | 0.78 | 0.49 | 0.01 |
| $p = 0.1$, | 100 | 0.8806 | 0.0401 | 0.4239 | 0.0115 | 1.028 | 2.342 | 0.621 | 0.149 | 0.181 | 0.168 | 1.000 | 1.000 | 1.000 | 0.984 | 8.37 | 5 | 10 | 12 | 2.154 | 0.89 | 0.26 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8379 | 0.0191 | 0.4256 | 0.0109 | 1.038 | 2.646 | 0.534 | 0.153 | 0.134 | 0.123 | 1.000 | 1.000 | 0.999 | 0.971 | 8.00 | 5 | 10 | 11 | 2.094 | 0.83 | 0.26 | 0.01 |
| | 300 | 0.8167 | 0.0126 | 0.4291 | 0.0133 | 1.042 | 2.758 | 0.474 | 0.135 | 0.107 | 0.096 | 1.000 | 1.000 | 1.000 | 0.973 | 7.86 | 5 | 10 | 12 | 2.068 | 0.80 | 0.26 | 0.00 |
| $p = 0.05$, | 100 | 0.8590 | 0.0382 | 0.4185 | 0.0061 | 1.032 | 2.491 | 0.566 | 0.160 | 0.138 | 0.133 | 1.000 | 1.000 | 1.000 | 0.978 | 8.08 | 5 | 10 | 12 | 2.172 | 0.86 | 0.30 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8096 | 0.0184 | 0.4248 | 0.0054 | 1.042 | 2.822 | 0.480 | 0.150 | 0.101 | 0.099 | 1.000 | 1.000 | 0.999 | 0.964 | 7.71 | 5 | 10 | 11 | 2.094 | 0.78 | 0.31 | 0.01 |
| | 300 | 0.7859 | 0.0122 | 0.4290 | 0.0081 | 1.048 | 2.950 | 0.424 | 0.145 | 0.080 | 0.073 | 1.000 | 1.000 | 1.000 | 0.966 | 7.56 | 5 | 10 | 12 | 2.047 | 0.76 | 0.28 | 0.00 |
| $p = 0.01$, | 100 | 0.7925 | 0.0362 | 0.4244 | 0.0015 | 1.045 | 2.940 | 0.455 | 0.157 | 0.095 | 0.094 | 1.000 | 1.000 | 0.999 | 0.962 | 7.55 | 5 | 10 | 11 | 2.144 | 0.75 | 0.38 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7408 | 0.0174 | 0.4312 | 0.0008 | 1.056 | 3.251 | 0.378 | 0.133 | 0.067 | 0.067 | 1.000 | 1.000 | 0.999 | 0.947 | 7.17 | 5 | 10 | 11 | 2.048 | 0.69 | 0.35 | 0.01 |
| | 300 | 0.7202 | 0.0114 | 0.4332 | 0.0018 | 1.061 | 3.328 | 0.329 | 0.129 | 0.049 | 0.049 | 1.000 | 1.000 | 0.999 | 0.944 | 7.01 | 5 | 9 | 11 | 2.000 | 0.66 | 0.34 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9864 | 0.1404 | 0.6402 | 0.5810 | 1.046 | 2.745 | 0.945 | 0.009 | 0.086 | 0.001 | 1.000 | 0.224 | 0.139 | 0.137 | 18.83 | 7 | 31 | 55 | - | - | - | - |
| | 200 | 0.9781 | 0.0898 | 0.6813 | 0.6355 | 1.060 | 3.041 | 0.902 | 0.006 | 0.070 | 0.000 | 1.000 | 0.199 | 0.128 | 0.113 | 22.76 | 6 | 43 | 79 | - | - | - | - |
| | 300 | 0.9714 | 0.0682 | 0.7077 | 0.6670 | 1.067 | 3.174 | 0.880 | 0.003 | 0.059 | 0.001 | 1.000 | 0.194 | 0.099 | 0.087 | 25.25 | 7 | 48 | 92 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8848 | 0.0584 | 0.4096 | 0.3755 | 1.049 | 2.734 | 0.787 | 0.015 | 0.018 | 0.001 | 1.000 | 0.085 | 0.047 | 0.058 | 10.20 | 1 | 19 | 33 | - | - | - | - |
| | 200 | 0.8897 | 0.0388 | 0.4695 | 0.4415 | 1.056 | 2.836 | 0.783 | 0.011 | 0.019 | 0.000 | 1.000 | 0.062 | 0.047 | 0.047 | 12.16 | 1 | 24 | 39 | - | - | - | - |
| | 300 | 0.8827 | 0.0296 | 0.4994 | 0.4737 | 1.063 | 2.940 | 0.756 | 0.005 | 0.012 | 0.001 | 1.000 | 0.069 | 0.033 | 0.030 | 13.26 | 1 | 26 | 59 | - | - | - | - |

Notes: See notes to Table 145.

## Table 279: MC findings for DGPIV(a)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9966 | 0.0462 | 0.4304 | 0.0108 | 1.006 | 1.398 | 0.983 | 0.081 | 0.551 | 0.491 | 1.000 | 1.000 | 1.000 | 0.999 | 9.56 | 8 | 11 | 12 | 2.105 | 1.00 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9924 | 0.0225 | 0.4255 | 0.0105 | 1.006 | 1.465 | 0.964 | 0.109 | 0.476 | 0.427 | 1.000 | 1.000 | 1.000 | 1.000 | 9.44 | 8 | 11 | 13 | 2.134 | 1.00 | 0.13 | 0.00 |
| | 300 | 0.9917 | 0.0147 | 0.4216 | 0.0106 | 1.006 | 1.476 | 0.962 | 0.126 | 0.439 | 0.392 | 1.000 | 1.000 | 1.000 | 0.999 | 9.36 | 8 | 11 | 12 | 2.171 | 1.00 | 0.17 | 0.00 |
| $p = 0.05$, | 100 | 0.9944 | 0.0445 | 0.4215 | 0.0065 | 1.006 | 1.399 | 0.972 | 0.116 | 0.465 | 0.434 | 1.000 | 1.000 | 1.000 | 0.999 | 9.38 | 8 | 10 | 12 | 2.139 | 1.00 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9894 | 0.0217 | 0.4170 | 0.0055 | 1.007 | 1.484 | 0.950 | 0.148 | 0.414 | 0.389 | 1.000 | 1.000 | 1.000 | 0.999 | 9.26 | 8 | 10 | 12 | 2.183 | 1.00 | 0.18 | 0.00 |
| | 300 | 0.9876 | 0.0141 | 0.4120 | 0.0056 | 1.007 | 1.516 | 0.945 | 0.174 | 0.358 | 0.337 | 1.000 | 1.000 | 1.000 | 0.998 | 9.15 | 8 | 10 | 12 | 2.210 | 1.00 | 0.21 | 0.00 |
| $p = 0.01$, | 100 | 0.9828 | 0.0413 | 0.4060 | 0.0012 | 1.008 | 1.533 | 0.923 | 0.208 | 0.316 | 0.312 | 1.000 | 1.000 | 1.000 | 0.999 | 9.01 | 8 | 10 | 11 | 2.257 | 1.00 | 0.26 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9754 | 0.0200 | 0.4012 | 0.0014 | 1.008 | 1.671 | 0.894 | 0.249 | 0.247 | 0.244 | 1.000 | 1.000 | 1.000 | 0.998 | 8.86 | 8 | 10 | 11 | 2.305 | 0.99 | 0.31 | 0.01 |
| | 300 | 0.9717 | 0.0132 | 0.3997 | 0.0010 | 1.009 | 1.727 | 0.881 | 0.266 | 0.255 | 0.254 | 1.000 | 1.000 | 1.000 | 0.997 | 8.81 | 7 | 10 | 11 | 2.316 | 0.99 | 0.32 | 0.01 |
| $p = 0.1$, | 100 | 0.9928 | 0.0459 | 0.4297 | 0.0092 | 1.006 | 1.444 | 0.965 | 0.083 | 0.541 | 0.489 | 1.000 | 1.000 | 1.000 | 0.999 | 9.51 | 8 | 11 | 12 | 2.086 | 1.00 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9859 | 0.0224 | 0.4259 | 0.0099 | 1.007 | 1.567 | 0.937 | 0.111 | 0.467 | 0.424 | 1.000 | 1.000 | 1.000 | 1.000 | 9.38 | 8 | 10 | 13 | 2.116 | 1.00 | 0.12 | 0.00 |
| | 300 | 0.9809 | 0.0146 | 0.4225 | 0.0101 | 1.008 | 1.658 | 0.924 | 0.126 | 0.423 | 0.378 | 1.000 | 1.000 | 1.000 | 0.999 | 9.28 | 8 | 10 | 12 | 2.138 | 0.99 | 0.14 | 0.00 |
| $p = 0.05$, | 100 | 0.9890 | 0.0442 | 0.4212 | 0.0058 | 1.007 | 1.482 | 0.949 | 0.117 | 0.454 | 0.426 | 1.000 | 1.000 | 1.000 | 0.999 | 9.32 | 8 | 10 | 12 | 2.121 | 1.00 | 0.12 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9787 | 0.0215 | 0.4180 | 0.0051 | 1.008 | 1.660 | 0.910 | 0.140 | 0.400 | 0.380 | 1.000 | 1.000 | 1.000 | 0.999 | 9.18 | 8 | 10 | 12 | 2.147 | 0.99 | 0.15 | 0.00 |
| | 300 | 0.9724 | 0.0140 | 0.4138 | 0.0054 | 1.009 | 1.768 | 0.892 | 0.165 | 0.339 | 0.320 | 1.000 | 1.000 | 1.000 | 0.998 | 9.05 | 8 | 10 | 12 | 2.160 | 0.98 | 0.17 | 0.00 |
| $p = 0.01$, | 100 | 0.9697 | 0.0410 | 0.4073 | 0.0013 | 1.010 | 1.741 | 0.879 | 0.206 | 0.297 | 0.294 | 1.000 | 1.000 | 1.000 | 0.999 | 8.91 | 7 | 10 | 11 | 2.218 | 0.99 | 0.23 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9527 | 0.0198 | 0.4045 | 0.0013 | 1.012 | 2.018 | 0.820 | 0.227 | 0.229 | 0.227 | 1.000 | 1.000 | 1.000 | 0.998 | 8.71 | 7 | 10 | 11 | 2.230 | 0.97 | 0.25 | 0.00 |
| | 300 | 0.9384 | 0.0131 | 0.4055 | 0.0010 | 1.015 | 2.218 | 0.784 | 0.229 | 0.224 | 0.223 | 1.000 | 1.000 | 1.000 | 0.997 | 8.59 | 7 | 10 | 11 | 2.197 | 0.95 | 0.24 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9997 | 0.1484 | 0.6696 | 0.6093 | 1.025 | 2.550 | 0.999 | 0.003 | 0.111 | 0.000 | 1.000 | 0.230 | 0.140 | 0.147 | 19.69 | 10 | 39 | 51 | - | - | - | - |
| | 200 | 0.9996 | 0.1034 | 0.7396 | 0.6969 | 1.030 | 2.855 | 0.998 | 0.002 | 0.088 | 0.000 | 1.000 | 0.232 | 0.127 | 0.125 | 25.58 | 11 | 39 | 72 | - | - | - | - |
| | 300 | 0.9992 | 0.0833 | 0.7613 | 0.7251 | 1.036 | 3.037 | 0.997 | 0.002 | 0.086 | 0.000 | 1.000 | 0.207 | 0.138 | 0.093 | 29.91 | 11 | 49 | 103 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9823 | 0.0433 | 0.3644 | 0.3321 | 1.013 | 1.929 | 0.960 | 0.054 | 0.012 | 0.000 | 1.000 | 0.062 | 0.034 | 0.042 | 9.20 | 5 | 16 | 28 | - | - | - | - |
| | 200 | 0.9842 | 0.0303 | 0.4500 | 0.4233 | 1.016 | 2.065 | 0.966 | 0.023 | 0.009 | 0.000 | 1.000 | 0.062 | 0.034 | 0.032 | 10.95 | 6 | 18 | 29 | - | - | - | - |
| | 300 | 0.9830 | 0.0249 | 0.4913 | 0.4685 | 1.019 | 2.164 | 0.962 | 0.023 | 0.010 | 0.000 | 1.000 | 0.051 | 0.033 | 0.023 | 12.37 | 6 | 21 | 35 | - | - | - | - |

Notes: See notes to Table 145.

## Table 280: MC findings for DGPIV(b)

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8464 | 0.0270 | 0.3326 | 0.0196 | 1.095 | 2.551 | 0.576 | 0.436 | 1.000 | 0.987 | 0.831 | 0.562 | 6.90 | 5 | 9 | 11 | 1.902 | 0.68 | 0.21 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8019 | 0.0129 | 0.3312 | 0.0226 | 1.117 | 2.863 | 0.470 | 0.348 | 1.000 | 0.979 | 0.785 | 0.509 | 6.57 | 4 | 9 | 11 | 1.810 | 0.60 | 0.20 | 0.01 |
| | 300 | 0.7772 | 0.0085 | 0.3359 | 0.0267 | 1.129 | 3.010 | 0.414 | 0.305 | 1.000 | 0.979 | 0.790 | 0.484 | 6.43 | 4 | 9 | 11 | 1.792 | 0.57 | 0.20 | 0.02 |
| $p = 0.05$, | 100 | 0.8122 | 0.0252 | 0.3247 | 0.0111 | 1.109 | 2.764 | 0.490 | 0.409 | 1.000 | 0.984 | 0.804 | 0.527 | 6.55 | 4 | 8 | 11 | 1.852 | 0.62 | 0.21 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7707 | 0.0119 | 0.3216 | 0.0127 | 1.128 | 3.041 | 0.399 | 0.330 | 1.000 | 0.974 | 0.754 | 0.472 | 6.23 | 4 | 8 | 10 | 1.774 | 0.56 | 0.20 | 0.02 |
| | 300 | 0.7468 | 0.0079 | 0.3250 | 0.0146 | 1.141 | 3.178 | 0.352 | 0.297 | 1.000 | 0.974 | 0.759 | 0.449 | 6.09 | 4 | 8 | 10 | 1.760 | 0.55 | 0.20 | 0.01 |
| $p = 0.01$, | 100 | 0.7481 | 0.0221 | 0.3093 | 0.0025 | 1.136 | 3.149 | 0.349 | 0.323 | 1.000 | 0.967 | 0.730 | 0.434 | 5.93 | 4 | 8 | 10 | 1.821 | 0.59 | 0.22 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7100 | 0.0106 | 0.3074 | 0.0041 | 1.159 | 3.391 | 0.271 | 0.250 | 1.000 | 0.958 | 0.683 | 0.400 | 5.66 | 3 | 8 | 9 | 1.751 | 0.53 | 0.20 | 0.01 |
| | 300 | 0.7046 | 0.0069 | 0.3052 | 0.0039 | 1.162 | 3.413 | 0.264 | 0.244 | 1.000 | 0.957 | 0.683 | 0.374 | 5.60 | 3 | 8 | 9 | 1.773 | 0.55 | 0.21 | 0.01 |
| $p = 0.1$, | 100 | 0.7896 | 0.0265 | 0.3416 | 0.0161 | 1.121 | 2.901 | 0.416 | 0.333 | 1.000 | 0.987 | 0.831 | 0.562 | 6.57 | 4 | 9 | 11 | 1.645 | 0.53 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7411 | 0.0126 | 0.3410 | 0.0188 | 1.148 | 3.212 | 0.308 | 0.247 | 1.000 | 0.979 | 0.784 | 0.509 | 6.22 | 4 | 8 | 10 | 1.537 | 0.43 | 0.10 | 0.01 |
| | 300 | 0.7127 | 0.0084 | 0.3473 | 0.0240 | 1.162 | 3.363 | 0.252 | 0.198 | 1.000 | 0.979 | 0.790 | 0.484 | 6.07 | 4 | 8 | 11 | 1.514 | 0.42 | 0.10 | 0.00 |
| $p = 0.05$, | 100 | 0.7536 | 0.0249 | 0.3354 | 0.0092 | 1.137 | 3.110 | 0.339 | 0.289 | 1.000 | 0.984 | 0.804 | 0.527 | 6.23 | 4 | 8 | 11 | 1.596 | 0.48 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7080 | 0.0118 | 0.3331 | 0.0107 | 1.163 | 3.392 | 0.245 | 0.214 | 1.000 | 0.974 | 0.753 | 0.472 | 5.89 | 4 | 8 | 10 | 1.511 | 0.41 | 0.10 | 0.00 |
| | 300 | 0.6835 | 0.0078 | 0.3366 | 0.0126 | 1.175 | 3.521 | 0.202 | 0.181 | 1.000 | 0.974 | 0.759 | 0.449 | 5.74 | 4 | 8 | 9 | 1.501 | 0.40 | 0.10 | 0.00 |
| $p = 0.01$, | 100 | 0.6971 | 0.0221 | 0.3193 | 0.0022 | 1.163 | 3.432 | 0.227 | 0.213 | 1.000 | 0.967 | 0.730 | 0.434 | 5.67 | 4 | 8 | 9 | 1.624 | 0.48 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6498 | 0.0105 | 0.3191 | 0.0036 | 1.192 | 3.710 | 0.136 | 0.130 | 1.000 | 0.958 | 0.683 | 0.400 | 5.34 | 3 | 8 | 9 | 1.517 | 0.42 | 0.10 | 0.00 |
| | 300 | 0.6423 | 0.0069 | 0.3178 | 0.0035 | 1.196 | 3.744 | 0.136 | 0.127 | 1.000 | 0.957 | 0.683 | 0.374 | 5.28 | 3 | 8 | 9 | 1.541 | 0.44 | 0.10 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9753 | 0.1113 | 0.5895 | 0.5169 | 1.137 | 2.461 | 0.884 | 0.007 | 1.000 | 0.201 | 0.139 | 0.113 | 15.89 | 6 | 29 | 54 | - | - | - | - |
| | 200 | 0.9640 | 0.0803 | 0.6710 | 0.6241 | 1.176 | 2.735 | 0.832 | 0.001 | 1.000 | 0.198 | 0.105 | 0.082 | 20.80 | 7 | 38 | 79 | - | - | - | - |
| | 300 | 0.9515 | 0.0614 | 0.6958 | 0.6582 | 1.197 | 2.872 | 0.776 | 0.000 | 1.000 | 0.178 | 0.092 | 0.081 | 23.11 | 7 | 45 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9072 | 0.0471 | 0.3361 | 0.2977 | 1.134 | 2.620 | 0.723 | 0.083 | 1.000 | 0.074 | 0.042 | 0.044 | 9.20 | 3 | 18 | 31 | - | - | - | - |
| | 200 | 0.9034 | 0.0357 | 0.4203 | 0.3936 | 1.160 | 2.836 | 0.699 | 0.048 | 1.000 | 0.073 | 0.037 | 0.033 | 11.62 | 3 | 24 | 39 | - | - | - | - |
| | 300 | 0.8884 | 0.0273 | 0.4545 | 0.4319 | 1.187 | 2.974 | 0.655 | 0.028 | 1.000 | 0.063 | 0.036 | 0.034 | 12.60 | 3 | 26 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 281: MC findings for DGPIV(b)

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0371 | 0.3763 | 0.0107 | 1.007 | 1.176 | 1.000 | 0.433 | 1.000 | 1.000 | 1.000 | 0.979 | 8.67 | 8 | 10 | 12 | 2.013 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0181 | 0.3715 | 0.0134 | 1.007 | 1.180 | 1.000 | 0.479 | 1.000 | 1.000 | 1.000 | 0.972 | 8.59 | 8 | 10 | 12 | 2.014 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9996 | 0.0118 | 0.3681 | 0.0132 | 1.007 | 1.185 | 0.999 | 0.509 | 1.000 | 1.000 | 1.000 | 0.966 | 8.54 | 8 | 10 | 12 | 2.017 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0355 | 0.3668 | 0.0056 | 1.006 | 1.148 | 1.000 | 0.529 | 1.000 | 1.000 | 1.000 | 0.977 | 8.52 | 8 | 10 | 12 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0173 | 0.3616 | 0.0070 | 1.006 | 1.147 | 1.000 | 0.576 | 1.000 | 1.000 | 1.000 | 0.963 | 8.44 | 8 | 9 | 12 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9996 | 0.0114 | 0.3590 | 0.0073 | 1.007 | 1.156 | 0.999 | 0.606 | 1.000 | 1.000 | 1.000 | 0.962 | 8.40 | 8 | 9 | 12 | 2.020 | 1.00 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0331 | 0.3514 | 0.0014 | 1.006 | 1.132 | 0.999 | 0.701 | 1.000 | 1.000 | 1.000 | 0.962 | 8.28 | 8 | 9 | 11 | 2.023 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9980 | 0.0161 | 0.3464 | 0.0016 | 1.007 | 1.199 | 0.995 | 0.743 | 1.000 | 1.000 | 0.999 | 0.945 | 8.19 | 8 | 9 | 10 | 2.036 | 1.00 | 0.04 | 0.00 |
| | 300 | 0.9978 | 0.0106 | 0.3441 | 0.0016 | 1.007 | 1.204 | 0.995 | 0.772 | 1.000 | 1.000 | 0.999 | 0.935 | 8.16 | 7 | 9 | 11 | 2.040 | 0.99 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0369 | 0.3751 | 0.0089 | 1.007 | 1.154 | 1.000 | 0.443 | 1.000 | 1.000 | 1.000 | 0.979 | 8.65 | 8 | 10 | 12 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9990 | 0.0179 | 0.3704 | 0.0113 | 1.007 | 1.200 | 0.998 | 0.485 | 1.000 | 1.000 | 1.000 | 0.972 | 8.57 | 8 | 10 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9992 | 0.0118 | 0.3673 | 0.0117 | 1.007 | 1.184 | 0.998 | 0.516 | 1.000 | 1.000 | 1.000 | 0.966 | 8.52 | 8 | 10 | 12 | 2.012 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0354 | 0.3660 | 0.0044 | 1.006 | 1.151 | 0.999 | 0.536 | 1.000 | 1.000 | 1.000 | 0.977 | 8.50 | 8 | 10 | 12 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9986 | 0.0172 | 0.3612 | 0.0059 | 1.007 | 1.198 | 0.997 | 0.579 | 1.000 | 1.000 | 1.000 | 0.963 | 8.42 | 8 | 9 | 11 | 2.011 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9986 | 0.0113 | 0.3588 | 0.0066 | 1.007 | 1.191 | 0.997 | 0.608 | 1.000 | 1.000 | 1.000 | 0.962 | 8.38 | 8 | 9 | 12 | 2.016 | 1.00 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9966 | 0.0331 | 0.3519 | 0.0012 | 1.007 | 1.255 | 0.992 | 0.698 | 1.000 | 1.000 | 1.000 | 0.962 | 8.26 | 8 | 9 | 11 | 2.016 | 0.99 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9930 | 0.0161 | 0.3475 | 0.0014 | 1.009 | 1.406 | 0.983 | 0.736 | 1.000 | 1.000 | 0.999 | 0.945 | 8.16 | 7 | 9 | 10 | 2.024 | 0.98 | 0.04 | 0.00 |
| | 300 | 0.9890 | 0.0106 | 0.3461 | 0.0015 | 1.011 | 1.544 | 0.973 | 0.755 | 1.000 | 1.000 | 0.999 | 0.935 | 8.11 | 7 | 9 | 11 | 2.003 | 0.97 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1180 | 0.5943 | 0.5198 | 1.036 | 2.246 | 1.000 | 0.006 | 1.000 | 0.236 | 0.133 | 0.115 | 16.68 | 8 | 34 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.0795 | 0.6770 | 0.6270 | 1.045 | 2.490 | 1.000 | 0.004 | 1.000 | 0.220 | 0.107 | 0.090 | 20.83 | 10 | 42 | 72 | - | - | - | - |
| | 300 | 1.0000 | 0.0657 | 0.6978 | 0.6595 | 1.052 | 2.622 | 1.000 | 0.003 | 1.000 | 0.205 | 0.112 | 0.094 | 24.63 | 9 | 49 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9997 | 0.0242 | 0.2395 | 0.2073 | 1.008 | 1.345 | 0.999 | 0.219 | 1.000 | 0.046 | 0.026 | 0.021 | 7.40 | 5 | 12 | 20 | - | - | - | - |
| | 200 | 0.9990 | 0.0171 | 0.3065 | 0.2864 | 1.011 | 1.498 | 0.997 | 0.121 | 1.000 | 0.047 | 0.027 | 0.017 | 8.40 | 5 | 14 | 31 | - | - | - | - |
| | 300 | 0.9991 | 0.0137 | 0.3402 | 0.3222 | 1.013 | 1.555 | 0.997 | 0.116 | 1.000 | 0.043 | 0.020 | 0.025 | 9.09 | 5 | 16 | 31 | - | - | - | - |

Notes: See notes to Table 100.

## Table 282: MC findings for DGPIV(b)

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0414 | 0.4036 | 0.0091 | 1.005 | 1.218 | 1.000 | 0.125 | 1.000 | 1.000 | 1.000 | 1.000 | 9.10 | 8 | 10 | 12 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0202 | 0.3995 | 0.0098 | 1.004 | 1.207 | 1.000 | 0.159 | 1.000 | 1.000 | 1.000 | 0.999 | 9.03 | 8 | 10 | 12 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0133 | 0.3965 | 0.0116 | 1.004 | 1.208 | 1.000 | 0.198 | 1.000 | 1.000 | 1.000 | 1.000 | 8.98 | 8 | 10 | 12 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0399 | 0.3949 | 0.0045 | 1.004 | 1.197 | 1.000 | 0.187 | 1.000 | 1.000 | 1.000 | 1.000 | 8.95 | 8 | 10 | 12 | 2.005 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0195 | 0.3910 | 0.0050 | 1.004 | 1.178 | 1.000 | 0.216 | 1.000 | 1.000 | 1.000 | 0.999 | 8.88 | 8 | 10 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0128 | 0.3882 | 0.0057 | 1.004 | 1.180 | 1.000 | 0.256 | 1.000 | 1.000 | 1.000 | 1.000 | 8.84 | 8 | 10 | 12 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0377 | 0.3815 | 0.0008 | 1.004 | 1.162 | 1.000 | 0.314 | 1.000 | 1.000 | 1.000 | 0.999 | 8.73 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0184 | 0.3776 | 0.0010 | 1.004 | 1.145 | 1.000 | 0.360 | 1.000 | 1.000 | 1.000 | 0.999 | 8.67 | 8 | 9 | 11 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0121 | 0.3747 | 0.0012 | 1.004 | 1.146 | 1.000 | 0.405 | 1.000 | 1.000 | 1.000 | 1.000 | 8.63 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0412 | 0.4026 | 0.0078 | 1.004 | 1.202 | 1.000 | 0.129 | 1.000 | 1.000 | 1.000 | 1.000 | 9.08 | 8 | 10 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0202 | 0.3986 | 0.0084 | 1.004 | 1.190 | 1.000 | 0.161 | 1.000 | 1.000 | 1.000 | 0.999 | 9.01 | 8 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0133 | 0.3960 | 0.0108 | 1.004 | 1.199 | 1.000 | 0.199 | 1.000 | 1.000 | 1.000 | 1.000 | 8.97 | 8 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0398 | 0.3943 | 0.0036 | 1.004 | 1.186 | 1.000 | 0.190 | 1.000 | 1.000 | 1.000 | 1.000 | 8.94 | 8 | 10 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0195 | 0.3906 | 0.0044 | 1.004 | 1.171 | 1.000 | 0.217 | 1.000 | 1.000 | 1.000 | 0.999 | 8.88 | 8 | 10 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0128 | 0.3879 | 0.0053 | 1.004 | 1.174 | 1.000 | 0.257 | 1.000 | 1.000 | 1.000 | 1.000 | 8.84 | 8 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0377 | 0.3814 | 0.0006 | 1.004 | 1.159 | 1.000 | 0.314 | 1.000 | 1.000 | 1.000 | 0.999 | 8.73 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0184 | 0.3776 | 0.0009 | 1.004 | 1.144 | 1.000 | 0.360 | 1.000 | 1.000 | 1.000 | 0.999 | 8.67 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0121 | 0.3747 | 0.0011 | 1.004 | 1.145 | 1.000 | 0.405 | 1.000 | 1.000 | 1.000 | 1.000 | 8.63 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1513 | 0.6451 | 0.5678 | 1.020 | 2.194 | 1.000 | 0.020 | 1.000 | 0.239 | 0.159 | 0.158 | 19.98 | 7 | 31 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0850 | 0.6147 | 0.5650 | 1.029 | 2.598 | 1.000 | 0.013 | 1.000 | 0.202 | 0.135 | 0.114 | 21.91 | 7 | 46 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0588 | 0.6260 | 0.5856 | 1.033 | 2.758 | 1.000 | 0.006 | 1.000 | 0.211 | 0.109 | 0.081 | 22.59 | 8 | 59 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0130 | 0.1496 | 0.1311 | 1.002 | 1.166 | 1.000 | 0.383 | 1.000 | 0.019 | 0.011 | 0.016 | 6.29 | 5 | 9 | 14 | - | - | - | - |
| | 200 | 1.0000 | 0.0073 | 0.1575 | 0.1470 | 1.002 | 1.201 | 1.000 | 0.412 | 1.000 | 0.021 | 0.011 | 0.010 | 6.46 | 5 | 10 | 18 | - | - | - | - |
| | 300 | 1.0000 | 0.0052 | 0.1583 | 0.1501 | 1.003 | 1.220 | 1.000 | 0.429 | 1.000 | 0.020 | 0.012 | 0.010 | 6.55 | 5 | 11 | 21 | - | - | - | - |

Notes: See notes to Table 100.

## Table 283: MC findings for DGPIV(b)

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6669 | 0.0261 | 0.3656 | 0.0197 | 1.095 | 2.479 | 0.123 | 0.101 | 1.000 | 0.982 | 0.813 | 0.548 | 5.92 | 4 | 8 | 11 | 1.532 | 0.44 | 0.08 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6220 | 0.0128 | 0.3718 | 0.0244 | 1.107 | 2.646 | 0.063 | 0.047 | 1.000 | 0.977 | 0.788 | 0.526 | 5.65 | 3 | 8 | 11 | 1.479 | 0.42 | 0.06 | 0.00 |
| | 300 | 0.6206 | 0.0084 | 0.3687 | 0.0244 | 1.110 | 2.688 | 0.071 | 0.056 | 1.000 | 0.974 | 0.788 | 0.502 | 5.61 | 3 | 8 | 11 | 1.512 | 0.45 | 0.06 | 0.00 |
| $p = 0.05$, | 100 | 0.6455 | 0.0244 | 0.3553 | 0.0110 | 1.098 | 2.535 | 0.098 | 0.085 | 1.000 | 0.978 | 0.781 | 0.510 | 5.65 | 3 | 8 | 10 | 1.531 | 0.44 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6098 | 0.0119 | 0.3579 | 0.0144 | 1.107 | 2.674 | 0.054 | 0.045 | 1.000 | 0.972 | 0.755 | 0.484 | 5.42 | 3 | 8 | 10 | 1.525 | 0.47 | 0.06 | 0.00 |
| | 300 | 0.6048 | 0.0078 | 0.3552 | 0.0133 | 1.110 | 2.722 | 0.053 | 0.045 | 1.000 | 0.968 | 0.759 | 0.464 | 5.35 | 3 | 7 | 10 | 1.539 | 0.48 | 0.05 | 0.00 |
| $p = 0.01$, | 100 | 0.6172 | 0.0219 | 0.3358 | 0.0032 | 1.103 | 2.619 | 0.058 | 0.054 | 1.000 | 0.967 | 0.709 | 0.432 | 5.25 | 3 | 7 | 9 | 1.617 | 0.55 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5966 | 0.0105 | 0.3307 | 0.0046 | 1.107 | 2.695 | 0.037 | 0.035 | 1.000 | 0.950 | 0.689 | 0.397 | 5.07 | 3 | 7 | 9 | 1.629 | 0.59 | 0.04 | 0.00 |
| | 300 | 0.5908 | 0.0069 | 0.3303 | 0.0040 | 1.110 | 2.740 | 0.031 | 0.029 | 1.000 | 0.950 | 0.686 | 0.387 | 5.02 | 3 | 7 | 9 | 1.638 | 0.60 | 0.04 | 0.00 |
| $p = 0.1$, | 100 | 0.6174 | 0.0257 | 0.3751 | 0.0175 | 1.109 | 2.619 | 0.052 | 0.044 | 1.000 | 0.982 | 0.813 | 0.548 | 5.64 | 3 | 8 | 11 | 1.346 | 0.31 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5789 | 0.0126 | 0.3799 | 0.0217 | 1.116 | 2.756 | 0.021 | 0.017 | 1.000 | 0.977 | 0.788 | 0.526 | 5.39 | 3 | 7 | 10 | 1.344 | 0.33 | 0.02 | 0.00 |
| | 300 | 0.5687 | 0.0082 | 0.3792 | 0.0217 | 1.122 | 2.829 | 0.023 | 0.019 | 1.000 | 0.974 | 0.788 | 0.502 | 5.31 | 3 | 7 | 9 | 1.349 | 0.33 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.5985 | 0.0242 | 0.3649 | 0.0098 | 1.110 | 2.673 | 0.041 | 0.036 | 1.000 | 0.978 | 0.781 | 0.510 | 5.38 | 3 | 7 | 9 | 1.374 | 0.34 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5640 | 0.0117 | 0.3672 | 0.0125 | 1.118 | 2.799 | 0.016 | 0.015 | 1.000 | 0.972 | 0.755 | 0.484 | 5.16 | 3 | 7 | 9 | 1.405 | 0.39 | 0.02 | 0.00 |
| | 300 | 0.5545 | 0.0077 | 0.3663 | 0.0121 | 1.123 | 2.862 | 0.013 | 0.011 | 1.000 | 0.968 | 0.759 | 0.464 | 5.07 | 3 | 7 | 9 | 1.407 | 0.39 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.5660 | 0.0218 | 0.3479 | 0.0029 | 1.116 | 2.767 | 0.019 | 0.018 | 1.000 | 0.967 | 0.709 | 0.432 | 4.98 | 3 | 7 | 8 | 1.497 | 0.48 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5416 | 0.0104 | 0.3438 | 0.0035 | 1.125 | 2.860 | 0.009 | 0.009 | 1.000 | 0.950 | 0.689 | 0.397 | 4.78 | 3 | 7 | 8 | 1.525 | 0.51 | 0.01 | 0.00 |
| | 300 | 0.5400 | 0.0069 | 0.3424 | 0.0034 | 1.124 | 2.893 | 0.005 | 0.004 | 1.000 | 0.950 | 0.686 | 0.387 | 4.75 | 3 | 7 | 9 | 1.549 | 0.54 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8604 | 0.0831 | 0.5126 | 0.4419 | 1.134 | 2.257 | 0.431 | 0.005 | 1.000 | 0.171 | 0.095 | 0.094 | 12.53 | 4 | 25 | 46 | - | - | - | - |
| | 200 | 0.8316 | 0.0581 | 0.5932 | 0.5452 | 1.156 | 2.426 | 0.332 | 0.001 | 1.000 | 0.153 | 0.092 | 0.070 | 15.73 | 4 | 33 | 75 | - | - | - | - |
| | 300 | 0.8206 | 0.0475 | 0.6338 | 0.5948 | 1.170 | 2.523 | 0.291 | 0.001 | 1.000 | 0.151 | 0.070 | 0.065 | 18.30 | 4 | 39 | 90 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6836 | 0.0317 | 0.2267 | 0.1993 | 1.162 | 2.677 | 0.251 | 0.018 | 1.000 | 0.040 | 0.029 | 0.028 | 6.56 | 1 | 18 | 36 | - | - | - | - |
| | 200 | 0.6788 | 0.0252 | 0.3041 | 0.2840 | 1.180 | 2.840 | 0.215 | 0.008 | 1.000 | 0.051 | 0.028 | 0.028 | 8.40 | 1 | 23 | 55 | - | - | - | - |
| | 300 | 0.6847 | 0.0228 | 0.3717 | 0.3526 | 1.198 | 2.981 | 0.204 | 0.002 | 1.000 | 0.055 | 0.026 | 0.026 | 10.23 | 1 | 27 | 52 | - | - | - | - |

Notes: See notes to Table 100.

## Table 284: MC findings for DGPIV(b)

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9804 | 0.0351 | 0.3682 | 0.0121 | 1.012 | 1.481 | 0.941 | 0.555 | 1.000 | 1.000 | 1.000 | 0.982 | 8.37 | 7 | 10 | 12 | 2.001 | 0.94 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9629 | 0.0170 | 0.3665 | 0.0132 | 1.015 | 1.729 | 0.889 | 0.572 | 1.000 | 1.000 | 1.000 | 0.975 | 8.20 | 6 | 9 | 12 | 1.951 | 0.90 | 0.05 | 0.00 |
| | 300 | 0.9533 | 0.0113 | 0.3683 | 0.0158 | 1.018 | 1.855 | 0.860 | 0.570 | 1.000 | 1.000 | 1.000 | 0.971 | 8.14 | 6 | 10 | 12 | 1.914 | 0.87 | 0.05 | 0.00 |
| $p = 0.05$, | 100 | 0.9685 | 0.0337 | 0.3623 | 0.0067 | 1.013 | 1.636 | 0.908 | 0.624 | 1.000 | 1.000 | 1.000 | 0.978 | 8.18 | 7 | 9 | 12 | 1.977 | 0.91 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9515 | 0.0163 | 0.3606 | 0.0066 | 1.017 | 1.850 | 0.856 | 0.629 | 1.000 | 1.000 | 1.000 | 0.970 | 8.01 | 6 | 9 | 12 | 1.925 | 0.86 | 0.06 | 0.00 |
| | 300 | 0.9349 | 0.0108 | 0.3637 | 0.0084 | 1.021 | 2.053 | 0.807 | 0.604 | 1.000 | 1.000 | 0.999 | 0.963 | 7.91 | 6 | 9 | 11 | 1.863 | 0.82 | 0.05 | 0.00 |
| $p = 0.01$, | 100 | 0.9306 | 0.0315 | 0.3571 | 0.0011 | 1.021 | 2.086 | 0.801 | 0.672 | 1.000 | 1.000 | 0.999 | 0.959 | 7.78 | 6 | 9 | 10 | 1.876 | 0.81 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8974 | 0.0155 | 0.3626 | 0.0017 | 1.028 | 2.415 | 0.704 | 0.599 | 1.000 | 1.000 | 0.999 | 0.950 | 7.58 | 6 | 9 | 10 | 1.784 | 0.72 | 0.07 | 0.00 |
| | 300 | 0.8783 | 0.0102 | 0.3648 | 0.0018 | 1.032 | 2.597 | 0.649 | 0.575 | 1.000 | 1.000 | 0.998 | 0.942 | 7.45 | 6 | 9 | 10 | 1.723 | 0.67 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 0.9636 | 0.0349 | 0.3710 | 0.0106 | 1.015 | 1.711 | 0.881 | 0.529 | 1.000 | 1.000 | 1.000 | 0.982 | 8.27 | 7 | 10 | 12 | 1.911 | 0.89 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9397 | 0.0169 | 0.3702 | 0.0111 | 1.021 | 1.995 | 0.801 | 0.525 | 1.000 | 1.000 | 1.000 | 0.975 | 8.06 | 6 | 9 | 11 | 1.829 | 0.81 | 0.02 | 0.00 |
| | 300 | 0.9260 | 0.0112 | 0.3733 | 0.0142 | 1.024 | 2.158 | 0.751 | 0.508 | 1.000 | 1.000 | 1.000 | 0.971 | 7.99 | 6 | 9 | 12 | 1.771 | 0.76 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9462 | 0.0336 | 0.3669 | 0.0061 | 1.018 | 1.921 | 0.828 | 0.571 | 1.000 | 1.000 | 1.000 | 0.978 | 8.06 | 6 | 9 | 12 | 1.863 | 0.84 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9230 | 0.0163 | 0.3664 | 0.0058 | 1.024 | 2.171 | 0.749 | 0.554 | 1.000 | 1.000 | 1.000 | 0.970 | 7.86 | 6 | 9 | 11 | 1.782 | 0.76 | 0.02 | 0.00 |
| | 300 | 0.9050 | 0.0108 | 0.3697 | 0.0075 | 1.029 | 2.362 | 0.688 | 0.524 | 1.000 | 1.000 | 0.999 | 0.963 | 7.75 | 6 | 9 | 11 | 1.710 | 0.69 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9008 | 0.0315 | 0.3639 | 0.0011 | 1.028 | 2.395 | 0.695 | 0.584 | 1.000 | 1.000 | 0.999 | 0.959 | 7.63 | 6 | 9 | 10 | 1.730 | 0.71 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8641 | 0.0155 | 0.3700 | 0.0016 | 1.035 | 2.719 | 0.584 | 0.496 | 1.000 | 1.000 | 0.999 | 0.950 | 7.41 | 6 | 9 | 10 | 1.627 | 0.60 | 0.03 | 0.00 |
| | 300 | 0.8419 | 0.0102 | 0.3727 | 0.0016 | 1.041 | 2.910 | 0.507 | 0.450 | 1.000 | 1.000 | 0.998 | 0.942 | 7.27 | 6 | 9 | 10 | 1.546 | 0.53 | 0.02 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9979 | 0.1206 | 0.6137 | 0.5379 | 1.036 | 2.269 | 0.990 | 0.009 | 1.000 | 0.240 | 0.131 | 0.128 | 16.93 | 7 | 28 | 53 | - | - | - | - |
| | 200 | 0.9955 | 0.0807 | 0.6687 | 0.6190 | 1.046 | 2.500 | 0.978 | 0.003 | 1.000 | 0.203 | 0.118 | 0.098 | 21.04 | 8 | 37 | 71 | - | - | - | - |
| | 300 | 0.9937 | 0.0598 | 0.6913 | 0.6529 | 1.052 | 2.668 | 0.970 | 0.005 | 1.000 | 0.201 | 0.099 | 0.085 | 22.84 | 8 | 42 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9845 | 0.0417 | 0.3518 | 0.3111 | 1.019 | 1.842 | 0.949 | 0.076 | 1.000 | 0.067 | 0.037 | 0.045 | 9.05 | 5 | 15 | 26 | - | - | - | - |
| | 200 | 0.9820 | 0.0280 | 0.4147 | 0.3870 | 1.027 | 2.036 | 0.940 | 0.049 | 1.000 | 0.066 | 0.042 | 0.034 | 10.49 | 5 | 19 | 29 | - | - | - | - |
| | 300 | 0.9797 | 0.0209 | 0.4434 | 0.4199 | 1.030 | 2.142 | 0.936 | 0.033 | 1.000 | 0.062 | 0.029 | 0.027 | 11.13 | 5 | 20 | 33 | - | - | - | - |

Notes: See notes to Table 100.

## Table 285: MC findings for DGPIV(b)

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0385 | 0.3854 | 0.0093 | 1.004 | 1.171 | 1.000 | 0.332 | 1.000 | 1.000 | 1.000 | 1.000 | 8.81 | 8 | 10 | 12 | 2.003 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0188 | 0.3808 | 0.0119 | 1.005 | 1.188 | 0.999 | 0.389 | 1.000 | 1.000 | 1.000 | 1.000 | 8.73 | 8 | 10 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9996 | 0.0123 | 0.3763 | 0.0112 | 1.004 | 1.182 | 0.999 | 0.440 | 1.000 | 1.000 | 1.000 | 1.000 | 8.66 | 8 | 10 | 12 | 2.009 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0370 | 0.3764 | 0.0048 | 1.004 | 1.146 | 1.000 | 0.418 | 1.000 | 1.000 | 1.000 | 1.000 | 8.66 | 8 | 10 | 12 | 2.004 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0180 | 0.3711 | 0.0058 | 1.004 | 1.166 | 0.998 | 0.487 | 1.000 | 1.000 | 1.000 | 1.000 | 8.57 | 8 | 10 | 12 | 2.011 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9994 | 0.0118 | 0.3673 | 0.0059 | 1.004 | 1.158 | 0.999 | 0.532 | 1.000 | 1.000 | 1.000 | 1.000 | 8.51 | 8 | 9 | 11 | 2.010 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9995 | 0.0346 | 0.3616 | 0.0009 | 1.004 | 1.120 | 0.999 | 0.593 | 1.000 | 1.000 | 1.000 | 0.999 | 8.42 | 8 | 9 | 11 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9960 | 0.0168 | 0.3574 | 0.0014 | 1.005 | 1.233 | 0.990 | 0.657 | 1.000 | 1.000 | 1.000 | 0.999 | 8.33 | 8 | 9 | 10 | 2.008 | 0.99 | 0.02 | 0.00 |
| | 300 | 0.9962 | 0.0111 | 0.3553 | 0.0012 | 1.004 | 1.222 | 0.990 | 0.686 | 1.000 | 1.000 | 1.000 | 1.000 | 8.30 | 8 | 9 | 10 | 2.010 | 0.99 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.9997 | 0.0383 | 0.3846 | 0.0080 | 1.004 | 1.165 | 0.999 | 0.335 | 1.000 | 1.000 | 1.000 | 1.000 | 8.79 | 8 | 10 | 12 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9986 | 0.0187 | 0.3804 | 0.0109 | 1.005 | 1.208 | 0.997 | 0.391 | 1.000 | 1.000 | 1.000 | 1.000 | 8.72 | 8 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9985 | 0.0122 | 0.3758 | 0.0102 | 1.004 | 1.201 | 0.995 | 0.443 | 1.000 | 1.000 | 1.000 | 1.000 | 8.64 | 8 | 10 | 12 | 2.001 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9995 | 0.0369 | 0.3760 | 0.0041 | 1.004 | 1.151 | 0.998 | 0.421 | 1.000 | 1.000 | 1.000 | 1.000 | 8.65 | 8 | 10 | 12 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9975 | 0.0179 | 0.3710 | 0.0050 | 1.005 | 1.212 | 0.994 | 0.489 | 1.000 | 1.000 | 1.000 | 1.000 | 8.56 | 8 | 10 | 12 | 2.001 | 0.99 | 0.01 | 0.00 |
| | 300 | 0.9972 | 0.0117 | 0.3673 | 0.0052 | 1.004 | 1.217 | 0.991 | 0.532 | 1.000 | 1.000 | 1.000 | 1.000 | 8.50 | 8 | 9 | 11 | 1.998 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9982 | 0.0346 | 0.3618 | 0.0008 | 1.004 | 1.162 | 0.994 | 0.591 | 1.000 | 1.000 | 1.000 | 0.999 | 8.42 | 8 | 9 | 11 | 2.004 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9922 | 0.0168 | 0.3581 | 0.0011 | 1.005 | 1.344 | 0.978 | 0.652 | 1.000 | 1.000 | 1.000 | 0.999 | 8.31 | 8 | 9 | 10 | 1.988 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9905 | 0.0111 | 0.3566 | 0.0012 | 1.006 | 1.393 | 0.972 | 0.674 | 1.000 | 1.000 | 1.000 | 1.000 | 8.27 | 8 | 9 | 10 | 1.983 | 0.97 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1206 | 0.5918 | 0.5142 | 1.022 | 2.278 | 1.000 | 0.008 | 1.000 | 0.232 | 0.133 | 0.120 | 16.94 | 8 | 36 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.0760 | 0.6719 | 0.6225 | 1.026 | 2.452 | 1.000 | 0.004 | 1.000 | 0.205 | 0.115 | 0.115 | 20.12 | 10 | 34 | 75 | - | - | - | - |
| | 300 | 0.9998 | 0.0625 | 0.7096 | 0.6729 | 1.029 | 2.582 | 0.999 | 0.004 | 1.000 | 0.205 | 0.123 | 0.088 | 23.67 | 9 | 38 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9985 | 0.0247 | 0.2400 | 0.2117 | 1.005 | 1.405 | 0.996 | 0.218 | 1.000 | 0.047 | 0.027 | 0.023 | 7.44 | 5 | 13 | 23 | - | - | - | - |
| | 200 | 0.9991 | 0.0159 | 0.2954 | 0.2744 | 1.006 | 1.482 | 0.997 | 0.133 | 1.000 | 0.040 | 0.019 | 0.023 | 8.16 | 5 | 13 | 29 | - | - | - | - |
| | 300 | 0.9991 | 0.0127 | 0.3351 | 0.3198 | 1.007 | 1.552 | 0.997 | 0.095 | 1.000 | 0.042 | 0.026 | 0.016 | 8.79 | 5 | 14 | 28 | - | - | - | - |

Notes: See notes to Table 100.

## Table 286: MC findings for DGPIV(b)

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5258 | 0.0257 | 0.4027 | 0.0229 | 1.071 | 1.990 | 0.010 | 0.010 | 1.000 | 0.981 | 0.810 | 0.537 | 5.17 | 3 | 7 | 9 | 1.568 | 0.54 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4938 | 0.0126 | 0.4092 | 0.0269 | 1.078 | 2.034 | 0.006 | 0.003 | 1.000 | 0.981 | 0.793 | 0.512 | 4.98 | 3 | 7 | 9 | 1.564 | 0.55 | 0.02 | 0.00 |
| | 300 | 0.4778 | 0.0084 | 0.4160 | 0.0307 | 1.084 | 2.089 | 0.004 | 0.004 | 1.000 | 0.978 | 0.801 | 0.496 | 4.91 | 3 | 7 | 10 | 1.580 | 0.56 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.5056 | 0.0240 | 0.3926 | 0.0129 | 1.073 | 2.004 | 0.009 | 0.008 | 1.000 | 0.976 | 0.779 | 0.498 | 4.90 | 3 | 7 | 9 | 1.593 | 0.57 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4781 | 0.0117 | 0.3962 | 0.0149 | 1.078 | 2.040 | 0.004 | 0.003 | 1.000 | 0.975 | 0.761 | 0.469 | 4.72 | 3 | 7 | 9 | 1.603 | 0.59 | 0.01 | 0.00 |
| | 300 | 0.4615 | 0.0078 | 0.4042 | 0.0169 | 1.085 | 2.085 | 0.001 | 0.001 | 1.000 | 0.975 | 0.771 | 0.454 | 4.64 | 3 | 7 | 9 | 1.600 | 0.59 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.4625 | 0.0214 | 0.3773 | 0.0035 | 1.079 | 2.050 | 0.003 | 0.003 | 1.000 | 0.959 | 0.706 | 0.411 | 4.43 | 2 | 6 | 8 | 1.641 | 0.64 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4401 | 0.0105 | 0.3817 | 0.0046 | 1.087 | 2.075 | 0.001 | 0.001 | 1.000 | 0.957 | 0.695 | 0.391 | 4.28 | 2 | 6 | 8 | 1.627 | 0.62 | 0.01 | 0.00 |
| | 300 | 0.4205 | 0.0069 | 0.3876 | 0.0052 | 1.094 | 2.124 | 0.000 | 0.000 | 1.000 | 0.959 | 0.694 | 0.373 | 4.17 | 2 | 6 | 8 | 1.602 | 0.60 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4596 | 0.0253 | 0.4219 | 0.0200 | 1.086 | 2.089 | 0.002 | 0.002 | 1.000 | 0.981 | 0.810 | 0.537 | 4.80 | 3 | 7 | 9 | 1.416 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4246 | 0.0124 | 0.4318 | 0.0258 | 1.097 | 2.143 | 0.001 | 0.001 | 1.000 | 0.981 | 0.793 | 0.512 | 4.60 | 2 | 7 | 9 | 1.415 | 0.41 | 0.00 | 0.00 |
| | 300 | 0.4008 | 0.0083 | 0.4418 | 0.0291 | 1.106 | 2.205 | 0.000 | 0.000 | 1.000 | 0.978 | 0.801 | 0.496 | 4.49 | 2 | 6 | 9 | 1.396 | 0.39 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4403 | 0.0237 | 0.4127 | 0.0111 | 1.089 | 2.109 | 0.001 | 0.001 | 1.000 | 0.976 | 0.779 | 0.498 | 4.55 | 2 | 6 | 9 | 1.454 | 0.45 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4036 | 0.0116 | 0.4212 | 0.0139 | 1.101 | 2.158 | 0.001 | 0.001 | 1.000 | 0.975 | 0.761 | 0.469 | 4.32 | 2 | 6 | 9 | 1.433 | 0.43 | 0.00 | 0.00 |
| | 300 | 0.3843 | 0.0077 | 0.4304 | 0.0156 | 1.108 | 2.203 | 0.000 | 0.000 | 1.000 | 0.975 | 0.771 | 0.454 | 4.23 | 2 | 6 | 8 | 1.415 | 0.41 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3939 | 0.0212 | 0.4003 | 0.0029 | 1.101 | 2.165 | 0.000 | 0.000 | 1.000 | 0.959 | 0.706 | 0.411 | 4.07 | 2 | 6 | 8 | 1.487 | 0.49 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3610 | 0.0104 | 0.4092 | 0.0042 | 1.114 | 2.201 | 0.000 | 0.000 | 1.000 | 0.957 | 0.695 | 0.391 | 3.88 | 2 | 6 | 8 | 1.440 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.3443 | 0.0069 | 0.4148 | 0.0044 | 1.121 | 2.236 | 0.000 | 0.000 | 1.000 | 0.959 | 0.694 | 0.373 | 3.78 | 2 | 6 | 8 | 1.399 | 0.40 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6952 | 0.0607 | 0.4450 | 0.3811 | 1.117 | 1.832 | 0.104 | 0.000 | 1.000 | 0.145 | 0.070 | 0.074 | 9.49 | 2 | 22 | 39 | - | - | - | - |
| | 200 | 0.6663 | 0.0421 | 0.5144 | 0.4694 | 1.132 | 1.895 | 0.058 | 0.000 | 1.000 | 0.148 | 0.060 | 0.049 | 11.71 | 2 | 29 | 71 | - | - | - | - |
| | 300 | 0.6585 | 0.0358 | 0.5649 | 0.5246 | 1.143 | 1.954 | 0.047 | 0.000 | 1.000 | 0.143 | 0.066 | 0.049 | 14.01 | 3 | 35.5 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4534 | 0.0199 | 0.1541 | 0.1355 | 1.136 | 2.186 | 0.045 | 0.002 | 1.000 | 0.029 | 0.017 | 0.023 | 4.24 | 1 | 15 | 30 | - | - | - | - |
| | 200 | 0.4603 | 0.0176 | 0.2308 | 0.2154 | 1.148 | 2.304 | 0.031 | 0.000 | 1.000 | 0.042 | 0.015 | 0.017 | 5.81 | 1 | 21 | 53 | - | - | - | - |
| | 300 | 0.4719 | 0.0172 | 0.2913 | 0.2770 | 1.165 | 2.424 | 0.024 | 0.000 | 1.000 | 0.043 | 0.018 | 0.015 | 7.49 | 1 | 25.5 | 41 | - | - | - | - |

Notes: See notes to Table 100.

## Table 287: MC findings for DGPIV(b)

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7857 | 0.0328 | 0.3996 | 0.0137 | 1.028 | 2.307 | 0.322 | 0.240 | 1.000 | 1.000 | 1.000 | 0.977 | 7.18 | 6 | 9 | 13 | 1.462 | 0.42 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7359 | 0.0161 | 0.4093 | 0.0138 | 1.032 | 2.515 | 0.207 | 0.166 | 1.000 | 1.000 | 1.000 | 0.973 | 6.89 | 5 | 9 | 12 | 1.357 | 0.32 | 0.03 | 0.00 |
| | 300 | 0.7217 | 0.0107 | 0.4128 | 0.0154 | 1.035 | 2.598 | 0.192 | 0.160 | 1.000 | 1.000 | 1.000 | 0.972 | 6.81 | 5 | 8 | 11 | 1.354 | 0.32 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 0.7518 | 0.0317 | 0.4007 | 0.0069 | 1.030 | 2.439 | 0.249 | 0.206 | 1.000 | 1.000 | 1.000 | 0.971 | 6.90 | 5 | 8 | 10 | 1.406 | 0.36 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7072 | 0.0157 | 0.4102 | 0.0074 | 1.034 | 2.618 | 0.155 | 0.135 | 1.000 | 1.000 | 1.000 | 0.964 | 6.65 | 5 | 8 | 10 | 1.323 | 0.29 | 0.04 | 0.00 |
| | 300 | 0.6902 | 0.0104 | 0.4146 | 0.0076 | 1.038 | 2.712 | 0.141 | 0.124 | 1.000 | 1.000 | 1.000 | 0.967 | 6.56 | 5 | 8 | 10 | 1.315 | 0.28 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.6773 | 0.0306 | 0.4121 | 0.0020 | 1.037 | 2.736 | 0.122 | 0.112 | 1.000 | 1.000 | 0.999 | 0.953 | 6.41 | 5 | 8 | 9 | 1.325 | 0.28 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6603 | 0.0151 | 0.4146 | 0.0022 | 1.039 | 2.805 | 0.082 | 0.075 | 1.000 | 1.000 | 1.000 | 0.938 | 6.30 | 5 | 8 | 9 | 1.318 | 0.28 | 0.03 | 0.00 |
| | 300 | 0.6416 | 0.0100 | 0.4195 | 0.0017 | 1.042 | 2.901 | 0.073 | 0.068 | 1.000 | 1.000 | 1.000 | 0.942 | 6.20 | 5 | 8 | 10 | 1.319 | 0.29 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.7447 | 0.0326 | 0.4082 | 0.0122 | 1.032 | 2.466 | 0.186 | 0.142 | 1.000 | 1.000 | 1.000 | 0.977 | 6.96 | 5 | 9 | 13 | 1.257 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7001 | 0.0161 | 0.4172 | 0.0130 | 1.035 | 2.646 | 0.103 | 0.086 | 1.000 | 1.000 | 1.000 | 0.973 | 6.70 | 5 | 8 | 11 | 1.189 | 0.18 | 0.01 | 0.00 |
| | 300 | 0.6848 | 0.0107 | 0.4209 | 0.0143 | 1.039 | 2.730 | 0.086 | 0.074 | 1.000 | 1.000 | 1.000 | 0.972 | 6.61 | 5 | 8 | 10 | 1.183 | 0.17 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7123 | 0.0316 | 0.4096 | 0.0063 | 1.035 | 2.587 | 0.133 | 0.114 | 1.000 | 1.000 | 1.000 | 0.971 | 6.69 | 5 | 8 | 10 | 1.221 | 0.21 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6751 | 0.0156 | 0.4177 | 0.0069 | 1.038 | 2.739 | 0.072 | 0.064 | 1.000 | 1.000 | 1.000 | 0.964 | 6.48 | 5 | 8 | 10 | 1.180 | 0.17 | 0.01 | 0.00 |
| | 300 | 0.6570 | 0.0104 | 0.4226 | 0.0072 | 1.041 | 2.830 | 0.059 | 0.053 | 1.000 | 1.000 | 1.000 | 0.967 | 6.38 | 5 | 8 | 9 | 1.171 | 0.16 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6486 | 0.0304 | 0.4189 | 0.0017 | 1.041 | 2.836 | 0.061 | 0.059 | 1.000 | 1.000 | 0.999 | 0.953 | 6.26 | 5 | 8 | 9 | 1.204 | 0.19 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6318 | 0.0150 | 0.4219 | 0.0020 | 1.042 | 2.909 | 0.039 | 0.038 | 1.000 | 1.000 | 1.000 | 0.938 | 6.15 | 5 | 8 | 9 | 1.212 | 0.20 | 0.01 | 0.00 |
| | 300 | 0.6132 | 0.0100 | 0.4268 | 0.0017 | 1.046 | 3.005 | 0.032 | 0.032 | 1.000 | 1.000 | 1.000 | 0.942 | 6.05 | 5 | 7 | 9 | 1.218 | 0.20 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9407 | 0.0966 | 0.5508 | 0.4769 | 1.037 | 2.226 | 0.729 | 0.006 | 1.000 | 0.195 | 0.124 | 0.107 | 14.26 | 5 | 27 | 48 | - | - | - | - |
| | 200 | 0.9039 | 0.0593 | 0.5985 | 0.5469 | 1.045 | 2.436 | 0.577 | 0.002 | 1.000 | 0.195 | 0.113 | 0.083 | 16.32 | 5 | 35 | 62 | - | - | - | - |
| | 300 | 0.8933 | 0.0439 | 0.6163 | 0.5754 | 1.049 | 2.511 | 0.525 | 0.001 | 1.000 | 0.178 | 0.088 | 0.068 | 17.61 | 5 | 38 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8435 | 0.0404 | 0.3272 | 0.2893 | 1.042 | 2.412 | 0.591 | 0.023 | 1.000 | 0.070 | 0.043 | 0.038 | 8.22 | 2 | 16 | 26 | - | - | - | - |
| | 200 | 0.8076 | 0.0253 | 0.3752 | 0.3476 | 1.051 | 2.657 | 0.461 | 0.006 | 1.000 | 0.064 | 0.039 | 0.030 | 9.07 | 2 | 19 | 39 | - | - | - | - |
| | 300 | 0.8040 | 0.0193 | 0.4026 | 0.3808 | 1.054 | 2.755 | 0.420 | 0.004 | 1.000 | 0.069 | 0.027 | 0.027 | 9.80 | 2 | 21 | 38 | - | - | - | - |

Notes: See notes to Table 100.

## Table 288: MC findings for DGPIV(b)

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9512 | 0.0347 | 0.3728 | 0.0102 | 1.009 | 1.666 | 0.818 | 0.521 | 1.000 | 1.000 | 1.000 | 1.000 | 8.19 | 7 | 10 | 11 | 1.862 | 0.83 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9241 | 0.0170 | 0.3752 | 0.0114 | 1.012 | 1.903 | 0.729 | 0.494 | 1.000 | 1.000 | 1.000 | 1.000 | 8.00 | 6 | 9 | 11 | 1.787 | 0.74 | 0.04 | 0.00 |
| | 300 | 0.9125 | 0.0113 | 0.3773 | 0.0127 | 1.013 | 2.038 | 0.685 | 0.467 | 1.000 | 1.000 | 1.000 | 1.000 | 7.93 | 6 | 9 | 12 | 1.733 | 0.70 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9332 | 0.0335 | 0.3691 | 0.0054 | 1.011 | 1.818 | 0.759 | 0.548 | 1.000 | 1.000 | 1.000 | 1.000 | 7.98 | 6 | 9 | 11 | 1.811 | 0.78 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8979 | 0.0163 | 0.3728 | 0.0054 | 1.014 | 2.098 | 0.649 | 0.506 | 1.000 | 1.000 | 1.000 | 1.000 | 7.73 | 6 | 9 | 11 | 1.703 | 0.67 | 0.04 | 0.00 |
| | 300 | 0.8870 | 0.0109 | 0.3757 | 0.0066 | 1.015 | 2.223 | 0.608 | 0.469 | 1.000 | 1.000 | 1.000 | 0.999 | 7.69 | 6 | 9 | 11 | 1.666 | 0.63 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.8780 | 0.0319 | 0.3717 | 0.0013 | 1.016 | 2.243 | 0.591 | 0.499 | 1.000 | 1.000 | 1.000 | 0.998 | 7.55 | 6 | 9 | 11 | 1.653 | 0.62 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8399 | 0.0156 | 0.3775 | 0.0012 | 1.020 | 2.494 | 0.484 | 0.428 | 1.000 | 1.000 | 1.000 | 0.998 | 7.31 | 6 | 9 | 10 | 1.548 | 0.52 | 0.03 | 0.00 |
| | 300 | 0.8233 | 0.0104 | 0.3816 | 0.0017 | 1.021 | 2.653 | 0.429 | 0.388 | 1.000 | 1.000 | 1.000 | 0.998 | 7.23 | 6 | 8 | 10 | 1.498 | 0.47 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.9196 | 0.0346 | 0.3791 | 0.0093 | 1.013 | 1.946 | 0.678 | 0.439 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 6 | 9 | 11 | 1.701 | 0.69 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8841 | 0.0169 | 0.3833 | 0.0108 | 1.017 | 2.217 | 0.556 | 0.378 | 1.000 | 1.000 | 1.000 | 1.000 | 7.79 | 6 | 9 | 11 | 1.581 | 0.57 | 0.01 | 0.00 |
| | 300 | 0.8697 | 0.0112 | 0.3858 | 0.0116 | 1.018 | 2.366 | 0.494 | 0.349 | 1.000 | 1.000 | 1.000 | 1.000 | 7.70 | 6 | 9 | 11 | 1.516 | 0.51 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8963 | 0.0334 | 0.3767 | 0.0046 | 1.015 | 2.121 | 0.601 | 0.437 | 1.000 | 1.000 | 1.000 | 1.000 | 7.79 | 6 | 9 | 11 | 1.625 | 0.61 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8590 | 0.0163 | 0.3812 | 0.0052 | 1.019 | 2.382 | 0.483 | 0.376 | 1.000 | 1.000 | 1.000 | 1.000 | 7.54 | 6 | 9 | 11 | 1.508 | 0.50 | 0.01 | 0.00 |
| | 300 | 0.8447 | 0.0108 | 0.3846 | 0.0060 | 1.020 | 2.526 | 0.425 | 0.334 | 1.000 | 1.000 | 1.000 | 0.999 | 7.47 | 6 | 9 | 11 | 1.455 | 0.45 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8410 | 0.0319 | 0.3798 | 0.0012 | 1.020 | 2.501 | 0.438 | 0.372 | 1.000 | 1.000 | 1.000 | 0.998 | 7.36 | 6 | 9 | 11 | 1.474 | 0.46 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8034 | 0.0156 | 0.3855 | 0.0012 | 1.024 | 2.726 | 0.336 | 0.297 | 1.000 | 1.000 | 1.000 | 0.998 | 7.12 | 6 | 8 | 10 | 1.370 | 0.36 | 0.01 | 0.00 |
| | 300 | 0.7854 | 0.0104 | 0.3900 | 0.0017 | 1.025 | 2.886 | 0.275 | 0.246 | 1.000 | 1.000 | 1.000 | 0.998 | 7.04 | 6 | 8 | 10 | 1.318 | 0.31 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9902 | 0.1098 | 0.5911 | 0.5154 | 1.021 | 2.230 | 0.953 | 0.011 | 1.000 | 0.246 | 0.140 | 0.118 | 15.82 | 6.5 | 26 | 53 | - | - | - | - |
| | 200 | 0.9803 | 0.0737 | 0.6415 | 0.5917 | 1.027 | 2.429 | 0.906 | 0.004 | 1.000 | 0.205 | 0.126 | 0.098 | 19.58 | 7 | 35 | 74 | - | - | - | - |
| | 300 | 0.9737 | 0.0527 | 0.6468 | 0.6088 | 1.032 | 2.639 | 0.874 | 0.006 | 1.000 | 0.207 | 0.095 | 0.070 | 20.62 | 7 | 42 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9669 | 0.0323 | 0.3003 | 0.2656 | 1.013 | 1.898 | 0.896 | 0.094 | 1.000 | 0.072 | 0.034 | 0.032 | 8.03 | 4 | 13 | 25 | - | - | - | - |
| | 200 | 0.9574 | 0.0215 | 0.3568 | 0.3317 | 1.016 | 2.061 | 0.846 | 0.060 | 1.000 | 0.059 | 0.025 | 0.029 | 9.07 | 4 | 16 | 28 | - | - | - | - |
| | 300 | 0.9448 | 0.0159 | 0.3765 | 0.3566 | 1.020 | 2.283 | 0.802 | 0.042 | 1.000 | 0.059 | 0.025 | 0.019 | 9.49 | 4 | 18 | 34 | - | - | - | - |

Notes: See notes to Table 100.

### 3.3.5 Findings for designs featuring many signals

## Table 289: MC findings for DGPV

$T = 100$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2549 | 0.0269 | 0.3687 | 0.0206 | 1.002 | 0.819 | 0.000 | 1.000 | 0.984 | 0.800 | 0.536 | 5.54 | 4 | 7 | 10 | 1.165 | 0.16 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2394 | 0.0129 | 0.3789 | 0.0241 | 1.009 | 0.851 | 0.000 | 1.000 | 0.979 | 0.805 | 0.521 | 5.35 | 3 | 7 | 10 | 1.128 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.2352 | 0.0083 | 0.3767 | 0.0277 | 1.013 | 0.872 | 0.000 | 1.000 | 0.980 | 0.775 | 0.478 | 5.25 | 3 | 7 | 9 | 1.149 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2424 | 0.0253 | 0.3618 | 0.0120 | 1.004 | 0.834 | 0.000 | 1.000 | 0.976 | 0.768 | 0.495 | 5.24 | 3 | 7 | 9 | 1.151 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2294 | 0.0122 | 0.3713 | 0.0146 | 1.011 | 0.867 | 0.000 | 1.000 | 0.972 | 0.779 | 0.486 | 5.09 | 3 | 7 | 9 | 1.123 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.2252 | 0.0078 | 0.3673 | 0.0155 | 1.015 | 0.885 | 0.000 | 1.000 | 0.972 | 0.748 | 0.448 | 4.97 | 3 | 7 | 9 | 1.142 | 0.14 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2213 | 0.0228 | 0.3507 | 0.0032 | 1.011 | 0.874 | 0.000 | 1.000 | 0.963 | 0.702 | 0.414 | 4.76 | 3 | 6 | 8 | 1.153 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2116 | 0.0109 | 0.3542 | 0.0044 | 1.017 | 0.904 | 0.000 | 1.000 | 0.948 | 0.701 | 0.412 | 4.63 | 3 | 6 | 8 | 1.132 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.2072 | 0.0069 | 0.3496 | 0.0044 | 1.019 | 0.916 | 0.000 | 1.000 | 0.948 | 0.677 | 0.368 | 4.51 | 3 | 6 | 8 | 1.130 | 0.13 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2467 | 0.0266 | 0.3721 | 0.0174 | 1.002 | 0.808 | 0.000 | 1.000 | 0.984 | 0.800 | 0.536 | 5.41 | 3 | 7 | 10 | 1.067 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2333 | 0.0128 | 0.3813 | 0.0213 | 1.009 | 0.846 | 0.000 | 1.000 | 0.979 | 0.805 | 0.520 | 5.26 | 3 | 7 | 10 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2276 | 0.0082 | 0.3800 | 0.0246 | 1.013 | 0.862 | 0.000 | 1.000 | 0.980 | 0.775 | 0.478 | 5.13 | 3 | 7 | 9 | 1.054 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2351 | 0.0251 | 0.3657 | 0.0102 | 1.006 | 0.832 | 0.000 | 1.000 | 0.976 | 0.768 | 0.494 | 5.13 | 3 | 7 | 9 | 1.072 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2234 | 0.0121 | 0.3746 | 0.0130 | 1.012 | 0.867 | 0.000 | 1.000 | 0.972 | 0.779 | 0.486 | 5.01 | 3 | 7 | 9 | 1.056 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.2170 | 0.0077 | 0.3720 | 0.0139 | 1.016 | 0.885 | 0.000 | 1.000 | 0.972 | 0.748 | 0.448 | 4.86 | 3 | 6.5 | 9 | 1.055 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2136 | 0.0228 | 0.3560 | 0.0031 | 1.013 | 0.879 | 0.000 | 1.000 | 0.963 | 0.702 | 0.414 | 4.66 | 3 | 6 | 8 | 1.079 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2054 | 0.0109 | 0.3581 | 0.0037 | 1.019 | 0.907 | 0.000 | 1.000 | 0.948 | 0.701 | 0.412 | 4.55 | 3 | 6 | 8 | 1.070 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.2007 | 0.0069 | 0.3540 | 0.0041 | 1.022 | 0.919 | 0.000 | 1.000 | 0.948 | 0.677 | 0.368 | 4.43 | 3 | 6 | 8 | 1.068 | 0.07 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3981 | 0.0731 | 0.4603 | 0.4310 | 1.046 | 0.800 | 0.000 | 1.000 | 0.175 | 0.101 | 0.083 | 11.51 | 4 | 22.5 | 39 | - | - | - | - |
| | 200 | 0.3764 | 0.0526 | 0.5575 | 0.5339 | 1.062 | 0.845 | 0.000 | 1.000 | 0.176 | 0.098 | 0.068 | 14.62 | 4 | 31 | 78 | - | - | - | - |
| | 300 | 0.3673 | 0.0420 | 0.6030 | 0.5849 | 1.071 | 0.884 | 0.000 | 1.000 | 0.167 | 0.078 | 0.057 | 16.67 | 5 | 35 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2585 | 0.0196 | 0.1479 | 0.1426 | 1.036 | 0.907 | 0.000 | 1.000 | 0.028 | 0.021 | 0.023 | 4.90 | 2 | 14 | 27 | - | - | - | - |
| | 200 | 0.2594 | 0.0165 | 0.2250 | 0.2180 | 1.048 | 0.981 | 0.000 | 1.000 | 0.045 | 0.025 | 0.026 | 6.29 | 2 | 18 | 42 | - | - | - | - |
| | 300 | 0.2630 | 0.0140 | 0.2662 | 0.2608 | 1.057 | 1.039 | 0.000 | 1.000 | 0.033 | 0.020 | 0.015 | 7.24 | 2 | 21 | 41 | - | - | - | - |

Notes: See notes to Table 190.

## Table 290: MC findings for DGPV

$T = 300$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3430 | 0.0336 | 0.3784 | 0.0114 | 1.003 | 0.871 | 0.000 | 1.000 | 1.000 | 1.000 | 0.986 | 7.21 | 6 | 9 | 11 | 1.100 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3278 | 0.0161 | 0.3870 | 0.0129 | 1.005 | 0.892 | 0.000 | 1.000 | 1.000 | 1.000 | 0.978 | 7.03 | 6 | 8 | 11 | 1.082 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.3227 | 0.0106 | 0.3890 | 0.0128 | 1.006 | 0.893 | 0.000 | 1.000 | 1.000 | 1.000 | 0.969 | 6.96 | 6 | 8 | 11 | 1.062 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3296 | 0.0329 | 0.3817 | 0.0058 | 1.005 | 0.879 | 0.000 | 1.000 | 1.000 | 1.000 | 0.979 | 6.99 | 6 | 8 | 10 | 1.085 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3170 | 0.0158 | 0.3885 | 0.0066 | 1.006 | 0.897 | 0.000 | 1.000 | 1.000 | 1.000 | 0.969 | 6.83 | 6 | 8 | 10 | 1.067 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.3127 | 0.0103 | 0.3903 | 0.0067 | 1.006 | 0.899 | 0.000 | 1.000 | 1.000 | 0.999 | 0.963 | 6.77 | 6 | 8 | 10 | 1.052 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3052 | 0.0324 | 0.3916 | 0.0017 | 1.007 | 0.905 | 0.000 | 1.000 | 1.000 | 1.000 | 0.962 | 6.64 | 6 | 8 | 9 | 1.073 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2954 | 0.0154 | 0.3963 | 0.0018 | 1.007 | 0.920 | 0.000 | 1.000 | 1.000 | 1.000 | 0.947 | 6.51 | 6 | 8 | 9 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2925 | 0.0101 | 0.3971 | 0.0010 | 1.008 | 0.922 | 0.000 | 1.000 | 1.000 | 0.999 | 0.943 | 6.46 | 6 | 7 | 9 | 1.036 | 0.04 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3371 | 0.0335 | 0.3810 | 0.0104 | 1.004 | 0.857 | 0.000 | 1.000 | 1.000 | 1.000 | 0.986 | 7.13 | 6 | 9 | 11 | 1.042 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3222 | 0.0161 | 0.3897 | 0.0120 | 1.005 | 0.877 | 0.000 | 1.000 | 1.000 | 1.000 | 0.978 | 6.95 | 6 | 8 | 11 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3191 | 0.0105 | 0.3905 | 0.0118 | 1.006 | 0.880 | 0.000 | 1.000 | 1.000 | 1.000 | 0.969 | 6.90 | 6 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3242 | 0.0329 | 0.3846 | 0.0055 | 1.004 | 0.869 | 0.000 | 1.000 | 1.000 | 1.000 | 0.979 | 6.92 | 6 | 8 | 10 | 1.033 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3124 | 0.0157 | 0.3910 | 0.0063 | 1.006 | 0.886 | 0.000 | 1.000 | 1.000 | 1.000 | 0.969 | 6.77 | 6 | 8 | 10 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3095 | 0.0103 | 0.3918 | 0.0060 | 1.007 | 0.889 | 0.000 | 1.000 | 1.000 | 0.999 | 0.963 | 6.73 | 6 | 8 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3006 | 0.0323 | 0.3943 | 0.0016 | 1.007 | 0.896 | 0.000 | 1.000 | 1.000 | 1.000 | 0.962 | 6.58 | 6 | 8 | 9 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2924 | 0.0154 | 0.3981 | 0.0017 | 1.007 | 0.915 | 0.000 | 1.000 | 1.000 | 1.000 | 0.947 | 6.47 | 6 | 8 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2900 | 0.0101 | 0.3986 | 0.0010 | 1.008 | 0.919 | 0.000 | 1.000 | 1.000 | 0.999 | 0.943 | 6.43 | 6 | 7 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4970 | 0.0725 | 0.4259 | 0.3940 | 1.015 | 0.856 | 0.000 | 1.000 | 0.221 | 0.122 | 0.084 | 12.64 | 5 | 23 | 48 | - | - | - | - |
| | 200 | 0.4735 | 0.0475 | 0.5001 | 0.4740 | 1.020 | 0.895 | 0.000 | 1.000 | 0.207 | 0.092 | 0.076 | 14.81 | 5 | 27 | 63 | - | - | - | - |
| | 300 | 0.4583 | 0.0355 | 0.5253 | 0.5041 | 1.024 | 0.921 | 0.000 | 1.000 | 0.187 | 0.080 | 0.063 | 15.87 | 6 | 37 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3557 | 0.0145 | 0.1494 | 0.1411 | 1.013 | 1.002 | 0.000 | 1.000 | 0.037 | 0.026 | 0.016 | 5.60 | 2 | 10 | 18 | - | - | - | - |
| | 200 | 0.3475 | 0.0090 | 0.1858 | 0.1784 | 1.014 | 1.031 | 0.000 | 1.000 | 0.039 | 0.016 | 0.013 | 5.90 | 2 | 11 | 22 | - | - | - | - |
| | 300 | 0.3405 | 0.0072 | 0.2133 | 0.2065 | 1.016 | 1.050 | 0.000 | 1.000 | 0.028 | 0.016 | 0.011 | 6.19 | 2 | 12 | 25 | - | - | - | - |

Notes: See notes to Table 190.

## Table 291: MC findings for DGPV

$T = 500$, $R^2 = 70\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3877 | 0.0338 | 0.3564 | 0.0112 | 1.004 | 0.910 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.76 | 7 | 9 | 12 | 1.098 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3729 | 0.0162 | 0.3631 | 0.0109 | 1.004 | 0.926 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.58 | 7 | 9 | 11 | 1.079 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.3652 | 0.0107 | 0.3691 | 0.0140 | 1.005 | 0.929 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.51 | 7 | 9 | 12 | 1.064 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3761 | 0.0332 | 0.3584 | 0.0059 | 1.004 | 0.909 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.57 | 7 | 9 | 11 | 1.079 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3624 | 0.0159 | 0.3652 | 0.0061 | 1.005 | 0.931 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.41 | 7 | 9 | 10 | 1.065 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.3557 | 0.0105 | 0.3698 | 0.0079 | 1.005 | 0.932 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.34 | 6 | 9 | 11 | 1.057 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3533 | 0.0327 | 0.3668 | 0.0012 | 1.005 | 0.926 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.25 | 6 | 8 | 11 | 1.062 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3412 | 0.0157 | 0.3732 | 0.0012 | 1.006 | 0.955 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.10 | 6 | 8 | 10 | 1.049 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.3378 | 0.0103 | 0.3755 | 0.0019 | 1.006 | 0.956 | 0.000 | 1.000 | 1.000 | 1.000 | 0.997 | 7.07 | 6 | 8 | 10 | 1.046 | 0.05 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3815 | 0.0336 | 0.3584 | 0.0098 | 1.003 | 0.892 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.67 | 7 | 9 | 12 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3677 | 0.0161 | 0.3651 | 0.0099 | 1.004 | 0.911 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.51 | 7 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3612 | 0.0107 | 0.3707 | 0.0133 | 1.005 | 0.917 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.46 | 6 | 9 | 12 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3707 | 0.0331 | 0.3605 | 0.0052 | 1.004 | 0.896 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.50 | 7 | 9 | 11 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3580 | 0.0159 | 0.3672 | 0.0057 | 1.005 | 0.922 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.35 | 6 | 9 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3518 | 0.0105 | 0.3714 | 0.0073 | 1.005 | 0.922 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.29 | 6 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3494 | 0.0327 | 0.3688 | 0.0010 | 1.005 | 0.921 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.20 | 6 | 8 | 10 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3377 | 0.0157 | 0.3751 | 0.0012 | 1.006 | 0.952 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.06 | 6 | 8 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3347 | 0.0103 | 0.3771 | 0.0016 | 1.006 | 0.950 | 0.000 | 1.000 | 1.000 | 1.000 | 0.997 | 7.03 | 6 | 8 | 10 | 1.015 | 0.02 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.5439 | 0.0823 | 0.3922 | 0.3638 | 1.011 | 0.915 | 0.001 | 1.000 | 0.205 | 0.113 | 0.093 | 14.10 | 6 | 30 | 43 | - | - | - | - |
| | 200 | 0.5150 | 0.0413 | 0.4272 | 0.4010 | 1.014 | 0.937 | 0.000 | 1.000 | 0.192 | 0.103 | 0.067 | 14.10 | 6 | 38 | 57 | - | - | - | - |
| | 300 | 0.5045 | 0.0315 | 0.4803 | 0.4583 | 1.016 | 0.948 | 0.000 | 1.000 | 0.166 | 0.091 | 0.066 | 15.26 | 6 | 36 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3896 | 0.0077 | 0.0849 | 0.0802 | 1.005 | 0.954 | 0.000 | 1.000 | 0.029 | 0.010 | 0.007 | 5.38 | 3 | 8 | 13 | - | - | - | - |
| | 200 | 0.3818 | 0.0038 | 0.0900 | 0.0856 | 1.006 | 0.965 | 0.000 | 1.000 | 0.014 | 0.010 | 0.005 | 5.32 | 3 | 8.5 | 14 | - | - | - | - |
| | 300 | 0.3780 | 0.0029 | 0.0997 | 0.0957 | 1.006 | 0.975 | 0.000 | 1.000 | 0.014 | 0.009 | 0.006 | 5.37 | 3 | 9 | 18 | - | - | - | - |

Notes: See notes to Table 190.

## Table 292: MC findings for DGPV

$T = 100$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2204 | 0.0271 | 0.3950 | 0.0221 | 0.990 | 0.696 | 0.000 | 1.000 | 0.981 | 0.810 | 0.543 | 5.14 | 3 | 7 | 9 | 1.164 | 0.16 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2125 | 0.0127 | 0.3936 | 0.0247 | 0.992 | 0.704 | 0.000 | 1.000 | 0.979 | 0.777 | 0.505 | 4.98 | 3 | 7 | 9 | 1.159 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.2103 | 0.0084 | 0.3951 | 0.0280 | 0.995 | 0.723 | 0.000 | 1.000 | 0.976 | 0.778 | 0.494 | 4.97 | 3 | 7 | 9 | 1.197 | 0.19 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.2132 | 0.0253 | 0.3835 | 0.0117 | 0.988 | 0.684 | 0.000 | 1.000 | 0.975 | 0.782 | 0.493 | 4.89 | 3 | 7 | 9 | 1.181 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2081 | 0.0119 | 0.3803 | 0.0147 | 0.990 | 0.695 | 0.000 | 1.000 | 0.973 | 0.743 | 0.466 | 4.78 | 3 | 7 | 9 | 1.194 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.2059 | 0.0078 | 0.3806 | 0.0154 | 0.992 | 0.711 | 0.000 | 1.000 | 0.973 | 0.743 | 0.452 | 4.74 | 3 | 7 | 8 | 1.230 | 0.23 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2027 | 0.0229 | 0.3637 | 0.0032 | 0.987 | 0.680 | 0.000 | 1.000 | 0.957 | 0.715 | 0.412 | 4.54 | 3 | 6 | 8 | 1.258 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2003 | 0.0106 | 0.3562 | 0.0043 | 0.987 | 0.681 | 0.000 | 1.000 | 0.954 | 0.675 | 0.379 | 4.44 | 3 | 6 | 8 | 1.321 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.2003 | 0.0069 | 0.3538 | 0.0044 | 0.989 | 0.692 | 0.000 | 1.000 | 0.953 | 0.667 | 0.372 | 4.42 | 3 | 6 | 8 | 1.350 | 0.35 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2157 | 0.0268 | 0.3961 | 0.0188 | 0.988 | 0.679 | 0.000 | 1.000 | 0.981 | 0.810 | 0.543 | 5.05 | 3 | 7 | 9 | 1.109 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2084 | 0.0126 | 0.3950 | 0.0222 | 0.991 | 0.690 | 0.000 | 1.000 | 0.979 | 0.777 | 0.505 | 4.91 | 3 | 7 | 9 | 1.120 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.2054 | 0.0083 | 0.3964 | 0.0246 | 0.994 | 0.720 | 0.000 | 1.000 | 0.976 | 0.778 | 0.494 | 4.88 | 3 | 7 | 8 | 1.156 | 0.16 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2088 | 0.0252 | 0.3854 | 0.0099 | 0.988 | 0.674 | 0.000 | 1.000 | 0.975 | 0.782 | 0.493 | 4.82 | 3 | 6 | 9 | 1.144 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2036 | 0.0118 | 0.3827 | 0.0131 | 0.990 | 0.689 | 0.000 | 1.000 | 0.973 | 0.743 | 0.466 | 4.71 | 3 | 6 | 9 | 1.165 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.2000 | 0.0077 | 0.3833 | 0.0131 | 0.992 | 0.715 | 0.000 | 1.000 | 0.973 | 0.743 | 0.452 | 4.65 | 3 | 6 | 8 | 1.197 | 0.20 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1979 | 0.0228 | 0.3669 | 0.0027 | 0.987 | 0.680 | 0.000 | 1.000 | 0.957 | 0.715 | 0.412 | 4.48 | 3 | 6 | 8 | 1.245 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1942 | 0.0106 | 0.3599 | 0.0036 | 0.988 | 0.685 | 0.000 | 1.000 | 0.954 | 0.675 | 0.379 | 4.36 | 3 | 6 | 8 | 1.309 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.1928 | 0.0069 | 0.3586 | 0.0036 | 0.992 | 0.715 | 0.000 | 1.000 | 0.953 | 0.667 | 0.372 | 4.33 | 3 | 6 | 7 | 1.331 | 0.33 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3359 | 0.0646 | 0.4525 | 0.4218 | 1.040 | 0.727 | 0.000 | 1.000 | 0.181 | 0.087 | 0.075 | 9.97 | 3 | 21 | 56 | - | - | - | - |
| | 200 | 0.3197 | 0.0470 | 0.5487 | 0.5266 | 1.054 | 0.784 | 0.000 | 1.000 | 0.150 | 0.087 | 0.074 | 12.86 | 3 | 28 | 61 | - | - | - | - |
| | 300 | 0.3127 | 0.0393 | 0.6020 | 0.5813 | 1.064 | 0.821 | 0.000 | 1.000 | 0.150 | 0.069 | 0.058 | 15.23 | 4 | 36 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2224 | 0.0176 | 0.1356 | 0.1296 | 1.029 | 0.838 | 0.000 | 1.000 | 0.030 | 0.015 | 0.022 | 4.29 | 2 | 14 | 36 | - | - | - | - |
| | 200 | 0.2250 | 0.0157 | 0.2070 | 0.2021 | 1.042 | 0.934 | 0.000 | 1.000 | 0.034 | 0.026 | 0.016 | 5.71 | 2 | 19 | 35 | - | - | - | - |
| | 300 | 0.2303 | 0.0155 | 0.2783 | 0.2723 | 1.059 | 1.024 | 0.000 | 1.000 | 0.039 | 0.017 | 0.020 | 7.30 | 2 | 22 | 49 | - | - | - | - |

Notes: See notes to Table 190.

## Table 293: MC findings for DGPV

$T = 300$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3060 | 0.0336 | 0.4001 | 0.0129 | 0.999 | 0.746 | 0.000 | 1.000 | 1.000 | 1.000 | 0.976 | 6.76 | 6 | 8 | 11 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2930 | 0.0161 | 0.4082 | 0.0139 | 1.001 | 0.760 | 0.000 | 1.000 | 1.000 | 0.999 | 0.975 | 6.61 | 6 | 8 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2868 | 0.0106 | 0.4111 | 0.0142 | 1.001 | 0.764 | 0.000 | 1.000 | 1.000 | 0.997 | 0.965 | 6.52 | 6 | 8 | 11 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2945 | 0.0329 | 0.4028 | 0.0068 | 0.999 | 0.746 | 0.000 | 1.000 | 1.000 | 1.000 | 0.971 | 6.56 | 6 | 8 | 10 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2827 | 0.0158 | 0.4103 | 0.0077 | 1.001 | 0.764 | 0.000 | 1.000 | 1.000 | 0.999 | 0.969 | 6.42 | 5 | 8 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2780 | 0.0103 | 0.4117 | 0.0066 | 1.001 | 0.766 | 0.000 | 1.000 | 1.000 | 0.997 | 0.959 | 6.35 | 5 | 8 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2737 | 0.0322 | 0.4113 | 0.0015 | 1.000 | 0.758 | 0.000 | 1.000 | 1.000 | 1.000 | 0.955 | 6.25 | 5 | 7 | 10 | 1.025 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2646 | 0.0154 | 0.4172 | 0.0021 | 1.002 | 0.789 | 0.000 | 1.000 | 1.000 | 0.998 | 0.950 | 6.14 | 5 | 7 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2585 | 0.0101 | 0.4195 | 0.0013 | 1.002 | 0.796 | 0.000 | 1.000 | 1.000 | 0.996 | 0.937 | 6.05 | 5 | 7 | 8 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3037 | 0.0334 | 0.4008 | 0.0116 | 0.999 | 0.732 | 0.000 | 1.000 | 1.000 | 1.000 | 0.976 | 6.72 | 6 | 8 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2915 | 0.0161 | 0.4086 | 0.0131 | 1.000 | 0.750 | 0.000 | 1.000 | 1.000 | 0.999 | 0.975 | 6.58 | 6 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2855 | 0.0105 | 0.4114 | 0.0132 | 1.001 | 0.755 | 0.000 | 1.000 | 1.000 | 0.997 | 0.965 | 6.50 | 5.5 | 8 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2925 | 0.0328 | 0.4036 | 0.0059 | 0.999 | 0.735 | 0.000 | 1.000 | 1.000 | 1.000 | 0.971 | 6.53 | 6 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2816 | 0.0158 | 0.4107 | 0.0071 | 1.001 | 0.756 | 0.000 | 1.000 | 1.000 | 0.999 | 0.969 | 6.41 | 5 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2767 | 0.0103 | 0.4123 | 0.0061 | 1.001 | 0.761 | 0.000 | 1.000 | 1.000 | 0.997 | 0.959 | 6.33 | 5 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2721 | 0.0322 | 0.4122 | 0.0011 | 1.000 | 0.754 | 0.000 | 1.000 | 1.000 | 1.000 | 0.955 | 6.23 | 5 | 7 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2634 | 0.0154 | 0.4179 | 0.0019 | 1.002 | 0.787 | 0.000 | 1.000 | 1.000 | 0.998 | 0.950 | 6.12 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2573 | 0.0101 | 0.4204 | 0.0013 | 1.003 | 0.798 | 0.000 | 1.000 | 1.000 | 0.996 | 0.937 | 6.03 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4276 | 0.0703 | 0.4407 | 0.4085 | 1.011 | 0.774 | 0.000 | 1.000 | 0.211 | 0.112 | 0.087 | 11.60 | 5 | 23 | 46 | - | - | - | - |
| | 200 | 0.4018 | 0.0445 | 0.5018 | 0.4742 | 1.016 | 0.827 | 0.000 | 1.000 | 0.182 | 0.099 | 0.071 | 13.37 | 4 | 29.5 | 53 | - | - | - | - |
| | 300 | 0.3851 | 0.0351 | 0.5520 | 0.5292 | 1.022 | 0.848 | 0.000 | 1.000 | 0.185 | 0.082 | 0.061 | 14.86 | 5 | 32 | 89 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2813 | 0.0173 | 0.1634 | 0.1542 | 1.012 | 0.935 | 0.000 | 1.000 | 0.039 | 0.022 | 0.019 | 4.96 | 2 | 11 | 24 | - | - | - | - |
| | 200 | 0.2862 | 0.0131 | 0.2315 | 0.2232 | 1.013 | 0.988 | 0.000 | 1.000 | 0.035 | 0.022 | 0.016 | 5.95 | 2 | 14 | 28 | - | - | - | - |
| | 300 | 0.2798 | 0.0103 | 0.2605 | 0.2531 | 1.016 | 1.017 | 0.000 | 1.000 | 0.043 | 0.022 | 0.011 | 6.36 | 2 | 15 | 42 | - | - | - | - |

Notes: See notes to Table 190.

## Table 294: MC findings for DGPV

$T = 500$, $R^2 = 50\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3515 | 0.0337 | 0.3746 | 0.0105 | 1.001 | 0.778 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.31 | 6 | 9 | 11 | 1.040 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3368 | 0.0162 | 0.3834 | 0.0121 | 1.001 | 0.785 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.15 | 6 | 8 | 11 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.3334 | 0.0107 | 0.3856 | 0.0127 | 1.000 | 0.787 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.12 | 6 | 8 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3393 | 0.0332 | 0.3779 | 0.0057 | 1.001 | 0.773 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.12 | 6 | 8 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3259 | 0.0159 | 0.3857 | 0.0061 | 1.001 | 0.780 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.97 | 6 | 8 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3228 | 0.0105 | 0.3878 | 0.0068 | 1.001 | 0.784 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.93 | 6 | 8 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3158 | 0.0327 | 0.3883 | 0.0011 | 1.001 | 0.779 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.80 | 6 | 8 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3049 | 0.0157 | 0.3948 | 0.0012 | 1.002 | 0.791 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.67 | 6 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3025 | 0.0103 | 0.3966 | 0.0015 | 1.001 | 0.795 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.64 | 6 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3493 | 0.0335 | 0.3749 | 0.0091 | 1.000 | 0.764 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.28 | 6 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3352 | 0.0162 | 0.3839 | 0.0115 | 1.001 | 0.774 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.13 | 6 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3321 | 0.0106 | 0.3859 | 0.0120 | 1.000 | 0.776 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.09 | 6 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3377 | 0.0331 | 0.3783 | 0.0049 | 1.001 | 0.763 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.10 | 6 | 8 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3249 | 0.0159 | 0.3862 | 0.0059 | 1.001 | 0.774 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.95 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3220 | 0.0105 | 0.3880 | 0.0061 | 1.000 | 0.776 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.92 | 6 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3149 | 0.0327 | 0.3887 | 0.0010 | 1.001 | 0.775 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.79 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3043 | 0.0157 | 0.3951 | 0.0012 | 1.002 | 0.787 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.66 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3019 | 0.0103 | 0.3968 | 0.0013 | 1.001 | 0.789 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.63 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4682 | 0.0681 | 0.4265 | 0.3960 | 1.008 | 0.803 | 0.000 | 1.000 | 0.224 | 0.116 | 0.092 | 11.88 | 5 | 20.5 | 46 | - | - | - | - |
| | 200 | 0.4438 | 0.0471 | 0.5000 | 0.4733 | 1.011 | 0.850 | 0.000 | 1.000 | 0.209 | 0.096 | 0.077 | 14.37 | 5 | 27 | 60 | - | - | - | - |
| | 300 | 0.4323 | 0.0361 | 0.5243 | 0.4998 | 1.013 | 0.876 | 0.000 | 1.000 | 0.195 | 0.088 | 0.065 | 15.72 | 5 | 32 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3309 | 0.0122 | 0.1347 | 0.1253 | 1.006 | 0.935 | 0.000 | 1.000 | 0.043 | 0.018 | 0.019 | 5.09 | 2 | 9 | 20 | - | - | - | - |
| | 200 | 0.3246 | 0.0090 | 0.1937 | 0.1859 | 1.007 | 0.951 | 0.000 | 1.000 | 0.030 | 0.013 | 0.017 | 5.62 | 2 | 11 | 19 | - | - | - | - |
| | 300 | 0.3249 | 0.0070 | 0.2134 | 0.2058 | 1.007 | 0.970 | 0.000 | 1.000 | 0.023 | 0.012 | 0.011 | 5.93 | 2 | 12 | 24 | - | - | - | - |

Notes: See notes to Table 190.

## Table 295: MC findings for DGPV

$T = 100$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2001 | 0.0273 | 0.4125 | 0.0254 | 0.985 | 0.642 | 0.000 | 1.000 | 0.986 | 0.808 | 0.544 | 4.91 | 3 | 7 | 9 | 1.452 | 0.44 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1939 | 0.0130 | 0.4154 | 0.0296 | 0.986 | 0.635 | 0.000 | 1.000 | 0.985 | 0.798 | 0.515 | 4.82 | 3 | 7 | 9 | 1.510 | 0.50 | 0.01 | 0.00 |
| | 300 | 0.1882 | 0.0083 | 0.4093 | 0.0298 | 0.989 | 0.668 | 0.000 | 1.000 | 0.970 | 0.765 | 0.489 | 4.68 | 3 | 6 | 9 | 1.534 | 0.52 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.1950 | 0.0258 | 0.4017 | 0.0142 | 0.985 | 0.631 | 0.000 | 1.000 | 0.980 | 0.785 | 0.511 | 4.71 | 3 | 6 | 9 | 1.504 | 0.50 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1892 | 0.0121 | 0.4014 | 0.0158 | 0.985 | 0.621 | 0.000 | 1.000 | 0.978 | 0.769 | 0.478 | 4.60 | 3 | 6 | 8 | 1.556 | 0.55 | 0.01 | 0.00 |
| | 300 | 0.1852 | 0.0077 | 0.3933 | 0.0163 | 0.988 | 0.658 | 0.000 | 1.000 | 0.963 | 0.738 | 0.445 | 4.47 | 3 | 6 | 8 | 1.591 | 0.59 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.1850 | 0.0232 | 0.3825 | 0.0038 | 0.986 | 0.632 | 0.000 | 1.000 | 0.967 | 0.719 | 0.427 | 4.36 | 3 | 6 | 8 | 1.625 | 0.62 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1803 | 0.0109 | 0.3802 | 0.0040 | 0.987 | 0.636 | 0.000 | 1.000 | 0.963 | 0.703 | 0.394 | 4.25 | 3 | 6 | 8 | 1.660 | 0.66 | 0.00 | 0.00 |
| | 300 | 0.1760 | 0.0069 | 0.3719 | 0.0057 | 0.991 | 0.676 | 0.000 | 1.000 | 0.941 | 0.664 | 0.375 | 4.13 | 2 | 6 | 8 | 1.677 | 0.68 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.1876 | 0.0270 | 0.4207 | 0.0226 | 0.990 | 0.668 | 0.000 | 1.000 | 0.985 | 0.808 | 0.544 | 4.74 | 3 | 6 | 9 | 1.392 | 0.39 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1800 | 0.0128 | 0.4255 | 0.0265 | 0.995 | 0.688 | 0.000 | 1.000 | 0.985 | 0.798 | 0.515 | 4.63 | 3 | 6 | 8 | 1.427 | 0.43 | 0.00 | 0.00 |
| | 300 | 0.1732 | 0.0082 | 0.4208 | 0.0274 | 0.999 | 0.728 | 0.000 | 1.000 | 0.970 | 0.765 | 0.489 | 4.48 | 3 | 6 | 9 | 1.449 | 0.45 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.1827 | 0.0256 | 0.4109 | 0.0121 | 0.992 | 0.668 | 0.000 | 1.000 | 0.980 | 0.785 | 0.511 | 4.54 | 3 | 6 | 9 | 1.448 | 0.45 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1742 | 0.0120 | 0.4134 | 0.0140 | 0.997 | 0.699 | 0.000 | 1.000 | 0.978 | 0.769 | 0.478 | 4.40 | 3 | 6 | 8 | 1.471 | 0.47 | 0.00 | 0.00 |
| | 300 | 0.1693 | 0.0077 | 0.4064 | 0.0149 | 1.000 | 0.731 | 0.000 | 1.000 | 0.963 | 0.738 | 0.445 | 4.27 | 2 | 6 | 8 | 1.507 | 0.51 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1704 | 0.0232 | 0.3951 | 0.0032 | 0.999 | 0.710 | 0.000 | 1.000 | 0.967 | 0.719 | 0.427 | 4.18 | 2 | 6 | 8 | 1.545 | 0.54 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1632 | 0.0108 | 0.3953 | 0.0031 | 1.005 | 0.739 | 0.000 | 1.000 | 0.963 | 0.703 | 0.394 | 4.04 | 2 | 6 | 8 | 1.554 | 0.55 | 0.00 | 0.00 |
| | 300 | 0.1585 | 0.0069 | 0.3873 | 0.0052 | 1.010 | 0.779 | 0.000 | 1.000 | 0.941 | 0.664 | 0.375 | 3.91 | 2 | 6 | 8 | 1.569 | 0.57 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2844 | 0.0577 | 0.4261 | 0.3958 | 1.044 | 0.700 | 0.000 | 1.000 | 0.147 | 0.068 | 0.068 | 8.72 | 2 | 20 | 41 | - | - | - | - |
| | 200 | 0.2673 | 0.0410 | 0.5122 | 0.4875 | 1.058 | 0.730 | 0.000 | 1.000 | 0.154 | 0.076 | 0.054 | 11.08 | 2 | 27 | 58 | - | - | - | - |
| | 300 | 0.2588 | 0.0356 | 0.5787 | 0.5586 | 1.066 | 0.779 | 0.000 | 1.000 | 0.135 | 0.057 | 0.046 | 13.50 | 2 | 33.5 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1848 | 0.0156 | 0.1243 | 0.1189 | 1.047 | 0.896 | 0.000 | 1.000 | 0.021 | 0.011 | 0.015 | 3.65 | 1 | 13 | 32 | - | - | - | - |
| | 200 | 0.1877 | 0.0150 | 0.2041 | 0.1985 | 1.062 | 0.968 | 0.000 | 1.000 | 0.028 | 0.018 | 0.016 | 5.14 | 1 | 19 | 40 | - | - | - | - |
| | 300 | 0.1943 | 0.0156 | 0.2803 | 0.2744 | 1.074 | 1.061 | 0.000 | 1.000 | 0.033 | 0.017 | 0.014 | 6.90 | 1 | 24 | 52 | - | - | - | - |

Notes: See notes to Table 190.

## Table 296: MC findings for DGPV

$T = 300$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2573 | 0.0336 | 0.4341 | 0.0140 | 0.998 | 0.680 | 0.000 | 1.000 | 1.000 | 1.000 | 0.981 | 6.18 | 5 | 8 | 11 | 1.034 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2484 | 0.0161 | 0.4400 | 0.0142 | 0.999 | 0.682 | 0.000 | 1.000 | 1.000 | 1.000 | 0.975 | 6.07 | 5 | 7 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2396 | 0.0106 | 0.4470 | 0.0163 | 0.999 | 0.697 | 0.000 | 1.000 | 1.000 | 1.000 | 0.971 | 5.98 | 5 | 7 | 10 | 1.026 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2457 | 0.0329 | 0.4377 | 0.0069 | 0.998 | 0.677 | 0.000 | 1.000 | 1.000 | 1.000 | 0.976 | 5.98 | 5 | 7 | 10 | 1.026 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2373 | 0.0157 | 0.4432 | 0.0072 | 0.998 | 0.684 | 0.000 | 1.000 | 1.000 | 1.000 | 0.965 | 5.87 | 5 | 7 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2305 | 0.0104 | 0.4490 | 0.0092 | 1.000 | 0.700 | 0.000 | 1.000 | 1.000 | 0.999 | 0.963 | 5.80 | 5 | 7 | 9 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2247 | 0.0323 | 0.4492 | 0.0015 | 0.999 | 0.694 | 0.000 | 1.000 | 1.000 | 0.999 | 0.964 | 5.67 | 5 | 7 | 9 | 1.040 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2170 | 0.0154 | 0.4533 | 0.0014 | 1.000 | 0.706 | 0.000 | 1.000 | 1.000 | 0.999 | 0.943 | 5.56 | 5 | 7 | 8 | 1.037 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.2125 | 0.0101 | 0.4573 | 0.0023 | 1.001 | 0.720 | 0.000 | 1.000 | 1.000 | 0.999 | 0.941 | 5.51 | 5 | 7 | 8 | 1.044 | 0.04 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2559 | 0.0335 | 0.4343 | 0.0125 | 0.997 | 0.668 | 0.000 | 1.000 | 1.000 | 1.000 | 0.981 | 6.15 | 5 | 8 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2473 | 0.0160 | 0.4403 | 0.0132 | 0.998 | 0.673 | 0.000 | 1.000 | 1.000 | 1.000 | 0.975 | 6.05 | 5 | 7 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2386 | 0.0106 | 0.4473 | 0.0154 | 0.999 | 0.687 | 0.000 | 1.000 | 1.000 | 1.000 | 0.971 | 5.96 | 5 | 7 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2445 | 0.0329 | 0.4382 | 0.0062 | 0.998 | 0.669 | 0.000 | 1.000 | 1.000 | 1.000 | 0.976 | 5.96 | 5 | 7 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2365 | 0.0157 | 0.4435 | 0.0067 | 0.998 | 0.679 | 0.000 | 1.000 | 1.000 | 1.000 | 0.965 | 5.86 | 5 | 7 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2297 | 0.0104 | 0.4492 | 0.0084 | 0.999 | 0.692 | 0.000 | 1.000 | 1.000 | 0.999 | 0.963 | 5.78 | 5 | 7 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2235 | 0.0323 | 0.4499 | 0.0012 | 0.998 | 0.692 | 0.000 | 1.000 | 1.000 | 0.999 | 0.964 | 5.65 | 5 | 7 | 9 | 1.031 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2162 | 0.0154 | 0.4539 | 0.0014 | 1.000 | 0.705 | 0.000 | 1.000 | 1.000 | 0.999 | 0.943 | 5.55 | 5 | 7 | 8 | 1.035 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2116 | 0.0101 | 0.4579 | 0.0021 | 1.000 | 0.718 | 0.000 | 1.000 | 1.000 | 0.999 | 0.941 | 5.50 | 5 | 7 | 8 | 1.038 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3590 | 0.0626 | 0.4417 | 0.4067 | 1.010 | 0.719 | 0.000 | 1.000 | 0.189 | 0.099 | 0.080 | 10.06 | 4 | 21 | 47 | - | - | - | - |
| | 200 | 0.3365 | 0.0406 | 0.5131 | 0.4858 | 1.014 | 0.748 | 0.000 | 1.000 | 0.176 | 0.085 | 0.066 | 11.83 | 3 | 25 | 53 | - | - | - | - |
| | 300 | 0.3263 | 0.0312 | 0.5428 | 0.5190 | 1.017 | 0.771 | 0.000 | 1.000 | 0.179 | 0.080 | 0.052 | 13.02 | 4 | 31 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2451 | 0.0186 | 0.1750 | 0.1659 | 1.009 | 0.864 | 0.000 | 1.000 | 0.046 | 0.024 | 0.023 | 4.65 | 2 | 12 | 22 | - | - | - | - |
| | 200 | 0.2448 | 0.0143 | 0.2469 | 0.2385 | 1.014 | 0.948 | 0.000 | 1.000 | 0.045 | 0.022 | 0.021 | 5.68 | 2 | 14 | 30 | - | - | - | - |
| | 300 | 0.2448 | 0.0114 | 0.2787 | 0.2710 | 1.016 | 0.997 | 0.000 | 1.000 | 0.059 | 0.017 | 0.017 | 6.27 | 2 | 16 | 31 | - | - | - | - |

Notes: See notes to Table 190.

## Table 297: MC findings for DGPV

$T = 500$, $R^2 = 30\%$, G-SU, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3025 | 0.0338 | 0.4041 | 0.0128 | 0.999 | 0.686 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.74 | 6 | 8 | 10 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2888 | 0.0161 | 0.4121 | 0.0114 | 1.000 | 0.682 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.56 | 6 | 8 | 10 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2836 | 0.0106 | 0.4155 | 0.0120 | 0.999 | 0.695 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.50 | 6 | 8 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2914 | 0.0332 | 0.4075 | 0.0067 | 0.999 | 0.680 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.55 | 6 | 8 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2790 | 0.0159 | 0.4150 | 0.0061 | 1.000 | 0.680 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.40 | 6 | 8 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2747 | 0.0104 | 0.4174 | 0.0056 | 0.999 | 0.691 | 0.000 | 1.000 | 1.000 | 1.000 | 0.997 | 6.34 | 5 | 7 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2687 | 0.0327 | 0.4189 | 0.0013 | 0.999 | 0.692 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.23 | 5 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2592 | 0.0157 | 0.4258 | 0.0015 | 1.000 | 0.699 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.12 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2560 | 0.0103 | 0.4277 | 0.0009 | 0.999 | 0.714 | 0.000 | 1.000 | 1.000 | 1.000 | 0.996 | 6.08 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3017 | 0.0337 | 0.4039 | 0.0115 | 0.999 | 0.676 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.72 | 6 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2883 | 0.0161 | 0.4119 | 0.0105 | 0.999 | 0.675 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.55 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2829 | 0.0106 | 0.4153 | 0.0109 | 0.998 | 0.684 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.49 | 6 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2908 | 0.0332 | 0.4075 | 0.0062 | 0.999 | 0.674 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.54 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2786 | 0.0159 | 0.4151 | 0.0057 | 1.000 | 0.675 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.39 | 5 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2741 | 0.0104 | 0.4173 | 0.0048 | 0.999 | 0.684 | 0.000 | 1.000 | 1.000 | 1.000 | 0.997 | 6.33 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2681 | 0.0327 | 0.4193 | 0.0011 | 0.999 | 0.690 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.22 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2589 | 0.0157 | 0.4259 | 0.0014 | 1.000 | 0.697 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.12 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2555 | 0.0103 | 0.4280 | 0.0008 | 0.999 | 0.712 | 0.000 | 1.000 | 1.000 | 1.000 | 0.996 | 6.07 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3985 | 0.0673 | 0.4353 | 0.4018 | 1.008 | 0.749 | 0.000 | 1.000 | 0.209 | 0.118 | 0.075 | 10.97 | 4 | 21 | 44 | - | - | - | - |
| | 200 | 0.3715 | 0.0427 | 0.4977 | 0.4713 | 1.010 | 0.775 | 0.000 | 1.000 | 0.195 | 0.102 | 0.077 | 12.67 | 4 | 29 | 49 | - | - | - | - |
| | 300 | 0.3636 | 0.0313 | 0.5315 | 0.5073 | 1.011 | 0.802 | 0.000 | 1.000 | 0.181 | 0.084 | 0.069 | 13.52 | 4 | 33 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2808 | 0.0173 | 0.1827 | 0.1728 | 1.004 | 0.846 | 0.000 | 1.000 | 0.041 | 0.024 | 0.018 | 4.96 | 2 | 10 | 23 | - | - | - | - |
| | 200 | 0.2741 | 0.0113 | 0.2255 | 0.2178 | 1.005 | 0.871 | 0.000 | 1.000 | 0.037 | 0.025 | 0.019 | 5.46 | 2 | 13 | 28 | - | - | - | - |
| | 300 | 0.2742 | 0.0087 | 0.2569 | 0.2484 | 1.006 | 0.911 | 0.000 | 1.000 | 0.038 | 0.019 | 0.014 | 5.83 | 2 | 13 | 34 | - | - | - | - |

Notes: See notes to Table 190.

# 4 Findings for Experiments with Non-Gaussian Innovations (NG)

## 4.1 Static specifications

We ordered and numbered individual tables as follows:

**Summary table for experiments with non-Gaussian innovations (NG) and static specifications: List of experiments**

| Table No. | DGP | $\omega$ | $R^2$ | T | Table No. | DGP | $R^2$ | T | Table No. | DGP | $R^2$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 298 | I(a) | - | 70% | 100 | 343 | II(a) | 70% | 100 | 388 | V | 70% | 100 |
| 299 | I(a) | - | 70% | 300 | 344 | II(a) | 70% | 300 | 389 | V | 70% | 300 |
| 300 | I(a) | - | 70% | 500 | 345 | II(a) | 70% | 500 | 390 | V | 70% | 500 |
| 301 | I(a) | - | 50% | 100 | 346 | II(a) | 50% | 100 | 391 | V | 50% | 100 |
| 302 | I(a) | - | 50% | 300 | 347 | II(a) | 50% | 300 | 392 | V | 50% | 300 |
| 303 | I(a) | - | 50% | 500 | 348 | II(a) | 50% | 500 | 393 | V | 50% | 500 |
| 304 | I(a) | - | 30% | 100 | 349 | II(a) | 30% | 100 | 394 | V | 30% | 100 |
| 305 | I(a) | - | 30% | 300 | 350 | II(a) | 30% | 300 | 395 | V | 30% | 300 |
| 306 | I(a) | - | 30% | 500 | 351 | II(a) | 30% | 500 | 396 | V | 30% | 500 |
| 307 | I(b) | - | 70% | 100 | 352 | II(b) | 70% | 100 | | | | |
| 308 | I(b) | - | 70% | 300 | 353 | II(b) | 70% | 300 | | | | |
| 309 | I(b) | - | 70% | 500 | 354 | II(b) | 70% | 500 | | | | |
| 310 | I(b) | - | 50% | 100 | 355 | II(b) | 50% | 100 | | | | |
| 311 | I(b) | - | 50% | 300 | 356 | II(b) | 50% | 300 | | | | |
| 312 | I(b) | - | 50% | 500 | 357 | II(b) | 50% | 500 | | | | |
| 313 | I(b) | - | 30% | 100 | 358 | II(b) | 30% | 100 | | | | |
| 314 | I(b) | - | 30% | 300 | 359 | II(b) | 30% | 300 | | | | |
| 315 | I(b) | - | 30% | 500 | 360 | II(b) | 30% | 500 | | | | |
| 316 | I(c) | - | 70% | 100 | 361 | III | 70% | 100 | | | | |
| 317 | I(c) | - | 70% | 300 | 362 | III | 70% | 300 | | | | |
| 318 | I(c) | - | 70% | 500 | 363 | III | 70% | 500 | | | | |
| 319 | I(c) | - | 50% | 100 | 364 | III | 50% | 100 | | | | |
| 320 | I(c) | - | 50% | 300 | 365 | III | 50% | 300 | | | | |
| 321 | I(c) | - | 50% | 500 | 366 | III | 50% | 500 | | | | |
| 322 | I(c) | - | 30% | 100 | 367 | III | 30% | 100 | | | | |
| 323 | I(c) | - | 30% | 300 | 368 | III | 30% | 300 | | | | |
| 324 | I(c) | - | 30% | 500 | 369 | III | 30% | 500 | | | | |
| 325 | I(d) | low | 70% | 100 | 370 | IV(a) | 70% | 100 | | | | |
| 326 | I(d) | low | 70% | 300 | 371 | IV(a) | 70% | 300 | | | | |
| 327 | I(d) | low | 70% | 500 | 372 | IV(a) | 70% | 500 | | | | |
| 328 | I(d) | low | 50% | 100 | 373 | IV(a) | 50% | 100 | | | | |
| 329 | I(d) | low | 50% | 300 | 374 | IV(a) | 50% | 300 | | | | |
| 330 | I(d) | low | 50% | 500 | 375 | IV(a) | 50% | 500 | | | | |
| 331 | I(d) | low | 30% | 100 | 376 | IV(a) | 30% | 100 | | | | |
| 332 | I(d) | low | 30% | 300 | 377 | IV(a) | 30% | 300 | | | | |
| 333 | I(d) | low | 30% | 500 | 378 | IV(a) | 30% | 500 | | | | |
| 334 | I(d) | high | 70% | 100 | 379 | IV(b) | 70% | 100 | | | | |
| 335 | I(d) | high | 70% | 300 | 380 | IV(b) | 70% | 300 | | | | |
| 336 | I(d) | high | 70% | 500 | 381 | IV(b) | 70% | 500 | | | | |
| 337 | I(d) | high | 50% | 100 | 382 | IV(b) | 50% | 100 | | | | |
| 338 | I(d) | high | 50% | 300 | 383 | IV(b) | 50% | 300 | | | | |
| 339 | I(d) | high | 50% | 500 | 384 | IV(b) | 50% | 500 | | | | |
| 340 | I(d) | high | 30% | 100 | 385 | IV(b) | 30% | 100 | | | | |
| 341 | I(d) | high | 30% | 300 | 386 | IV(b) | 30% | 300 | | | | |
| 342 | I(d) | high | 30% | 500 | 387 | IV(b) | 30% | 500 | | | | |

Notes: $\omega$ is the average pair-wise correlation of the signal variables. The low value is $\omega = 0.2$ and the high value is $\omega = 0.8$. See Section 5 of CKP for a full description of MC design.

### 4.1.1 Findings for designs featuring no hidden signals and no pseudo-signals

## Table 298: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0024 | 0.0368 | 0.0368 | 1.009 | 1.118 | 1.000 | 0.804 | 4.23 | 4 | 5 | 7 | 1.048 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0013 | 0.0412 | 0.0412 | 1.010 | 1.136 | 1.000 | 0.788 | 4.26 | 4 | 5 | 8 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0010 | 0.0470 | 0.0470 | 1.012 | 1.159 | 0.999 | 0.754 | 4.30 | 4 | 5 | 8 | 1.060 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0014 | 0.0214 | 0.0214 | 1.006 | 1.076 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0009 | 0.0278 | 0.0278 | 1.008 | 1.102 | 1.000 | 0.852 | 4.17 | 4 | 5 | 7 | 1.038 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0006 | 0.0299 | 0.0299 | 1.008 | 1.117 | 0.999 | 0.836 | 4.19 | 4 | 5 | 7 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0005 | 0.0079 | 0.0079 | 1.003 | 1.035 | 0.999 | 0.955 | 4.05 | 4 | 4 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9994 | 0.0003 | 0.0101 | 0.0101 | 1.004 | 1.051 | 0.998 | 0.943 | 4.06 | 4 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0002 | 0.0113 | 0.0113 | 1.004 | 1.061 | 0.998 | 0.933 | 4.07 | 4 | 5 | 6 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0020 | 0.0304 | 0.0304 | 1.006 | 1.079 | 1.000 | 0.837 | 4.19 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0011 | 0.0351 | 0.0351 | 1.008 | 1.096 | 1.000 | 0.817 | 4.22 | 4 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0008 | 0.0396 | 0.0396 | 1.008 | 1.110 | 0.999 | 0.791 | 4.25 | 4 | 5 | 8 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0177 | 0.0177 | 1.004 | 1.053 | 1.000 | 0.903 | 4.11 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0231 | 0.0231 | 1.006 | 1.072 | 1.000 | 0.876 | 4.14 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0005 | 0.0251 | 0.0251 | 1.006 | 1.082 | 0.999 | 0.861 | 4.15 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0004 | 0.0067 | 0.0067 | 1.002 | 1.027 | 0.999 | 0.961 | 4.04 | 4 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9994 | 0.0002 | 0.0075 | 0.0075 | 1.002 | 1.030 | 0.998 | 0.957 | 4.04 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0002 | 0.0087 | 0.0087 | 1.003 | 1.039 | 0.998 | 0.949 | 4.05 | 4 | 4 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9983 | 0.0532 | 0.4118 | 0.4118 | 1.049 | 1.339 | 0.993 | 0.115 | 9.10 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.9960 | 0.0380 | 0.4871 | 0.4871 | 1.056 | 1.388 | 0.984 | 0.083 | 11.43 | 4 | 25 | 51 | - | - | - | - |
| | 300 | 0.9975 | 0.0313 | 0.5360 | 0.5360 | 1.062 | 1.441 | 0.990 | 0.070 | 13.27 | 4 | 30 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9404 | 0.0134 | 0.1343 | 0.1343 | 1.057 | 1.778 | 0.796 | 0.419 | 5.05 | 3 | 11 | 26 | - | - | - | - |
| | 200 | 0.9468 | 0.0131 | 0.2018 | 0.2018 | 1.069 | 1.858 | 0.815 | 0.346 | 6.36 | 3 | 17.5 | 44 | - | - | - | - |
| | 300 | 0.9493 | 0.0124 | 0.2553 | 0.2553 | 1.079 | 1.954 | 0.827 | 0.294 | 7.47 | 3 | 22 | 41 | - | - | - | - |

Notes: See notes to Table 1.

## Table 299: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0227 | 0.0227 | 1.001 | 1.057 | 1.000 | 0.873 | 4.14 | 4 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0250 | 0.0250 | 1.002 | 1.073 | 1.000 | 0.860 | 4.15 | 4 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0265 | 0.0265 | 1.002 | 1.077 | 1.000 | 0.852 | 4.16 | 4 | 5 | 6 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0137 | 0.0137 | 1.001 | 1.037 | 1.000 | 0.923 | 4.08 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0137 | 0.0137 | 1.001 | 1.043 | 1.000 | 0.922 | 4.08 | 4 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0132 | 0.0132 | 1.001 | 1.043 | 1.000 | 0.925 | 4.08 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0031 | 0.0031 | 1.000 | 1.013 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0037 | 0.0037 | 1.000 | 1.012 | 1.000 | 0.978 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0037 | 0.0037 | 1.000 | 1.014 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0207 | 0.0207 | 1.001 | 1.045 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0226 | 0.0226 | 1.001 | 1.051 | 1.000 | 0.872 | 4.14 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0244 | 0.0244 | 1.002 | 1.060 | 1.000 | 0.863 | 4.15 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0125 | 0.0125 | 1.001 | 1.030 | 1.000 | 0.929 | 4.08 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0118 | 0.0118 | 1.001 | 1.027 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0120 | 0.0120 | 1.001 | 1.033 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.011 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.009 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.011 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0543 | 0.4217 | 0.4217 | 1.014 | 1.304 | 1.000 | 0.104 | 9.21 | 4 | 18 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0319 | 0.4521 | 0.4521 | 1.017 | 1.346 | 1.000 | 0.094 | 10.26 | 4 | 22 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0242 | 0.4791 | 0.4791 | 1.018 | 1.380 | 1.000 | 0.072 | 11.16 | 4 | 24 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9996 | 0.0113 | 0.0938 | 0.0938 | 1.010 | 1.434 | 0.999 | 0.759 | 5.08 | 4 | 12 | 29 | - | - | - | - |
| | 200 | 0.9999 | 0.0098 | 0.1381 | 0.1381 | 1.015 | 1.575 | 1.000 | 0.700 | 5.92 | 4 | 16 | 38 | - | - | - | - |
| | 300 | 0.9998 | 0.0088 | 0.1720 | 0.1720 | 1.019 | 1.685 | 0.999 | 0.643 | 6.61 | 4 | 18 | 47 | - | - | - | - |

Notes: See notes to Table 1.

## Table 300: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0203 | 0.0203 | 1.001 | 1.054 | 1.000 | 0.886 | 4.13 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0230 | 0.0230 | 1.001 | 1.073 | 1.000 | 0.871 | 4.14 | 4 | 5 | 7 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0238 | 0.0238 | 1.001 | 1.067 | 1.000 | 0.865 | 4.15 | 4 | 5 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0110 | 0.0110 | 1.000 | 1.030 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0120 | 0.0120 | 1.001 | 1.040 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0132 | 0.0132 | 1.001 | 1.044 | 1.000 | 0.924 | 4.08 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.007 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.006 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.013 | 1.000 | 0.979 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0186 | 0.0186 | 1.001 | 1.041 | 1.000 | 0.895 | 4.11 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0200 | 0.0200 | 1.001 | 1.049 | 1.000 | 0.888 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0226 | 0.0226 | 1.001 | 1.055 | 1.000 | 0.872 | 4.14 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0101 | 0.0101 | 1.000 | 1.021 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0106 | 0.0106 | 1.000 | 1.027 | 1.000 | 0.940 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0124 | 0.0124 | 1.001 | 1.036 | 1.000 | 0.929 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.005 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0014 | 0.0014 | 1.000 | 1.004 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.012 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0528 | 0.4111 | 0.4111 | 1.008 | 1.291 | 1.000 | 0.116 | 9.06 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0316 | 0.4470 | 0.4470 | 1.010 | 1.345 | 1.000 | 0.095 | 10.20 | 4 | 22 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0239 | 0.4651 | 0.4651 | 1.012 | 1.382 | 1.000 | 0.093 | 11.08 | 4 | 25 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0098 | 0.0769 | 0.0769 | 1.005 | 1.344 | 1.000 | 0.835 | 4.94 | 4 | 11 | 24 | - | - | - | - |
| | 200 | 1.0000 | 0.0090 | 0.1298 | 0.1298 | 1.008 | 1.492 | 1.000 | 0.749 | 5.77 | 4 | 15 | 39 | - | - | - | - |
| | 300 | 1.0000 | 0.0083 | 0.1627 | 0.1627 | 1.011 | 1.630 | 1.000 | 0.706 | 6.46 | 4 | 18 | 36 | - | - | - | - |

Notes: See notes to Table 1.

## Table 301: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9948 | 0.0025 | 0.0381 | 0.0381 | 1.010 | 1.131 | 0.983 | 0.783 | 4.22 | 4 | 5 | 7 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9883 | 0.0013 | 0.0415 | 0.0415 | 1.013 | 1.180 | 0.964 | 0.750 | 4.21 | 4 | 5 | 7 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9886 | 0.0010 | 0.0463 | 0.0463 | 1.014 | 1.187 | 0.967 | 0.738 | 4.25 | 4 | 5 | 8 | 1.049 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9915 | 0.0014 | 0.0219 | 0.0219 | 1.007 | 1.093 | 0.976 | 0.858 | 4.10 | 4 | 5 | 9 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9839 | 0.0008 | 0.0248 | 0.0248 | 1.010 | 1.138 | 0.954 | 0.829 | 4.09 | 4 | 5 | 7 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9848 | 0.0006 | 0.0278 | 0.0278 | 1.010 | 1.140 | 0.956 | 0.817 | 4.11 | 4 | 5 | 7 | 1.030 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9800 | 0.0005 | 0.0077 | 0.0077 | 1.005 | 1.071 | 0.945 | 0.903 | 3.97 | 3 | 4 | 6 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9696 | 0.0003 | 0.0088 | 0.0088 | 1.007 | 1.108 | 0.917 | 0.870 | 3.93 | 3 | 4 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9690 | 0.0002 | 0.0107 | 0.0107 | 1.008 | 1.113 | 0.917 | 0.862 | 3.94 | 3 | 5 | 6 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9948 | 0.0022 | 0.0339 | 0.0339 | 1.008 | 1.108 | 0.983 | 0.803 | 4.19 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9883 | 0.0011 | 0.0347 | 0.0347 | 1.010 | 1.139 | 0.964 | 0.784 | 4.17 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9886 | 0.0008 | 0.0397 | 0.0397 | 1.011 | 1.146 | 0.967 | 0.767 | 4.20 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9915 | 0.0012 | 0.0189 | 0.0189 | 1.006 | 1.077 | 0.976 | 0.874 | 4.08 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9839 | 0.0006 | 0.0203 | 0.0203 | 1.008 | 1.108 | 0.954 | 0.850 | 4.06 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9848 | 0.0005 | 0.0242 | 0.0242 | 1.008 | 1.117 | 0.956 | 0.833 | 4.09 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9800 | 0.0004 | 0.0064 | 0.0064 | 1.005 | 1.062 | 0.945 | 0.909 | 3.96 | 3 | 4 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9696 | 0.0002 | 0.0067 | 0.0067 | 1.006 | 1.093 | 0.917 | 0.881 | 3.92 | 3 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9690 | 0.0002 | 0.0090 | 0.0090 | 1.007 | 1.099 | 0.917 | 0.868 | 3.93 | 3 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9584 | 0.0508 | 0.4058 | 0.4058 | 1.045 | 1.296 | 0.844 | 0.099 | 8.71 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.9550 | 0.0380 | 0.4908 | 0.4908 | 1.056 | 1.389 | 0.832 | 0.066 | 11.28 | 4 | 25.5 | 54 | - | - | - | - |
| | 300 | 0.9499 | 0.0307 | 0.5322 | 0.5322 | 1.060 | 1.401 | 0.817 | 0.057 | 12.89 | 4 | 30 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7805 | 0.0141 | 0.1576 | 0.1576 | 1.057 | 1.770 | 0.383 | 0.131 | 4.47 | 2 | 10 | 34 | - | - | - | - |
| | 200 | 0.7929 | 0.0144 | 0.2489 | 0.2489 | 1.073 | 1.911 | 0.417 | 0.100 | 6.00 | 2 | 16 | 46 | - | - | - | - |
| | 300 | 0.7986 | 0.0130 | 0.2904 | 0.2904 | 1.081 | 1.959 | 0.419 | 0.076 | 7.04 | 2 | 22 | 58 | - | - | - | - |

Notes: See notes to Table 1.

## Table 302: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0226 | 0.0226 | 1.002 | 1.082 | 1.000 | 0.877 | 4.14 | 4 | 5 | 7 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0246 | 0.0246 | 1.002 | 1.094 | 1.000 | 0.865 | 4.15 | 4 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0247 | 0.0247 | 1.002 | 1.100 | 1.000 | 0.862 | 4.15 | 4 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0124 | 0.0124 | 1.001 | 1.052 | 1.000 | 0.930 | 4.08 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0143 | 0.0143 | 1.002 | 1.064 | 1.000 | 0.919 | 4.09 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0131 | 0.0131 | 1.001 | 1.057 | 1.000 | 0.924 | 4.08 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0036 | 0.0036 | 1.001 | 1.020 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0043 | 0.0043 | 1.001 | 1.025 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0032 | 0.0032 | 1.000 | 1.016 | 1.000 | 0.981 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0203 | 0.0203 | 1.002 | 1.068 | 1.000 | 0.888 | 4.13 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0227 | 0.0227 | 1.002 | 1.080 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0224 | 0.0224 | 1.002 | 1.079 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0112 | 0.0112 | 1.001 | 1.043 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0129 | 0.0129 | 1.001 | 1.053 | 1.000 | 0.927 | 4.08 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0120 | 0.0120 | 1.001 | 1.047 | 1.000 | 0.931 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0030 | 0.0030 | 1.000 | 1.015 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0041 | 0.0041 | 1.000 | 1.022 | 1.000 | 0.976 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0030 | 0.0030 | 1.000 | 1.015 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0558 | 0.4278 | 0.4278 | 1.014 | 1.305 | 1.000 | 0.094 | 9.36 | 4 | 19 | 37 | - | - | - | - |
| | 200 | 0.9998 | 0.0345 | 0.4723 | 0.4723 | 1.018 | 1.362 | 0.999 | 0.086 | 10.77 | 4 | 23 | 39 | - | - | - | - |
| | 300 | 0.9998 | 0.0247 | 0.4864 | 0.4864 | 1.018 | 1.384 | 0.999 | 0.075 | 11.31 | 4 | 24.5 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9813 | 0.0133 | 0.1238 | 0.1238 | 1.013 | 1.620 | 0.929 | 0.565 | 5.20 | 3 | 11 | 30 | - | - | - | - |
| | 200 | 0.9858 | 0.0110 | 0.1759 | 0.1759 | 1.018 | 1.752 | 0.947 | 0.486 | 6.09 | 4 | 16 | 34 | - | - | - | - |
| | 300 | 0.9859 | 0.0092 | 0.2080 | 0.2080 | 1.022 | 1.841 | 0.946 | 0.439 | 6.68 | 4 | 18 | 60 | - | - | - | - |

Notes: See notes to Table 1.

## Table 303: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0217 | 0.0217 | 1.001 | 1.079 | 1.000 | 0.882 | 4.14 | 4 | 5 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0228 | 0.0228 | 1.001 | 1.087 | 1.000 | 0.875 | 4.14 | 4 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0244 | 0.0244 | 1.002 | 1.104 | 1.000 | 0.862 | 4.15 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0129 | 0.0129 | 1.001 | 1.052 | 1.000 | 0.928 | 4.08 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0134 | 0.0134 | 1.001 | 1.060 | 1.000 | 0.925 | 4.08 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0123 | 0.0123 | 1.001 | 1.058 | 1.000 | 0.928 | 4.07 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0035 | 0.0035 | 1.000 | 1.018 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0039 | 0.0039 | 1.000 | 1.021 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.017 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0200 | 0.0200 | 1.001 | 1.064 | 1.000 | 0.890 | 4.12 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0210 | 0.0210 | 1.001 | 1.073 | 1.000 | 0.885 | 4.13 | 4 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0223 | 0.0223 | 1.001 | 1.087 | 1.000 | 0.873 | 4.14 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0120 | 0.0120 | 1.001 | 1.044 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0119 | 0.0119 | 1.001 | 1.047 | 1.000 | 0.934 | 4.07 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0111 | 0.0111 | 1.001 | 1.048 | 1.000 | 0.934 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0030 | 0.0030 | 1.000 | 1.014 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.016 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.014 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0566 | 0.4326 | 0.4326 | 1.009 | 1.310 | 1.000 | 0.086 | 9.43 | 4 | 19 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0330 | 0.4627 | 0.4627 | 1.010 | 1.347 | 1.000 | 0.087 | 10.48 | 4 | 22 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0246 | 0.4806 | 0.4806 | 1.011 | 1.384 | 1.000 | 0.081 | 11.28 | 4 | 25 | 47 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9990 | 0.0124 | 0.1066 | 0.1066 | 1.007 | 1.475 | 0.996 | 0.699 | 5.19 | 4 | 12 | 29 | - | - | - | - |
| | 200 | 0.9984 | 0.0103 | 0.1551 | 0.1551 | 1.010 | 1.640 | 0.994 | 0.615 | 6.02 | 4 | 16 | 33 | - | - | - | - |
| | 300 | 0.9985 | 0.0097 | 0.1947 | 0.1947 | 1.013 | 1.786 | 0.994 | 0.567 | 6.86 | 4 | 18 | 38 | - | - | - | - |

Notes: See notes to Table 1.

## Table 304: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8874 | 0.0021 | 0.0366 | 0.0366 | 1.015 | 1.181 | 0.739 | 0.609 | 3.76 | 2 | 5 | 7 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8526 | 0.0013 | 0.0472 | 0.0472 | 1.021 | 1.246 | 0.681 | 0.535 | 3.67 | 1 | 5 | 8 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8264 | 0.0009 | 0.0521 | 0.0521 | 1.025 | 1.301 | 0.632 | 0.484 | 3.58 | 1 | 5 | 7 | 1.031 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8510 | 0.0013 | 0.0237 | 0.0237 | 1.015 | 1.176 | 0.674 | 0.600 | 3.53 | 1 | 5 | 6 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8159 | 0.0008 | 0.0314 | 0.0314 | 1.021 | 1.239 | 0.626 | 0.538 | 3.42 | 1 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.7881 | 0.0006 | 0.0350 | 0.0350 | 1.025 | 1.285 | 0.572 | 0.483 | 3.32 | 1 | 5 | 6 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7593 | 0.0004 | 0.0095 | 0.0095 | 1.021 | 1.219 | 0.527 | 0.507 | 3.08 | 0 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7223 | 0.0003 | 0.0134 | 0.0134 | 1.026 | 1.278 | 0.484 | 0.456 | 2.95 | 0 | 4 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.6929 | 0.0002 | 0.0151 | 0.0151 | 1.029 | 1.320 | 0.443 | 0.415 | 2.84 | 0 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8874 | 0.0019 | 0.0324 | 0.0324 | 1.014 | 1.160 | 0.739 | 0.624 | 3.73 | 2 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8526 | 0.0012 | 0.0444 | 0.0444 | 1.020 | 1.229 | 0.681 | 0.545 | 3.65 | 1 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8263 | 0.0008 | 0.0474 | 0.0474 | 1.023 | 1.272 | 0.632 | 0.499 | 3.55 | 1 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8510 | 0.0011 | 0.0210 | 0.0210 | 1.014 | 1.162 | 0.674 | 0.610 | 3.51 | 1 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8159 | 0.0007 | 0.0285 | 0.0285 | 1.020 | 1.224 | 0.626 | 0.547 | 3.41 | 1 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7879 | 0.0005 | 0.0313 | 0.0313 | 1.023 | 1.263 | 0.572 | 0.493 | 3.30 | 1 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7593 | 0.0004 | 0.0087 | 0.0087 | 1.021 | 1.214 | 0.527 | 0.509 | 3.07 | 0 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7223 | 0.0003 | 0.0120 | 0.0120 | 1.026 | 1.269 | 0.484 | 0.462 | 2.94 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.6929 | 0.0002 | 0.0137 | 0.0137 | 1.029 | 1.312 | 0.443 | 0.418 | 2.83 | 0 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8038 | 0.0496 | 0.4297 | 0.4297 | 1.037 | 1.161 | 0.412 | 0.037 | 7.98 | 3 | 17 | 31 | - | - | - | - |
| | 200 | 0.7794 | 0.0341 | 0.5074 | 0.5074 | 1.046 | 1.222 | 0.370 | 0.021 | 9.80 | 3 | 23 | 52 | - | - | - | - |
| | 300 | 0.7755 | 0.0294 | 0.5603 | 0.5603 | 1.050 | 1.278 | 0.361 | 0.018 | 11.80 | 3 | 28 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5700 | 0.0168 | 0.2200 | 0.2200 | 1.045 | 1.560 | 0.079 | 0.012 | 3.89 | 1 | 9 | 29 | - | - | - | - |
| | 200 | 0.5606 | 0.0136 | 0.2961 | 0.2961 | 1.062 | 1.706 | 0.079 | 0.013 | 4.91 | 1 | 13 | 39 | - | - | - | - |
| | 300 | 0.5795 | 0.0135 | 0.3691 | 0.3691 | 1.075 | 1.857 | 0.089 | 0.004 | 6.30 | 1 | 19 | 54 | - | - | - | - |

Notes: See notes to Table 1.

## Table 305: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0225 | 0.0225 | 1.003 | 1.102 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0241 | 0.0241 | 1.003 | 1.111 | 1.000 | 0.868 | 4.15 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0264 | 0.0264 | 1.003 | 1.122 | 1.000 | 0.856 | 4.16 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0008 | 0.0132 | 0.0132 | 1.002 | 1.069 | 0.999 | 0.925 | 4.08 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0131 | 0.0131 | 1.002 | 1.073 | 1.000 | 0.925 | 4.08 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0003 | 0.0146 | 0.0146 | 1.002 | 1.076 | 1.000 | 0.918 | 4.09 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0003 | 0.0044 | 0.0044 | 1.001 | 1.030 | 0.998 | 0.972 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0030 | 0.0030 | 1.000 | 1.024 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0001 | 0.0050 | 0.0050 | 1.001 | 1.034 | 0.999 | 0.969 | 4.03 | 4 | 4 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0210 | 0.0210 | 1.002 | 1.092 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0228 | 0.0228 | 1.002 | 1.101 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0252 | 0.0252 | 1.003 | 1.113 | 1.000 | 0.862 | 4.16 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0008 | 0.0120 | 0.0120 | 1.002 | 1.061 | 0.999 | 0.931 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0122 | 0.0122 | 1.002 | 1.066 | 1.000 | 0.930 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0003 | 0.0137 | 0.0137 | 1.002 | 1.070 | 1.000 | 0.922 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0003 | 0.0041 | 0.0041 | 1.001 | 1.027 | 0.998 | 0.974 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.023 | 1.000 | 0.983 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0001 | 0.0044 | 0.0044 | 1.001 | 1.029 | 0.999 | 0.973 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.9841 | 0.0523 | 0.4104 | 0.4104 | 1.014 | 1.297 | 0.938 | 0.111 | 8.96 | 4 | 18 | 38 | - | - | - | - |
| | 200 | 0.9830 | 0.0330 | 0.4599 | 0.4599 | 1.017 | 1.354 | 0.932 | 0.077 | 10.40 | 4 | 22 | 46 | - | - | - | - |
| | 300 | 0.9783 | 0.0245 | 0.4810 | 0.4810 | 1.019 | 1.363 | 0.914 | 0.075 | 11.16 | 4 | 25 | 48 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8651 | 0.0140 | 0.1514 | 0.1514 | 1.017 | 1.752 | 0.566 | 0.238 | 4.80 | 2 | 10 | 24 | - | - | - | - |
| | 200 | 0.8733 | 0.0116 | 0.2073 | 0.2073 | 1.022 | 1.878 | 0.587 | 0.190 | 5.76 | 2 | 14 | 41 | - | - | - | - |
| | 300 | 0.8641 | 0.0095 | 0.2361 | 0.2361 | 1.026 | 1.940 | 0.556 | 0.157 | 6.27 | 2 | 16 | 43 | - | - | - | - |

Notes: See notes to Table 1.

## Table 306: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0193 | 0.0193 | 1.001 | 1.082 | 1.000 | 0.891 | 4.12 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0230 | 0.0230 | 1.001 | 1.110 | 1.000 | 0.871 | 4.14 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0207 | 0.0207 | 1.002 | 1.099 | 1.000 | 0.883 | 4.13 | 4 | 5 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0111 | 0.0111 | 1.001 | 1.053 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0118 | 0.0118 | 1.001 | 1.063 | 1.000 | 0.932 | 4.07 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0115 | 0.0115 | 1.001 | 1.063 | 1.000 | 0.934 | 4.07 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.015 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0032 | 0.0032 | 1.000 | 1.021 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.020 | 1.000 | 0.984 | 4.02 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0183 | 0.0183 | 1.001 | 1.075 | 1.000 | 0.897 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0219 | 0.0219 | 1.001 | 1.101 | 1.000 | 0.878 | 4.14 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0200 | 0.0200 | 1.002 | 1.094 | 1.000 | 0.887 | 4.12 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0103 | 0.0103 | 1.001 | 1.046 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0112 | 0.0112 | 1.001 | 1.058 | 1.000 | 0.935 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0110 | 0.0110 | 1.001 | 1.059 | 1.000 | 0.937 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.012 | 1.000 | 0.987 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.019 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.019 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0554 | 0.4302 | 0.4302 | 1.009 | 1.315 | 0.999 | 0.085 | 9.32 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.9980 | 0.0336 | 0.4647 | 0.4647 | 1.010 | 1.349 | 0.992 | 0.087 | 10.59 | 4 | 22 | 50 | - | - | - | - |
| | 300 | 0.9975 | 0.0246 | 0.4895 | 0.4895 | 1.011 | 1.361 | 0.990 | 0.073 | 11.29 | 4 | 24 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9570 | 0.0136 | 0.1353 | 0.1353 | 1.009 | 1.677 | 0.842 | 0.450 | 5.14 | 3 | 10 | 34 | - | - | - | - |
| | 200 | 0.9591 | 0.0116 | 0.1939 | 0.1939 | 1.013 | 1.816 | 0.849 | 0.374 | 6.10 | 3 | 15 | 34 | - | - | - | - |
| | 300 | 0.9593 | 0.0104 | 0.2349 | 0.2349 | 1.016 | 1.923 | 0.847 | 0.323 | 6.90 | 3 | 19 | 47 | - | - | - | - |

Notes: See notes to Table 1.

## Table 307: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9999 | 0.0030 | 0.0453 | 0.0453 | 1.009 | 1.110 | 1.000 | 0.769 | 4.29 | 4 | 5 | 7 | 1.036 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0017 | 0.0508 | 0.0508 | 1.011 | 1.135 | 1.000 | 0.736 | 4.32 | 4 | 6 | 9 | 1.031 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0013 | 0.0602 | 0.0602 | 1.013 | 1.157 | 1.000 | 0.705 | 4.40 | 4 | 6 | 11 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0018 | 0.0277 | 0.0277 | 1.006 | 1.076 | 0.999 | 0.852 | 4.17 | 4 | 5 | 7 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0010 | 0.0313 | 0.0313 | 1.007 | 1.092 | 0.999 | 0.829 | 4.19 | 4 | 5 | 7 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0008 | 0.0368 | 0.0368 | 1.009 | 1.111 | 1.000 | 0.810 | 4.24 | 4 | 5 | 9 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0005 | 0.0078 | 0.0078 | 1.002 | 1.028 | 0.998 | 0.954 | 4.05 | 4 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9993 | 0.0003 | 0.0107 | 0.0107 | 1.003 | 1.043 | 0.997 | 0.936 | 4.06 | 4 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0003 | 0.0124 | 0.0124 | 1.004 | 1.050 | 0.996 | 0.928 | 4.07 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9999 | 0.0027 | 0.0407 | 0.0407 | 1.007 | 1.080 | 1.000 | 0.791 | 4.26 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0015 | 0.0471 | 0.0471 | 1.009 | 1.106 | 1.000 | 0.753 | 4.30 | 4 | 5 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0012 | 0.0544 | 0.0544 | 1.009 | 1.114 | 1.000 | 0.733 | 4.36 | 4 | 6 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0016 | 0.0242 | 0.0242 | 1.004 | 1.051 | 0.999 | 0.869 | 4.15 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0009 | 0.0289 | 0.0289 | 1.006 | 1.074 | 0.999 | 0.841 | 4.18 | 4 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0007 | 0.0332 | 0.0332 | 1.006 | 1.080 | 1.000 | 0.829 | 4.21 | 4 | 5 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0004 | 0.0068 | 0.0068 | 1.001 | 1.020 | 0.998 | 0.960 | 4.04 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9993 | 0.0003 | 0.0095 | 0.0095 | 1.003 | 1.035 | 0.997 | 0.942 | 4.05 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0002 | 0.0111 | 0.0111 | 1.003 | 1.037 | 0.996 | 0.935 | 4.07 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.9973 | 0.0572 | 0.4304 | 0.4304 | 1.046 | 1.324 | 0.989 | 0.108 | 9.48 | 4 | 18 | 38 | - | - | - | - |
| | 200 | 0.9966 | 0.0389 | 0.5000 | 0.5000 | 1.056 | 1.401 | 0.988 | 0.079 | 11.62 | 4 | 25 | 42 | - | - | - | - |
| | 300 | 0.9973 | 0.0329 | 0.5550 | 0.5550 | 1.060 | 1.449 | 0.989 | 0.064 | 13.72 | 4 | 29 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9348 | 0.0138 | 0.1361 | 0.1361 | 1.059 | 1.769 | 0.779 | 0.411 | 5.07 | 3 | 11 | 31 | - | - | - | - |
| | 200 | 0.9369 | 0.0127 | 0.2004 | 0.2004 | 1.074 | 1.896 | 0.775 | 0.323 | 6.24 | 3 | 17 | 34 | - | - | - | - |
| | 300 | 0.9439 | 0.0121 | 0.2556 | 0.2556 | 1.085 | 1.992 | 0.803 | 0.277 | 7.36 | 3 | 21 | 43 | - | - | - | - |

Notes: See notes to Table 1.

## Table 308: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0021 | 0.0318 | 0.0318 | 1.002 | 1.079 | 1.000 | 0.830 | 4.20 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0011 | 0.0348 | 0.0348 | 1.002 | 1.076 | 1.000 | 0.816 | 4.22 | 4 | 5 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0366 | 0.0366 | 1.002 | 1.096 | 1.000 | 0.802 | 4.23 | 4 | 5 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0167 | 0.0167 | 1.001 | 1.047 | 1.000 | 0.906 | 4.10 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0190 | 0.0190 | 1.001 | 1.042 | 1.000 | 0.894 | 4.12 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0221 | 0.0221 | 1.001 | 1.062 | 1.000 | 0.876 | 4.14 | 4 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0046 | 0.0046 | 1.000 | 1.014 | 1.000 | 0.973 | 4.03 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0054 | 0.0054 | 1.000 | 1.014 | 1.000 | 0.969 | 4.03 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0056 | 0.0056 | 1.000 | 1.016 | 1.000 | 0.968 | 4.03 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0019 | 0.0292 | 0.0292 | 1.001 | 1.059 | 1.000 | 0.843 | 4.18 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0011 | 0.0325 | 0.0325 | 1.001 | 1.060 | 1.000 | 0.829 | 4.21 | 4 | 5 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0338 | 0.0338 | 1.002 | 1.071 | 1.000 | 0.817 | 4.21 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0010 | 0.0151 | 0.0151 | 1.001 | 1.035 | 1.000 | 0.915 | 4.09 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0178 | 0.0178 | 1.001 | 1.034 | 1.000 | 0.901 | 4.11 | 4 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0200 | 0.0200 | 1.001 | 1.042 | 1.000 | 0.888 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0043 | 0.0043 | 1.000 | 1.011 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0002 | 0.0050 | 0.0050 | 1.000 | 1.011 | 1.000 | 0.972 | 4.03 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0053 | 0.0053 | 1.000 | 1.013 | 1.000 | 0.970 | 4.03 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0550 | 0.4227 | 0.4227 | 1.014 | 1.322 | 1.000 | 0.103 | 9.28 | 4 | 19 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0333 | 0.4626 | 0.4626 | 1.017 | 1.343 | 1.000 | 0.092 | 10.53 | 4 | 22 | 47 | - | - | - | - |
| | 300 | 1.0000 | 0.0269 | 0.5108 | 0.5108 | 1.018 | 1.378 | 1.000 | 0.063 | 11.95 | 4 | 26 | 46 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0115 | 0.0932 | 0.0932 | 1.010 | 1.447 | 1.000 | 0.767 | 5.11 | 4 | 12 | 31 | - | - | - | - |
| | 200 | 0.9996 | 0.0104 | 0.1481 | 0.1481 | 1.016 | 1.598 | 0.999 | 0.683 | 6.04 | 4 | 15.5 | 32 | - | - | - | - |
| | 300 | 0.9999 | 0.0097 | 0.1908 | 0.1908 | 1.020 | 1.712 | 1.000 | 0.623 | 6.88 | 4 | 19 | 38 | - | - | - | - |

Notes: See notes to Table 1.

## Table 309: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0021 | 0.0319 | 0.0319 | 1.001 | 1.072 | 1.000 | 0.826 | 4.20 | 4 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0010 | 0.0323 | 0.0323 | 1.001 | 1.078 | 1.000 | 0.825 | 4.20 | 4 | 5 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0344 | 0.0344 | 1.001 | 1.086 | 1.000 | 0.816 | 4.22 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0176 | 0.0176 | 1.001 | 1.043 | 1.000 | 0.900 | 4.11 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0185 | 0.0185 | 1.001 | 1.048 | 1.000 | 0.898 | 4.11 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0178 | 0.0178 | 1.001 | 1.052 | 1.000 | 0.900 | 4.11 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0048 | 0.0048 | 1.000 | 1.015 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0043 | 0.0043 | 1.000 | 1.014 | 1.000 | 0.975 | 4.03 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0048 | 0.0048 | 1.000 | 1.017 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0019 | 0.0299 | 0.0299 | 1.001 | 1.058 | 1.000 | 0.835 | 4.19 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0010 | 0.0301 | 0.0301 | 1.001 | 1.060 | 1.000 | 0.837 | 4.19 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0327 | 0.0327 | 1.001 | 1.071 | 1.000 | 0.825 | 4.21 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0165 | 0.0165 | 1.000 | 1.033 | 1.000 | 0.907 | 4.10 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0173 | 0.0173 | 1.000 | 1.038 | 1.000 | 0.904 | 4.11 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0169 | 0.0169 | 1.001 | 1.043 | 1.000 | 0.905 | 4.10 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0044 | 0.0044 | 1.000 | 1.011 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0041 | 0.0041 | 1.000 | 1.012 | 1.000 | 0.976 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0046 | 0.0046 | 1.000 | 1.015 | 1.000 | 0.973 | 4.03 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0533 | 0.4144 | 0.4144 | 1.008 | 1.297 | 1.000 | 0.101 | 9.11 | 4 | 18 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0325 | 0.4525 | 0.4525 | 1.010 | 1.335 | 1.000 | 0.098 | 10.37 | 4 | 21.5 | 40 | - | - | - | - |
| | 300 | 1.0000 | 0.0244 | 0.4824 | 0.4824 | 1.012 | 1.371 | 1.000 | 0.071 | 11.22 | 4 | 24 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0101 | 0.0796 | 0.0796 | 1.005 | 1.359 | 1.000 | 0.832 | 4.97 | 4 | 12 | 29 | - | - | - | - |
| | 200 | 1.0000 | 0.0088 | 0.1259 | 0.1259 | 1.008 | 1.484 | 1.000 | 0.764 | 5.72 | 4 | 14 | 31 | - | - | - | - |
| | 300 | 1.0000 | 0.0081 | 0.1633 | 0.1633 | 1.010 | 1.606 | 1.000 | 0.705 | 6.39 | 4 | 17 | 36 | - | - | - | - |

Notes: See notes to Table 1.

**Table 310: Monte Carlo findings for DGPI(b)**

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9941 | 0.0028 | 0.0420 | 0.0420 | 1.011 | 1.125 | 0.981 | 0.776 | 4.24 | 4 | 5 | 9 | 1.034 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9894 | 0.0015 | 0.0455 | 0.0455 | 1.012 | 1.146 | 0.965 | 0.735 | 4.25 | 4 | 5 | 8 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9858 | 0.0011 | 0.0490 | 0.0490 | 1.014 | 1.168 | 0.954 | 0.733 | 4.26 | 4 | 6 | 11 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9908 | 0.0016 | 0.0247 | 0.0247 | 1.008 | 1.094 | 0.970 | 0.845 | 4.12 | 4 | 5 | 8 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9853 | 0.0009 | 0.0274 | 0.0274 | 1.009 | 1.108 | 0.952 | 0.810 | 4.11 | 4 | 5 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9813 | 0.0006 | 0.0302 | 0.0302 | 1.010 | 1.127 | 0.943 | 0.805 | 4.12 | 4 | 5 | 8 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9780 | 0.0005 | 0.0081 | 0.0081 | 1.005 | 1.069 | 0.936 | 0.896 | 3.96 | 3 | 4 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9694 | 0.0003 | 0.0084 | 0.0084 | 1.006 | 1.084 | 0.910 | 0.865 | 3.93 | 3 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9645 | 0.0002 | 0.0088 | 0.0088 | 1.007 | 1.097 | 0.899 | 0.855 | 3.91 | 3 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9941 | 0.0025 | 0.0378 | 0.0378 | 1.009 | 1.095 | 0.981 | 0.796 | 4.22 | 4 | 5 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9894 | 0.0013 | 0.0417 | 0.0417 | 1.010 | 1.121 | 0.965 | 0.753 | 4.22 | 4 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9858 | 0.0010 | 0.0448 | 0.0448 | 1.012 | 1.140 | 0.954 | 0.752 | 4.23 | 4 | 6 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9908 | 0.0014 | 0.0217 | 0.0217 | 1.006 | 1.073 | 0.970 | 0.859 | 4.10 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9853 | 0.0008 | 0.0243 | 0.0243 | 1.007 | 1.087 | 0.952 | 0.825 | 4.09 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9813 | 0.0006 | 0.0277 | 0.0277 | 1.009 | 1.107 | 0.943 | 0.817 | 4.10 | 4 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9780 | 0.0004 | 0.0067 | 0.0067 | 1.004 | 1.059 | 0.936 | 0.903 | 3.95 | 3 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9694 | 0.0002 | 0.0077 | 0.0077 | 1.006 | 1.079 | 0.910 | 0.869 | 3.92 | 3 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9645 | 0.0002 | 0.0080 | 0.0080 | 1.006 | 1.090 | 0.899 | 0.859 | 3.91 | 3 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.9515 | 0.0531 | 0.4163 | 0.4163 | 1.045 | 1.276 | 0.819 | 0.095 | 8.90 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.9438 | 0.0397 | 0.5094 | 0.5094 | 1.053 | 1.325 | 0.794 | 0.054 | 11.56 | 4 | 26 | 53 | - | - | - | - |
| | 300 | 0.9448 | 0.0325 | 0.5552 | 0.5552 | 1.058 | 1.388 | 0.797 | 0.044 | 13.40 | 4 | 30 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7570 | 0.0146 | 0.1619 | 0.1619 | 1.061 | 1.756 | 0.323 | 0.113 | 4.43 | 2 | 10 | 26 | - | - | - | - |
| | 200 | 0.7834 | 0.0136 | 0.2432 | 0.2432 | 1.074 | 1.830 | 0.380 | 0.091 | 5.80 | 2 | 15 | 36 | - | - | - | - |
| | 300 | 0.7849 | 0.0128 | 0.3037 | 0.3037 | 1.085 | 1.950 | 0.386 | 0.061 | 6.93 | 2 | 19 | 49 | - | - | - | - |

Notes: See notes to Table 1.

## Table 311: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0019 | 0.0295 | 0.0295 | 1.002 | 1.084 | 1.000 | 0.842 | 4.18 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0010 | 0.0314 | 0.0314 | 1.003 | 1.101 | 1.000 | 0.830 | 4.20 | 4 | 5 | 7 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0318 | 0.0318 | 1.003 | 1.109 | 1.000 | 0.827 | 4.20 | 4 | 5 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0163 | 0.0163 | 1.001 | 1.052 | 1.000 | 0.911 | 4.10 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0161 | 0.0161 | 1.002 | 1.059 | 1.000 | 0.909 | 4.10 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0178 | 0.0178 | 1.001 | 1.066 | 1.000 | 0.901 | 4.11 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0048 | 0.0048 | 1.000 | 1.020 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0045 | 0.0045 | 1.001 | 1.021 | 1.000 | 0.974 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0032 | 0.0032 | 1.000 | 1.014 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0283 | 0.0283 | 1.002 | 1.076 | 1.000 | 0.847 | 4.18 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0009 | 0.0294 | 0.0294 | 1.002 | 1.084 | 1.000 | 0.839 | 4.18 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0303 | 0.0303 | 1.002 | 1.096 | 1.000 | 0.835 | 4.19 | 4 | 5 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0010 | 0.0155 | 0.0155 | 1.001 | 1.045 | 1.000 | 0.915 | 4.10 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0148 | 0.0148 | 1.001 | 1.047 | 1.000 | 0.916 | 4.09 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0166 | 0.0166 | 1.001 | 1.055 | 1.000 | 0.908 | 4.10 | 4 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0042 | 0.0042 | 1.000 | 1.015 | 1.000 | 0.976 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0040 | 0.0040 | 1.000 | 1.016 | 1.000 | 0.977 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.010 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0561 | 0.4296 | 0.4296 | 1.015 | 1.308 | 1.000 | 0.093 | 9.39 | 4 | 19 | 35 | - | - | - | - |
| | 200 | 0.9994 | 0.0353 | 0.4841 | 0.4841 | 1.017 | 1.343 | 0.998 | 0.067 | 10.92 | 4 | 23 | 51 | - | - | - | - |
| | 300 | 0.9995 | 0.0281 | 0.5152 | 0.5152 | 1.018 | 1.399 | 0.998 | 0.068 | 12.30 | 4 | 27 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9815 | 0.0131 | 0.1240 | 0.1240 | 1.014 | 1.618 | 0.928 | 0.560 | 5.18 | 3 | 11 | 24 | - | - | - | - |
| | 200 | 0.9829 | 0.0122 | 0.1896 | 0.1896 | 1.020 | 1.767 | 0.935 | 0.471 | 6.33 | 3 | 17 | 39 | - | - | - | - |
| | 300 | 0.9853 | 0.0119 | 0.2387 | 0.2387 | 1.026 | 1.925 | 0.943 | 0.417 | 7.46 | 4 | 21 | 51 | - | - | - | - |

Notes: See notes to Table 1.

## Table 312: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0250 | 0.0250 | 1.001 | 1.070 | 1.000 | 0.863 | 4.16 | 4 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0253 | 0.0253 | 1.001 | 1.081 | 1.000 | 0.862 | 4.16 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0328 | 0.0328 | 1.001 | 1.115 | 1.000 | 0.826 | 4.21 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0142 | 0.0142 | 1.000 | 1.039 | 1.000 | 0.919 | 4.09 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0143 | 0.0143 | 1.001 | 1.052 | 1.000 | 0.922 | 4.09 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0185 | 0.0185 | 1.001 | 1.072 | 1.000 | 0.896 | 4.11 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.009 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0048 | 0.0048 | 1.000 | 1.022 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0048 | 0.0048 | 1.000 | 1.024 | 1.000 | 0.972 | 4.03 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0240 | 0.0240 | 1.001 | 1.063 | 1.000 | 0.868 | 4.15 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0244 | 0.0244 | 1.001 | 1.073 | 1.000 | 0.866 | 4.15 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0313 | 0.0313 | 1.001 | 1.102 | 1.000 | 0.833 | 4.20 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0138 | 0.0138 | 1.000 | 1.036 | 1.000 | 0.921 | 4.08 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0132 | 0.0132 | 1.001 | 1.044 | 1.000 | 0.927 | 4.08 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0178 | 0.0178 | 1.001 | 1.064 | 1.000 | 0.900 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0027 | 0.0027 | 1.000 | 1.009 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0042 | 0.0042 | 1.000 | 1.016 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0047 | 0.0047 | 1.000 | 1.023 | 1.000 | 0.972 | 4.03 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0539 | 0.4207 | 0.4207 | 1.008 | 1.291 | 1.000 | 0.101 | 9.18 | 4 | 18 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0337 | 0.4690 | 0.4690 | 1.010 | 1.346 | 1.000 | 0.073 | 10.61 | 4 | 22 | 45 | - | - | - | - |
| | 300 | 1.0000 | 0.0264 | 0.5041 | 0.5041 | 1.011 | 1.384 | 1.000 | 0.066 | 11.82 | 4 | 26 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9984 | 0.0130 | 0.1075 | 0.1075 | 1.007 | 1.492 | 0.994 | 0.705 | 5.24 | 4 | 12 | 35 | - | - | - | - |
| | 200 | 0.9984 | 0.0109 | 0.1557 | 0.1557 | 1.010 | 1.648 | 0.994 | 0.632 | 6.13 | 4 | 17 | 37 | - | - | - | - |
| | 300 | 0.9990 | 0.0102 | 0.2027 | 0.2027 | 1.014 | 1.807 | 0.996 | 0.561 | 7.02 | 4 | 19 | 40 | - | - | - | - |

Notes: See notes to Table 1.

**Table 313: Monte Carlo findings for DGPI(b)**

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8781 | 0.0022 | 0.0377 | 0.0377 | 1.014 | 1.156 | 0.722 | 0.597 | 3.73 | 1 | 5 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8489 | 0.0013 | 0.0472 | 0.0472 | 1.021 | 1.224 | 0.674 | 0.528 | 3.66 | 1 | 5 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8345 | 0.0010 | 0.0530 | 0.0530 | 1.024 | 1.264 | 0.639 | 0.495 | 3.62 | 1 | 5 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8475 | 0.0014 | 0.0250 | 0.0250 | 1.014 | 1.148 | 0.670 | 0.589 | 3.53 | 1 | 5 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8121 | 0.0009 | 0.0314 | 0.0314 | 1.021 | 1.214 | 0.614 | 0.524 | 3.42 | 1 | 5 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.7963 | 0.0005 | 0.0326 | 0.0326 | 1.023 | 1.241 | 0.577 | 0.500 | 3.35 | 1 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7591 | 0.0004 | 0.0080 | 0.0080 | 1.020 | 1.188 | 0.539 | 0.518 | 3.08 | 0 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7234 | 0.0003 | 0.0117 | 0.0117 | 1.026 | 1.248 | 0.491 | 0.464 | 2.95 | 0 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7008 | 0.0002 | 0.0129 | 0.0129 | 1.029 | 1.280 | 0.449 | 0.427 | 2.86 | 0 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8781 | 0.0020 | 0.0350 | 0.0350 | 1.013 | 1.140 | 0.722 | 0.607 | 3.71 | 1 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8489 | 0.0013 | 0.0441 | 0.0441 | 1.020 | 1.206 | 0.674 | 0.539 | 3.64 | 1 | 5 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8345 | 0.0009 | 0.0499 | 0.0499 | 1.022 | 1.244 | 0.639 | 0.505 | 3.60 | 1 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8475 | 0.0013 | 0.0228 | 0.0228 | 1.013 | 1.136 | 0.670 | 0.598 | 3.51 | 1 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8121 | 0.0008 | 0.0285 | 0.0285 | 1.019 | 1.197 | 0.614 | 0.532 | 3.40 | 1 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7963 | 0.0005 | 0.0310 | 0.0310 | 1.022 | 1.232 | 0.577 | 0.504 | 3.34 | 1 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7591 | 0.0004 | 0.0075 | 0.0075 | 1.019 | 1.185 | 0.539 | 0.520 | 3.07 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7231 | 0.0003 | 0.0111 | 0.0111 | 1.026 | 1.243 | 0.491 | 0.467 | 2.94 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7008 | 0.0002 | 0.0122 | 0.0122 | 1.029 | 1.276 | 0.449 | 0.429 | 2.86 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.7984 | 0.0516 | 0.4421 | 0.4421 | 1.036 | 1.155 | 0.397 | 0.047 | 8.15 | 3 | 17 | 47 | - | - | - | - |
| | 200 | 0.7836 | 0.0384 | 0.5408 | 0.5408 | 1.045 | 1.210 | 0.374 | 0.022 | 10.67 | 3 | 23 | 52 | - | - | - | - |
| | 300 | 0.7826 | 0.0320 | 0.5969 | 0.5969 | 1.048 | 1.267 | 0.351 | 0.015 | 12.59 | 4 | 28 | 53 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5639 | 0.0172 | 0.2235 | 0.2235 | 1.046 | 1.551 | 0.062 | 0.013 | 3.91 | 1 | 9 | 24 | - | - | - | - |
| | 200 | 0.5728 | 0.0149 | 0.3162 | 0.3162 | 1.063 | 1.690 | 0.088 | 0.016 | 5.22 | 1 | 13.5 | 40 | - | - | - | - |
| | 300 | 0.5861 | 0.0137 | 0.3812 | 0.3812 | 1.076 | 1.839 | 0.084 | 0.005 | 6.39 | 1 | 18 | 46 | - | - | - | - |

Notes: See notes to Table 1.

## Table 314: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9999 | 0.0017 | 0.0252 | 0.0252 | 1.002 | 1.095 | 1.000 | 0.865 | 4.16 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0009 | 0.0266 | 0.0266 | 1.003 | 1.119 | 1.000 | 0.858 | 4.17 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0006 | 0.0295 | 0.0295 | 1.003 | 1.137 | 0.999 | 0.836 | 4.18 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0010 | 0.0155 | 0.0155 | 1.002 | 1.066 | 1.000 | 0.912 | 4.09 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0144 | 0.0144 | 1.002 | 1.074 | 1.000 | 0.920 | 4.09 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0003 | 0.0158 | 0.0158 | 1.002 | 1.083 | 0.999 | 0.910 | 4.10 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0003 | 0.0040 | 0.0040 | 1.001 | 1.023 | 1.000 | 0.976 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0002 | 0.0051 | 0.0051 | 1.001 | 1.033 | 1.000 | 0.970 | 4.03 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0001 | 0.0039 | 0.0039 | 1.001 | 1.027 | 0.998 | 0.976 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9999 | 0.0016 | 0.0242 | 0.0242 | 1.002 | 1.087 | 1.000 | 0.870 | 4.15 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0255 | 0.0255 | 1.003 | 1.110 | 1.000 | 0.863 | 4.16 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0006 | 0.0280 | 0.0280 | 1.003 | 1.125 | 0.999 | 0.844 | 4.17 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0010 | 0.0150 | 0.0150 | 1.001 | 1.063 | 1.000 | 0.915 | 4.09 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0138 | 0.0138 | 1.002 | 1.069 | 1.000 | 0.924 | 4.09 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0003 | 0.0145 | 0.0145 | 1.002 | 1.071 | 0.999 | 0.918 | 4.09 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0002 | 0.0037 | 0.0037 | 1.001 | 1.020 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0001 | 0.0048 | 0.0048 | 1.001 | 1.030 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0001 | 0.0034 | 0.0034 | 1.001 | 1.022 | 0.998 | 0.979 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9826 | 0.0559 | 0.4298 | 0.4298 | 1.015 | 1.306 | 0.931 | 0.085 | 9.30 | 4 | 19 | 38 | - | - | - | - |
| | 200 | 0.9831 | 0.0336 | 0.4690 | 0.4690 | 1.018 | 1.358 | 0.934 | 0.074 | 10.51 | 4 | 22 | 56 | - | - | - | - |
| | 300 | 0.9810 | 0.0268 | 0.5067 | 0.5067 | 1.019 | 1.386 | 0.927 | 0.062 | 11.87 | 4 | 26 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8660 | 0.0150 | 0.1609 | 0.1609 | 1.018 | 1.747 | 0.558 | 0.223 | 4.91 | 2 | 10 | 26 | - | - | - | - |
| | 200 | 0.8690 | 0.0118 | 0.2120 | 0.2120 | 1.023 | 1.884 | 0.573 | 0.168 | 5.78 | 2 | 14 | 49 | - | - | - | - |
| | 300 | 0.8773 | 0.0108 | 0.2594 | 0.2594 | 1.026 | 1.988 | 0.590 | 0.139 | 6.72 | 2 | 17.5 | 43 | - | - | - | - |

Notes: See notes to Table 1.

## Table 315: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0228 | 0.0228 | 1.001 | 1.088 | 1.000 | 0.871 | 4.14 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0224 | 0.0224 | 1.002 | 1.099 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0215 | 0.0215 | 1.001 | 1.099 | 1.000 | 0.880 | 4.13 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0109 | 0.0109 | 1.001 | 1.048 | 1.000 | 0.937 | 4.07 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0132 | 0.0132 | 1.001 | 1.066 | 1.000 | 0.925 | 4.08 | 4 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0118 | 0.0118 | 1.001 | 1.063 | 1.000 | 0.931 | 4.07 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.014 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0032 | 0.0032 | 1.000 | 1.020 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0024 | 0.0024 | 1.000 | 1.017 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0213 | 0.0213 | 1.001 | 1.078 | 1.000 | 0.879 | 4.13 | 4 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0215 | 0.0215 | 1.002 | 1.092 | 1.000 | 0.880 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0209 | 0.0209 | 1.001 | 1.094 | 1.000 | 0.883 | 4.13 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0104 | 0.0104 | 1.001 | 1.043 | 1.000 | 0.940 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0126 | 0.0126 | 1.001 | 1.061 | 1.000 | 0.929 | 4.08 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0112 | 0.0112 | 1.001 | 1.058 | 1.000 | 0.934 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0024 | 0.0024 | 1.000 | 1.012 | 1.000 | 0.987 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0030 | 0.0030 | 1.000 | 1.018 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0022 | 0.0022 | 1.000 | 1.015 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9990 | 0.0573 | 0.4364 | 0.4364 | 1.009 | 1.294 | 0.996 | 0.090 | 9.50 | 4 | 19 | 37 | - | - | - | - |
| | 200 | 0.9983 | 0.0344 | 0.4781 | 0.4781 | 1.009 | 1.348 | 0.993 | 0.080 | 10.74 | 4 | 22 | 40 | - | - | - | - |
| | 300 | 0.9978 | 0.0251 | 0.4935 | 0.4935 | 1.011 | 1.367 | 0.991 | 0.072 | 11.43 | 4 | 24 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9543 | 0.0143 | 0.1395 | 0.1395 | 1.010 | 1.676 | 0.829 | 0.445 | 5.19 | 3 | 10 | 28 | - | - | - | - |
| | 200 | 0.9613 | 0.0119 | 0.1973 | 0.1973 | 1.012 | 1.813 | 0.857 | 0.384 | 6.18 | 3 | 15 | 37 | - | - | - | - |
| | 300 | 0.9601 | 0.0102 | 0.2312 | 0.2312 | 1.016 | 1.922 | 0.852 | 0.346 | 6.87 | 3 | 18 | 47 | - | - | - | - |

Notes: See notes to Table 1.

## Table 316: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0018 | 0.0257 | 0.0257 | 1.008 | 1.161 | 1.000 | 0.873 | 4.18 | 4 | 5 | 20 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0010 | 0.0279 | 0.0279 | 1.007 | 1.173 | 0.999 | 0.866 | 4.20 | 4 | 5 | 15 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0304 | 0.0304 | 1.010 | 1.216 | 1.000 | 0.864 | 4.26 | 4 | 5 | 54 | 1.033 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0011 | 0.0153 | 0.0153 | 1.005 | 1.113 | 1.000 | 0.920 | 4.10 | 4 | 5 | 17 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0006 | 0.0168 | 0.0168 | 1.005 | 1.109 | 0.999 | 0.915 | 4.11 | 4 | 5 | 10 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0005 | 0.0186 | 0.0186 | 1.007 | 1.138 | 1.000 | 0.912 | 4.15 | 4 | 5 | 41 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0004 | 0.0055 | 0.0055 | 1.003 | 1.053 | 0.999 | 0.968 | 4.03 | 4 | 4 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9995 | 0.0002 | 0.0049 | 0.0049 | 1.002 | 1.041 | 0.998 | 0.973 | 4.03 | 4 | 4 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9991 | 0.0002 | 0.0062 | 0.0062 | 1.003 | 1.060 | 0.997 | 0.965 | 4.04 | 4 | 4 | 19 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0219 | 0.0219 | 1.005 | 1.115 | 1.000 | 0.891 | 4.15 | 4 | 5 | 20 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0009 | 0.0242 | 0.0242 | 1.005 | 1.113 | 0.999 | 0.885 | 4.17 | 4 | 5 | 13 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0256 | 0.0256 | 1.007 | 1.143 | 1.000 | 0.883 | 4.22 | 4 | 5 | 53 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0127 | 0.0127 | 1.003 | 1.075 | 1.000 | 0.932 | 4.08 | 4 | 5 | 17 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0005 | 0.0146 | 0.0146 | 1.003 | 1.077 | 0.999 | 0.927 | 4.10 | 4 | 5 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0159 | 0.0159 | 1.005 | 1.089 | 1.000 | 0.924 | 4.13 | 4 | 5 | 40 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0003 | 0.0042 | 0.0042 | 1.002 | 1.034 | 0.999 | 0.975 | 4.03 | 4 | 4 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9995 | 0.0001 | 0.0042 | 0.0042 | 1.001 | 1.026 | 0.998 | 0.976 | 4.02 | 4 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9991 | 0.0001 | 0.0052 | 0.0052 | 1.002 | 1.042 | 0.997 | 0.971 | 4.04 | 4 | 4 | 19 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9990 | 0.0416 | 0.3579 | 0.3579 | 1.043 | 1.426 | 0.996 | 0.159 | 7.99 | 4 | 16 | 32 | - | - | - | - |
| | 200 | 0.9973 | 0.0302 | 0.4394 | 0.4394 | 1.051 | 1.544 | 0.989 | 0.103 | 9.91 | 4 | 21 | 37 | - | - | - | - |
| | 300 | 0.9978 | 0.0251 | 0.4830 | 0.4830 | 1.056 | 1.595 | 0.991 | 0.088 | 11.41 | 4 | 26 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9384 | 0.0095 | 0.0967 | 0.0967 | 1.056 | 1.906 | 0.785 | 0.499 | 4.66 | 3 | 9 | 26 | - | - | - | - |
| | 200 | 0.9429 | 0.0088 | 0.1544 | 0.1544 | 1.061 | 2.089 | 0.803 | 0.395 | 5.50 | 3 | 13 | 31 | - | - | - | - |
| | 300 | 0.9420 | 0.0090 | 0.1982 | 0.1982 | 1.073 | 2.249 | 0.796 | 0.355 | 6.43 | 3 | 19 | 41 | - | - | - | - |

Notes: See notes to Table 1.

## Table 317: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0182 | 0.0182 | 1.001 | 1.103 | 1.000 | 0.915 | 4.15 | 4 | 5 | 24 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0161 | 0.0161 | 1.001 | 1.094 | 1.000 | 0.926 | 4.13 | 4 | 5 | 28 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0170 | 0.0170 | 1.001 | 1.109 | 1.000 | 0.921 | 4.15 | 4 | 5 | 60 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0100 | 0.0100 | 1.001 | 1.060 | 1.000 | 0.952 | 4.07 | 4 | 4 | 16 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0088 | 0.0088 | 1.001 | 1.051 | 1.000 | 0.960 | 4.07 | 4 | 4 | 23 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0103 | 0.0103 | 1.001 | 1.075 | 1.000 | 0.951 | 4.09 | 4 | 4 | 40 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0022 | 0.0022 | 1.000 | 1.016 | 1.000 | 0.989 | 4.01 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0024 | 0.0024 | 1.000 | 1.017 | 1.000 | 0.989 | 4.02 | 4 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0035 | 0.0035 | 1.000 | 1.031 | 1.000 | 0.983 | 4.03 | 4 | 4 | 12 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0163 | 0.0163 | 1.001 | 1.079 | 1.000 | 0.923 | 4.13 | 4 | 5 | 24 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0146 | 0.0146 | 1.001 | 1.066 | 1.000 | 0.935 | 4.12 | 4 | 5 | 28 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0160 | 0.0160 | 1.001 | 1.089 | 1.000 | 0.927 | 4.15 | 4 | 5 | 59 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0087 | 0.0087 | 1.000 | 1.043 | 1.000 | 0.958 | 4.06 | 4 | 4 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0080 | 0.0080 | 1.000 | 1.036 | 1.000 | 0.964 | 4.06 | 4 | 4 | 23 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0094 | 0.0094 | 1.001 | 1.054 | 1.000 | 0.957 | 4.08 | 4 | 4 | 39 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.009 | 1.000 | 0.992 | 4.01 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.014 | 1.000 | 0.990 | 4.02 | 4 | 4 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.017 | 1.000 | 0.986 | 4.02 | 4 | 4 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0401 | 0.3578 | 0.3578 | 1.012 | 1.371 | 1.000 | 0.137 | 7.85 | 4 | 15 | 29 | - | - | - | - |
| | 200 | 1.0000 | 0.0246 | 0.3989 | 0.3989 | 1.014 | 1.442 | 1.000 | 0.115 | 8.82 | 4 | 18 | 40 | - | - | - | - |
| | 300 | 1.0000 | 0.0187 | 0.4238 | 0.4238 | 1.016 | 1.464 | 1.000 | 0.105 | 9.55 | 4 | 20 | 49 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0066 | 0.0596 | 0.0596 | 1.009 | 1.526 | 1.000 | 0.836 | 4.64 | 4 | 9 | 24 | - | - | - | - |
| | 200 | 0.9999 | 0.0057 | 0.0883 | 0.0883 | 1.011 | 1.749 | 1.000 | 0.788 | 5.12 | 4 | 12 | 33 | - | - | - | - |
| | 300 | 0.9995 | 0.0051 | 0.1105 | 0.1105 | 1.013 | 1.874 | 0.998 | 0.744 | 5.51 | 4 | 14 | 36 | - | - | - | - |

Notes: See notes to Table 1.

## Table 318: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0009 | 0.0134 | 0.0134 | 1.001 | 1.073 | 1.000 | 0.933 | 4.09 | 4 | 5 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0148 | 0.0148 | 1.001 | 1.103 | 1.000 | 0.936 | 4.15 | 4 | 5 | 73 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0137 | 0.0137 | 1.001 | 1.087 | 1.000 | 0.934 | 4.11 | 4 | 5 | 38 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0004 | 0.0061 | 0.0061 | 1.000 | 1.035 | 1.000 | 0.967 | 4.04 | 4 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0084 | 0.0084 | 1.000 | 1.063 | 1.000 | 0.962 | 4.09 | 4 | 4 | 55 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0073 | 0.0073 | 1.000 | 1.049 | 1.000 | 0.963 | 4.05 | 4 | 4 | 20 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.011 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.016 | 1.000 | 0.990 | 4.02 | 4 | 4 | 26 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.020 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0009 | 0.0122 | 0.0122 | 1.000 | 1.052 | 1.000 | 0.938 | 4.08 | 4 | 5 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0142 | 0.0142 | 1.000 | 1.088 | 1.000 | 0.940 | 4.15 | 4 | 5 | 73 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0124 | 0.0124 | 1.000 | 1.057 | 1.000 | 0.941 | 4.10 | 4 | 5 | 38 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0004 | 0.0056 | 0.0056 | 1.000 | 1.027 | 1.000 | 0.969 | 4.04 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0081 | 0.0081 | 1.000 | 1.055 | 1.000 | 0.964 | 4.08 | 4 | 4 | 55 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0067 | 0.0067 | 1.000 | 1.034 | 1.000 | 0.967 | 4.05 | 4 | 4 | 20 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0015 | 0.0015 | 1.000 | 1.010 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.014 | 1.000 | 0.991 | 4.02 | 4 | 4 | 26 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.010 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0404 | 0.3565 | 0.3565 | 1.008 | 1.362 | 1.000 | 0.143 | 7.88 | 4 | 15 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0245 | 0.3952 | 0.3952 | 1.009 | 1.437 | 1.000 | 0.125 | 8.79 | 4 | 18 | 36 | - | - | - | - |
| | 300 | 1.0000 | 0.0177 | 0.4115 | 0.4115 | 1.009 | 1.461 | 1.000 | 0.117 | 9.24 | 4 | 19 | 45 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0067 | 0.0585 | 0.0585 | 1.005 | 1.473 | 1.000 | 0.867 | 4.64 | 4 | 9 | 22 | - | - | - | - |
| | 200 | 1.0000 | 0.0051 | 0.0801 | 0.0801 | 1.006 | 1.658 | 1.000 | 0.832 | 5.01 | 4 | 12 | 26 | - | - | - | - |
| | 300 | 1.0000 | 0.0044 | 0.0993 | 0.0993 | 1.007 | 1.793 | 1.000 | 0.802 | 5.31 | 4 | 12 | 33 | - | - | - | - |

Notes: See notes to Table 1.

## Table 319: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9949 | 0.0021 | 0.0272 | 0.0272 | 1.008 | 1.186 | 0.983 | 0.863 | 4.18 | 4 | 5 | 21 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9900 | 0.0012 | 0.0289 | 0.0289 | 1.010 | 1.219 | 0.969 | 0.837 | 4.19 | 4 | 5 | 32 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9894 | 0.0013 | 0.0328 | 0.0328 | 1.015 | 1.379 | 0.968 | 0.819 | 4.34 | 4 | 5 | 245 | 1.035 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9918 | 0.0012 | 0.0165 | 0.0165 | 1.006 | 1.126 | 0.973 | 0.897 | 4.08 | 4 | 5 | 14 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9850 | 0.0007 | 0.0178 | 0.0178 | 1.007 | 1.165 | 0.955 | 0.872 | 4.07 | 4 | 5 | 25 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9838 | 0.0009 | 0.0209 | 0.0209 | 1.012 | 1.283 | 0.949 | 0.852 | 4.21 | 4 | 5 | 255 | 1.027 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9809 | 0.0003 | 0.0048 | 0.0048 | 1.004 | 1.080 | 0.944 | 0.920 | 3.95 | 3 | 4 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9715 | 0.0002 | 0.0056 | 0.0056 | 1.006 | 1.116 | 0.918 | 0.889 | 3.92 | 3 | 4 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9654 | 0.0002 | 0.0067 | 0.0067 | 1.008 | 1.161 | 0.899 | 0.867 | 3.92 | 3 | 4 | 38 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9949 | 0.0019 | 0.0241 | 0.0241 | 1.007 | 1.143 | 0.983 | 0.876 | 4.16 | 4 | 5 | 21 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9900 | 0.0010 | 0.0249 | 0.0249 | 1.008 | 1.164 | 0.969 | 0.854 | 4.16 | 4 | 5 | 32 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9894 | 0.0012 | 0.0289 | 0.0289 | 1.012 | 1.325 | 0.968 | 0.838 | 4.31 | 4 | 5 | 245 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9918 | 0.0011 | 0.0148 | 0.0148 | 1.005 | 1.105 | 0.973 | 0.905 | 4.07 | 4 | 5 | 14 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9850 | 0.0006 | 0.0148 | 0.0148 | 1.006 | 1.118 | 0.955 | 0.886 | 4.05 | 4 | 5 | 25 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9838 | 0.0009 | 0.0177 | 0.0177 | 1.010 | 1.242 | 0.949 | 0.867 | 4.20 | 4 | 5 | 266 | 1.011 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9809 | 0.0003 | 0.0042 | 0.0042 | 1.004 | 1.067 | 0.944 | 0.924 | 3.95 | 3 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9715 | 0.0001 | 0.0042 | 0.0042 | 1.005 | 1.088 | 0.918 | 0.897 | 3.91 | 3 | 4 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9654 | 0.0002 | 0.0052 | 0.0052 | 1.006 | 1.132 | 0.899 | 0.874 | 3.91 | 3 | 4 | 37 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9630 | 0.0404 | 0.3544 | 0.3544 | 1.040 | 1.383 | 0.861 | 0.125 | 7.73 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9578 | 0.0296 | 0.4377 | 0.4377 | 1.049 | 1.505 | 0.844 | 0.081 | 9.64 | 4 | 20 | 49 | - | - | - | - |
| | 300 | 0.9495 | 0.0240 | 0.4804 | 0.4804 | 1.055 | 1.564 | 0.811 | 0.065 | 10.91 | 4 | 25 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7723 | 0.0103 | 0.1186 | 0.1186 | 1.055 | 1.870 | 0.359 | 0.162 | 4.07 | 2 | 9 | 25 | - | - | - | - |
| | 200 | 0.7854 | 0.0093 | 0.1793 | 0.1793 | 1.064 | 2.070 | 0.386 | 0.121 | 4.96 | 2 | 12 | 41 | - | - | - | - |
| | 300 | 0.7866 | 0.0083 | 0.2227 | 0.2227 | 1.073 | 2.201 | 0.386 | 0.106 | 5.61 | 2 | 15 | 54 | - | - | - | - |

Notes: See notes to Table 1.

## Table 320: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0181 | 0.0181 | 1.002 | 1.129 | 1.000 | 0.920 | 4.15 | 4 | 5 | 27 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0175 | 0.0175 | 1.002 | 1.115 | 1.000 | 0.919 | 4.13 | 4 | 5 | 17 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0184 | 0.0184 | 1.002 | 1.135 | 1.000 | 0.922 | 4.18 | 4 | 5 | 49 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0099 | 0.0099 | 1.001 | 1.082 | 1.000 | 0.955 | 4.08 | 4 | 4 | 22 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0099 | 0.0099 | 1.001 | 1.073 | 1.000 | 0.951 | 4.07 | 4 | 4 | 12 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0110 | 0.0110 | 1.001 | 1.079 | 1.000 | 0.952 | 4.10 | 4 | 4 | 35 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.017 | 1.000 | 0.991 | 4.01 | 4 | 4 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.020 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.020 | 1.000 | 0.988 | 4.02 | 4 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0155 | 0.0155 | 1.001 | 1.088 | 1.000 | 0.932 | 4.12 | 4 | 5 | 27 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0165 | 0.0165 | 1.001 | 1.098 | 1.000 | 0.924 | 4.12 | 4 | 5 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0181 | 0.0181 | 1.001 | 1.124 | 1.000 | 0.923 | 4.17 | 4 | 5 | 49 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0081 | 0.0081 | 1.001 | 1.054 | 1.000 | 0.963 | 4.06 | 4 | 4 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0088 | 0.0088 | 1.001 | 1.059 | 1.000 | 0.956 | 4.06 | 4 | 4 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0107 | 0.0107 | 1.001 | 1.073 | 1.000 | 0.953 | 4.10 | 4 | 4 | 35 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0017 | 0.0017 | 1.000 | 1.015 | 1.000 | 0.992 | 4.01 | 4 | 4 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.011 | 1.000 | 0.991 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.018 | 1.000 | 0.988 | 4.02 | 4 | 4 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0426 | 0.3734 | 0.3734 | 1.011 | 1.387 | 0.999 | 0.123 | 8.09 | 4 | 15 | 29 | - | - | - | - |
| | 200 | 0.9998 | 0.0259 | 0.4139 | 0.4139 | 1.014 | 1.434 | 0.999 | 0.103 | 9.08 | 4 | 18 | 41 | - | - | - | - |
| | 300 | 0.9999 | 0.0198 | 0.4433 | 0.4433 | 1.016 | 1.478 | 1.000 | 0.095 | 9.87 | 4 | 20 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9804 | 0.0083 | 0.0885 | 0.0885 | 1.012 | 1.721 | 0.925 | 0.631 | 4.72 | 3 | 8 | 26 | - | - | - | - |
| | 200 | 0.9838 | 0.0069 | 0.1250 | 0.1250 | 1.015 | 1.899 | 0.939 | 0.573 | 5.30 | 3 | 12 | 32 | - | - | - | - |
| | 300 | 0.9834 | 0.0061 | 0.1514 | 0.1514 | 1.017 | 2.061 | 0.937 | 0.521 | 5.74 | 3 | 14 | 49 | - | - | - | - |

Notes: See notes to Table 1.

**Table 321: Monte Carlo findings for DGPI(c)**

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0159 | 0.0159 | 1.001 | 1.124 | 1.000 | 0.929 | 4.14 | 4 | 5 | 54 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0139 | 0.0139 | 1.001 | 1.104 | 1.000 | 0.936 | 4.12 | 4 | 5 | 30 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0156 | 0.0156 | 1.001 | 1.117 | 1.000 | 0.937 | 4.16 | 4 | 5 | 68 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0095 | 0.0095 | 1.001 | 1.076 | 1.000 | 0.957 | 4.09 | 4 | 4 | 44 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0077 | 0.0077 | 1.000 | 1.063 | 1.000 | 0.965 | 4.06 | 4 | 4 | 18 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0083 | 0.0083 | 1.000 | 1.069 | 1.000 | 0.963 | 4.08 | 4 | 4 | 39 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0034 | 0.0034 | 1.000 | 1.033 | 1.000 | 0.984 | 4.03 | 4 | 4 | 27 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.024 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.024 | 1.000 | 0.989 | 4.02 | 4 | 4 | 20 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0143 | 0.0143 | 1.001 | 1.099 | 1.000 | 0.936 | 4.13 | 4 | 5 | 54 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0129 | 0.0129 | 1.001 | 1.088 | 1.000 | 0.940 | 4.11 | 4 | 5 | 30 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0150 | 0.0150 | 1.001 | 1.102 | 1.000 | 0.939 | 4.16 | 4 | 5 | 68 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0086 | 0.0086 | 1.000 | 1.063 | 1.000 | 0.961 | 4.08 | 4 | 4 | 44 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0071 | 0.0071 | 1.000 | 1.052 | 1.000 | 0.967 | 4.05 | 4 | 4 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0080 | 0.0080 | 1.000 | 1.064 | 1.000 | 0.965 | 4.08 | 4 | 4 | 39 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0003 | 0.0031 | 0.0031 | 1.000 | 1.026 | 1.000 | 0.986 | 4.03 | 4 | 4 | 27 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.016 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.021 | 1.000 | 0.990 | 4.02 | 4 | 4 | 20 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0416 | 0.3693 | 0.3693 | 1.006 | 1.387 | 1.000 | 0.122 | 7.99 | 4 | 15 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0251 | 0.4107 | 0.4107 | 1.008 | 1.435 | 1.000 | 0.102 | 8.93 | 4 | 18 | 37 | - | - | - | - |
| | 300 | 1.0000 | 0.0181 | 0.4222 | 0.4222 | 1.009 | 1.471 | 1.000 | 0.101 | 9.37 | 4 | 19 | 40 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9990 | 0.0076 | 0.0718 | 0.0718 | 1.005 | 1.594 | 0.997 | 0.773 | 4.73 | 4 | 9 | 24 | - | - | - | - |
| | 200 | 0.9984 | 0.0062 | 0.1052 | 0.1052 | 1.007 | 1.799 | 0.994 | 0.701 | 5.20 | 4 | 12 | 26 | - | - | - | - |
| | 300 | 0.9991 | 0.0053 | 0.1253 | 0.1253 | 1.009 | 1.987 | 0.997 | 0.681 | 5.58 | 4 | 14 | 30 | - | - | - | - |

Notes: See notes to Table 1.

## Table 322: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8813 | 0.0017 | 0.0262 | 0.0262 | 1.014 | 1.241 | 0.727 | 0.632 | 3.69 | 2 | 5 | 16 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8589 | 0.0010 | 0.0283 | 0.0283 | 1.016 | 1.289 | 0.674 | 0.591 | 3.63 | 1 | 5 | 37 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8375 | 0.0007 | 0.0347 | 0.0347 | 1.024 | 1.377 | 0.656 | 0.572 | 3.57 | 1 | 5 | 22 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8470 | 0.0010 | 0.0166 | 0.0166 | 1.014 | 1.221 | 0.666 | 0.609 | 3.48 | 1 | 5 | 12 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8194 | 0.0006 | 0.0178 | 0.0178 | 1.017 | 1.253 | 0.608 | 0.558 | 3.39 | 1 | 5 | 25 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8016 | 0.0004 | 0.0216 | 0.0216 | 1.024 | 1.322 | 0.600 | 0.552 | 3.33 | 1 | 4.5 | 14 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7571 | 0.0003 | 0.0061 | 0.0061 | 1.020 | 1.241 | 0.526 | 0.513 | 3.06 | 0 | 4 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7279 | 0.0002 | 0.0068 | 0.0068 | 1.023 | 1.263 | 0.478 | 0.465 | 2.95 | 0 | 4 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7083 | 0.0001 | 0.0076 | 0.0076 | 1.029 | 1.304 | 0.471 | 0.461 | 2.86 | 0 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8813 | 0.0015 | 0.0239 | 0.0239 | 1.013 | 1.215 | 0.727 | 0.641 | 3.67 | 2 | 5 | 16 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8589 | 0.0009 | 0.0257 | 0.0257 | 1.015 | 1.259 | 0.674 | 0.600 | 3.61 | 1 | 5 | 37 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8375 | 0.0006 | 0.0320 | 0.0320 | 1.023 | 1.339 | 0.656 | 0.579 | 3.54 | 1 | 5 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8470 | 0.0009 | 0.0149 | 0.0149 | 1.013 | 1.205 | 0.666 | 0.617 | 3.47 | 1 | 4.5 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8193 | 0.0005 | 0.0166 | 0.0166 | 1.016 | 1.235 | 0.608 | 0.564 | 3.38 | 1 | 4 | 25 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8016 | 0.0004 | 0.0198 | 0.0198 | 1.023 | 1.299 | 0.600 | 0.557 | 3.32 | 1 | 4 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7571 | 0.0003 | 0.0052 | 0.0052 | 1.020 | 1.230 | 0.526 | 0.515 | 3.05 | 0 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7279 | 0.0002 | 0.0062 | 0.0062 | 1.023 | 1.258 | 0.478 | 0.468 | 2.94 | 0 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7083 | 0.0001 | 0.0074 | 0.0074 | 1.028 | 1.301 | 0.471 | 0.462 | 2.86 | 0 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.8199 | 0.0406 | 0.3810 | 0.3810 | 1.032 | 1.280 | 0.448 | 0.063 | 7.17 | 3 | 15 | 39 | - | - | - | - |
| | 200 | 0.8078 | 0.0269 | 0.4406 | 0.4406 | 1.038 | 1.348 | 0.422 | 0.050 | 8.50 | 3 | 20 | 57 | - | - | - | - |
| | 300 | 0.7960 | 0.0223 | 0.4915 | 0.4915 | 1.044 | 1.440 | 0.400 | 0.035 | 9.78 | 3 | 23 | 53 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5685 | 0.0116 | 0.1637 | 0.1637 | 1.042 | 1.684 | 0.087 | 0.022 | 3.39 | 1 | 8 | 21 | - | - | - | - |
| | 200 | 0.5739 | 0.0095 | 0.2263 | 0.2263 | 1.051 | 1.883 | 0.083 | 0.019 | 4.17 | 1 | 11 | 48 | - | - | - | - |
| | 300 | 0.5708 | 0.0086 | 0.2752 | 0.2752 | 1.061 | 2.088 | 0.088 | 0.015 | 4.82 | 1 | 13 | 47 | - | - | - | - |

Notes: See notes to Table 1.

**Table 323: Monte Carlo findings for DGPI(c)**

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0140 | 0.0140 | 1.001 | 1.117 | 1.000 | 0.935 | 4.11 | 4 | 5 | 29 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0163 | 0.0163 | 1.002 | 1.154 | 1.000 | 0.923 | 4.14 | 4 | 5 | 39 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0150 | 0.0150 | 1.002 | 1.150 | 1.000 | 0.927 | 4.11 | 4 | 5 | 17 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0069 | 0.0069 | 1.001 | 1.059 | 1.000 | 0.968 | 4.05 | 4 | 4 | 22 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0091 | 0.0091 | 1.001 | 1.100 | 1.000 | 0.958 | 4.08 | 4 | 4 | 29 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0002 | 0.0081 | 0.0081 | 1.001 | 1.091 | 0.999 | 0.956 | 4.05 | 4 | 4 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.022 | 1.000 | 0.990 | 4.01 | 4 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.032 | 0.999 | 0.988 | 4.02 | 4 | 4 | 14 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.028 | 0.999 | 0.987 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0133 | 0.0133 | 1.001 | 1.101 | 1.000 | 0.938 | 4.11 | 4 | 5 | 29 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0156 | 0.0156 | 1.002 | 1.139 | 1.000 | 0.927 | 4.13 | 4 | 5 | 39 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0003 | 0.0144 | 0.0144 | 1.002 | 1.131 | 1.000 | 0.929 | 4.10 | 4 | 5 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0067 | 0.0067 | 1.001 | 1.057 | 1.000 | 0.969 | 4.05 | 4 | 4 | 22 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0085 | 0.0085 | 1.001 | 1.083 | 1.000 | 0.961 | 4.07 | 4 | 4 | 29 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0002 | 0.0078 | 0.0078 | 1.001 | 1.083 | 0.999 | 0.958 | 4.05 | 4 | 4 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0018 | 0.0018 | 1.000 | 1.018 | 1.000 | 0.991 | 4.01 | 4 | 4 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.024 | 0.999 | 0.989 | 4.02 | 4 | 4 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0000 | 0.0018 | 0.0018 | 1.000 | 1.021 | 0.999 | 0.988 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.9884 | 0.0420 | 0.3659 | 0.3659 | 1.011 | 1.380 | 0.954 | 0.135 | 7.98 | 4 | 15 | 29 | - | - | - | - |
| | 200 | 0.9851 | 0.0251 | 0.4033 | 0.4033 | 1.015 | 1.438 | 0.942 | 0.106 | 8.86 | 4 | 18 | 42 | - | - | - | - |
| | 300 | 0.9824 | 0.0189 | 0.4280 | 0.4280 | 1.016 | 1.469 | 0.931 | 0.093 | 9.51 | 4 | 20 | 40 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8674 | 0.0087 | 0.1054 | 0.1054 | 1.015 | 1.824 | 0.563 | 0.292 | 4.31 | 2 | 8 | 20 | - | - | - | - |
| | 200 | 0.8599 | 0.0072 | 0.1480 | 0.1480 | 1.019 | 2.010 | 0.544 | 0.231 | 4.85 | 2 | 10 | 29 | - | - | - | - |
| | 300 | 0.8699 | 0.0065 | 0.1779 | 0.1779 | 1.021 | 2.179 | 0.576 | 0.215 | 5.39 | 2 | 13 | 38 | - | - | - | - |

Notes: See notes to Table 1.

## Table 324: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0157 | 0.0157 | 1.001 | 1.118 | 1.000 | 0.928 | 4.12 | 4 | 5 | 19 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0131 | 0.0131 | 1.001 | 1.110 | 1.000 | 0.940 | 4.10 | 4 | 5 | 20 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0129 | 0.0129 | 1.001 | 1.118 | 1.000 | 0.939 | 4.10 | 4 | 5 | 19 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0079 | 0.0079 | 1.000 | 1.070 | 1.000 | 0.963 | 4.06 | 4 | 4 | 17 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0063 | 0.0063 | 1.001 | 1.061 | 1.000 | 0.971 | 4.05 | 4 | 4 | 17 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0069 | 0.0069 | 1.000 | 1.070 | 1.000 | 0.964 | 4.05 | 4 | 4 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0024 | 0.0024 | 1.000 | 1.029 | 1.000 | 0.988 | 4.02 | 4 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.018 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.014 | 1.000 | 0.993 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0146 | 0.0146 | 1.001 | 1.103 | 1.000 | 0.933 | 4.11 | 4 | 5 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0005 | 0.0127 | 0.0127 | 1.001 | 1.101 | 1.000 | 0.942 | 4.10 | 4 | 5 | 20 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0127 | 0.0127 | 1.001 | 1.109 | 1.000 | 0.940 | 4.09 | 4 | 5 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0071 | 0.0071 | 1.000 | 1.058 | 1.000 | 0.967 | 4.06 | 4 | 4 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0002 | 0.0060 | 0.0060 | 1.001 | 1.057 | 1.000 | 0.972 | 4.04 | 4 | 4 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0068 | 0.0068 | 1.000 | 1.066 | 1.000 | 0.965 | 4.04 | 4 | 4 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.022 | 1.000 | 0.989 | 4.01 | 4 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0015 | 0.0015 | 1.000 | 1.015 | 1.000 | 0.992 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0013 | 0.0013 | 1.000 | 1.014 | 1.000 | 0.993 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9985 | 0.0416 | 0.3698 | 0.3698 | 1.007 | 1.378 | 0.994 | 0.122 | 7.98 | 4 | 15 | 29 | - | - | - | - |
| | 200 | 0.9990 | 0.0251 | 0.4057 | 0.4057 | 1.009 | 1.439 | 0.996 | 0.114 | 8.91 | 4 | 18 | 36 | - | - | - | - |
| | 300 | 0.9988 | 0.0191 | 0.4368 | 0.4368 | 1.009 | 1.460 | 0.995 | 0.082 | 9.64 | 4 | 20 | 47 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9576 | 0.0084 | 0.0949 | 0.0949 | 1.008 | 1.746 | 0.839 | 0.517 | 4.63 | 3 | 8 | 25 | - | - | - | - |
| | 200 | 0.9580 | 0.0067 | 0.1277 | 0.1277 | 1.010 | 1.960 | 0.844 | 0.485 | 5.14 | 3 | 11 | 33 | - | - | - | - |
| | 300 | 0.9560 | 0.0060 | 0.1597 | 0.1597 | 1.011 | 2.134 | 0.836 | 0.416 | 5.61 | 3 | 13 | 43 | - | - | - | - |

Notes: See notes to Table 1.

**Table 325: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9956 | 0.0019 | 0.0297 | 0.0297 | 1.009 | 1.198 | 0.983 | 0.827 | 4.17 | 4 | 5 | 6 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9921 | 0.0013 | 0.0417 | 0.0417 | 1.015 | 1.288 | 0.972 | 0.757 | 4.23 | 4 | 5 | 8 | 1.067 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.9913 | 0.0009 | 0.0449 | 0.0449 | 1.016 | 1.315 | 0.968 | 0.736 | 4.25 | 4 | 5 | 7 | 1.074 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9915 | 0.0012 | 0.0185 | 0.0185 | 1.010 | 1.205 | 0.969 | 0.871 | 4.08 | 4 | 5 | 6 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9891 | 0.0008 | 0.0260 | 0.0260 | 1.014 | 1.269 | 0.963 | 0.825 | 4.12 | 4 | 5 | 7 | 1.055 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9866 | 0.0006 | 0.0274 | 0.0274 | 1.015 | 1.299 | 0.953 | 0.811 | 4.12 | 4 | 5 | 7 | 1.058 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9804 | 0.0004 | 0.0064 | 0.0064 | 1.014 | 1.290 | 0.931 | 0.896 | 3.96 | 3 | 4 | 6 | 1.049 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9765 | 0.0003 | 0.0086 | 0.0086 | 1.017 | 1.339 | 0.919 | 0.874 | 3.96 | 3 | 4 | 6 | 1.055 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9710 | 0.0002 | 0.0105 | 0.0105 | 1.021 | 1.411 | 0.901 | 0.847 | 3.95 | 3 | 5 | 6 | 1.059 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9941 | 0.0015 | 0.0237 | 0.0237 | 1.008 | 1.170 | 0.978 | 0.852 | 4.12 | 4 | 5 | 6 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9910 | 0.0011 | 0.0338 | 0.0338 | 1.012 | 1.229 | 0.968 | 0.791 | 4.18 | 4 | 5 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9888 | 0.0008 | 0.0375 | 0.0375 | 1.014 | 1.281 | 0.958 | 0.766 | 4.19 | 4 | 5 | 7 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9901 | 0.0009 | 0.0146 | 0.0146 | 1.009 | 1.192 | 0.964 | 0.888 | 4.05 | 4 | 5 | 6 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9875 | 0.0006 | 0.0204 | 0.0204 | 1.012 | 1.235 | 0.956 | 0.847 | 4.08 | 4 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9836 | 0.0005 | 0.0225 | 0.0225 | 1.015 | 1.295 | 0.941 | 0.824 | 4.07 | 3 | 5 | 7 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9756 | 0.0003 | 0.0052 | 0.0052 | 1.016 | 1.330 | 0.915 | 0.887 | 3.93 | 3 | 4 | 6 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9714 | 0.0002 | 0.0069 | 0.0069 | 1.019 | 1.380 | 0.903 | 0.866 | 3.93 | 3 | 4 | 6 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9664 | 0.0002 | 0.0077 | 0.0077 | 1.023 | 1.440 | 0.885 | 0.846 | 3.91 | 3 | 4 | 6 | 1.025 | 0.02 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0785 | 0.5250 | 0.5250 | 1.062 | 1.753 | 0.999 | 0.046 | 11.54 | 5 | 22 | 32 | - | - | - | - |
| | 200 | 0.9998 | 0.0538 | 0.6002 | 0.6002 | 1.076 | 1.875 | 0.999 | 0.018 | 14.55 | 5 | 29 | 57 | - | - | - | - |
| | 300 | 0.9996 | 0.0453 | 0.6539 | 0.6539 | 1.086 | 1.980 | 0.999 | 0.015 | 17.41 | 6 | 35 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9933 | 0.0191 | 0.1832 | 0.1832 | 1.043 | 1.685 | 0.976 | 0.437 | 5.81 | 4 | 12 | 28 | - | - | - | - |
| | 200 | 0.9943 | 0.0167 | 0.2524 | 0.2524 | 1.060 | 1.905 | 0.980 | 0.353 | 7.24 | 4 | 19.5 | 46 | - | - | - | - |
| | 300 | 0.9946 | 0.0187 | 0.3497 | 0.3497 | 1.082 | 2.175 | 0.980 | 0.252 | 9.53 | 4 | 26 | 51 | - | - | - | - |

Notes: See notes to Table 1.

**Table 326: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0234 | 0.0234 | 1.001 | 1.094 | 1.000 | 0.867 | 4.14 | 4 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0248 | 0.0248 | 1.002 | 1.115 | 1.000 | 0.863 | 4.15 | 4 | 5 | 7 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0254 | 0.0254 | 1.002 | 1.110 | 1.000 | 0.860 | 4.16 | 4 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0125 | 0.0125 | 1.001 | 1.054 | 1.000 | 0.929 | 4.08 | 4 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0136 | 0.0136 | 1.001 | 1.071 | 1.000 | 0.924 | 4.08 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0147 | 0.0147 | 1.001 | 1.072 | 1.000 | 0.916 | 4.09 | 4 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0035 | 0.0035 | 1.000 | 1.019 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.025 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.019 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0207 | 0.0207 | 1.001 | 1.069 | 1.000 | 0.882 | 4.13 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0218 | 0.0218 | 1.001 | 1.083 | 1.000 | 0.880 | 4.14 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0231 | 0.0231 | 1.001 | 1.083 | 1.000 | 0.873 | 4.14 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0110 | 0.0110 | 1.001 | 1.039 | 1.000 | 0.938 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0118 | 0.0118 | 1.001 | 1.048 | 1.000 | 0.934 | 4.07 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0133 | 0.0133 | 1.001 | 1.053 | 1.000 | 0.924 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0029 | 0.0029 | 1.000 | 1.012 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.017 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.013 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0776 | 0.5299 | 0.5299 | 1.019 | 1.671 | 1.000 | 0.027 | 11.45 | 5 | 22 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0488 | 0.5807 | 0.5807 | 1.022 | 1.788 | 1.000 | 0.025 | 13.56 | 5 | 27 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0371 | 0.6106 | 0.6106 | 1.026 | 1.862 | 1.000 | 0.014 | 14.98 | 6 | 31 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0127 | 0.1016 | 0.1016 | 1.009 | 1.424 | 1.000 | 0.731 | 5.22 | 4 | 13 | 27 | - | - | - | - |
| | 200 | 1.0000 | 0.0137 | 0.1767 | 0.1767 | 1.015 | 1.764 | 1.000 | 0.626 | 6.69 | 4 | 19 | 38 | - | - | - | - |
| | 300 | 1.0000 | 0.0117 | 0.2107 | 0.2107 | 1.020 | 1.908 | 1.000 | 0.573 | 7.46 | 4 | 22 | 52 | - | - | - | - |

Notes: See notes to Table 1.

**Table 327: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **OCMT method** | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0198 | 0.0198 | 1.001 | 1.075 | 1.000 | 0.887 | 4.12 | 4 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0216 | 0.0216 | 1.001 | 1.090 | 1.000 | 0.879 | 4.13 | 4 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0212 | 0.0212 | 1.001 | 1.092 | 1.000 | 0.883 | 4.13 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0107 | 0.0107 | 1.000 | 1.046 | 1.000 | 0.938 | 4.07 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0112 | 0.0112 | 1.000 | 1.054 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0113 | 0.0113 | 1.000 | 1.055 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0020 | 0.0020 | 1.000 | 1.009 | 1.000 | 0.989 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.017 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0023 | 0.0023 | 1.000 | 1.015 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0178 | 0.0178 | 1.001 | 1.055 | 1.000 | 0.898 | 4.11 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0194 | 0.0194 | 1.000 | 1.066 | 1.000 | 0.891 | 4.12 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0197 | 0.0197 | 1.001 | 1.073 | 1.000 | 0.891 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0096 | 0.0096 | 1.000 | 1.033 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0101 | 0.0101 | 1.000 | 1.042 | 1.000 | 0.941 | 4.06 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0103 | 0.0103 | 1.000 | 1.041 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.007 | 1.000 | 0.990 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0025 | 0.0025 | 1.000 | 1.013 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.011 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | **Penalised regression methods** | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0757 | 0.5143 | 0.5143 | 1.011 | 1.671 | 1.000 | 0.041 | 11.26 | 5 | 21 | 40 | - | - | - | - |
| | 200 | 1.0000 | 0.0471 | 0.5699 | 0.5699 | 1.014 | 1.800 | 1.000 | 0.024 | 13.24 | 5 | 28 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0342 | 0.5869 | 0.5869 | 1.015 | 1.836 | 1.000 | 0.023 | 14.13 | 5 | 28 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0125 | 0.0882 | 0.0882 | 1.005 | 1.423 | 1.000 | 0.826 | 5.20 | 4 | 13 | 25 | - | - | - | - |
| | 200 | 1.0000 | 0.0127 | 0.1642 | 0.1642 | 1.009 | 1.714 | 1.000 | 0.707 | 6.49 | 4 | 18 | 30 | - | - | - | - |
| | 300 | 1.0000 | 0.0101 | 0.1873 | 0.1873 | 1.011 | 1.846 | 1.000 | 0.680 | 7.00 | 4 | 19 | 35 | - | - | - | - |

Notes: See notes to Table 1.

**Table 328: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9328 | 0.0020 | 0.0329 | 0.0329 | 1.025 | 1.452 | 0.785 | 0.648 | 3.93 | 3 | 5 | 7 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9016 | 0.0013 | 0.0432 | 0.0432 | 1.037 | 1.631 | 0.698 | 0.557 | 3.85 | 2 | 5 | 7 | 1.039 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8923 | 0.0009 | 0.0453 | 0.0453 | 1.042 | 1.654 | 0.685 | 0.529 | 3.83 | 2 | 5 | 9 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9070 | 0.0013 | 0.0219 | 0.0219 | 1.029 | 1.528 | 0.721 | 0.640 | 3.75 | 2 | 5 | 7 | 1.032 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8714 | 0.0007 | 0.0269 | 0.0269 | 1.041 | 1.697 | 0.627 | 0.549 | 3.63 | 2 | 5 | 7 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.8580 | 0.0005 | 0.0285 | 0.0285 | 1.049 | 1.735 | 0.616 | 0.523 | 3.59 | 2 | 5 | 9 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8274 | 0.0003 | 0.0062 | 0.0062 | 1.050 | 1.797 | 0.563 | 0.547 | 3.34 | 1 | 4 | 6 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7945 | 0.0003 | 0.0099 | 0.0099 | 1.061 | 1.929 | 0.468 | 0.446 | 3.23 | 1 | 4 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.7668 | 0.0002 | 0.0107 | 0.0107 | 1.074 | 1.999 | 0.428 | 0.405 | 3.12 | 1 | 4 | 6 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9316 | 0.0017 | 0.0283 | 0.0283 | 1.023 | 1.426 | 0.782 | 0.668 | 3.89 | 3 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9005 | 0.0011 | 0.0386 | 0.0386 | 1.035 | 1.605 | 0.695 | 0.574 | 3.82 | 2 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8918 | 0.0008 | 0.0403 | 0.0403 | 1.040 | 1.626 | 0.684 | 0.546 | 3.80 | 2 | 5 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9049 | 0.0011 | 0.0189 | 0.0189 | 1.029 | 1.516 | 0.716 | 0.649 | 3.73 | 2 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8705 | 0.0006 | 0.0234 | 0.0234 | 1.040 | 1.675 | 0.627 | 0.559 | 3.61 | 2 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8571 | 0.0005 | 0.0259 | 0.0259 | 1.048 | 1.720 | 0.614 | 0.530 | 3.57 | 2 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8258 | 0.0003 | 0.0050 | 0.0050 | 1.050 | 1.797 | 0.559 | 0.547 | 3.33 | 1 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7936 | 0.0002 | 0.0082 | 0.0082 | 1.060 | 1.921 | 0.467 | 0.448 | 3.22 | 1 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7648 | 0.0001 | 0.0090 | 0.0090 | 1.074 | 1.997 | 0.424 | 0.404 | 3.10 | 1 | 4 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.9904 | 0.0734 | 0.5055 | 0.5055 | 1.061 | 1.721 | 0.963 | 0.046 | 11.01 | 4 | 21 | 40 | - | - | - | - |
| | 200 | 0.9839 | 0.0540 | 0.5937 | 0.5937 | 1.079 | 1.890 | 0.941 | 0.019 | 14.51 | 5 | 31 | 56 | - | - | - | - |
| | 300 | 0.9796 | 0.0442 | 0.6407 | 0.6407 | 1.089 | 1.945 | 0.925 | 0.015 | 17.00 | 6 | 36 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9209 | 0.0229 | 0.2223 | 0.2223 | 1.063 | 1.925 | 0.747 | 0.228 | 5.89 | 3 | 12 | 30 | - | - | - | - |
| | 200 | 0.9229 | 0.0217 | 0.3269 | 0.3269 | 1.085 | 2.169 | 0.750 | 0.155 | 7.95 | 3 | 20 | 45 | - | - | - | - |
| | 300 | 0.9230 | 0.0204 | 0.3938 | 0.3938 | 1.106 | 2.343 | 0.746 | 0.103 | 9.73 | 3 | 27.5 | 54 | - | - | - | - |

Notes: See notes to Table 1.

**Table 329: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0223 | 0.0223 | 1.002 | 1.113 | 1.000 | 0.877 | 4.14 | 4 | 5 | 6 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0225 | 0.0225 | 1.002 | 1.126 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0244 | 0.0244 | 1.002 | 1.141 | 1.000 | 0.864 | 4.15 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0121 | 0.0121 | 1.001 | 1.072 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0132 | 0.0132 | 1.001 | 1.087 | 1.000 | 0.925 | 4.08 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0139 | 0.0139 | 1.002 | 1.092 | 1.000 | 0.921 | 4.09 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0033 | 0.0033 | 1.000 | 1.022 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.025 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.001 | 1.027 | 1.000 | 0.979 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0200 | 0.0200 | 1.002 | 1.091 | 1.000 | 0.890 | 4.12 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0213 | 0.0213 | 1.002 | 1.110 | 1.000 | 0.881 | 4.13 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0228 | 0.0228 | 1.002 | 1.125 | 1.000 | 0.873 | 4.14 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0107 | 0.0107 | 1.001 | 1.057 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0119 | 0.0119 | 1.001 | 1.071 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0129 | 0.0129 | 1.001 | 1.080 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0030 | 0.0030 | 1.000 | 1.019 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.019 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.023 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0794 | 0.5380 | 0.5380 | 1.018 | 1.660 | 1.000 | 0.020 | 11.62 | 5 | 21 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0481 | 0.5752 | 0.5752 | 1.023 | 1.784 | 1.000 | 0.022 | 13.42 | 5 | 27 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0374 | 0.6094 | 0.6094 | 1.025 | 1.864 | 1.000 | 0.012 | 15.08 | 6 | 32 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9994 | 0.0181 | 0.1607 | 0.1607 | 1.011 | 1.535 | 0.998 | 0.531 | 5.74 | 4 | 13 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0147 | 0.2269 | 0.2269 | 1.016 | 1.796 | 1.000 | 0.428 | 6.89 | 4 | 18 | 40 | - | - | - | - |
| | 300 | 1.0000 | 0.0141 | 0.2845 | 0.2845 | 1.024 | 2.050 | 1.000 | 0.343 | 8.16 | 4 | 23 | 44 | - | - | - | - |

Notes: See notes to Table 1.

**Table 330: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0199 | 0.0199 | 1.001 | 1.107 | 1.000 | 0.889 | 4.12 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0211 | 0.0211 | 1.001 | 1.114 | 1.000 | 0.883 | 4.13 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0227 | 0.0227 | 1.001 | 1.122 | 1.000 | 0.874 | 4.14 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0112 | 0.0112 | 1.001 | 1.068 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0114 | 0.0114 | 1.001 | 1.071 | 1.000 | 0.934 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0108 | 0.0108 | 1.001 | 1.067 | 1.000 | 0.938 | 4.07 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.017 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0000 | 0.0016 | 0.0016 | 1.000 | 1.012 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0024 | 0.0024 | 1.000 | 1.020 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0179 | 0.0179 | 1.001 | 1.086 | 1.000 | 0.901 | 4.11 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0199 | 0.0199 | 1.001 | 1.099 | 1.000 | 0.888 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0215 | 0.0215 | 1.001 | 1.107 | 1.000 | 0.880 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0099 | 0.0099 | 1.000 | 1.054 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0105 | 0.0105 | 1.001 | 1.060 | 1.000 | 0.939 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0101 | 0.0101 | 1.001 | 1.056 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0019 | 0.0019 | 1.000 | 1.014 | 1.000 | 0.989 | 4.01 | 4 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0000 | 0.0014 | 0.0014 | 1.000 | 1.010 | 1.000 | 0.992 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0021 | 0.0021 | 1.000 | 1.015 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0789 | 0.5333 | 0.5333 | 1.011 | 1.669 | 1.000 | 0.027 | 11.58 | 5 | 22 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0496 | 0.5848 | 0.5848 | 1.014 | 1.793 | 1.000 | 0.012 | 13.73 | 5 | 27 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0361 | 0.6052 | 0.6052 | 1.015 | 1.815 | 1.000 | 0.016 | 14.69 | 6 | 29 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0146 | 0.1203 | 0.1203 | 1.006 | 1.462 | 1.000 | 0.658 | 5.40 | 4 | 14 | 30 | - | - | - | - |
| | 200 | 1.0000 | 0.0154 | 0.2053 | 0.2053 | 1.011 | 1.842 | 1.000 | 0.526 | 7.02 | 4 | 20 | 39 | - | - | - | - |
| | 300 | 0.9999 | 0.0135 | 0.2471 | 0.2471 | 1.015 | 2.022 | 1.000 | 0.469 | 7.99 | 4 | 22 | 61 | - | - | - | - |

Notes: See notes to Table 1.

**Table 331: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6485 | 0.0020 | 0.0410 | 0.0410 | 1.052 | 1.770 | 0.285 | 0.235 | 2.78 | 0.5 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6004 | 0.0012 | 0.0557 | 0.0557 | 1.062 | 1.892 | 0.228 | 0.181 | 2.64 | 0 | 5 | 6 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5638 | 0.0009 | 0.0638 | 0.0638 | 1.070 | 1.977 | 0.191 | 0.148 | 2.52 | 0 | 5 | 7 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5855 | 0.0011 | 0.0242 | 0.0242 | 1.058 | 1.833 | 0.217 | 0.193 | 2.45 | 0 | 4 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5330 | 0.0007 | 0.0354 | 0.0354 | 1.069 | 1.954 | 0.168 | 0.147 | 2.27 | 0 | 4 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5023 | 0.0005 | 0.0386 | 0.0386 | 1.077 | 2.014 | 0.146 | 0.126 | 2.15 | 0 | 4 | 6 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4403 | 0.0003 | 0.0086 | 0.0086 | 1.081 | 2.025 | 0.099 | 0.094 | 1.79 | 0 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4045 | 0.0002 | 0.0131 | 0.0131 | 1.087 | 2.095 | 0.088 | 0.085 | 1.66 | 0 | 4 | 5 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3715 | 0.0002 | 0.0142 | 0.0142 | 1.098 | 2.147 | 0.067 | 0.065 | 1.53 | 0 | 4 | 5 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.6485 | 0.0018 | 0.0381 | 0.0381 | 1.051 | 1.756 | 0.285 | 0.240 | 2.77 | 0.5 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6003 | 0.0012 | 0.0536 | 0.0536 | 1.061 | 1.882 | 0.228 | 0.184 | 2.63 | 0 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.5631 | 0.0008 | 0.0600 | 0.0600 | 1.069 | 1.959 | 0.191 | 0.155 | 2.50 | 0 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5854 | 0.0010 | 0.0223 | 0.0223 | 1.058 | 1.823 | 0.216 | 0.195 | 2.44 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5326 | 0.0007 | 0.0340 | 0.0340 | 1.068 | 1.947 | 0.168 | 0.149 | 2.26 | 0 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.5020 | 0.0004 | 0.0363 | 0.0363 | 1.076 | 2.005 | 0.146 | 0.130 | 2.14 | 0 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4394 | 0.0003 | 0.0081 | 0.0081 | 1.081 | 2.022 | 0.099 | 0.095 | 1.79 | 0 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4040 | 0.0002 | 0.0127 | 0.0127 | 1.087 | 2.093 | 0.088 | 0.086 | 1.66 | 0 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3714 | 0.0001 | 0.0130 | 0.0130 | 1.097 | 2.142 | 0.067 | 0.065 | 1.53 | 0 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.8696 | 0.0652 | 0.4953 | 0.4953 | 1.057 | 1.632 | 0.593 | 0.024 | 9.74 | 3 | 20 | 38 | - | - | - | - |
| | 200 | 0.8509 | 0.0459 | 0.5820 | 0.5820 | 1.065 | 1.736 | 0.556 | 0.011 | 12.41 | 4 | 27 | 55 | - | - | - | - |
| | 300 | 0.8335 | 0.0370 | 0.6260 | 0.6260 | 1.076 | 1.811 | 0.515 | 0.008 | 14.29 | 4 | 31 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7025 | 0.0240 | 0.2706 | 0.2706 | 1.067 | 1.928 | 0.271 | 0.047 | 5.11 | 1 | 11 | 27 | - | - | - | - |
| | 200 | 0.7018 | 0.0204 | 0.3756 | 0.3756 | 1.086 | 2.170 | 0.271 | 0.019 | 6.80 | 2 | 16 | 51 | - | - | - | - |
| | 300 | 0.6950 | 0.0180 | 0.4353 | 0.4353 | 1.106 | 2.347 | 0.263 | 0.017 | 8.12 | 2 | 21 | 54 | - | - | - | - |

Notes: See notes to Table 1.

**Table 332: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9983 | 0.0013 | 0.0210 | 0.0210 | 1.002 | 1.134 | 0.993 | 0.877 | 4.12 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9959 | 0.0008 | 0.0258 | 0.0258 | 1.003 | 1.198 | 0.986 | 0.846 | 4.14 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9949 | 0.0006 | 0.0264 | 0.0264 | 1.003 | 1.211 | 0.982 | 0.843 | 4.14 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9963 | 0.0007 | 0.0114 | 0.0114 | 1.002 | 1.096 | 0.986 | 0.923 | 4.06 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9933 | 0.0005 | 0.0144 | 0.0144 | 1.002 | 1.150 | 0.976 | 0.894 | 4.06 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9933 | 0.0003 | 0.0148 | 0.0148 | 1.002 | 1.156 | 0.975 | 0.897 | 4.06 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9883 | 0.0002 | 0.0029 | 0.0029 | 1.001 | 1.101 | 0.956 | 0.941 | 3.97 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9821 | 0.0001 | 0.0041 | 0.0041 | 1.002 | 1.156 | 0.938 | 0.916 | 3.95 | 3 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9805 | 0.0001 | 0.0043 | 0.0043 | 1.003 | 1.176 | 0.929 | 0.905 | 3.95 | 3 | 4 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9983 | 0.0013 | 0.0198 | 0.0198 | 1.002 | 1.122 | 0.993 | 0.884 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9959 | 0.0008 | 0.0241 | 0.0241 | 1.003 | 1.181 | 0.986 | 0.855 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9949 | 0.0005 | 0.0251 | 0.0251 | 1.003 | 1.198 | 0.982 | 0.849 | 4.13 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9963 | 0.0007 | 0.0108 | 0.0108 | 1.001 | 1.088 | 0.986 | 0.927 | 4.05 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9933 | 0.0004 | 0.0133 | 0.0133 | 1.002 | 1.137 | 0.976 | 0.900 | 4.05 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9933 | 0.0003 | 0.0140 | 0.0140 | 1.002 | 1.147 | 0.975 | 0.901 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9883 | 0.0002 | 0.0027 | 0.0027 | 1.001 | 1.099 | 0.956 | 0.942 | 3.97 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9821 | 0.0001 | 0.0036 | 0.0036 | 1.002 | 1.148 | 0.938 | 0.919 | 3.95 | 3 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9805 | 0.0001 | 0.0035 | 0.0035 | 1.002 | 1.166 | 0.929 | 0.909 | 3.94 | 3 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9988 | 0.0806 | 0.5371 | 0.5371 | 1.019 | 1.659 | 0.995 | 0.032 | 11.74 | 5 | 22 | 39 | - | - | - | - |
| | 200 | 0.9974 | 0.0478 | 0.5767 | 0.5767 | 1.023 | 1.794 | 0.990 | 0.026 | 13.36 | 5 | 26 | 42 | - | - | - | - |
| | 300 | 0.9975 | 0.0359 | 0.5995 | 0.5995 | 1.025 | 1.870 | 0.991 | 0.021 | 14.62 | 5 | 29 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9770 | 0.0224 | 0.2179 | 0.2179 | 1.016 | 1.729 | 0.916 | 0.323 | 6.06 | 3 | 12 | 37 | - | - | - | - |
| | 200 | 0.9809 | 0.0177 | 0.2961 | 0.2961 | 1.022 | 1.991 | 0.929 | 0.242 | 7.40 | 4 | 16 | 41 | - | - | - | - |
| | 300 | 0.9786 | 0.0155 | 0.3424 | 0.3424 | 1.029 | 2.229 | 0.926 | 0.198 | 8.51 | 4 | 21 | 45 | - | - | - | - |

Notes: See notes to Table 1.

**Table 333: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0189 | 0.0189 | 1.001 | 1.114 | 1.000 | 0.893 | 4.12 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0198 | 0.0198 | 1.001 | 1.132 | 1.000 | 0.888 | 4.12 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0240 | 0.0240 | 1.002 | 1.167 | 1.000 | 0.866 | 4.15 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0101 | 0.0101 | 1.001 | 1.071 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0114 | 0.0114 | 1.001 | 1.090 | 1.000 | 0.933 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0132 | 0.0132 | 1.001 | 1.100 | 1.000 | 0.925 | 4.08 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.023 | 1.000 | 0.985 | 4.01 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.032 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0001 | 0.0035 | 0.0035 | 1.000 | 1.038 | 0.999 | 0.979 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0181 | 0.0181 | 1.001 | 1.106 | 1.000 | 0.898 | 4.11 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0189 | 0.0189 | 1.001 | 1.121 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0230 | 0.0230 | 1.002 | 1.157 | 1.000 | 0.872 | 4.14 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0096 | 0.0096 | 1.001 | 1.066 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0106 | 0.0106 | 1.001 | 1.080 | 1.000 | 0.938 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0127 | 0.0127 | 1.001 | 1.094 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.019 | 1.000 | 0.987 | 4.01 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.025 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0001 | 0.0035 | 0.0035 | 1.000 | 1.038 | 0.999 | 0.979 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0799 | 0.5403 | 0.5403 | 1.010 | 1.663 | 1.000 | 0.025 | 11.67 | 5 | 21 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0485 | 0.5825 | 0.5825 | 1.013 | 1.773 | 1.000 | 0.015 | 13.51 | 5.5 | 26 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0364 | 0.6107 | 0.6107 | 1.015 | 1.836 | 1.000 | 0.014 | 14.79 | 6 | 30 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9984 | 0.0185 | 0.1801 | 0.1801 | 1.006 | 1.554 | 0.994 | 0.450 | 5.77 | 4 | 11 | 29 | - | - | - | - |
| | 200 | 0.9990 | 0.0165 | 0.2609 | 0.2609 | 1.011 | 1.870 | 0.996 | 0.344 | 7.23 | 4 | 18 | 40 | - | - | - | - |
| | 300 | 0.9985 | 0.0152 | 0.3201 | 0.3201 | 1.017 | 2.161 | 0.994 | 0.271 | 8.48 | 4 | 22 | 51 | - | - | - | - |

Notes: See notes to Table 1.

**Table 334: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0027 | 0.0404 | 0.0404 | 1.010 | 1.053 | 1.000 | 0.790 | 4.26 | 4 | 5 | 8 | 1.055 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0015 | 0.0463 | 0.0463 | 1.010 | 1.060 | 1.000 | 0.757 | 4.29 | 4 | 5 | 8 | 1.049 | 0.05 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0520 | 0.0520 | 1.013 | 1.070 | 1.000 | 0.736 | 4.33 | 4 | 6 | 8 | 1.061 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0017 | 0.0254 | 0.0254 | 1.007 | 1.035 | 1.000 | 0.861 | 4.16 | 4 | 5 | 8 | 1.038 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0010 | 0.0302 | 0.0302 | 1.007 | 1.042 | 1.000 | 0.835 | 4.19 | 4 | 5 | 7 | 1.036 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0007 | 0.0325 | 0.0325 | 1.008 | 1.047 | 1.000 | 0.826 | 4.20 | 4 | 5 | 7 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0005 | 0.0085 | 0.0085 | 1.003 | 1.014 | 1.000 | 0.952 | 4.05 | 4 | 4 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0109 | 0.0109 | 1.003 | 1.018 | 1.000 | 0.938 | 4.07 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0126 | 0.0126 | 1.003 | 1.019 | 1.000 | 0.931 | 4.08 | 4 | 5 | 6 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0022 | 0.0331 | 0.0331 | 1.007 | 1.033 | 1.000 | 0.826 | 4.21 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0397 | 0.0397 | 1.007 | 1.042 | 1.000 | 0.787 | 4.25 | 4 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0443 | 0.0443 | 1.009 | 1.046 | 1.000 | 0.769 | 4.28 | 4 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0013 | 0.0207 | 0.0207 | 1.005 | 1.022 | 1.000 | 0.887 | 4.13 | 4 | 5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0008 | 0.0253 | 0.0253 | 1.005 | 1.028 | 1.000 | 0.860 | 4.16 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0271 | 0.0271 | 1.005 | 1.030 | 1.000 | 0.852 | 4.17 | 4 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0004 | 0.0070 | 0.0070 | 1.002 | 1.009 | 1.000 | 0.960 | 4.04 | 4 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0095 | 0.0095 | 1.002 | 1.013 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0098 | 0.0098 | 1.002 | 1.010 | 1.000 | 0.946 | 4.06 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9540 | 0.0396 | 0.3343 | 0.3343 | 1.038 | 1.053 | 0.821 | 0.179 | 7.62 | 4 | 16 | 34 | - | - | - | - |
| | 200 | 0.9551 | 0.0283 | 0.4046 | 0.4046 | 1.044 | 1.086 | 0.830 | 0.141 | 9.38 | 4 | 22 | 47 | - | - | - | - |
| | 300 | 0.9551 | 0.0239 | 0.4555 | 0.4555 | 1.051 | 1.105 | 0.831 | 0.106 | 10.91 | 4 | 26 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6928 | 0.0089 | 0.0941 | 0.0941 | 1.059 | 1.764 | 0.212 | 0.098 | 3.63 | 1 | 9 | 27 | - | - | - | - |
| | 200 | 0.7081 | 0.0082 | 0.1392 | 0.1392 | 1.066 | 1.800 | 0.238 | 0.086 | 4.44 | 1 | 14 | 38 | - | - | - | - |
| | 300 | 0.7345 | 0.0089 | 0.2000 | 0.2000 | 1.074 | 1.801 | 0.293 | 0.082 | 5.56 | 2 | 19 | 45 | - | - | - | - |

Notes: See notes to Table 1.

**Table 335: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0237 | 0.0237 | 1.001 | 1.026 | 1.000 | 0.867 | 4.15 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0258 | 0.0258 | 1.002 | 1.032 | 1.000 | 0.859 | 4.16 | 4 | 5 | 7 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0277 | 0.0277 | 1.002 | 1.034 | 1.000 | 0.846 | 4.17 | 4 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0122 | 0.0122 | 1.001 | 1.015 | 1.000 | 0.931 | 4.08 | 4 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0143 | 0.0143 | 1.001 | 1.020 | 1.000 | 0.919 | 4.09 | 4 | 5 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0159 | 0.0159 | 1.001 | 1.021 | 1.000 | 0.911 | 4.10 | 4 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.004 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0002 | 0.0049 | 0.0049 | 1.000 | 1.008 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0038 | 0.0038 | 1.000 | 1.007 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0214 | 0.0214 | 1.001 | 1.019 | 1.000 | 0.879 | 4.13 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0230 | 0.0230 | 1.001 | 1.023 | 1.000 | 0.873 | 4.14 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0254 | 0.0254 | 1.001 | 1.026 | 1.000 | 0.858 | 4.16 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0106 | 0.0106 | 1.001 | 1.009 | 1.000 | 0.940 | 4.07 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0125 | 0.0125 | 1.001 | 1.014 | 1.000 | 0.929 | 4.08 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0144 | 0.0144 | 1.001 | 1.016 | 1.000 | 0.918 | 4.09 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0022 | 0.0022 | 1.000 | 1.003 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0040 | 0.0040 | 1.000 | 1.005 | 1.000 | 0.977 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.004 | 1.000 | 0.983 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0406 | 0.3392 | 0.3392 | 1.012 | 1.097 | 0.999 | 0.199 | 7.90 | 4 | 16 | 30 | - | - | - | - |
| | 200 | 0.9993 | 0.0235 | 0.3675 | 0.3675 | 1.013 | 1.110 | 0.997 | 0.174 | 8.61 | 4 | 19 | 49 | - | - | - | - |
| | 300 | 0.9993 | 0.0187 | 0.3991 | 0.3991 | 1.015 | 1.124 | 0.997 | 0.163 | 9.53 | 4 | 22 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9383 | 0.0082 | 0.0725 | 0.0725 | 1.018 | 1.803 | 0.769 | 0.586 | 4.54 | 3 | 10 | 25 | - | - | - | - |
| | 200 | 0.9390 | 0.0074 | 0.1147 | 0.1147 | 1.021 | 1.826 | 0.776 | 0.533 | 5.21 | 3 | 13 | 38 | - | - | - | - |
| | 300 | 0.9458 | 0.0063 | 0.1354 | 0.1354 | 1.023 | 1.823 | 0.797 | 0.521 | 5.66 | 3 | 15 | 49 | - | - | - | - |

Notes: See notes to Table 1.

**Table 336: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0203 | 0.0203 | 1.001 | 1.023 | 1.000 | 0.886 | 4.12 | 4 | 5 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0215 | 0.0215 | 1.001 | 1.029 | 1.000 | 0.878 | 4.13 | 4 | 5 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0243 | 0.0243 | 1.001 | 1.032 | 1.000 | 0.864 | 4.15 | 4 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0111 | 0.0111 | 1.000 | 1.013 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0119 | 0.0119 | 1.001 | 1.017 | 1.000 | 0.932 | 4.07 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0139 | 0.0139 | 1.001 | 1.020 | 1.000 | 0.920 | 4.08 | 4 | 5 | 6 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.004 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.007 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.007 | 1.000 | 0.979 | 4.02 | 4 | 4 | 5 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0180 | 0.0180 | 1.000 | 1.016 | 1.000 | 0.898 | 4.11 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0197 | 0.0197 | 1.001 | 1.022 | 1.000 | 0.887 | 4.12 | 4 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0222 | 0.0222 | 1.001 | 1.024 | 1.000 | 0.875 | 4.14 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0098 | 0.0098 | 1.000 | 1.008 | 1.000 | 0.944 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0109 | 0.0109 | 1.000 | 1.013 | 1.000 | 0.937 | 4.07 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0127 | 0.0127 | 1.001 | 1.015 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.003 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0028 | 0.0028 | 1.000 | 1.004 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.004 | 1.000 | 0.982 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0407 | 0.3376 | 0.3376 | 1.007 | 1.098 | 1.000 | 0.205 | 7.90 | 4 | 17 | 29 | - | - | - | - |
| | 200 | 1.0000 | 0.0237 | 0.3630 | 0.3630 | 1.008 | 1.112 | 1.000 | 0.195 | 8.64 | 4 | 18 | 42 | - | - | - | - |
| | 300 | 1.0000 | 0.0185 | 0.3905 | 0.3905 | 1.009 | 1.122 | 1.000 | 0.170 | 9.47 | 4 | 22 | 49 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9861 | 0.0096 | 0.0829 | 0.0829 | 1.009 | 1.669 | 0.946 | 0.754 | 4.87 | 3 | 11 | 22 | - | - | - | - |
| | 200 | 0.9875 | 0.0076 | 0.1215 | 0.1215 | 1.011 | 1.676 | 0.951 | 0.697 | 5.44 | 4 | 13 | 28 | - | - | - | - |
| | 300 | 0.9878 | 0.0066 | 0.1463 | 0.1463 | 1.012 | 1.705 | 0.952 | 0.664 | 5.91 | 4 | 15 | 38 | - | - | - | - |

Notes: See notes to Table 1.

**Table 337: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0023 | 0.0357 | 0.0357 | 1.010 | 1.055 | 1.000 | 0.805 | 4.22 | 4 | 5 | 9 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9994 | 0.0014 | 0.0418 | 0.0418 | 1.013 | 1.066 | 0.999 | 0.786 | 4.26 | 4 | 5 | 9 | 1.041 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9986 | 0.0010 | 0.0486 | 0.0486 | 1.014 | 1.082 | 0.996 | 0.748 | 4.31 | 4 | 5 | 8 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0014 | 0.0216 | 0.0216 | 1.007 | 1.037 | 0.999 | 0.878 | 4.13 | 4 | 5 | 7 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0009 | 0.0285 | 0.0285 | 1.009 | 1.048 | 0.997 | 0.848 | 4.17 | 4 | 5 | 8 | 1.029 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9983 | 0.0006 | 0.0299 | 0.0299 | 1.009 | 1.054 | 0.996 | 0.835 | 4.18 | 4 | 5 | 7 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9991 | 0.0004 | 0.0070 | 0.0070 | 1.003 | 1.015 | 0.998 | 0.957 | 4.04 | 4 | 4 | 6 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9964 | 0.0003 | 0.0102 | 0.0102 | 1.004 | 1.015 | 0.992 | 0.936 | 4.05 | 4 | 5 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9959 | 0.0002 | 0.0117 | 0.0117 | 1.005 | 1.026 | 0.992 | 0.927 | 4.05 | 4 | 5 | 6 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0019 | 0.0297 | 0.0297 | 1.007 | 1.037 | 1.000 | 0.837 | 4.19 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9994 | 0.0012 | 0.0360 | 0.0360 | 1.010 | 1.047 | 0.999 | 0.814 | 4.23 | 4 | 5 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9986 | 0.0009 | 0.0432 | 0.0432 | 1.011 | 1.065 | 0.996 | 0.775 | 4.27 | 4 | 5 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0012 | 0.0181 | 0.0181 | 1.005 | 1.026 | 0.999 | 0.897 | 4.11 | 4 | 5 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9990 | 0.0008 | 0.0240 | 0.0240 | 1.007 | 1.034 | 0.997 | 0.870 | 4.15 | 4 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9983 | 0.0006 | 0.0264 | 0.0264 | 1.007 | 1.042 | 0.996 | 0.854 | 4.16 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9991 | 0.0004 | 0.0056 | 0.0056 | 1.002 | 1.010 | 0.998 | 0.965 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9964 | 0.0003 | 0.0086 | 0.0086 | 1.003 | 1.009 | 0.992 | 0.944 | 4.04 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9959 | 0.0002 | 0.0096 | 0.0096 | 1.004 | 1.017 | 0.992 | 0.939 | 4.04 | 4 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8363 | 0.0396 | 0.3453 | 0.3453 | 1.032 | 0.945 | 0.464 | 0.099 | 7.15 | 3 | 16 | 36 | - | - | - | - |
| | 200 | 0.8171 | 0.0281 | 0.4263 | 0.4263 | 1.039 | 0.953 | 0.426 | 0.065 | 8.77 | 3 | 21 | 51 | - | - | - | - |
| | 300 | 0.8289 | 0.0237 | 0.4742 | 0.4742 | 1.040 | 0.991 | 0.449 | 0.058 | 10.34 | 3 | 25 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5148 | 0.0100 | 0.1263 | 0.1263 | 1.039 | 1.476 | 0.045 | 0.012 | 3.02 | 1 | 8 | 24 | - | - | - | - |
| | 200 | 0.5298 | 0.0092 | 0.1866 | 0.1866 | 1.049 | 1.481 | 0.053 | 0.008 | 3.91 | 1 | 12 | 40 | - | - | - | - |
| | 300 | 0.5558 | 0.0084 | 0.2334 | 0.2334 | 1.052 | 1.545 | 0.077 | 0.009 | 4.71 | 1 | 16 | 53 | - | - | - | - |

Notes: See notes to Table 1.

**Table 338: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0017 | 0.0266 | 0.0266 | 1.002 | 1.037 | 1.000 | 0.856 | 4.17 | 4 | 5 | 7 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0251 | 0.0251 | 1.002 | 1.040 | 1.000 | 0.862 | 4.16 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0260 | 0.0260 | 1.002 | 1.045 | 1.000 | 0.855 | 4.16 | 4 | 5 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0144 | 0.0144 | 1.001 | 1.023 | 1.000 | 0.919 | 4.09 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0153 | 0.0153 | 1.002 | 1.029 | 1.000 | 0.914 | 4.09 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0152 | 0.0152 | 1.001 | 1.028 | 1.000 | 0.913 | 4.09 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0035 | 0.0035 | 1.000 | 1.008 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0040 | 0.0040 | 1.001 | 1.010 | 1.000 | 0.978 | 4.02 | 4 | 4 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0043 | 0.0043 | 1.000 | 1.008 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0016 | 0.0241 | 0.0241 | 1.002 | 1.030 | 1.000 | 0.869 | 4.15 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0235 | 0.0235 | 1.002 | 1.035 | 1.000 | 0.872 | 4.15 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0235 | 0.0235 | 1.002 | 1.037 | 1.000 | 0.868 | 4.15 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0130 | 0.0130 | 1.001 | 1.019 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0139 | 0.0139 | 1.001 | 1.023 | 1.000 | 0.922 | 4.09 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0137 | 0.0137 | 1.001 | 1.023 | 1.000 | 0.921 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0032 | 0.0032 | 1.000 | 1.006 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0035 | 0.0035 | 1.000 | 1.008 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0040 | 0.0040 | 1.000 | 1.008 | 1.000 | 0.977 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9794 | 0.0406 | 0.3395 | 0.3395 | 1.012 | 1.074 | 0.919 | 0.183 | 7.82 | 4 | 16 | 38 | - | - | - | - |
| | 200 | 0.9796 | 0.0248 | 0.3808 | 0.3808 | 1.014 | 1.097 | 0.920 | 0.164 | 8.78 | 4 | 19 | 41 | - | - | - | - |
| | 300 | 0.9786 | 0.0193 | 0.4152 | 0.4152 | 1.015 | 1.104 | 0.916 | 0.129 | 9.62 | 4 | 22 | 48 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7764 | 0.0089 | 0.0882 | 0.0882 | 1.019 | 1.795 | 0.344 | 0.185 | 3.96 | 2 | 9 | 30 | - | - | - | - |
| | 200 | 0.7878 | 0.0070 | 0.1221 | 0.1221 | 1.022 | 1.826 | 0.372 | 0.171 | 4.52 | 2 | 12 | 32 | - | - | - | - |
| | 300 | 0.8049 | 0.0067 | 0.1529 | 0.1529 | 1.024 | 1.839 | 0.415 | 0.171 | 5.22 | 2 | 16 | 42 | - | - | - | - |

Notes: See notes to Table 1.

**Table 339: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0209 | 0.0209 | 1.001 | 1.030 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0206 | 0.0206 | 1.001 | 1.032 | 1.000 | 0.887 | 4.13 | 4 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0228 | 0.0228 | 1.001 | 1.041 | 1.000 | 0.875 | 4.14 | 4 | 5 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0116 | 0.0116 | 1.001 | 1.018 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0113 | 0.0113 | 1.001 | 1.020 | 1.000 | 0.935 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0125 | 0.0125 | 1.001 | 1.024 | 1.000 | 0.928 | 4.08 | 4 | 5 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0032 | 0.0032 | 1.000 | 1.006 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0024 | 0.0024 | 1.000 | 1.006 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.007 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0191 | 0.0191 | 1.001 | 1.025 | 1.000 | 0.894 | 4.12 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0190 | 0.0190 | 1.001 | 1.027 | 1.000 | 0.895 | 4.12 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0205 | 0.0205 | 1.001 | 1.032 | 1.000 | 0.886 | 4.13 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0104 | 0.0104 | 1.001 | 1.014 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0105 | 0.0105 | 1.001 | 1.017 | 1.000 | 0.940 | 4.06 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0112 | 0.0112 | 1.001 | 1.019 | 1.000 | 0.936 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0029 | 0.0029 | 1.000 | 1.005 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.004 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.006 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9968 | 0.0421 | 0.3515 | 0.3515 | 1.007 | 1.093 | 0.987 | 0.184 | 8.03 | 4 | 16 | 40 | - | - | - | - |
| | 200 | 0.9974 | 0.0250 | 0.3845 | 0.3845 | 1.008 | 1.103 | 0.990 | 0.152 | 8.88 | 4 | 19 | 36 | - | - | - | - |
| | 300 | 0.9980 | 0.0191 | 0.4101 | 0.4101 | 1.009 | 1.118 | 0.992 | 0.145 | 9.66 | 4 | 22 | 46 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8936 | 0.0090 | 0.0807 | 0.0807 | 1.011 | 1.814 | 0.623 | 0.439 | 4.44 | 3 | 10 | 25 | - | - | - | - |
| | 200 | 0.8970 | 0.0076 | 0.1175 | 0.1175 | 1.013 | 1.824 | 0.640 | 0.392 | 5.08 | 3 | 14 | 31 | - | - | - | - |
| | 300 | 0.9050 | 0.0072 | 0.1508 | 0.1508 | 1.015 | 1.861 | 0.667 | 0.367 | 5.74 | 3 | 17 | 40 | - | - | - | - |

Notes: See notes to Table 1.

**Table 340: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9690 | 0.0021 | 0.0338 | 0.0338 | 1.011 | 1.033 | 0.938 | 0.776 | 4.08 | 3 | 5 | 7 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9531 | 0.0014 | 0.0459 | 0.0459 | 1.015 | 1.047 | 0.906 | 0.712 | 4.08 | 3 | 5 | 7 | 1.037 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9515 | 0.0010 | 0.0481 | 0.0481 | 1.018 | 1.062 | 0.909 | 0.690 | 4.10 | 3 | 5 | 8 | 1.031 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9561 | 0.0014 | 0.0229 | 0.0229 | 1.008 | 1.015 | 0.915 | 0.806 | 3.96 | 3 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9398 | 0.0008 | 0.0295 | 0.0295 | 1.012 | 1.019 | 0.884 | 0.763 | 3.92 | 2 | 5 | 7 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9375 | 0.0006 | 0.0311 | 0.0311 | 1.014 | 1.033 | 0.884 | 0.742 | 3.93 | 2 | 5 | 8 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9205 | 0.0004 | 0.0076 | 0.0076 | 1.007 | 0.987 | 0.856 | 0.820 | 3.72 | 1 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8963 | 0.0003 | 0.0110 | 0.0110 | 1.011 | 0.982 | 0.823 | 0.781 | 3.64 | 1 | 4 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8964 | 0.0002 | 0.0120 | 0.0120 | 1.011 | 0.989 | 0.812 | 0.763 | 3.65 | 1 | 4 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9690 | 0.0019 | 0.0307 | 0.0307 | 1.009 | 1.026 | 0.938 | 0.793 | 4.06 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9530 | 0.0012 | 0.0407 | 0.0407 | 1.013 | 1.031 | 0.906 | 0.737 | 4.05 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9515 | 0.0009 | 0.0436 | 0.0436 | 1.016 | 1.047 | 0.909 | 0.708 | 4.07 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9561 | 0.0013 | 0.0210 | 0.0210 | 1.008 | 1.010 | 0.915 | 0.816 | 3.95 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9398 | 0.0007 | 0.0261 | 0.0261 | 1.010 | 1.008 | 0.884 | 0.780 | 3.90 | 2 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9375 | 0.0005 | 0.0270 | 0.0270 | 1.012 | 1.018 | 0.884 | 0.761 | 3.91 | 2 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9205 | 0.0004 | 0.0070 | 0.0070 | 1.006 | 0.985 | 0.856 | 0.824 | 3.72 | 1 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8963 | 0.0002 | 0.0089 | 0.0089 | 1.010 | 0.975 | 0.823 | 0.791 | 3.63 | 1 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8963 | 0.0002 | 0.0108 | 0.0108 | 1.010 | 0.984 | 0.812 | 0.770 | 3.64 | 1 | 4 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.6550 | 0.0390 | 0.3941 | 0.3941 | 1.024 | 0.774 | 0.144 | 0.023 | 6.37 | 2 | 14 | 33 | - | - | - | - |
| | 200 | 0.6403 | 0.0291 | 0.4756 | 0.4756 | 1.028 | 0.784 | 0.124 | 0.013 | 8.26 | 2 | 20 | 56 | - | - | - | - |
| | 300 | 0.6401 | 0.0260 | 0.5425 | 0.5425 | 1.035 | 0.829 | 0.134 | 0.011 | 10.27 | 2 | 26 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3925 | 0.0116 | 0.1784 | 0.1784 | 1.023 | 1.143 | 0.006 | 0.001 | 2.69 | 1 | 7 | 26 | - | - | - | - |
| | 200 | 0.3989 | 0.0104 | 0.2549 | 0.2549 | 1.034 | 1.182 | 0.006 | 0.000 | 3.64 | 1 | 11 | 43 | - | - | - | - |
| | 300 | 0.4129 | 0.0111 | 0.3352 | 0.3352 | 1.051 | 1.276 | 0.011 | 0.001 | 4.92 | 1 | 15 | 56 | - | - | - | - |

Notes: See notes to Table 1.

**Table 341: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0226 | 0.0226 | 1.002 | 1.040 | 1.000 | 0.878 | 4.14 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0230 | 0.0230 | 1.003 | 1.041 | 1.000 | 0.871 | 4.14 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0282 | 0.0282 | 1.003 | 1.058 | 1.000 | 0.848 | 4.18 | 4 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0129 | 0.0129 | 1.001 | 1.025 | 1.000 | 0.929 | 4.08 | 4 | 5 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0135 | 0.0135 | 1.002 | 1.026 | 1.000 | 0.923 | 4.08 | 4 | 5 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0155 | 0.0155 | 1.002 | 1.034 | 1.000 | 0.913 | 4.10 | 4 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0037 | 0.0037 | 1.001 | 1.009 | 1.000 | 0.979 | 4.02 | 4 | 4 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0039 | 0.0039 | 1.001 | 1.010 | 1.000 | 0.977 | 4.02 | 4 | 4 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0041 | 0.0041 | 1.001 | 1.012 | 1.000 | 0.977 | 4.03 | 4 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0014 | 0.0213 | 0.0213 | 1.002 | 1.037 | 1.000 | 0.883 | 4.13 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0215 | 0.0215 | 1.002 | 1.037 | 1.000 | 0.880 | 4.13 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0006 | 0.0268 | 0.0268 | 1.003 | 1.053 | 1.000 | 0.856 | 4.17 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0124 | 0.0124 | 1.001 | 1.023 | 1.000 | 0.932 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0127 | 0.0127 | 1.002 | 1.024 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0145 | 0.0145 | 1.002 | 1.031 | 1.000 | 0.919 | 4.09 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0030 | 0.0030 | 1.000 | 1.006 | 1.000 | 0.983 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.008 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0035 | 0.0035 | 1.000 | 1.010 | 1.000 | 0.981 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8821 | 0.0391 | 0.3466 | 0.3466 | 1.012 | 0.982 | 0.584 | 0.109 | 7.29 | 3 | 16 | 32 | - | - | - | - |
| | 200 | 0.8821 | 0.0250 | 0.3919 | 0.3919 | 1.013 | 1.000 | 0.582 | 0.102 | 8.42 | 3 | 19 | 45 | - | - | - | - |
| | 300 | 0.8835 | 0.0176 | 0.4097 | 0.4097 | 1.014 | 1.014 | 0.590 | 0.089 | 8.75 | 3 | 21 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5798 | 0.0087 | 0.1053 | 0.1053 | 1.015 | 1.574 | 0.078 | 0.028 | 3.16 | 1 | 8 | 25 | - | - | - | - |
| | 200 | 0.5924 | 0.0077 | 0.1606 | 0.1606 | 1.018 | 1.604 | 0.092 | 0.016 | 3.89 | 1 | 12 | 38 | - | - | - | - |
| | 300 | 0.6016 | 0.0060 | 0.1772 | 0.1772 | 1.020 | 1.662 | 0.099 | 0.014 | 4.18 | 1 | 12 | 42 | - | - | - | - |

Notes: See notes to Table 1.

**Table 342: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0191 | 0.0191 | 1.001 | 1.036 | 1.000 | 0.894 | 4.12 | 4 | 5 | 6 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0226 | 0.0226 | 1.002 | 1.045 | 1.000 | 0.876 | 4.14 | 4 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0203 | 0.0203 | 1.001 | 1.041 | 1.000 | 0.886 | 4.13 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0116 | 0.0116 | 1.001 | 1.025 | 1.000 | 0.934 | 4.07 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0128 | 0.0128 | 1.001 | 1.029 | 1.000 | 0.927 | 4.08 | 4 | 5 | 6 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0108 | 0.0108 | 1.001 | 1.024 | 1.000 | 0.939 | 4.07 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.007 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0034 | 0.0034 | 1.000 | 1.009 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.005 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0176 | 0.0176 | 1.001 | 1.031 | 1.000 | 0.902 | 4.11 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0218 | 0.0218 | 1.002 | 1.043 | 1.000 | 0.880 | 4.14 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0194 | 0.0194 | 1.001 | 1.037 | 1.000 | 0.891 | 4.12 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0106 | 0.0106 | 1.001 | 1.022 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0121 | 0.0121 | 1.001 | 1.026 | 1.000 | 0.931 | 4.07 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0101 | 0.0101 | 1.001 | 1.022 | 1.000 | 0.942 | 4.06 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0026 | 0.0026 | 1.000 | 1.007 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0033 | 0.0033 | 1.000 | 1.008 | 1.000 | 0.980 | 4.02 | 4 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0020 | 0.0020 | 1.000 | 1.005 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.9514 | 0.0413 | 0.3549 | 0.3549 | 1.006 | 1.046 | 0.814 | 0.140 | 7.77 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9549 | 0.0252 | 0.3913 | 0.3913 | 1.008 | 1.061 | 0.826 | 0.128 | 8.76 | 4 | 19 | 39 | - | - | - | - |
| | 300 | 0.9514 | 0.0188 | 0.4096 | 0.4096 | 1.009 | 1.074 | 0.812 | 0.125 | 9.36 | 4 | 21 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7103 | 0.0085 | 0.0958 | 0.0958 | 1.010 | 1.713 | 0.214 | 0.096 | 3.66 | 2 | 8 | 23 | - | - | - | - |
| | 200 | 0.7263 | 0.0077 | 0.1422 | 0.1422 | 1.012 | 1.744 | 0.246 | 0.079 | 4.42 | 2 | 13 | 34 | - | - | - | - |
| | 300 | 0.7359 | 0.0070 | 0.1730 | 0.1730 | 1.014 | 1.791 | 0.263 | 0.074 | 5.02 | 2 | 15 | 56 | - | - | - | - |

Notes: See notes to Table 1.

### 4.1.2 Findings for designs featuring pseudo-signals

**Table 343: MC findings for DGPII(a)**

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR$^*$ | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0230 | 0.3026 | 0.0279 | 1.020 | 1.475 | 1.000 | 0.001 | 0.975 | 0.783 | 6.21 | 6 | 7 | 10 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0114 | 0.3054 | 0.0332 | 1.021 | 1.496 | 1.000 | 0.001 | 0.968 | 0.757 | 6.24 | 6 | 7 | 10 | 1.058 | 0.06 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0076 | 0.3069 | 0.0372 | 1.023 | 1.525 | 1.000 | 0.002 | 0.956 | 0.710 | 6.26 | 6 | 7 | 11 | 1.059 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0220 | 0.2945 | 0.0186 | 1.017 | 1.451 | 1.000 | 0.003 | 0.966 | 0.834 | 6.11 | 6 | 7 | 9 | 1.038 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0108 | 0.2945 | 0.0213 | 1.018 | 1.463 | 1.000 | 0.001 | 0.948 | 0.809 | 6.12 | 6 | 7 | 9 | 1.040 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0072 | 0.2950 | 0.0240 | 1.020 | 1.487 | 1.000 | 0.004 | 0.937 | 0.778 | 6.13 | 5 | 7 | 9 | 1.041 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0205 | 0.2801 | 0.0062 | 1.013 | 1.406 | 0.999 | 0.009 | 0.930 | 0.885 | 5.97 | 5 | 6 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0100 | 0.2786 | 0.0083 | 1.014 | 1.419 | 0.999 | 0.008 | 0.901 | 0.847 | 5.96 | 5 | 7 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0065 | 0.2754 | 0.0079 | 1.014 | 1.423 | 0.996 | 0.013 | 0.881 | 0.829 | 5.93 | 5 | 7 | 8 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0225 | 0.2984 | 0.0221 | 1.017 | 1.440 | 1.000 | 0.001 | 0.975 | 0.820 | 6.16 | 6 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0112 | 0.3015 | 0.0277 | 1.018 | 1.461 | 1.000 | 0.002 | 0.968 | 0.790 | 6.20 | 6 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.3023 | 0.0309 | 1.019 | 1.478 | 1.000 | 0.002 | 0.956 | 0.742 | 6.21 | 6 | 7 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0217 | 0.2917 | 0.0148 | 1.015 | 1.427 | 1.000 | 0.003 | 0.966 | 0.861 | 6.08 | 6 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0107 | 0.2918 | 0.0176 | 1.016 | 1.439 | 1.000 | 0.002 | 0.948 | 0.832 | 6.09 | 6 | 7 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0071 | 0.2919 | 0.0198 | 1.017 | 1.452 | 1.000 | 0.004 | 0.937 | 0.799 | 6.09 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0204 | 0.2792 | 0.0050 | 1.013 | 1.395 | 0.999 | 0.010 | 0.930 | 0.893 | 5.96 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0099 | 0.2773 | 0.0065 | 1.013 | 1.408 | 0.999 | 0.008 | 0.901 | 0.858 | 5.94 | 5 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0065 | 0.2741 | 0.0062 | 1.013 | 1.409 | 0.996 | 0.013 | 0.881 | 0.839 | 5.91 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9943 | 0.0561 | 0.4302 | 0.3830 | 1.049 | 1.422 | 0.978 | 0.088 | 0.053 | 0.004 | 9.37 | 4 | 19 | 35 | - | - | - | - |
| | 200 | 0.9925 | 0.0378 | 0.4959 | 0.4566 | 1.058 | 1.489 | 0.970 | 0.062 | 0.048 | 0.002 | 11.38 | 4 | 23.5 | 53 | - | - | - | - |
| | 300 | 0.9926 | 0.0333 | 0.5517 | 0.5170 | 1.064 | 1.540 | 0.971 | 0.045 | 0.046 | 0.002 | 13.84 | 5 | 31 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9229 | 0.0147 | 0.1475 | 0.1268 | 1.059 | 1.860 | 0.731 | 0.377 | 0.005 | 0.000 | 5.11 | 3 | 11 | 28 | - | - | - | - |
| | 200 | 0.9321 | 0.0132 | 0.2158 | 0.1922 | 1.070 | 1.940 | 0.768 | 0.318 | 0.012 | 0.001 | 6.31 | 3 | 17 | 44 | - | - | - | - |
| | 300 | 0.9333 | 0.0142 | 0.2778 | 0.2590 | 1.087 | 2.073 | 0.768 | 0.250 | 0.010 | 0.000 | 7.93 | 3 | 23.5 | 46 | - | - | - | - |

Notes: See notes to Table 46.

## Table 344: MC findings for DGPII(a)

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0222 | 0.2975 | 0.0165 | 1.005 | 1.427 | 1.000 | 0.000 | 1.000 | 0.882 | 6.14 | 6 | 7 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0110 | 0.2990 | 0.0186 | 1.005 | 1.422 | 1.000 | 0.000 | 1.000 | 0.864 | 6.15 | 6 | 7 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.3000 | 0.0201 | 1.006 | 1.430 | 1.000 | 0.000 | 1.000 | 0.854 | 6.17 | 6 | 7 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0216 | 0.2920 | 0.0088 | 1.004 | 1.410 | 1.000 | 0.000 | 1.000 | 0.934 | 6.07 | 6 | 7 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2930 | 0.0102 | 1.005 | 1.398 | 1.000 | 0.000 | 1.000 | 0.922 | 6.08 | 6 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2933 | 0.0107 | 1.005 | 1.405 | 1.000 | 0.000 | 1.000 | 0.920 | 6.09 | 6 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2873 | 0.0022 | 1.004 | 1.391 | 1.000 | 0.000 | 1.000 | 0.983 | 6.02 | 6 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2875 | 0.0025 | 1.004 | 1.374 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2878 | 0.0030 | 1.004 | 1.378 | 1.000 | 0.000 | 1.000 | 0.977 | 6.02 | 6 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2960 | 0.0143 | 1.004 | 1.411 | 1.000 | 0.000 | 1.000 | 0.897 | 6.12 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0109 | 0.2974 | 0.0164 | 1.005 | 1.403 | 1.000 | 0.000 | 1.000 | 0.879 | 6.13 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2983 | 0.0176 | 1.005 | 1.409 | 1.000 | 0.000 | 1.000 | 0.871 | 6.14 | 6 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2910 | 0.0074 | 1.004 | 1.399 | 1.000 | 0.000 | 1.000 | 0.945 | 6.06 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0106 | 0.2921 | 0.0089 | 1.004 | 1.388 | 1.000 | 0.000 | 1.000 | 0.931 | 6.07 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2922 | 0.0090 | 1.004 | 1.391 | 1.000 | 0.000 | 1.000 | 0.933 | 6.07 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2871 | 0.0019 | 1.004 | 1.388 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2873 | 0.0022 | 1.004 | 1.371 | 1.000 | 0.000 | 1.000 | 0.983 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2875 | 0.0025 | 1.004 | 1.374 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0567 | 0.4378 | 0.3886 | 1.015 | 1.404 | 1.000 | 0.076 | 0.062 | 0.006 | 9.44 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0337 | 0.4733 | 0.4327 | 1.018 | 1.439 | 1.000 | 0.060 | 0.054 | 0.005 | 10.60 | 4 | 22 | 57 | - | - | - | - |
| | 300 | 1.0000 | 0.0255 | 0.4986 | 0.4606 | 1.019 | 1.452 | 1.000 | 0.052 | 0.044 | 0.003 | 11.55 | 4 | 25 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9985 | 0.0107 | 0.0916 | 0.0802 | 1.010 | 1.480 | 0.994 | 0.746 | 0.006 | 0.000 | 5.03 | 4 | 11.5 | 30 | - | - | - | - |
| | 200 | 0.9996 | 0.0093 | 0.1388 | 0.1286 | 1.014 | 1.582 | 0.999 | 0.676 | 0.009 | 0.001 | 5.82 | 4 | 15 | 45 | - | - | - | - |
| | 300 | 0.9995 | 0.0089 | 0.1746 | 0.1641 | 1.019 | 1.727 | 0.998 | 0.624 | 0.006 | 0.000 | 6.63 | 4 | 19 | 43 | - | - | - | - |

Notes: See notes to Table 46.

## Table 345: MC findings for DGPII(a)

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2961 | 0.0145 | 1.003 | 1.423 | 1.000 | 0.000 | 1.000 | 0.892 | 6.12 | 6 | 7 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0109 | 0.2970 | 0.0158 | 1.003 | 1.434 | 1.000 | 0.000 | 1.000 | 0.883 | 6.13 | 6 | 7 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2969 | 0.0157 | 1.003 | 1.419 | 1.000 | 0.000 | 1.000 | 0.884 | 6.13 | 6 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2912 | 0.0077 | 1.003 | 1.405 | 1.000 | 0.000 | 1.000 | 0.943 | 6.06 | 6 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2920 | 0.0088 | 1.003 | 1.411 | 1.000 | 0.000 | 1.000 | 0.933 | 6.07 | 6 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2915 | 0.0081 | 1.002 | 1.402 | 1.000 | 0.000 | 1.000 | 0.938 | 6.07 | 6 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2869 | 0.0016 | 1.002 | 1.386 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2871 | 0.0019 | 1.002 | 1.391 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2876 | 0.0026 | 1.002 | 1.385 | 1.000 | 0.000 | 1.000 | 0.980 | 6.02 | 6 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2946 | 0.0125 | 1.002 | 1.406 | 1.000 | 0.000 | 1.000 | 0.907 | 6.10 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2955 | 0.0136 | 1.003 | 1.417 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2960 | 0.0144 | 1.002 | 1.409 | 1.000 | 0.000 | 1.000 | 0.893 | 6.12 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2904 | 0.0066 | 1.002 | 1.396 | 1.000 | 0.000 | 1.000 | 0.952 | 6.05 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2913 | 0.0078 | 1.002 | 1.403 | 1.000 | 0.000 | 1.000 | 0.940 | 6.06 | 6 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2910 | 0.0073 | 1.002 | 1.395 | 1.000 | 0.000 | 1.000 | 0.944 | 6.06 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2867 | 0.0014 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2869 | 0.0017 | 1.002 | 1.387 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2873 | 0.0022 | 1.002 | 1.381 | 1.000 | 0.000 | 1.000 | 0.983 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0568 | 0.4419 | 0.3932 | 1.009 | 1.397 | 1.000 | 0.066 | 0.058 | 0.003 | 9.46 | 4 | 19 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0332 | 0.4654 | 0.4246 | 1.011 | 1.441 | 1.000 | 0.073 | 0.052 | 0.004 | 10.51 | 4 | 22 | 45 | - | - | - | - |
| | 300 | 1.0000 | 0.0253 | 0.4903 | 0.4520 | 1.011 | 1.451 | 1.000 | 0.060 | 0.045 | 0.002 | 11.49 | 4 | 25 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0098 | 0.0787 | 0.0712 | 1.005 | 1.375 | 1.000 | 0.818 | 0.005 | 0.000 | 4.94 | 4 | 11 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0090 | 0.1262 | 0.1194 | 1.008 | 1.529 | 1.000 | 0.753 | 0.007 | 0.000 | 5.76 | 4 | 15 | 28 | - | - | - | - |
| | 300 | 1.0000 | 0.0084 | 0.1680 | 0.1606 | 1.010 | 1.638 | 1.000 | 0.687 | 0.006 | 0.000 | 6.47 | 4 | 18 | 46 | - | - | - | - |

Notes: See notes to Table 46.

## Table 346: MC findings for DGPII(a)

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9935 | 0.0210 | 0.2815 | 0.0254 | 1.019 | 1.442 | 0.980 | 0.014 | 0.830 | 0.682 | 5.99 | 5 | 7 | 9 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9925 | 0.0101 | 0.2766 | 0.0288 | 1.022 | 1.480 | 0.975 | 0.024 | 0.790 | 0.638 | 5.95 | 5 | 7 | 10 | 1.048 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9894 | 0.0067 | 0.2780 | 0.0333 | 1.024 | 1.500 | 0.966 | 0.021 | 0.763 | 0.599 | 5.95 | 5 | 7 | 10 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9899 | 0.0196 | 0.2679 | 0.0164 | 1.016 | 1.419 | 0.970 | 0.020 | 0.783 | 0.687 | 5.84 | 5 | 7 | 9 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9880 | 0.0093 | 0.2597 | 0.0171 | 1.018 | 1.433 | 0.961 | 0.035 | 0.740 | 0.657 | 5.77 | 4 | 7 | 9 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9828 | 0.0062 | 0.2604 | 0.0217 | 1.021 | 1.461 | 0.944 | 0.033 | 0.703 | 0.604 | 5.75 | 4 | 7 | 10 | 1.032 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9781 | 0.0171 | 0.2409 | 0.0058 | 1.013 | 1.372 | 0.935 | 0.048 | 0.669 | 0.639 | 5.56 | 4 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9709 | 0.0080 | 0.2297 | 0.0063 | 1.016 | 1.386 | 0.915 | 0.065 | 0.613 | 0.586 | 5.45 | 4 | 6 | 8 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9661 | 0.0052 | 0.2297 | 0.0081 | 1.016 | 1.406 | 0.906 | 0.058 | 0.589 | 0.559 | 5.42 | 3 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9935 | 0.0207 | 0.2787 | 0.0215 | 1.017 | 1.421 | 0.980 | 0.014 | 0.830 | 0.706 | 5.96 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9925 | 0.0099 | 0.2727 | 0.0236 | 1.019 | 1.447 | 0.975 | 0.024 | 0.790 | 0.667 | 5.91 | 5 | 7 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9894 | 0.0066 | 0.2745 | 0.0287 | 1.021 | 1.472 | 0.966 | 0.023 | 0.763 | 0.622 | 5.91 | 5 | 7 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9899 | 0.0193 | 0.2653 | 0.0129 | 1.014 | 1.393 | 0.970 | 0.021 | 0.783 | 0.707 | 5.81 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9880 | 0.0091 | 0.2570 | 0.0135 | 1.016 | 1.410 | 0.961 | 0.035 | 0.740 | 0.677 | 5.74 | 4 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9828 | 0.0061 | 0.2573 | 0.0178 | 1.018 | 1.435 | 0.944 | 0.034 | 0.703 | 0.621 | 5.72 | 4 | 7 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9781 | 0.0170 | 0.2400 | 0.0045 | 1.012 | 1.360 | 0.935 | 0.049 | 0.669 | 0.646 | 5.55 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9709 | 0.0079 | 0.2285 | 0.0048 | 1.014 | 1.373 | 0.915 | 0.065 | 0.613 | 0.593 | 5.43 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9661 | 0.0052 | 0.2287 | 0.0068 | 1.015 | 1.395 | 0.906 | 0.058 | 0.589 | 0.565 | 5.41 | 3 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9346 | 0.0523 | 0.4236 | 0.3746 | 1.046 | 1.338 | 0.762 | 0.080 | 0.030 | 0.003 | 8.76 | 4 | 17 | 44 | - | - | - | - |
| | 200 | 0.9326 | 0.0374 | 0.4984 | 0.4567 | 1.057 | 1.418 | 0.759 | 0.047 | 0.030 | 0.002 | 11.05 | 4 | 25 | 51 | - | - | - | - |
| | 300 | 0.9326 | 0.0317 | 0.5522 | 0.5149 | 1.061 | 1.468 | 0.759 | 0.030 | 0.023 | 0.001 | 13.12 | 4 | 30 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7425 | 0.0147 | 0.1744 | 0.1431 | 1.057 | 1.786 | 0.300 | 0.110 | 0.001 | 0.000 | 4.38 | 2 | 9 | 35 | - | - | - | - |
| | 200 | 0.7601 | 0.0141 | 0.2605 | 0.2305 | 1.074 | 1.922 | 0.334 | 0.078 | 0.004 | 0.000 | 5.80 | 2 | 15 | 39 | - | - | - | - |
| | 300 | 0.7746 | 0.0138 | 0.3196 | 0.2929 | 1.086 | 2.043 | 0.371 | 0.057 | 0.002 | 0.000 | 7.19 | 2 | 21 | 59 | - | - | - | - |

Notes: See notes to Table 46.

## Table 347: MC findings for DGPII(a)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0224 | 0.2989 | 0.0184 | 1.005 | 1.410 | 1.000 | 0.000 | 1.000 | 0.863 | 6.15 | 6 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0110 | 0.2997 | 0.0195 | 1.006 | 1.466 | 1.000 | 0.000 | 1.000 | 0.858 | 6.16 | 6 | 7 | 9 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.2996 | 0.0194 | 1.006 | 1.446 | 1.000 | 0.000 | 1.000 | 0.856 | 6.16 | 6 | 7 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0217 | 0.2928 | 0.0100 | 1.005 | 1.384 | 1.000 | 0.000 | 1.000 | 0.923 | 6.08 | 6 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0107 | 0.2935 | 0.0109 | 1.005 | 1.439 | 1.000 | 0.000 | 1.000 | 0.918 | 6.09 | 6 | 7 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2934 | 0.0107 | 1.005 | 1.416 | 1.000 | 0.000 | 1.000 | 0.920 | 6.09 | 6 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0211 | 0.2877 | 0.0028 | 1.004 | 1.359 | 1.000 | 0.000 | 1.000 | 0.978 | 6.02 | 6 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0104 | 0.2884 | 0.0039 | 1.004 | 1.409 | 1.000 | 0.000 | 1.000 | 0.969 | 6.03 | 6 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2879 | 0.0030 | 1.004 | 1.388 | 1.000 | 0.000 | 1.000 | 0.977 | 6.02 | 6 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0223 | 0.2977 | 0.0167 | 1.005 | 1.398 | 1.000 | 0.000 | 1.000 | 0.875 | 6.14 | 6 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0109 | 0.2981 | 0.0173 | 1.005 | 1.449 | 1.000 | 0.000 | 1.000 | 0.873 | 6.14 | 6 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2983 | 0.0176 | 1.005 | 1.433 | 1.000 | 0.000 | 1.000 | 0.868 | 6.14 | 6 | 7 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0216 | 0.2920 | 0.0089 | 1.004 | 1.376 | 1.000 | 0.000 | 1.000 | 0.932 | 6.07 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0106 | 0.2927 | 0.0097 | 1.005 | 1.427 | 1.000 | 0.000 | 1.000 | 0.927 | 6.08 | 6 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2926 | 0.0096 | 1.005 | 1.407 | 1.000 | 0.000 | 1.000 | 0.927 | 6.08 | 6 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2875 | 0.0025 | 1.004 | 1.356 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2881 | 0.0035 | 1.004 | 1.404 | 1.000 | 0.000 | 1.000 | 0.973 | 6.03 | 6 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2875 | 0.0025 | 1.004 | 1.382 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9985 | 0.0582 | 0.4452 | 0.3978 | 1.015 | 1.394 | 0.994 | 0.066 | 0.054 | 0.005 | 9.58 | 4 | 19 | 38 | - | - | - | - |
| | 200 | 0.9989 | 0.0358 | 0.4896 | 0.4462 | 1.018 | 1.459 | 0.996 | 0.057 | 0.055 | 0.004 | 11.01 | 4 | 23 | 47 | - | - | - | - |
| | 300 | 0.9991 | 0.0259 | 0.5117 | 0.4736 | 1.019 | 1.455 | 0.997 | 0.044 | 0.049 | 0.006 | 11.66 | 5 | 23 | 49 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9773 | 0.0149 | 0.1430 | 0.1255 | 1.014 | 1.688 | 0.911 | 0.507 | 0.006 | 0.001 | 5.34 | 3 | 12 | 33 | - | - | - | - |
| | 200 | 0.9778 | 0.0122 | 0.2005 | 0.1802 | 1.020 | 1.841 | 0.916 | 0.415 | 0.012 | 0.001 | 6.31 | 3 | 16 | 42 | - | - | - | - |
| | 300 | 0.9780 | 0.0098 | 0.2289 | 0.2110 | 1.023 | 1.899 | 0.915 | 0.383 | 0.006 | 0.000 | 6.81 | 3 | 18 | 38 | - | - | - | - |

Notes: See notes to Table 46.

## Table 348: MC findings for DGPII(a)

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2961 | 0.0145 | 1.003 | 1.418 | 1.000 | 0.000 | 1.000 | 0.891 | 6.12 | 6 | 7 | 8 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2965 | 0.0151 | 1.003 | 1.432 | 1.000 | 0.000 | 1.000 | 0.889 | 6.12 | 6 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2975 | 0.0166 | 1.003 | 1.443 | 1.000 | 0.000 | 1.000 | 0.880 | 6.14 | 6 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2910 | 0.0075 | 1.003 | 1.395 | 1.000 | 0.000 | 1.000 | 0.944 | 6.06 | 6 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2923 | 0.0092 | 1.003 | 1.413 | 1.000 | 0.000 | 1.000 | 0.932 | 6.08 | 6 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2919 | 0.0087 | 1.002 | 1.415 | 1.000 | 0.000 | 1.000 | 0.935 | 6.07 | 6 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2872 | 0.0020 | 1.002 | 1.377 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2872 | 0.0020 | 1.002 | 1.388 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2877 | 0.0028 | 1.002 | 1.392 | 1.000 | 0.000 | 1.000 | 0.978 | 6.02 | 6 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2948 | 0.0127 | 1.003 | 1.404 | 1.000 | 0.000 | 1.000 | 0.904 | 6.10 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2958 | 0.0142 | 1.003 | 1.424 | 1.000 | 0.000 | 1.000 | 0.897 | 6.12 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2967 | 0.0154 | 1.003 | 1.434 | 1.000 | 0.000 | 1.000 | 0.889 | 6.13 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2905 | 0.0067 | 1.003 | 1.389 | 1.000 | 0.000 | 1.000 | 0.950 | 6.05 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0106 | 0.2920 | 0.0088 | 1.003 | 1.410 | 1.000 | 0.000 | 1.000 | 0.936 | 6.07 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2914 | 0.0079 | 1.002 | 1.409 | 1.000 | 0.000 | 1.000 | 0.940 | 6.06 | 6 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2870 | 0.0018 | 1.002 | 1.375 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2870 | 0.0018 | 1.002 | 1.386 | 1.000 | 0.000 | 1.000 | 0.986 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2873 | 0.0022 | 1.002 | 1.384 | 1.000 | 0.000 | 1.000 | 0.983 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.0586 | 0.4502 | 0.4011 | 1.008 | 1.393 | 0.999 | 0.059 | 0.059 | 0.006 | 9.62 | 4 | 18 | 41 | - | - | - | - |
| | 200 | 0.9999 | 0.0335 | 0.4779 | 0.4365 | 1.009 | 1.418 | 1.000 | 0.053 | 0.047 | 0.005 | 10.57 | 4 | 21 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0253 | 0.4999 | 0.4611 | 1.011 | 1.462 | 1.000 | 0.058 | 0.053 | 0.004 | 11.48 | 4 | 24 | 46 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9966 | 0.0127 | 0.1133 | 0.0993 | 1.006 | 1.536 | 0.987 | 0.666 | 0.008 | 0.001 | 5.20 | 4 | 11 | 27 | - | - | - | - |
| | 200 | 0.9979 | 0.0102 | 0.1541 | 0.1405 | 1.009 | 1.664 | 0.992 | 0.617 | 0.008 | 0.000 | 5.99 | 4 | 16 | 39 | - | - | - | - |
| | 300 | 0.9974 | 0.0094 | 0.1949 | 0.1811 | 1.012 | 1.799 | 0.990 | 0.543 | 0.008 | 0.001 | 6.79 | 4 | 19 | 41 | - | - | - | - |

Notes: See notes to Table 46.

## Table 349: MC findings for DGPII(a)

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8773 | 0.0153 | 0.2222 | 0.0322 | 1.023 | 1.394 | 0.710 | 0.051 | 0.428 | 0.338 | 4.98 | 2 | 7 | 9 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8559 | 0.0073 | 0.2188 | 0.0405 | 1.025 | 1.405 | 0.672 | 0.050 | 0.375 | 0.293 | 4.84 | 2 | 7 | 11 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8185 | 0.0044 | 0.2016 | 0.0432 | 1.032 | 1.459 | 0.626 | 0.062 | 0.323 | 0.245 | 4.57 | 1 | 7 | 11 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8459 | 0.0132 | 0.1979 | 0.0228 | 1.023 | 1.371 | 0.654 | 0.065 | 0.358 | 0.308 | 4.65 | 1 | 7 | 9 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8201 | 0.0061 | 0.1922 | 0.0261 | 1.024 | 1.374 | 0.616 | 0.068 | 0.317 | 0.275 | 4.49 | 1 | 6 | 11 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.7808 | 0.0037 | 0.1778 | 0.0300 | 1.032 | 1.439 | 0.571 | 0.071 | 0.269 | 0.222 | 4.22 | 1 | 6.5 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7588 | 0.0095 | 0.1514 | 0.0089 | 1.025 | 1.344 | 0.525 | 0.083 | 0.230 | 0.222 | 3.94 | 1 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7270 | 0.0043 | 0.1427 | 0.0097 | 1.029 | 1.367 | 0.485 | 0.086 | 0.201 | 0.191 | 3.75 | 0 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.6846 | 0.0026 | 0.1302 | 0.0121 | 1.037 | 1.425 | 0.448 | 0.090 | 0.173 | 0.164 | 3.50 | 0 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8773 | 0.0151 | 0.2195 | 0.0289 | 1.022 | 1.376 | 0.710 | 0.052 | 0.428 | 0.348 | 4.95 | 2 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8558 | 0.0071 | 0.2159 | 0.0370 | 1.024 | 1.383 | 0.672 | 0.051 | 0.375 | 0.301 | 4.82 | 1.5 | 7 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.8184 | 0.0043 | 0.1990 | 0.0400 | 1.030 | 1.440 | 0.626 | 0.063 | 0.323 | 0.253 | 4.54 | 1 | 7 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8459 | 0.0130 | 0.1959 | 0.0204 | 1.022 | 1.357 | 0.654 | 0.066 | 0.358 | 0.315 | 4.63 | 1 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8201 | 0.0061 | 0.1905 | 0.0240 | 1.023 | 1.361 | 0.616 | 0.069 | 0.317 | 0.280 | 4.47 | 1 | 6 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.7806 | 0.0036 | 0.1757 | 0.0274 | 1.030 | 1.422 | 0.571 | 0.073 | 0.269 | 0.227 | 4.20 | 1 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7588 | 0.0094 | 0.1508 | 0.0081 | 1.025 | 1.339 | 0.525 | 0.084 | 0.230 | 0.224 | 3.94 | 1 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7270 | 0.0043 | 0.1421 | 0.0091 | 1.029 | 1.363 | 0.485 | 0.086 | 0.201 | 0.192 | 3.75 | 0 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.6846 | 0.0025 | 0.1293 | 0.0109 | 1.036 | 1.418 | 0.448 | 0.090 | 0.173 | 0.165 | 3.49 | 0 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7666 | 0.0506 | 0.4489 | 0.3987 | 1.036 | 1.180 | 0.333 | 0.033 | 0.008 | 0.001 | 7.92 | 3 | 17 | 28 | - | - | - | - |
| | 200 | 0.7481 | 0.0368 | 0.5366 | 0.4964 | 1.044 | 1.232 | 0.314 | 0.016 | 0.005 | 0.001 | 10.20 | 3 | 24 | 62 | - | - | - | - |
| | 300 | 0.7440 | 0.0304 | 0.5780 | 0.5433 | 1.053 | 1.307 | 0.301 | 0.012 | 0.011 | 0.000 | 11.97 | 3 | 29 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5313 | 0.0176 | 0.2398 | 0.2022 | 1.046 | 1.570 | 0.055 | 0.010 | 0.001 | 0.000 | 3.81 | 1 | 10 | 26 | - | - | - | - |
| | 200 | 0.5368 | 0.0149 | 0.3248 | 0.2914 | 1.061 | 1.702 | 0.052 | 0.009 | 0.000 | 0.000 | 5.07 | 1 | 14 | 53 | - | - | - | - |
| | 300 | 0.5441 | 0.0143 | 0.3900 | 0.3605 | 1.078 | 1.863 | 0.071 | 0.004 | 0.000 | 0.000 | 6.40 | 1 | 18 | 59 | - | - | - | - |

Notes: See notes to Table 46.

## Table 350: MC findings for DGPII(a)

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2963 | 0.0163 | 1.006 | 1.420 | 1.000 | 0.001 | 0.993 | 0.875 | 6.12 | 6 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0109 | 0.2977 | 0.0194 | 1.006 | 1.458 | 1.000 | 0.001 | 0.986 | 0.849 | 6.15 | 6 | 7 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2978 | 0.0197 | 1.006 | 1.467 | 1.000 | 0.001 | 0.984 | 0.846 | 6.15 | 6 | 7 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2907 | 0.0096 | 1.005 | 1.396 | 1.000 | 0.002 | 0.987 | 0.916 | 6.06 | 6 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2912 | 0.0114 | 1.005 | 1.427 | 1.000 | 0.003 | 0.981 | 0.898 | 6.07 | 6 | 7 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0070 | 0.2901 | 0.0110 | 1.005 | 1.428 | 1.000 | 0.002 | 0.974 | 0.896 | 6.06 | 6 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0207 | 0.2831 | 0.0023 | 1.004 | 1.365 | 1.000 | 0.003 | 0.968 | 0.951 | 5.98 | 6 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0101 | 0.2819 | 0.0033 | 1.004 | 1.388 | 1.000 | 0.004 | 0.955 | 0.931 | 5.98 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0066 | 0.2800 | 0.0026 | 1.004 | 1.387 | 0.999 | 0.005 | 0.945 | 0.925 | 5.96 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2953 | 0.0149 | 1.005 | 1.409 | 1.000 | 0.001 | 0.993 | 0.886 | 6.11 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0109 | 0.2972 | 0.0187 | 1.006 | 1.453 | 1.000 | 0.001 | 0.986 | 0.854 | 6.14 | 6 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2970 | 0.0186 | 1.006 | 1.457 | 1.000 | 0.001 | 0.984 | 0.854 | 6.14 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2902 | 0.0088 | 1.005 | 1.390 | 1.000 | 0.002 | 0.987 | 0.922 | 6.06 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2908 | 0.0109 | 1.005 | 1.423 | 1.000 | 0.003 | 0.981 | 0.902 | 6.07 | 6 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0069 | 0.2896 | 0.0103 | 1.005 | 1.422 | 1.000 | 0.002 | 0.974 | 0.901 | 6.05 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0206 | 0.2830 | 0.0022 | 1.004 | 1.362 | 1.000 | 0.003 | 0.968 | 0.952 | 5.98 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0101 | 0.2817 | 0.0030 | 1.004 | 1.386 | 1.000 | 0.004 | 0.955 | 0.933 | 5.97 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0066 | 0.2799 | 0.0025 | 1.004 | 1.386 | 0.999 | 0.005 | 0.945 | 0.926 | 5.96 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9756 | 0.0563 | 0.4364 | 0.3884 | 1.015 | 1.372 | 0.906 | 0.070 | 0.048 | 0.005 | 9.30 | 4 | 19 | 36 | - | - | - | - |
| | 200 | 0.9715 | 0.0337 | 0.4752 | 0.4338 | 1.018 | 1.416 | 0.890 | 0.062 | 0.039 | 0.002 | 10.50 | 4 | 22 | 46 | - | - | - | - |
| | 300 | 0.9689 | 0.0245 | 0.4972 | 0.4588 | 1.020 | 1.437 | 0.880 | 0.049 | 0.038 | 0.003 | 11.13 | 4 | 24 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8459 | 0.0167 | 0.1807 | 0.1529 | 1.019 | 1.814 | 0.495 | 0.190 | 0.005 | 0.001 | 4.98 | 2 | 10 | 29 | - | - | - | - |
| | 200 | 0.8526 | 0.0123 | 0.2293 | 0.2026 | 1.023 | 1.916 | 0.531 | 0.154 | 0.004 | 0.000 | 5.82 | 2 | 14 | 41 | - | - | - | - |
| | 300 | 0.8441 | 0.0094 | 0.2500 | 0.2232 | 1.025 | 1.987 | 0.500 | 0.136 | 0.004 | 0.001 | 6.17 | 2 | 15 | 41 | - | - | - | - |

Notes: See notes to Table 46.

**Table 351: MC findings for DGPII(a)**

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2959 | 0.0142 | 1.003 | 1.443 | 1.000 | 0.000 | 1.000 | 0.899 | 6.12 | 6 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2966 | 0.0152 | 1.003 | 1.444 | 1.000 | 0.000 | 1.000 | 0.885 | 6.12 | 6 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2975 | 0.0165 | 1.003 | 1.441 | 1.000 | 0.000 | 1.000 | 0.880 | 6.14 | 6 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2916 | 0.0083 | 1.003 | 1.422 | 1.000 | 0.000 | 1.000 | 0.939 | 6.07 | 6 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2915 | 0.0081 | 1.002 | 1.417 | 1.000 | 0.000 | 1.000 | 0.938 | 6.07 | 6 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2921 | 0.0089 | 1.003 | 1.412 | 1.000 | 0.000 | 1.000 | 0.935 | 6.07 | 6 | 7 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2871 | 0.0020 | 1.002 | 1.395 | 1.000 | 0.000 | 1.000 | 0.984 | 6.02 | 6 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0014 | 1.002 | 1.388 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2876 | 0.0026 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.980 | 6.02 | 6 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2953 | 0.0135 | 1.003 | 1.437 | 1.000 | 0.000 | 1.000 | 0.905 | 6.11 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2962 | 0.0147 | 1.003 | 1.440 | 1.000 | 0.000 | 1.000 | 0.889 | 6.12 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2971 | 0.0159 | 1.003 | 1.435 | 1.000 | 0.000 | 1.000 | 0.885 | 6.13 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2913 | 0.0079 | 1.003 | 1.419 | 1.000 | 0.000 | 1.000 | 0.942 | 6.06 | 6 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2913 | 0.0079 | 1.002 | 1.415 | 1.000 | 0.000 | 1.000 | 0.940 | 6.06 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2917 | 0.0084 | 1.003 | 1.407 | 1.000 | 0.000 | 1.000 | 0.939 | 6.07 | 6 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2871 | 0.0019 | 1.002 | 1.395 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2867 | 0.0014 | 1.002 | 1.388 | 1.000 | 0.000 | 1.000 | 0.990 | 6.01 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2874 | 0.0024 | 1.002 | 1.376 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9961 | 0.0588 | 0.4515 | 0.4031 | 1.008 | 1.384 | 0.985 | 0.064 | 0.056 | 0.004 | 9.63 | 4 | 19 | 35 | - | - | - | - |
| | 200 | 0.9963 | 0.0349 | 0.4894 | 0.4469 | 1.011 | 1.436 | 0.985 | 0.053 | 0.051 | 0.004 | 10.83 | 4 | 22 | 51 | - | - | - | - |
| | 300 | 0.9943 | 0.0255 | 0.5003 | 0.4632 | 1.011 | 1.456 | 0.977 | 0.057 | 0.046 | 0.003 | 11.54 | 4 | 25 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9449 | 0.0141 | 0.1481 | 0.1261 | 1.009 | 1.731 | 0.793 | 0.402 | 0.003 | 0.000 | 5.13 | 3 | 10 | 27 | - | - | - | - |
| | 200 | 0.9475 | 0.0118 | 0.2084 | 0.1862 | 1.012 | 1.865 | 0.805 | 0.330 | 0.007 | 0.000 | 6.10 | 3 | 14 | 48 | - | - | - | - |
| | 300 | 0.9466 | 0.0108 | 0.2449 | 0.2246 | 1.016 | 1.995 | 0.801 | 0.299 | 0.006 | 0.000 | 6.98 | 3 | 19 | 58 | - | - | - | - |

Notes: See notes to Table 46.

## Table 352: MC findings for DGPII(b)

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9985 | 0.0067 | 0.0986 | 0.0339 | 1.013 | 1.194 | 0.994 | 0.502 | 4.63 | 4 | 6 | 8 | 1.056 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9960 | 0.0029 | 0.0866 | 0.0396 | 1.015 | 1.243 | 0.984 | 0.556 | 4.54 | 4 | 6 | 9 | 1.060 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9971 | 0.0020 | 0.0912 | 0.0481 | 1.017 | 1.247 | 0.989 | 0.542 | 4.58 | 4 | 6 | 9 | 1.075 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9975 | 0.0050 | 0.0753 | 0.0214 | 1.010 | 1.154 | 0.990 | 0.598 | 4.47 | 4 | 6 | 8 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9951 | 0.0020 | 0.0634 | 0.0252 | 1.012 | 1.200 | 0.981 | 0.653 | 4.38 | 4 | 6 | 9 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9956 | 0.0014 | 0.0655 | 0.0292 | 1.013 | 1.192 | 0.983 | 0.639 | 4.39 | 4 | 6 | 8 | 1.048 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9929 | 0.0028 | 0.0430 | 0.0086 | 1.008 | 1.133 | 0.972 | 0.735 | 4.24 | 4 | 5 | 7 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9905 | 0.0010 | 0.0326 | 0.0092 | 1.009 | 1.161 | 0.963 | 0.787 | 4.16 | 4 | 5 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9876 | 0.0007 | 0.0319 | 0.0104 | 1.010 | 1.176 | 0.951 | 0.777 | 4.14 | 4 | 5 | 7 | 1.025 | 0.03 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9985 | 0.0063 | 0.0932 | 0.0282 | 1.010 | 1.159 | 0.994 | 0.523 | 4.59 | 4 | 6 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9960 | 0.0026 | 0.0788 | 0.0317 | 1.012 | 1.190 | 0.984 | 0.583 | 4.49 | 4 | 6 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9971 | 0.0018 | 0.0822 | 0.0387 | 1.013 | 1.186 | 0.989 | 0.576 | 4.52 | 4 | 6 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9975 | 0.0047 | 0.0715 | 0.0176 | 1.008 | 1.131 | 0.990 | 0.615 | 4.44 | 4 | 6 | 8 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9951 | 0.0019 | 0.0580 | 0.0198 | 1.009 | 1.159 | 0.981 | 0.675 | 4.35 | 4 | 5 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9956 | 0.0013 | 0.0598 | 0.0234 | 1.010 | 1.153 | 0.983 | 0.664 | 4.36 | 4 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9928 | 0.0026 | 0.0410 | 0.0066 | 1.007 | 1.120 | 0.972 | 0.744 | 4.22 | 4 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9903 | 0.0010 | 0.0307 | 0.0074 | 1.007 | 1.145 | 0.962 | 0.796 | 4.15 | 4 | 5 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9874 | 0.0006 | 0.0288 | 0.0074 | 1.009 | 1.156 | 0.950 | 0.789 | 4.12 | 4 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9986 | 0.0640 | 0.4714 | 0.4301 | 1.053 | 1.468 | 0.995 | 0.051 | 10.14 | 4 | 20 | 40 | - | - | - | - |
| | 200 | 0.9973 | 0.0454 | 0.5480 | 0.5216 | 1.067 | 1.594 | 0.989 | 0.039 | 12.90 | 5 | 28 | 56 | - | - | - | - |
| | 300 | 0.9980 | 0.0371 | 0.5999 | 0.5809 | 1.075 | 1.641 | 0.992 | 0.021 | 14.98 | 5 | 31.5 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9560 | 0.0158 | 0.1504 | 0.1365 | 1.056 | 1.804 | 0.851 | 0.411 | 5.34 | 3 | 11 | 29 | - | - | - | - |
| | 200 | 0.9590 | 0.0155 | 0.2354 | 0.2238 | 1.073 | 1.960 | 0.863 | 0.311 | 6.87 | 3 | 19 | 40 | - | - | - | - |
| | 300 | 0.9673 | 0.0144 | 0.2966 | 0.2867 | 1.086 | 2.040 | 0.892 | 0.252 | 8.13 | 3 | 23 | 44 | - | - | - | - |

Notes: See notes to Table 1.

## Table 353: MC findings for DGPII(b)

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0135 | 0.1979 | 0.0177 | 1.003 | 1.211 | 1.000 | 0.044 | 5.30 | 5 | 7 | 9 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0064 | 0.1921 | 0.0226 | 1.004 | 1.233 | 1.000 | 0.061 | 5.25 | 4 | 6 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1865 | 0.0245 | 1.004 | 1.237 | 1.000 | 0.091 | 5.22 | 4 | 6 | 9 | 1.030 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0121 | 0.1815 | 0.0091 | 1.003 | 1.172 | 1.000 | 0.065 | 5.16 | 4 | 6 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0057 | 0.1747 | 0.0132 | 1.003 | 1.195 | 1.000 | 0.094 | 5.11 | 4 | 6 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0036 | 0.1680 | 0.0131 | 1.003 | 1.192 | 1.000 | 0.129 | 5.07 | 4 | 6 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0097 | 0.1505 | 0.0022 | 1.002 | 1.127 | 1.000 | 0.160 | 4.93 | 4 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0046 | 0.1448 | 0.0034 | 1.002 | 1.138 | 1.000 | 0.187 | 4.89 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0029 | 0.1371 | 0.0036 | 1.002 | 1.134 | 1.000 | 0.231 | 4.85 | 4 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0133 | 0.1953 | 0.0145 | 1.003 | 1.189 | 1.000 | 0.046 | 5.27 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0063 | 0.1892 | 0.0192 | 1.004 | 1.204 | 1.000 | 0.063 | 5.23 | 4 | 6 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0040 | 0.1838 | 0.0213 | 1.004 | 1.206 | 1.000 | 0.091 | 5.19 | 4 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0120 | 0.1803 | 0.0077 | 1.002 | 1.163 | 1.000 | 0.066 | 5.15 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0056 | 0.1725 | 0.0106 | 1.003 | 1.170 | 1.000 | 0.096 | 5.09 | 4 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0036 | 0.1662 | 0.0109 | 1.003 | 1.170 | 1.000 | 0.129 | 5.05 | 4 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0096 | 0.1500 | 0.0018 | 1.002 | 1.122 | 1.000 | 0.161 | 4.93 | 4 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0045 | 0.1442 | 0.0027 | 1.002 | 1.130 | 1.000 | 0.187 | 4.89 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.1363 | 0.0027 | 1.002 | 1.123 | 1.000 | 0.232 | 4.84 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0634 | 0.4734 | 0.4311 | 1.016 | 1.445 | 1.000 | 0.051 | 10.09 | 4 | 19 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0398 | 0.5233 | 0.4968 | 1.019 | 1.514 | 1.000 | 0.042 | 11.81 | 5 | 24 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0306 | 0.5519 | 0.5316 | 1.022 | 1.573 | 1.000 | 0.030 | 13.06 | 5 | 27 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0124 | 0.0999 | 0.0920 | 1.009 | 1.434 | 1.000 | 0.743 | 5.19 | 4 | 12 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0120 | 0.1652 | 0.1572 | 1.016 | 1.630 | 1.000 | 0.641 | 6.35 | 4 | 17 | 36 | - | - | - | - |
| | 300 | 0.9996 | 0.0103 | 0.1994 | 0.1929 | 1.020 | 1.758 | 0.999 | 0.585 | 7.06 | 4 | 19 | 48 | - | - | - | - |

Notes: See notes to Table 1.

**Table 354: MC findings for DGPII(b)**

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0166 | 0.2339 | 0.0147 | 1.003 | 1.239 | 1.000 | 0.002 | 5.59 | 5 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0076 | 0.2230 | 0.0152 | 1.002 | 1.232 | 1.000 | 0.002 | 5.49 | 5 | 7 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.2187 | 0.0157 | 1.003 | 1.238 | 1.000 | 0.002 | 5.45 | 5 | 7 | 8 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0151 | 0.2189 | 0.0080 | 1.002 | 1.210 | 1.000 | 0.002 | 5.45 | 5 | 6.5 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0069 | 0.2085 | 0.0079 | 1.002 | 1.198 | 1.000 | 0.002 | 5.36 | 5 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0045 | 0.2042 | 0.0086 | 1.002 | 1.208 | 1.000 | 0.004 | 5.32 | 5 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0129 | 0.1944 | 0.0019 | 1.002 | 1.169 | 1.000 | 0.007 | 5.24 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0060 | 0.1866 | 0.0018 | 1.001 | 1.158 | 1.000 | 0.011 | 5.17 | 5 | 6 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1852 | 0.0031 | 1.002 | 1.170 | 1.000 | 0.012 | 5.16 | 5 | 6 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0165 | 0.2331 | 0.0136 | 1.002 | 1.230 | 1.000 | 0.002 | 5.58 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0075 | 0.2214 | 0.0132 | 1.002 | 1.213 | 1.000 | 0.002 | 5.48 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.2169 | 0.0136 | 1.002 | 1.216 | 1.000 | 0.002 | 5.44 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0151 | 0.2181 | 0.0069 | 1.002 | 1.201 | 1.000 | 0.002 | 5.45 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0069 | 0.2075 | 0.0067 | 1.002 | 1.185 | 1.000 | 0.002 | 5.35 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2030 | 0.0071 | 1.002 | 1.192 | 1.000 | 0.004 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0129 | 0.1942 | 0.0016 | 1.002 | 1.166 | 1.000 | 0.007 | 5.24 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0060 | 0.1862 | 0.0015 | 1.001 | 1.153 | 1.000 | 0.011 | 5.17 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1847 | 0.0025 | 1.002 | 1.164 | 1.000 | 0.012 | 5.16 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0646 | 0.4707 | 0.4287 | 1.011 | 1.451 | 1.000 | 0.067 | 10.20 | 4 | 21 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0382 | 0.5090 | 0.4821 | 1.012 | 1.489 | 1.000 | 0.047 | 11.49 | 5 | 22 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0293 | 0.5356 | 0.5156 | 1.013 | 1.571 | 1.000 | 0.036 | 12.67 | 5 | 28 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0113 | 0.0880 | 0.0807 | 1.006 | 1.383 | 1.000 | 0.812 | 5.08 | 4 | 11 | 27 | - | - | - | - |
| | 200 | 1.0000 | 0.0098 | 0.1384 | 0.1325 | 1.008 | 1.516 | 1.000 | 0.737 | 5.91 | 4 | 15 | 32 | - | - | - | - |
| | 300 | 1.0000 | 0.0096 | 0.1832 | 0.1771 | 1.011 | 1.693 | 1.000 | 0.668 | 6.83 | 4 | 19 | 42 | - | - | - | - |

Notes: See notes to Table 1.

## Table 355: MC findings for DGPII(b)

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9760 | 0.0047 | 0.0712 | 0.0334 | 1.015 | 1.224 | 0.912 | 0.572 | 4.35 | 3 | 6 | 9 | 1.042 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9658 | 0.0023 | 0.0704 | 0.0416 | 1.020 | 1.310 | 0.877 | 0.567 | 4.31 | 3 | 6 | 8 | 1.055 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9563 | 0.0016 | 0.0755 | 0.0473 | 1.024 | 1.346 | 0.844 | 0.522 | 4.29 | 3 | 6 | 8 | 1.054 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9661 | 0.0032 | 0.0493 | 0.0210 | 1.013 | 1.209 | 0.879 | 0.638 | 4.17 | 3 | 5 | 9 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9534 | 0.0015 | 0.0492 | 0.0264 | 1.017 | 1.289 | 0.834 | 0.612 | 4.11 | 3 | 5 | 7 | 1.041 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9426 | 0.0011 | 0.0537 | 0.0306 | 1.021 | 1.320 | 0.800 | 0.563 | 4.10 | 3 | 5 | 7 | 1.038 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9299 | 0.0015 | 0.0250 | 0.0083 | 1.015 | 1.255 | 0.757 | 0.642 | 3.87 | 3 | 5 | 7 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9130 | 0.0007 | 0.0223 | 0.0097 | 1.019 | 1.327 | 0.715 | 0.618 | 3.78 | 2.5 | 5 | 6 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9010 | 0.0005 | 0.0255 | 0.0127 | 1.022 | 1.363 | 0.676 | 0.578 | 3.75 | 2 | 5 | 6 | 1.022 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9760 | 0.0043 | 0.0664 | 0.0285 | 1.013 | 1.198 | 0.912 | 0.591 | 4.32 | 3 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9656 | 0.0020 | 0.0635 | 0.0348 | 1.016 | 1.264 | 0.876 | 0.593 | 4.26 | 3 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9563 | 0.0014 | 0.0686 | 0.0401 | 1.021 | 1.309 | 0.844 | 0.546 | 4.25 | 3 | 6 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9661 | 0.0029 | 0.0458 | 0.0176 | 1.012 | 1.187 | 0.879 | 0.653 | 4.15 | 3 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9533 | 0.0014 | 0.0440 | 0.0213 | 1.015 | 1.255 | 0.834 | 0.631 | 4.08 | 3 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9426 | 0.0010 | 0.0487 | 0.0256 | 1.018 | 1.293 | 0.800 | 0.582 | 4.06 | 3 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9299 | 0.0014 | 0.0232 | 0.0066 | 1.014 | 1.242 | 0.757 | 0.650 | 3.86 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9130 | 0.0006 | 0.0194 | 0.0068 | 1.018 | 1.308 | 0.715 | 0.628 | 3.77 | 2 | 5 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9010 | 0.0004 | 0.0225 | 0.0096 | 1.020 | 1.343 | 0.676 | 0.587 | 3.73 | 2 | 5 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9588 | 0.0642 | 0.4752 | 0.4329 | 1.052 | 1.450 | 0.850 | 0.034 | 10.00 | 4 | 20 | 33 | - | - | - | - |
| | 200 | 0.9544 | 0.0431 | 0.5402 | 0.5125 | 1.067 | 1.572 | 0.834 | 0.026 | 12.26 | 4 | 26 | 68 | - | - | - | - |
| | 300 | 0.9480 | 0.0343 | 0.5791 | 0.5589 | 1.069 | 1.586 | 0.815 | 0.025 | 13.94 | 4 | 31 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8103 | 0.0177 | 0.1955 | 0.1775 | 1.059 | 1.830 | 0.470 | 0.132 | 4.94 | 2 | 11 | 27 | - | - | - | - |
| | 200 | 0.8203 | 0.0156 | 0.2727 | 0.2584 | 1.079 | 2.029 | 0.486 | 0.098 | 6.33 | 2 | 16 | 56 | - | - | - | - |
| | 300 | 0.8223 | 0.0148 | 0.3312 | 0.3180 | 1.090 | 2.095 | 0.495 | 0.067 | 7.67 | 2 | 22 | 55 | - | - | - | - |

Notes: See notes to Table 1.

## Table 356: MC findings for DGPII(b)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0112 | 0.1666 | 0.0197 | 1.004 | 1.216 | 1.000 | 0.170 | 5.08 | 4 | 6 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0050 | 0.1536 | 0.0219 | 1.004 | 1.220 | 1.000 | 0.225 | 4.99 | 4 | 6 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0031 | 0.1450 | 0.0224 | 1.004 | 1.225 | 1.000 | 0.255 | 4.93 | 4 | 6 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0094 | 0.1435 | 0.0109 | 1.003 | 1.166 | 1.000 | 0.241 | 4.91 | 4 | 6 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0042 | 0.1310 | 0.0120 | 1.003 | 1.168 | 1.000 | 0.301 | 4.82 | 4 | 6 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1247 | 0.0138 | 1.003 | 1.182 | 1.000 | 0.330 | 4.78 | 4 | 6 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0066 | 0.1039 | 0.0026 | 1.001 | 1.106 | 1.000 | 0.411 | 4.64 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0030 | 0.0967 | 0.0032 | 1.001 | 1.102 | 1.000 | 0.451 | 4.59 | 4 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0018 | 0.0875 | 0.0039 | 1.002 | 1.113 | 1.000 | 0.501 | 4.54 | 4 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0110 | 0.1644 | 0.0174 | 1.003 | 1.198 | 1.000 | 0.173 | 5.06 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0050 | 0.1516 | 0.0197 | 1.004 | 1.203 | 1.000 | 0.229 | 4.97 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0031 | 0.1431 | 0.0201 | 1.004 | 1.205 | 1.000 | 0.259 | 4.91 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0093 | 0.1419 | 0.0092 | 1.002 | 1.153 | 1.000 | 0.244 | 4.89 | 4 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0041 | 0.1296 | 0.0104 | 1.003 | 1.154 | 1.000 | 0.304 | 4.81 | 4 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1232 | 0.0122 | 1.003 | 1.165 | 1.000 | 0.334 | 4.77 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0066 | 0.1035 | 0.0021 | 1.001 | 1.101 | 1.000 | 0.412 | 4.63 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0030 | 0.0963 | 0.0028 | 1.001 | 1.097 | 1.000 | 0.452 | 4.59 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0018 | 0.0867 | 0.0030 | 1.002 | 1.103 | 1.000 | 0.504 | 4.53 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0653 | 0.4806 | 0.4367 | 1.017 | 1.452 | 1.000 | 0.044 | 10.26 | 5 | 19.5 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0399 | 0.5227 | 0.4965 | 1.020 | 1.525 | 1.000 | 0.046 | 11.82 | 5 | 24 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0320 | 0.5663 | 0.5459 | 1.023 | 1.586 | 1.000 | 0.028 | 13.48 | 5 | 28 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9923 | 0.0145 | 0.1357 | 0.1232 | 1.014 | 1.625 | 0.970 | 0.554 | 5.36 | 4 | 12 | 27 | - | - | - | - |
| | 200 | 0.9923 | 0.0126 | 0.2015 | 0.1917 | 1.020 | 1.788 | 0.970 | 0.435 | 6.45 | 4 | 16 | 46 | - | - | - | - |
| | 300 | 0.9935 | 0.0131 | 0.2657 | 0.2568 | 1.027 | 1.997 | 0.976 | 0.373 | 7.84 | 4 | 22 | 50 | - | - | - | - |

Notes: See notes to Table 1.

## Table 357: MC findings for DGPII(b)

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0144 | 0.2090 | 0.0161 | 1.003 | 1.227 | 1.000 | 0.019 | 5.38 | 5 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0068 | 0.2035 | 0.0188 | 1.003 | 1.238 | 1.000 | 0.028 | 5.33 | 5 | 6 | 8 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0043 | 0.1952 | 0.0174 | 1.002 | 1.237 | 1.000 | 0.037 | 5.27 | 5 | 6 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0128 | 0.1917 | 0.0083 | 1.002 | 1.190 | 1.000 | 0.032 | 5.23 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0061 | 0.1877 | 0.0105 | 1.002 | 1.198 | 1.000 | 0.047 | 5.20 | 5 | 6 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1802 | 0.0089 | 1.002 | 1.193 | 1.000 | 0.055 | 5.14 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0109 | 0.1683 | 0.0023 | 1.001 | 1.147 | 1.000 | 0.074 | 5.05 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0051 | 0.1618 | 0.0026 | 1.001 | 1.145 | 1.000 | 0.102 | 5.00 | 4 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0033 | 0.1565 | 0.0020 | 1.001 | 1.138 | 1.000 | 0.119 | 4.96 | 4 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0143 | 0.2082 | 0.0152 | 1.002 | 1.218 | 1.000 | 0.019 | 5.37 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0067 | 0.2019 | 0.0169 | 1.002 | 1.222 | 1.000 | 0.028 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0042 | 0.1941 | 0.0160 | 1.002 | 1.224 | 1.000 | 0.037 | 5.26 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0128 | 0.1912 | 0.0077 | 1.002 | 1.183 | 1.000 | 0.032 | 5.23 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0061 | 0.1867 | 0.0093 | 1.002 | 1.187 | 1.000 | 0.048 | 5.19 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0038 | 0.1796 | 0.0082 | 1.002 | 1.185 | 1.000 | 0.055 | 5.14 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0109 | 0.1682 | 0.0021 | 1.001 | 1.145 | 1.000 | 0.074 | 5.04 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0051 | 0.1616 | 0.0023 | 1.001 | 1.142 | 1.000 | 0.102 | 5.00 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.1563 | 0.0018 | 1.001 | 1.135 | 1.000 | 0.119 | 4.96 | 4 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0632 | 0.4736 | 0.4312 | 1.009 | 1.429 | 1.000 | 0.052 | 10.07 | 4 | 19 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0415 | 0.5348 | 0.5072 | 1.012 | 1.507 | 1.000 | 0.035 | 12.13 | 5 | 24 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0290 | 0.5412 | 0.5216 | 1.013 | 1.553 | 1.000 | 0.040 | 12.58 | 5 | 26 | 45 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0124 | 0.1067 | 0.0978 | 1.006 | 1.448 | 1.000 | 0.704 | 5.19 | 4 | 12 | 24 | - | - | - | - |
| | 200 | 0.9996 | 0.0131 | 0.1833 | 0.1746 | 1.011 | 1.704 | 0.999 | 0.572 | 6.57 | 4 | 18 | 36 | - | - | - | - |
| | 300 | 0.9999 | 0.0114 | 0.2250 | 0.2169 | 1.014 | 1.853 | 1.000 | 0.512 | 7.36 | 4 | 20 | 42 | - | - | - | - |

Notes: See notes to Table 1.

**Table 358: MC findings for DGPII(b)**

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7995 | 0.0034 | 0.0595 | 0.0372 | 1.024 | 1.335 | 0.485 | 0.334 | 3.53 | 1 | 5 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7483 | 0.0017 | 0.0621 | 0.0491 | 1.035 | 1.428 | 0.391 | 0.272 | 3.32 | 1 | 5 | 10 | 1.039 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.7198 | 0.0013 | 0.0785 | 0.0629 | 1.040 | 1.506 | 0.343 | 0.229 | 3.27 | 1 | 5 | 7 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7540 | 0.0023 | 0.0422 | 0.0253 | 1.026 | 1.351 | 0.404 | 0.316 | 3.23 | 1 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6989 | 0.0011 | 0.0426 | 0.0327 | 1.035 | 1.432 | 0.330 | 0.253 | 3.00 | 1 | 5 | 7 | 1.026 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.6685 | 0.0009 | 0.0576 | 0.0453 | 1.041 | 1.508 | 0.280 | 0.210 | 2.94 | 1 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6390 | 0.0009 | 0.0180 | 0.0102 | 1.035 | 1.437 | 0.244 | 0.217 | 2.64 | 0 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5796 | 0.0004 | 0.0177 | 0.0126 | 1.045 | 1.511 | 0.185 | 0.166 | 2.40 | 0 | 4 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5523 | 0.0004 | 0.0270 | 0.0202 | 1.051 | 1.571 | 0.161 | 0.139 | 2.32 | 0 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7995 | 0.0032 | 0.0564 | 0.0340 | 1.023 | 1.320 | 0.485 | 0.340 | 3.51 | 1 | 5 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7483 | 0.0015 | 0.0560 | 0.0430 | 1.032 | 1.396 | 0.391 | 0.284 | 3.28 | 1 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7198 | 0.0012 | 0.0735 | 0.0580 | 1.038 | 1.482 | 0.343 | 0.238 | 3.24 | 1 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7540 | 0.0021 | 0.0399 | 0.0230 | 1.025 | 1.340 | 0.404 | 0.321 | 3.22 | 1 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6989 | 0.0010 | 0.0387 | 0.0287 | 1.034 | 1.413 | 0.330 | 0.262 | 2.98 | 1 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.6685 | 0.0008 | 0.0543 | 0.0421 | 1.040 | 1.492 | 0.280 | 0.214 | 2.92 | 1 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6388 | 0.0008 | 0.0172 | 0.0094 | 1.035 | 1.432 | 0.244 | 0.219 | 2.63 | 0 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5796 | 0.0004 | 0.0164 | 0.0112 | 1.044 | 1.506 | 0.185 | 0.167 | 2.39 | 0 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.5521 | 0.0003 | 0.0260 | 0.0192 | 1.050 | 1.565 | 0.161 | 0.140 | 2.31 | 0 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.8064 | 0.0563 | 0.4675 | 0.4230 | 1.041 | 1.299 | 0.423 | 0.024 | 8.63 | 3 | 18 | 48 | - | - | - | - |
| | 200 | 0.7890 | 0.0409 | 0.5539 | 0.5277 | 1.054 | 1.383 | 0.388 | 0.017 | 11.17 | 3 | 26 | 57 | - | - | - | - |
| | 300 | 0.7714 | 0.0321 | 0.5965 | 0.5747 | 1.059 | 1.435 | 0.350 | 0.008 | 12.58 | 3 | 29 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5925 | 0.0195 | 0.2383 | 0.2139 | 1.052 | 1.674 | 0.112 | 0.023 | 4.24 | 1 | 10 | 30 | - | - | - | - |
| | 200 | 0.6015 | 0.0174 | 0.3403 | 0.3238 | 1.072 | 1.845 | 0.119 | 0.011 | 5.82 | 1 | 16 | 51 | - | - | - | - |
| | 300 | 0.5978 | 0.0149 | 0.3966 | 0.3812 | 1.085 | 1.971 | 0.125 | 0.010 | 6.81 | 1 | 19 | 64 | - | - | - | - |

Notes: See notes to Table 1.

**Table 359: MC findings for DGPII(b)**

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **OCMT method** | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9998 | 0.0065 | 0.0977 | 0.0203 | 1.003 | 1.189 | 0.999 | 0.493 | 4.62 | 4 | 6 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9994 | 0.0029 | 0.0903 | 0.0223 | 1.004 | 1.184 | 0.998 | 0.526 | 4.57 | 4 | 6 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0018 | 0.0835 | 0.0253 | 1.004 | 1.197 | 0.998 | 0.563 | 4.53 | 4 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9994 | 0.0050 | 0.0765 | 0.0113 | 1.003 | 1.146 | 0.998 | 0.583 | 4.48 | 4 | 6 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9985 | 0.0021 | 0.0668 | 0.0122 | 1.003 | 1.134 | 0.994 | 0.628 | 4.41 | 4 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9984 | 0.0013 | 0.0628 | 0.0143 | 1.003 | 1.148 | 0.994 | 0.649 | 4.38 | 4 | 5 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9979 | 0.0027 | 0.0431 | 0.0031 | 1.001 | 1.086 | 0.992 | 0.744 | 4.25 | 4 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9945 | 0.0012 | 0.0377 | 0.0036 | 1.002 | 1.088 | 0.979 | 0.764 | 4.21 | 4 | 5 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0007 | 0.0356 | 0.0054 | 1.002 | 1.097 | 0.978 | 0.773 | 4.19 | 4 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9998 | 0.0064 | 0.0967 | 0.0192 | 1.003 | 1.181 | 0.999 | 0.497 | 4.61 | 4 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9994 | 0.0029 | 0.0886 | 0.0206 | 1.004 | 1.169 | 0.998 | 0.532 | 4.56 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0017 | 0.0819 | 0.0236 | 1.003 | 1.183 | 0.998 | 0.568 | 4.52 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9994 | 0.0049 | 0.0756 | 0.0104 | 1.002 | 1.138 | 0.998 | 0.588 | 4.47 | 4 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9985 | 0.0021 | 0.0661 | 0.0116 | 1.002 | 1.128 | 0.994 | 0.631 | 4.40 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9984 | 0.0013 | 0.0615 | 0.0130 | 1.002 | 1.135 | 0.994 | 0.654 | 4.37 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9979 | 0.0027 | 0.0427 | 0.0027 | 1.001 | 1.082 | 0.992 | 0.746 | 4.25 | 4 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9945 | 0.0012 | 0.0375 | 0.0035 | 1.002 | 1.086 | 0.979 | 0.765 | 4.21 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0007 | 0.0351 | 0.0049 | 1.002 | 1.092 | 0.978 | 0.776 | 4.19 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | **Penalised regression methods** | | | | | | | | | | | |
| Lasso | 100 | 0.9879 | 0.0637 | 0.4689 | 0.4275 | 1.018 | 1.460 | 0.954 | 0.053 | 10.07 | 4 | 20 | 46 | - | - | - | - |
| | 200 | 0.9845 | 0.0388 | 0.5153 | 0.4897 | 1.020 | 1.504 | 0.940 | 0.038 | 11.54 | 4 | 24 | 46 | - | - | - | - |
| | 300 | 0.9836 | 0.0299 | 0.5470 | 0.5278 | 1.022 | 1.559 | 0.937 | 0.041 | 12.79 | 4 | 27 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9003 | 0.0179 | 0.1814 | 0.1644 | 1.018 | 1.830 | 0.673 | 0.260 | 5.32 | 2 | 11 | 30 | - | - | - | - |
| | 200 | 0.8970 | 0.0140 | 0.2422 | 0.2298 | 1.024 | 1.947 | 0.673 | 0.180 | 6.33 | 2 | 16 | 37 | - | - | - | - |
| | 300 | 0.9026 | 0.0121 | 0.2912 | 0.2819 | 1.028 | 2.089 | 0.690 | 0.144 | 7.19 | 2 | 18 | 62 | - | - | - | - |

Notes: See notes to Table 1.

## Table 360: MC findings for DGPII(b)

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **OCMT method** | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0110 | 0.1632 | 0.0198 | 1.002 | 1.216 | 1.000 | 0.185 | 5.05 | 4 | 6 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0048 | 0.1482 | 0.0184 | 1.003 | 1.218 | 1.000 | 0.232 | 4.94 | 4 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0029 | 0.1357 | 0.0211 | 1.003 | 1.211 | 1.000 | 0.289 | 4.86 | 4 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0092 | 0.1405 | 0.0106 | 1.002 | 1.168 | 1.000 | 0.255 | 4.89 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0041 | 0.1279 | 0.0105 | 1.002 | 1.170 | 1.000 | 0.302 | 4.80 | 4 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0024 | 0.1145 | 0.0107 | 1.002 | 1.153 | 1.000 | 0.368 | 4.71 | 4 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0066 | 0.1028 | 0.0032 | 1.001 | 1.109 | 1.000 | 0.420 | 4.63 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0029 | 0.0920 | 0.0030 | 1.001 | 1.105 | 1.000 | 0.471 | 4.56 | 4 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0818 | 0.0029 | 1.001 | 1.088 | 1.000 | 0.525 | 4.50 | 4 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0109 | 0.1623 | 0.0188 | 1.002 | 1.208 | 1.000 | 0.187 | 5.05 | 4 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0048 | 0.1476 | 0.0178 | 1.003 | 1.213 | 1.000 | 0.234 | 4.94 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0029 | 0.1346 | 0.0198 | 1.002 | 1.200 | 1.000 | 0.291 | 4.85 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0092 | 0.1397 | 0.0097 | 1.002 | 1.160 | 1.000 | 0.257 | 4.88 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0041 | 0.1275 | 0.0101 | 1.002 | 1.166 | 1.000 | 0.304 | 4.80 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0024 | 0.1137 | 0.0098 | 1.002 | 1.144 | 1.000 | 0.370 | 4.70 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0066 | 0.1026 | 0.0030 | 1.001 | 1.106 | 1.000 | 0.420 | 4.63 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0029 | 0.0918 | 0.0027 | 1.001 | 1.103 | 1.000 | 0.472 | 4.56 | 4 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0818 | 0.0028 | 1.001 | 1.088 | 1.000 | 0.526 | 4.50 | 4 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | | | | | | **Penalised regression methods** | | | | | | | | | | | |
| Lasso | 100 | 0.9994 | 0.0674 | 0.4878 | 0.4448 | 1.010 | 1.436 | 0.998 | 0.048 | 10.47 | 5 | 20 | 38 | - | - | - | - |
| | 200 | 0.9994 | 0.0407 | 0.5281 | 0.5014 | 1.012 | 1.519 | 0.998 | 0.041 | 11.98 | 5 | 24 | 45 | - | - | - | - |
| | 300 | 0.9993 | 0.0301 | 0.5505 | 0.5320 | 1.013 | 1.543 | 0.997 | 0.031 | 12.89 | 5 | 27 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9743 | 0.0170 | 0.1606 | 0.1466 | 1.009 | 1.708 | 0.906 | 0.433 | 5.53 | 3 | 11 | 37 | - | - | - | - |
| | 200 | 0.9750 | 0.0141 | 0.2282 | 0.2155 | 1.013 | 1.905 | 0.911 | 0.354 | 6.67 | 3 | 17 | 41 | - | - | - | - |
| | 300 | 0.9774 | 0.0127 | 0.2759 | 0.2664 | 1.017 | 2.034 | 0.917 | 0.290 | 7.68 | 3 | 21 | 47 | - | - | - | - |

Notes: See notes to Table 1.

#### 4.1.3 Findings for designs featuring hidden signals

**Table 361: MC findings for DGPIII**

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9979 | 0.0022 | 0.0339 | 0.0339 | 1.010 | 1.153 | 0.992 | 0.812 | 4.20 | 4 | 5 | 8 | 2.025 | 0.97 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9959 | 0.0013 | 0.0395 | 0.0395 | 1.013 | 1.209 | 0.986 | 0.782 | 4.23 | 4 | 5 | 8 | 2.026 | 0.98 | 0.05 | 0.00 |
| | 300 | 0.9954 | 0.0009 | 0.0439 | 0.0439 | 1.016 | 1.245 | 0.984 | 0.758 | 4.26 | 4 | 5 | 7 | 2.059 | 0.99 | 0.07 | 0.00 |
| $p = 0.05$, | 100 | 0.9954 | 0.0013 | 0.0201 | 0.0201 | 1.010 | 1.161 | 0.984 | 0.876 | 4.11 | 4 | 5 | 7 | 2.026 | 0.98 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9939 | 0.0007 | 0.0231 | 0.0231 | 1.011 | 1.200 | 0.978 | 0.851 | 4.12 | 4 | 5 | 8 | 2.027 | 0.98 | 0.04 | 0.00 |
| | 300 | 0.9926 | 0.0005 | 0.0263 | 0.0263 | 1.014 | 1.242 | 0.974 | 0.835 | 4.13 | 4 | 5 | 7 | 2.049 | 0.99 | 0.06 | 0.00 |
| $p = 0.01$, | 100 | 0.9894 | 0.0005 | 0.0074 | 0.0074 | 1.011 | 1.227 | 0.964 | 0.923 | 4.00 | 4 | 4 | 6 | 2.035 | 0.99 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9841 | 0.0002 | 0.0072 | 0.0072 | 1.016 | 1.340 | 0.953 | 0.913 | 3.98 | 4 | 4 | 6 | 2.035 | 0.98 | 0.05 | 0.00 |
| | 300 | 0.9811 | 0.0002 | 0.0091 | 0.0091 | 1.019 | 1.389 | 0.942 | 0.893 | 3.98 | 3 | 4.5 | 6 | 2.051 | 0.98 | 0.07 | 0.00 |
| $p = 0.1$, | 100 | 0.9963 | 0.0017 | 0.0264 | 0.0264 | 1.009 | 1.143 | 0.986 | 0.844 | 4.15 | 4 | 5 | 7 | 1.988 | 0.97 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9936 | 0.0010 | 0.0318 | 0.0318 | 1.012 | 1.223 | 0.978 | 0.814 | 4.17 | 4 | 5 | 8 | 1.990 | 0.97 | 0.02 | 0.00 |
| | 300 | 0.9910 | 0.0007 | 0.0346 | 0.0346 | 1.016 | 1.283 | 0.968 | 0.792 | 4.18 | 4 | 5 | 7 | 2.004 | 0.98 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9926 | 0.0009 | 0.0147 | 0.0147 | 1.010 | 1.189 | 0.975 | 0.895 | 4.06 | 4 | 5 | 7 | 1.993 | 0.97 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9906 | 0.0006 | 0.0181 | 0.0181 | 1.012 | 1.247 | 0.968 | 0.868 | 4.07 | 4 | 5 | 8 | 1.998 | 0.98 | 0.02 | 0.00 |
| | 300 | 0.9873 | 0.0004 | 0.0202 | 0.0202 | 1.016 | 1.316 | 0.956 | 0.852 | 4.07 | 4 | 5 | 7 | 2.005 | 0.98 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9844 | 0.0003 | 0.0049 | 0.0049 | 1.015 | 1.317 | 0.948 | 0.920 | 3.97 | 3 | 4 | 6 | 2.007 | 0.98 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9788 | 0.0001 | 0.0047 | 0.0047 | 1.020 | 1.424 | 0.938 | 0.912 | 3.94 | 3 | 4 | 6 | 2.007 | 0.98 | 0.03 | 0.00 |
| | 300 | 0.9748 | 0.0001 | 0.0062 | 0.0062 | 1.025 | 1.490 | 0.925 | 0.892 | 3.94 | 3 | 4 | 6 | 2.016 | 0.97 | 0.04 | 0.00 |
| | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 0.9945 | 0.1368 | 0.6757 | 0.6757 | 1.138 | 2.811 | 0.980 | 0.004 | 17.11 | 7 | 30 | 47 | - | - | - | - |
| | 200 | 0.9866 | 0.0926 | 0.7382 | 0.7382 | 1.179 | 3.272 | 0.952 | 0.001 | 22.09 | 8 | 39 | 72 | - | - | - | - |
| | 300 | 0.9789 | 0.0727 | 0.7691 | 0.7691 | 1.206 | 3.454 | 0.927 | 0.000 | 25.44 | 9 | 47 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9791 | 0.0310 | 0.2525 | 0.2525 | 1.078 | 2.130 | 0.942 | 0.286 | 6.90 | 4 | 18 | 38 | - | - | - | - |
| | 200 | 0.9678 | 0.0307 | 0.3712 | 0.3712 | 1.121 | 2.545 | 0.914 | 0.175 | 9.88 | 3 | 28 | 55 | - | - | - | - |
| | 300 | 0.9620 | 0.0292 | 0.4549 | 0.4549 | 1.158 | 2.795 | 0.896 | 0.105 | 12.50 | 4 | 34 | 58 | - | - | - | - |

Notes: See notes to Table 1.

**Table 362: MC findings for DGPIII**

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0238 | 0.0238 | 1.002 | 1.071 | 1.000 | 0.871 | 4.15 | 4 | 5 | 8 | 1.983 | 0.97 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0243 | 0.0243 | 1.002 | 1.085 | 1.000 | 0.866 | 4.15 | 4 | 5 | 8 | 2.001 | 0.98 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0256 | 0.0256 | 1.002 | 1.079 | 1.000 | 0.856 | 4.16 | 4 | 5 | 8 | 1.998 | 0.98 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0009 | 0.0135 | 0.0135 | 1.001 | 1.044 | 1.000 | 0.926 | 4.08 | 4 | 5 | 7 | 1.986 | 0.97 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0133 | 0.0133 | 1.001 | 1.050 | 1.000 | 0.923 | 4.08 | 4 | 5 | 6 | 2.001 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0135 | 0.0135 | 1.001 | 1.048 | 1.000 | 0.924 | 4.08 | 4 | 5 | 8 | 1.995 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0035 | 0.0035 | 1.000 | 1.013 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.992 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.016 | 1.000 | 0.979 | 4.02 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0036 | 0.0036 | 1.000 | 1.017 | 1.000 | 0.980 | 4.02 | 4 | 4 | 6 | 1.992 | 0.99 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0198 | 0.0198 | 1.001 | 1.046 | 1.000 | 0.892 | 4.12 | 4 | 5 | 7 | 1.968 | 0.96 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0199 | 0.0199 | 1.001 | 1.054 | 1.000 | 0.888 | 4.12 | 4 | 5 | 8 | 1.984 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0218 | 0.0218 | 1.001 | 1.056 | 1.000 | 0.877 | 4.13 | 4 | 5 | 8 | 1.982 | 0.98 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0110 | 0.0110 | 1.001 | 1.027 | 1.000 | 0.939 | 4.07 | 4 | 5 | 7 | 1.974 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0105 | 0.0105 | 1.001 | 1.030 | 1.000 | 0.938 | 4.06 | 4 | 5 | 6 | 1.990 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0114 | 0.0114 | 1.001 | 1.033 | 1.000 | 0.936 | 4.07 | 4 | 5 | 8 | 1.987 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.007 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.988 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0027 | 0.0027 | 1.000 | 1.010 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0029 | 0.0029 | 1.000 | 1.011 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.990 | 0.99 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1461 | 0.7027 | 0.7027 | 1.033 | 2.454 | 1.000 | 0.002 | 18.02 | 9 | 30 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.0960 | 0.7598 | 0.7598 | 1.044 | 2.753 | 1.000 | 0.002 | 22.82 | 11 | 38 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0733 | 0.7828 | 0.7828 | 1.051 | 2.949 | 1.000 | 0.000 | 25.71 | 11 | 45 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0229 | 0.1424 | 0.1424 | 1.011 | 1.529 | 1.000 | 0.679 | 6.20 | 4 | 18 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0245 | 0.2476 | 0.2476 | 1.023 | 1.805 | 1.000 | 0.534 | 8.80 | 4 | 26 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0256 | 0.3446 | 0.3446 | 1.036 | 2.105 | 1.000 | 0.424 | 11.56 | 4 | 32 | 53 | - | - | - | - |

Notes: See notes to Table 1.

## Table 363: MC findings for DGPIII

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0015 | 0.0230 | 0.0230 | 1.001 | 1.070 | 1.000 | 0.873 | 4.14 | 4 | 5 | 7 | 1.991 | 0.97 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0203 | 0.0203 | 1.001 | 1.064 | 1.000 | 0.884 | 4.12 | 4 | 5 | 6 | 1.996 | 0.98 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0210 | 0.0210 | 1.001 | 1.071 | 1.000 | 0.884 | 4.13 | 4 | 5 | 7 | 2.000 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0008 | 0.0131 | 0.0131 | 1.001 | 1.049 | 1.000 | 0.925 | 4.08 | 4 | 5 | 6 | 1.993 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0097 | 0.0097 | 1.000 | 1.034 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.995 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0111 | 0.0111 | 1.000 | 1.042 | 1.000 | 0.937 | 4.07 | 4 | 5 | 7 | 1.998 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.010 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.990 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.013 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0023 | 0.0023 | 1.000 | 1.014 | 1.000 | 0.986 | 4.01 | 4 | 4 | 5 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0193 | 0.0193 | 1.001 | 1.044 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.976 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0178 | 0.0178 | 1.001 | 1.043 | 1.000 | 0.898 | 4.11 | 4 | 5 | 6 | 1.984 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0181 | 0.0181 | 1.001 | 1.049 | 1.000 | 0.900 | 4.11 | 4 | 5 | 7 | 1.988 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0100 | 0.0100 | 1.000 | 1.028 | 1.000 | 0.942 | 4.06 | 4 | 5 | 6 | 1.981 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0085 | 0.0085 | 1.000 | 1.024 | 1.000 | 0.950 | 4.05 | 4 | 5 | 6 | 1.990 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0095 | 0.0095 | 1.000 | 1.028 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 1.991 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0016 | 0.0016 | 1.000 | 1.005 | 1.000 | 0.991 | 4.01 | 4 | 4 | 5 | 1.988 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0017 | 0.0017 | 1.000 | 1.006 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0017 | 0.0017 | 1.000 | 1.005 | 1.000 | 0.990 | 4.01 | 4 | 4 | 5 | 1.996 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1497 | 0.7059 | 0.7059 | 1.020 | 2.417 | 1.000 | 0.001 | 18.37 | 9 | 31 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0952 | 0.7557 | 0.7557 | 1.025 | 2.729 | 1.000 | 0.000 | 22.67 | 10 | 37 | 65 | - | - | - | - |
| | 300 | 1.0000 | 0.0715 | 0.7743 | 0.7743 | 1.028 | 2.929 | 1.000 | 0.000 | 25.17 | 11 | 43 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0257 | 0.1550 | 0.1550 | 1.008 | 1.541 | 1.000 | 0.737 | 6.47 | 4 | 18 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0248 | 0.2576 | 0.2576 | 1.013 | 1.799 | 1.000 | 0.615 | 8.85 | 4 | 23 | 41 | - | - | - | - |
| | 300 | 1.0000 | 0.0227 | 0.3245 | 0.3245 | 1.018 | 2.008 | 1.000 | 0.528 | 10.71 | 4 | 28 | 54 | - | - | - | - |

Notes: See notes to Table 1.

**Table 364: MC findings for DGPIII**

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9354 | 0.0021 | 0.0345 | 0.0345 | 1.034 | 1.619 | 0.818 | 0.676 | 3.94 | 3 | 5 | 7 | 1.946 | 0.90 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9056 | 0.0011 | 0.0393 | 0.0393 | 1.050 | 1.862 | 0.749 | 0.603 | 3.85 | 2 | 5 | 7 | 1.905 | 0.86 | 0.04 | 0.00 |
| | 300 | 0.8921 | 0.0010 | 0.0499 | 0.0499 | 1.056 | 1.947 | 0.708 | 0.544 | 3.85 | 2 | 5 | 7 | 1.881 | 0.84 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 0.9118 | 0.0011 | 0.0194 | 0.0194 | 1.040 | 1.741 | 0.766 | 0.693 | 3.75 | 2 | 5 | 6 | 1.904 | 0.87 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8721 | 0.0007 | 0.0242 | 0.0242 | 1.058 | 2.016 | 0.682 | 0.604 | 3.62 | 1 | 5 | 7 | 1.859 | 0.82 | 0.04 | 0.00 |
| | 300 | 0.8586 | 0.0006 | 0.0310 | 0.0310 | 1.064 | 2.087 | 0.651 | 0.553 | 3.60 | 1 | 5 | 7 | 1.823 | 0.80 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.8359 | 0.0003 | 0.0068 | 0.0068 | 1.067 | 2.127 | 0.624 | 0.604 | 3.38 | 1 | 4 | 6 | 1.802 | 0.78 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7825 | 0.0002 | 0.0096 | 0.0096 | 1.088 | 2.435 | 0.534 | 0.515 | 3.18 | 1 | 4 | 6 | 1.717 | 0.70 | 0.02 | 0.00 |
| | 300 | 0.7636 | 0.0002 | 0.0102 | 0.0102 | 1.095 | 2.479 | 0.513 | 0.489 | 3.10 | 0 | 4 | 6 | 1.690 | 0.67 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.9166 | 0.0017 | 0.0290 | 0.0290 | 1.043 | 1.790 | 0.764 | 0.659 | 3.83 | 2 | 5 | 7 | 1.845 | 0.84 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8791 | 0.0009 | 0.0326 | 0.0326 | 1.062 | 2.078 | 0.679 | 0.581 | 3.69 | 2 | 5 | 7 | 1.770 | 0.76 | 0.01 | 0.00 |
| | 300 | 0.8638 | 0.0008 | 0.0441 | 0.0441 | 1.070 | 2.165 | 0.636 | 0.514 | 3.70 | 2 | 5 | 7 | 1.740 | 0.73 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8914 | 0.0009 | 0.0161 | 0.0161 | 1.051 | 1.917 | 0.712 | 0.662 | 3.65 | 2 | 5 | 6 | 1.812 | 0.80 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8439 | 0.0005 | 0.0199 | 0.0199 | 1.072 | 2.234 | 0.613 | 0.562 | 3.48 | 1 | 5 | 6 | 1.727 | 0.72 | 0.01 | 0.00 |
| | 300 | 0.8305 | 0.0005 | 0.0268 | 0.0268 | 1.078 | 2.290 | 0.581 | 0.510 | 3.46 | 1 | 5 | 7 | 1.698 | 0.69 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8141 | 0.0003 | 0.0057 | 0.0057 | 1.079 | 2.287 | 0.570 | 0.558 | 3.28 | 1 | 4 | 6 | 1.711 | 0.70 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7565 | 0.0002 | 0.0080 | 0.0080 | 1.101 | 2.605 | 0.476 | 0.465 | 3.06 | 1 | 4 | 6 | 1.611 | 0.60 | 0.01 | 0.00 |
| | 300 | 0.7346 | 0.0001 | 0.0083 | 0.0083 | 1.110 | 2.663 | 0.445 | 0.430 | 2.98 | 0 | 4 | 6 | 1.570 | 0.57 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.9264 | 0.1050 | 0.6116 | 0.6116 | 1.128 | 2.812 | 0.771 | 0.004 | 13.78 | 4 | 26 | 53 | - | - | - | - |
| | 200 | 0.8818 | 0.0686 | 0.6662 | 0.6662 | 1.159 | 3.163 | 0.636 | 0.001 | 16.98 | 4 | 36 | 62 | - | - | - | - |
| | 300 | 0.8518 | 0.0525 | 0.6938 | 0.6938 | 1.179 | 3.265 | 0.548 | 0.001 | 18.95 | 4 | 42 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8445 | 0.0302 | 0.2872 | 0.2872 | 1.105 | 2.550 | 0.618 | 0.112 | 6.28 | 2 | 14 | 44 | - | - | - | - |
| | 200 | 0.7988 | 0.0277 | 0.4010 | 0.4010 | 1.151 | 2.966 | 0.534 | 0.039 | 8.62 | 2 | 24 | 50 | - | - | - | - |
| | 300 | 0.7686 | 0.0243 | 0.4623 | 0.4623 | 1.183 | 3.158 | 0.458 | 0.020 | 10.26 | 1 | 30 | 66 | - | - | - | - |

Notes: See notes to Table 1.

**Table 365: MC findings for DGPIII**

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0013 | 0.0195 | 0.0195 | 1.002 | 1.070 | 1.000 | 0.890 | 4.12 | 4 | 5 | 7 | 1.992 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0008 | 0.0264 | 0.0264 | 1.002 | 1.106 | 1.000 | 0.853 | 4.16 | 4 | 5 | 8 | 1.998 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0255 | 0.0255 | 1.003 | 1.115 | 1.000 | 0.857 | 4.16 | 4 | 5 | 7 | 2.006 | 0.99 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0110 | 0.0110 | 1.001 | 1.042 | 1.000 | 0.937 | 4.07 | 4 | 5 | 7 | 1.994 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0005 | 0.0145 | 0.0145 | 1.001 | 1.065 | 1.000 | 0.918 | 4.09 | 4 | 5 | 7 | 1.999 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0150 | 0.0150 | 1.002 | 1.077 | 1.000 | 0.915 | 4.09 | 4 | 5 | 7 | 2.003 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0028 | 0.0028 | 1.000 | 1.015 | 1.000 | 0.984 | 4.02 | 4 | 4 | 6 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0041 | 0.0041 | 1.001 | 1.024 | 1.000 | 0.976 | 4.02 | 4 | 4 | 6 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0048 | 0.0048 | 1.001 | 1.029 | 1.000 | 0.972 | 4.03 | 4 | 4 | 6 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0174 | 0.0174 | 1.001 | 1.056 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.982 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0237 | 0.0237 | 1.002 | 1.085 | 1.000 | 0.869 | 4.15 | 4 | 5 | 7 | 1.988 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0005 | 0.0225 | 0.0225 | 1.003 | 1.090 | 1.000 | 0.874 | 4.14 | 4 | 5 | 7 | 1.992 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0099 | 0.0099 | 1.001 | 1.034 | 1.000 | 0.944 | 4.06 | 4 | 5 | 7 | 1.989 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0004 | 0.0128 | 0.0128 | 1.001 | 1.050 | 1.000 | 0.928 | 4.08 | 4 | 5 | 7 | 1.992 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0003 | 0.0131 | 0.0131 | 1.002 | 1.060 | 1.000 | 0.925 | 4.08 | 4 | 5 | 7 | 1.993 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.012 | 1.000 | 0.986 | 4.02 | 4 | 4 | 6 | 1.993 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.015 | 1.000 | 0.982 | 4.02 | 4 | 4 | 6 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0001 | 0.0042 | 0.0042 | 1.001 | 1.029 | 1.000 | 0.975 | 4.03 | 4 | 4 | 6 | 1.997 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1477 | 0.7048 | 0.7048 | 1.034 | 2.404 | 1.000 | 0.003 | 18.18 | 8.5 | 29 | 48 | - | - | - | - |
| | 200 | 0.9998 | 0.0956 | 0.7555 | 0.7555 | 1.046 | 2.840 | 0.999 | 0.001 | 22.74 | 10 | 39 | 58 | - | - | - | - |
| | 300 | 1.0000 | 0.0732 | 0.7792 | 0.7792 | 1.053 | 2.993 | 1.000 | 0.000 | 25.66 | 11 | 44 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9994 | 0.0269 | 0.2247 | 0.2247 | 1.013 | 1.583 | 0.998 | 0.368 | 6.58 | 4 | 17 | 34 | - | - | - | - |
| | 200 | 0.9990 | 0.0292 | 0.3497 | 0.3497 | 1.028 | 2.000 | 0.998 | 0.230 | 9.71 | 4 | 28 | 49 | - | - | - | - |
| | 300 | 0.9991 | 0.0273 | 0.4225 | 0.4225 | 1.041 | 2.228 | 0.997 | 0.168 | 12.08 | 4 | 33 | 68 | - | - | - | - |

Notes: See notes to Table 1.

## Table 366: MC findings for DGPIII

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0012 | 0.0192 | 0.0192 | 1.001 | 1.072 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.996 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0198 | 0.0198 | 1.001 | 1.080 | 1.000 | 0.893 | 4.12 | 4 | 5 | 7 | 1.992 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0213 | 0.0213 | 1.001 | 1.080 | 1.000 | 0.881 | 4.13 | 4 | 5 | 6 | 1.998 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0007 | 0.0108 | 0.0108 | 1.001 | 1.046 | 1.000 | 0.939 | 4.07 | 4 | 5 | 6 | 1.996 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0003 | 0.0100 | 0.0100 | 1.001 | 1.047 | 1.000 | 0.944 | 4.06 | 4 | 5 | 7 | 1.995 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0099 | 0.0099 | 1.001 | 1.041 | 1.000 | 0.943 | 4.06 | 4 | 5 | 6 | 1.996 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0002 | 0.0025 | 0.0025 | 1.000 | 1.013 | 1.000 | 0.985 | 4.02 | 4 | 4 | 5 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.017 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.014 | 1.000 | 0.985 | 4.02 | 4 | 4 | 6 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0169 | 0.0169 | 1.001 | 1.057 | 1.000 | 0.905 | 4.10 | 4 | 5 | 7 | 1.987 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0180 | 0.0180 | 1.001 | 1.067 | 1.000 | 0.902 | 4.11 | 4 | 5 | 7 | 1.987 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0200 | 0.0200 | 1.001 | 1.071 | 1.000 | 0.888 | 4.12 | 4 | 5 | 6 | 1.994 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0097 | 0.0097 | 1.000 | 1.038 | 1.000 | 0.945 | 4.06 | 4 | 5 | 6 | 1.992 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0003 | 0.0089 | 0.0089 | 1.001 | 1.038 | 1.000 | 0.950 | 4.06 | 4 | 4.5 | 7 | 1.992 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0002 | 0.0093 | 0.0093 | 1.001 | 1.035 | 1.000 | 0.947 | 4.06 | 4 | 5 | 6 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.010 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.997 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.011 | 1.000 | 0.988 | 4.01 | 4 | 4 | 6 | 1.995 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0000 | 0.0023 | 0.0023 | 1.000 | 1.012 | 1.000 | 0.987 | 4.01 | 4 | 4 | 6 | 1.998 | 1.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1505 | 0.7120 | 0.7120 | 1.019 | 2.368 | 1.000 | 0.001 | 18.45 | 9 | 30 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0976 | 0.7608 | 0.7608 | 1.025 | 2.729 | 1.000 | 0.000 | 23.14 | 11 | 39 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0732 | 0.7815 | 0.7815 | 1.029 | 2.878 | 1.000 | 0.000 | 25.65 | 12 | 44 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0256 | 0.1690 | 0.1690 | 1.007 | 1.518 | 1.000 | 0.555 | 6.46 | 4 | 20 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0280 | 0.2899 | 0.2899 | 1.016 | 1.919 | 1.000 | 0.406 | 9.49 | 4 | 28 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0285 | 0.3756 | 0.3756 | 1.025 | 2.215 | 1.000 | 0.323 | 12.43 | 4 | 34 | 57 | - | - | - | - |

Notes: See notes to Table 1.

**Table 367: MC findings for DGPIII**

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6274 | 0.0022 | 0.0467 | 0.0467 | 1.069 | 2.107 | 0.275 | 0.231 | 2.72 | 0 | 5 | 7 | 1.435 | 0.42 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5304 | 0.0012 | 0.0636 | 0.0636 | 1.090 | 2.356 | 0.183 | 0.155 | 2.37 | 0 | 4 | 6 | 1.311 | 0.31 | 0.01 | 0.00 |
| | 300 | 0.4953 | 0.0009 | 0.0707 | 0.0707 | 1.100 | 2.397 | 0.164 | 0.136 | 2.25 | 0 | 4 | 7 | 1.282 | 0.27 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5633 | 0.0013 | 0.0302 | 0.0302 | 1.075 | 2.200 | 0.212 | 0.190 | 2.37 | 0 | 4 | 6 | 1.354 | 0.35 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4691 | 0.0007 | 0.0402 | 0.0402 | 1.095 | 2.423 | 0.134 | 0.122 | 2.02 | 0 | 4 | 6 | 1.246 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.4343 | 0.0005 | 0.0461 | 0.0461 | 1.104 | 2.458 | 0.122 | 0.109 | 1.90 | 0 | 4 | 7 | 1.221 | 0.22 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.4258 | 0.0004 | 0.0108 | 0.0108 | 1.093 | 2.395 | 0.112 | 0.110 | 1.74 | 0 | 4 | 5 | 1.209 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3418 | 0.0003 | 0.0182 | 0.0182 | 1.110 | 2.586 | 0.065 | 0.062 | 1.42 | 0 | 4 | 6 | 1.129 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.3134 | 0.0002 | 0.0171 | 0.0171 | 1.117 | 2.592 | 0.057 | 0.053 | 1.30 | 0 | 4 | 5 | 1.107 | 0.11 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5939 | 0.0020 | 0.0455 | 0.0455 | 1.076 | 2.209 | 0.197 | 0.169 | 2.57 | 0 | 4 | 6 | 1.290 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5019 | 0.0012 | 0.0628 | 0.0628 | 1.095 | 2.432 | 0.129 | 0.111 | 2.24 | 0 | 4 | 6 | 1.190 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.4665 | 0.0009 | 0.0688 | 0.0688 | 1.105 | 2.465 | 0.109 | 0.092 | 2.12 | 0 | 4 | 7 | 1.155 | 0.16 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5341 | 0.0012 | 0.0295 | 0.0295 | 1.082 | 2.283 | 0.153 | 0.140 | 2.25 | 0 | 4 | 6 | 1.233 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4449 | 0.0007 | 0.0393 | 0.0393 | 1.099 | 2.484 | 0.093 | 0.085 | 1.92 | 0 | 4 | 6 | 1.145 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.4098 | 0.0005 | 0.0454 | 0.0454 | 1.109 | 2.516 | 0.074 | 0.069 | 1.79 | 0 | 4 | 7 | 1.118 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4074 | 0.0003 | 0.0106 | 0.0106 | 1.097 | 2.440 | 0.079 | 0.078 | 1.66 | 0 | 4 | 5 | 1.135 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3266 | 0.0003 | 0.0179 | 0.0179 | 1.113 | 2.620 | 0.039 | 0.038 | 1.36 | 0 | 3 | 6 | 1.067 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.3008 | 0.0002 | 0.0168 | 0.0168 | 1.120 | 2.621 | 0.033 | 0.032 | 1.25 | 0 | 3 | 5 | 1.054 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7156 | 0.0779 | 0.5741 | 0.5741 | 1.086 | 2.337 | 0.277 | 0.001 | 10.34 | 3 | 22 | 34 | - | - | - | - |
| | 200 | 0.6366 | 0.0494 | 0.6316 | 0.6316 | 1.106 | 2.552 | 0.172 | 0.000 | 12.22 | 2 | 28 | 75 | - | - | - | - |
| | 300 | 0.6091 | 0.0382 | 0.6744 | 0.6744 | 1.114 | 2.573 | 0.128 | 0.000 | 13.76 | 3 | 32 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5740 | 0.0278 | 0.3268 | 0.3268 | 1.091 | 2.371 | 0.159 | 0.012 | 4.96 | 1 | 12 | 21 | - | - | - | - |
| | 200 | 0.5084 | 0.0224 | 0.4377 | 0.4377 | 1.127 | 2.684 | 0.100 | 0.002 | 6.42 | 1 | 17 | 64 | - | - | - | - |
| | 300 | 0.5021 | 0.0192 | 0.4968 | 0.4968 | 1.148 | 2.779 | 0.086 | 0.003 | 7.68 | 1 | 21 | 69 | - | - | - | - |

Notes: See notes to Table 1.

## Table 368: MC findings for DGPIII

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9953 | 0.0016 | 0.0250 | 0.0250 | 1.003 | 1.179 | 0.981 | 0.845 | 4.13 | 4 | 5 | 7 | 1.993 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9956 | 0.0008 | 0.0248 | 0.0248 | 1.004 | 1.194 | 0.983 | 0.852 | 4.14 | 4 | 5 | 9 | 1.988 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0005 | 0.0250 | 0.0250 | 1.004 | 1.222 | 0.977 | 0.847 | 4.13 | 4 | 5 | 7 | 1.993 | 0.98 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9944 | 0.0009 | 0.0142 | 0.0142 | 1.003 | 1.153 | 0.978 | 0.901 | 4.06 | 4 | 5 | 6 | 1.991 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9944 | 0.0005 | 0.0148 | 0.0148 | 1.003 | 1.172 | 0.978 | 0.898 | 4.07 | 4 | 5 | 9 | 1.984 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9910 | 0.0003 | 0.0146 | 0.0146 | 1.004 | 1.210 | 0.966 | 0.891 | 4.05 | 4 | 5 | 7 | 1.991 | 0.98 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9868 | 0.0002 | 0.0039 | 0.0039 | 1.003 | 1.207 | 0.955 | 0.936 | 3.97 | 4 | 4 | 6 | 1.980 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9879 | 0.0001 | 0.0042 | 0.0042 | 1.003 | 1.211 | 0.954 | 0.932 | 3.98 | 4 | 4 | 6 | 1.978 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9778 | 0.0001 | 0.0037 | 0.0037 | 1.005 | 1.339 | 0.922 | 0.904 | 3.93 | 3 | 4 | 6 | 1.961 | 0.96 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9928 | 0.0015 | 0.0231 | 0.0231 | 1.003 | 1.221 | 0.971 | 0.847 | 4.11 | 4 | 5 | 7 | 1.974 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9923 | 0.0007 | 0.0233 | 0.0233 | 1.004 | 1.257 | 0.969 | 0.849 | 4.11 | 4 | 5 | 8 | 1.970 | 0.97 | 0.00 | 0.00 |
| | 300 | 0.9864 | 0.0005 | 0.0230 | 0.0230 | 1.006 | 1.360 | 0.947 | 0.836 | 4.09 | 4 | 5 | 7 | 1.953 | 0.95 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9901 | 0.0008 | 0.0131 | 0.0131 | 1.003 | 1.237 | 0.962 | 0.894 | 4.04 | 4 | 5 | 6 | 1.970 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9895 | 0.0004 | 0.0138 | 0.0138 | 1.004 | 1.271 | 0.958 | 0.886 | 4.04 | 4 | 5 | 8 | 1.962 | 0.96 | 0.00 | 0.00 |
| | 300 | 0.9800 | 0.0003 | 0.0129 | 0.0129 | 1.006 | 1.418 | 0.924 | 0.861 | 4.00 | 3 | 5 | 7 | 1.938 | 0.94 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9801 | 0.0002 | 0.0035 | 0.0035 | 1.005 | 1.337 | 0.932 | 0.918 | 3.94 | 3 | 4 | 6 | 1.953 | 0.95 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9780 | 0.0001 | 0.0037 | 0.0037 | 1.006 | 1.406 | 0.918 | 0.900 | 3.93 | 3 | 4 | 6 | 1.937 | 0.94 | 0.00 | 0.00 |
| | 300 | 0.9610 | 0.0001 | 0.0031 | 0.0031 | 1.009 | 1.629 | 0.862 | 0.848 | 3.86 | 3 | 4 | 6 | 1.892 | 0.89 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9903 | 0.1318 | 0.6671 | 0.6671 | 1.037 | 2.594 | 0.965 | 0.004 | 16.61 | 6.5 | 29 | 49 | - | - | - | - |
| | 200 | 0.9816 | 0.0810 | 0.7058 | 0.7058 | 1.048 | 2.952 | 0.933 | 0.003 | 19.81 | 6 | 36 | 65 | - | - | - | - |
| | 300 | 0.9658 | 0.0591 | 0.7191 | 0.7191 | 1.055 | 3.106 | 0.879 | 0.001 | 21.35 | 6 | 41 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9660 | 0.0347 | 0.3067 | 0.3067 | 1.023 | 2.069 | 0.901 | 0.184 | 7.20 | 3 | 14 | 40 | - | - | - | - |
| | 200 | 0.9559 | 0.0299 | 0.4171 | 0.4171 | 1.038 | 2.404 | 0.874 | 0.092 | 9.69 | 3 | 24 | 58 | - | - | - | - |
| | 300 | 0.9353 | 0.0265 | 0.4783 | 0.4783 | 1.050 | 2.693 | 0.821 | 0.056 | 11.59 | 3 | 29 | 56 | - | - | - | - |

Notes: See notes to Table 1.

## Table 369: MC findings for DGPIII

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0176 | 0.0176 | 1.001 | 1.074 | 1.000 | 0.903 | 4.11 | 4 | 5 | 8 | 1.999 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0233 | 0.0233 | 1.002 | 1.111 | 1.000 | 0.871 | 4.14 | 4 | 5 | 8 | 2.004 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9999 | 0.0005 | 0.0220 | 0.0220 | 1.001 | 1.114 | 1.000 | 0.876 | 4.14 | 4 | 5 | 7 | 2.003 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0099 | 0.0099 | 1.000 | 1.045 | 1.000 | 0.943 | 4.06 | 4 | 5 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0004 | 0.0132 | 0.0132 | 1.001 | 1.070 | 1.000 | 0.925 | 4.08 | 4 | 5 | 7 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9999 | 0.0003 | 0.0125 | 0.0125 | 1.001 | 1.075 | 1.000 | 0.929 | 4.08 | 4 | 5 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0023 | 0.0023 | 1.000 | 1.013 | 1.000 | 0.987 | 4.01 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0001 | 0.0037 | 0.0037 | 1.000 | 1.025 | 1.000 | 0.978 | 4.02 | 4 | 4 | 5 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0001 | 0.0026 | 0.0026 | 1.000 | 1.029 | 0.999 | 0.984 | 4.01 | 4 | 4 | 6 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0011 | 0.0166 | 0.0166 | 1.001 | 1.068 | 1.000 | 0.908 | 4.10 | 4 | 5 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0217 | 0.0217 | 1.001 | 1.099 | 1.000 | 0.880 | 4.13 | 4 | 5 | 8 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0004 | 0.0207 | 0.0207 | 1.001 | 1.117 | 0.998 | 0.882 | 4.13 | 4 | 5 | 7 | 1.995 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0006 | 0.0094 | 0.0094 | 1.000 | 1.042 | 1.000 | 0.946 | 4.06 | 4 | 5 | 7 | 1.997 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0004 | 0.0121 | 0.0121 | 1.001 | 1.065 | 1.000 | 0.931 | 4.07 | 4 | 5 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0002 | 0.0115 | 0.0115 | 1.001 | 1.080 | 0.998 | 0.934 | 4.07 | 4 | 5 | 7 | 1.996 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0001 | 0.0021 | 0.0021 | 1.000 | 1.012 | 1.000 | 0.988 | 4.01 | 4 | 4 | 5 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0001 | 0.0031 | 0.0031 | 1.000 | 1.024 | 1.000 | 0.981 | 4.02 | 4 | 4 | 5 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0000 | 0.0024 | 0.0024 | 1.000 | 1.048 | 0.997 | 0.984 | 4.01 | 4 | 4 | 6 | 1.996 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1477 | 0.7052 | 0.7052 | 1.019 | 2.418 | 1.000 | 0.001 | 18.18 | 9 | 30 | 49 | - | - | - | - |
| | 200 | 0.9998 | 0.0944 | 0.7505 | 0.7505 | 1.025 | 2.754 | 0.999 | 0.002 | 22.51 | 10 | 38 | 63 | - | - | - | - |
| | 300 | 0.9990 | 0.0727 | 0.7754 | 0.7754 | 1.029 | 2.922 | 0.996 | 0.001 | 25.50 | 11 | 44 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9985 | 0.0313 | 0.2729 | 0.2729 | 1.008 | 1.667 | 0.994 | 0.274 | 7.00 | 4 | 16 | 36 | - | - | - | - |
| | 200 | 0.9980 | 0.0314 | 0.4016 | 0.4016 | 1.018 | 2.032 | 0.993 | 0.157 | 10.14 | 4 | 27 | 52 | - | - | - | - |
| | 300 | 0.9970 | 0.0310 | 0.4893 | 0.4893 | 1.027 | 2.367 | 0.990 | 0.096 | 13.15 | 4 | 34 | 62 | - | - | - | - |

Notes: See notes to Table 1.

### 4.1.4 Findings for designs featuring hidden signals and pseudo-signals

**Table 370: MC findings for DGPIV(a)**

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9976 | 0.0206 | 0.2765 | 0.0268 | 1.020 | 1.492 | 0.993 | 0.025 | 0.799 | 0.646 | 5.97 | 5 | 7 | 10 | 2.026 | 0.98 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9959 | 0.0101 | 0.2755 | 0.0335 | 1.026 | 1.524 | 0.986 | 0.024 | 0.745 | 0.580 | 5.97 | 5 | 7 | 10 | 2.050 | 0.98 | 0.07 | 0.00 |
| | 300 | 0.9934 | 0.0067 | 0.2750 | 0.0363 | 1.026 | 1.576 | 0.977 | 0.026 | 0.728 | 0.552 | 5.95 | 5 | 7 | 10 | 2.051 | 0.98 | 0.07 | 0.00 |
| $p = 0.05$, | 100 | 0.9958 | 0.0190 | 0.2603 | 0.0159 | 1.020 | 1.490 | 0.987 | 0.038 | 0.746 | 0.657 | 5.81 | 5 | 7 | 8 | 2.024 | 0.98 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9943 | 0.0092 | 0.2578 | 0.0211 | 1.023 | 1.498 | 0.980 | 0.041 | 0.695 | 0.593 | 5.79 | 4 | 7 | 9 | 2.045 | 0.99 | 0.06 | 0.00 |
| | 300 | 0.9905 | 0.0060 | 0.2547 | 0.0222 | 1.025 | 1.569 | 0.969 | 0.038 | 0.670 | 0.570 | 5.75 | 4 | 7 | 9 | 2.044 | 0.98 | 0.06 | 0.00 |
| $p = 0.01$, | 100 | 0.9875 | 0.0164 | 0.2312 | 0.0057 | 1.022 | 1.548 | 0.965 | 0.068 | 0.614 | 0.590 | 5.52 | 4 | 6 | 8 | 2.029 | 0.99 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9874 | 0.0077 | 0.2229 | 0.0075 | 1.022 | 1.526 | 0.958 | 0.083 | 0.554 | 0.526 | 5.46 | 4 | 6 | 8 | 2.042 | 0.99 | 0.05 | 0.00 |
| | 300 | 0.9808 | 0.0050 | 0.2186 | 0.0076 | 1.027 | 1.634 | 0.944 | 0.092 | 0.534 | 0.506 | 5.40 | 4 | 6 | 8 | 2.044 | 0.98 | 0.06 | 0.00 |
| $p = 0.1$, | 100 | 0.9966 | 0.0202 | 0.2723 | 0.0215 | 1.019 | 1.481 | 0.989 | 0.025 | 0.796 | 0.669 | 5.92 | 5 | 7 | 9 | 1.996 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9946 | 0.0098 | 0.2696 | 0.0257 | 1.022 | 1.488 | 0.981 | 0.024 | 0.743 | 0.613 | 5.89 | 5 | 7 | 10 | 2.000 | 0.98 | 0.02 | 0.00 |
| | 300 | 0.9901 | 0.0065 | 0.2691 | 0.0283 | 1.025 | 1.589 | 0.969 | 0.027 | 0.726 | 0.585 | 5.87 | 4 | 7 | 9 | 1.996 | 0.98 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9934 | 0.0187 | 0.2571 | 0.0118 | 1.019 | 1.505 | 0.979 | 0.037 | 0.741 | 0.676 | 5.76 | 4 | 7 | 8 | 1.997 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9909 | 0.0090 | 0.2540 | 0.0156 | 1.023 | 1.525 | 0.968 | 0.041 | 0.689 | 0.614 | 5.73 | 4 | 7 | 9 | 2.001 | 0.98 | 0.02 | 0.00 |
| | 300 | 0.9871 | 0.0059 | 0.2503 | 0.0164 | 1.025 | 1.596 | 0.960 | 0.040 | 0.666 | 0.590 | 5.69 | 4 | 7 | 9 | 1.999 | 0.98 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9838 | 0.0162 | 0.2299 | 0.0038 | 1.024 | 1.592 | 0.953 | 0.066 | 0.610 | 0.597 | 5.49 | 4 | 6 | 8 | 2.006 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9806 | 0.0076 | 0.2215 | 0.0052 | 1.027 | 1.612 | 0.937 | 0.079 | 0.551 | 0.533 | 5.41 | 4 | 6 | 8 | 2.008 | 0.98 | 0.03 | 0.00 |
| | 300 | 0.9729 | 0.0049 | 0.2169 | 0.0051 | 1.033 | 1.751 | 0.921 | 0.085 | 0.528 | 0.512 | 5.35 | 4 | 6 | 8 | 2.000 | 0.97 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9925 | 0.1387 | 0.6825 | 0.6472 | 1.136 | 2.937 | 0.973 | 0.004 | 0.089 | 0.000 | 17.29 | 7 | 29 | 46 | - | - | - | - |
| | 200 | 0.9846 | 0.0939 | 0.7437 | 0.7175 | 1.179 | 3.324 | 0.950 | 0.002 | 0.072 | 0.000 | 22.34 | 8 | 40 | 63 | - | - | - | - |
| | 300 | 0.9755 | 0.0735 | 0.7698 | 0.7465 | 1.204 | 3.591 | 0.914 | 0.001 | 0.072 | 0.000 | 25.65 | 9 | 48 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9746 | 0.0301 | 0.2550 | 0.2328 | 1.077 | 2.234 | 0.924 | 0.284 | 0.012 | 0.000 | 6.79 | 4 | 17 | 39 | - | - | - | - |
| | 200 | 0.9650 | 0.0309 | 0.3842 | 0.3637 | 1.120 | 2.590 | 0.900 | 0.162 | 0.015 | 0.000 | 9.91 | 4 | 28 | 44 | - | - | - | - |
| | 300 | 0.9551 | 0.0307 | 0.4660 | 0.4474 | 1.160 | 2.925 | 0.876 | 0.098 | 0.018 | 0.000 | 12.92 | 3 | 36 | 52 | - | - | - | - |

Notes: See notes to Table 46.

**Table 371: MC findings for DGPIV(a)**

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0222 | 0.2971 | 0.0159 | 1.004 | 1.428 | 1.000 | 0.000 | 1.000 | 0.888 | 6.13 | 6 | 7 | 9 | 1.983 | 0.97 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0110 | 0.2985 | 0.0178 | 1.005 | 1.431 | 1.000 | 0.000 | 1.000 | 0.869 | 6.15 | 6 | 7 | 10 | 1.995 | 0.98 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.2988 | 0.0185 | 1.006 | 1.453 | 1.000 | 0.000 | 0.999 | 0.863 | 6.15 | 6 | 7 | 9 | 1.993 | 0.98 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2915 | 0.0082 | 1.004 | 1.409 | 1.000 | 0.000 | 1.000 | 0.937 | 6.07 | 6 | 7 | 8 | 1.990 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2928 | 0.0099 | 1.005 | 1.414 | 1.000 | 0.000 | 1.000 | 0.926 | 6.08 | 6 | 7 | 9 | 1.997 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2926 | 0.0098 | 1.005 | 1.428 | 1.000 | 0.000 | 0.999 | 0.923 | 6.08 | 6 | 7 | 8 | 1.994 | 0.98 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2874 | 0.0024 | 1.003 | 1.393 | 1.000 | 0.000 | 1.000 | 0.982 | 6.02 | 6 | 6 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2872 | 0.0022 | 1.004 | 1.389 | 1.000 | 0.000 | 0.999 | 0.982 | 6.02 | 6 | 6 | 8 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2877 | 0.0031 | 1.004 | 1.402 | 1.000 | 0.000 | 0.999 | 0.974 | 6.02 | 6 | 6 | 7 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2952 | 0.0133 | 1.004 | 1.412 | 1.000 | 0.000 | 1.000 | 0.904 | 6.11 | 6 | 7 | 9 | 1.972 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2965 | 0.0150 | 1.005 | 1.414 | 1.000 | 0.000 | 1.000 | 0.890 | 6.12 | 6 | 7 | 10 | 1.982 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2968 | 0.0157 | 1.005 | 1.431 | 1.000 | 0.000 | 0.999 | 0.881 | 6.13 | 6 | 7 | 9 | 1.979 | 0.98 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2907 | 0.0070 | 1.003 | 1.400 | 1.000 | 0.000 | 1.000 | 0.946 | 6.06 | 6 | 7 | 8 | 1.983 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2915 | 0.0081 | 1.005 | 1.401 | 1.000 | 0.000 | 1.000 | 0.939 | 6.07 | 6 | 7 | 8 | 1.987 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2913 | 0.0081 | 1.004 | 1.413 | 1.000 | 0.000 | 0.999 | 0.936 | 6.06 | 6 | 7 | 8 | 1.986 | 0.98 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2871 | 0.0020 | 1.003 | 1.390 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 8 | 1.992 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2870 | 0.0020 | 1.004 | 1.386 | 1.000 | 0.000 | 0.999 | 0.984 | 6.02 | 6 | 6 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2872 | 0.0023 | 1.004 | 1.395 | 1.000 | 0.000 | 0.999 | 0.980 | 6.02 | 6 | 6 | 7 | 1.990 | 0.99 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1513 | 0.7154 | 0.6803 | 1.033 | 2.551 | 1.000 | 0.001 | 0.093 | 0.000 | 18.52 | 10 | 30 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0970 | 0.7613 | 0.7349 | 1.045 | 2.834 | 1.000 | 0.000 | 0.086 | 0.000 | 23.01 | 11 | 39 | 71 | - | - | - | - |
| | 300 | 1.0000 | 0.0762 | 0.7879 | 0.7663 | 1.053 | 3.069 | 1.000 | 0.001 | 0.072 | 0.000 | 26.55 | 12 | 48 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0217 | 0.1381 | 0.1294 | 1.011 | 1.531 | 1.000 | 0.672 | 0.003 | 0.000 | 6.08 | 4 | 18 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0251 | 0.2507 | 0.2409 | 1.023 | 1.841 | 1.000 | 0.529 | 0.013 | 0.000 | 8.91 | 4 | 27 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0256 | 0.3383 | 0.3280 | 1.036 | 2.147 | 1.000 | 0.421 | 0.019 | 0.001 | 11.58 | 4 | 32 | 55 | - | - | - | - |

Notes: See notes to Table 46.

## Table 372: MC findings for DGPIV(a)

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0222 | 0.2972 | 0.0161 | 1.003 | 1.406 | 1.000 | 0.000 | 1.000 | 0.883 | 6.13 | 6 | 7 | 9 | 1.981 | 0.97 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0109 | 0.2974 | 0.0164 | 1.003 | 1.417 | 1.000 | 0.000 | 1.000 | 0.882 | 6.14 | 6 | 7 | 9 | 1.992 | 0.98 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2974 | 0.0164 | 1.003 | 1.452 | 1.000 | 0.000 | 1.000 | 0.879 | 6.13 | 6 | 7 | 9 | 1.996 | 0.98 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0216 | 0.2919 | 0.0087 | 1.002 | 1.388 | 1.000 | 0.000 | 1.000 | 0.934 | 6.07 | 6 | 7 | 8 | 1.988 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2923 | 0.0092 | 1.002 | 1.394 | 1.000 | 0.000 | 1.000 | 0.931 | 6.08 | 6 | 7 | 8 | 1.993 | 0.98 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2923 | 0.0092 | 1.003 | 1.431 | 1.000 | 0.000 | 1.000 | 0.930 | 6.07 | 6 | 7 | 8 | 1.996 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2870 | 0.0018 | 1.002 | 1.369 | 1.000 | 0.000 | 1.000 | 0.986 | 6.01 | 6 | 6 | 7 | 1.991 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2871 | 0.0020 | 1.002 | 1.371 | 1.000 | 0.000 | 1.000 | 0.984 | 6.02 | 6 | 6 | 7 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2869 | 0.0017 | 1.002 | 1.407 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2955 | 0.0137 | 1.002 | 1.392 | 1.000 | 0.000 | 1.000 | 0.899 | 6.11 | 6 | 7 | 9 | 1.970 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2960 | 0.0144 | 1.002 | 1.398 | 1.000 | 0.000 | 1.000 | 0.894 | 6.12 | 6 | 7 | 9 | 1.980 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2960 | 0.0144 | 1.003 | 1.437 | 1.000 | 0.000 | 1.000 | 0.893 | 6.12 | 6 | 7 | 9 | 1.985 | 0.98 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2907 | 0.0070 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.946 | 6.06 | 6 | 7 | 8 | 1.980 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2913 | 0.0078 | 1.002 | 1.383 | 1.000 | 0.000 | 1.000 | 0.940 | 6.06 | 6 | 7 | 8 | 1.986 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2913 | 0.0078 | 1.003 | 1.418 | 1.000 | 0.000 | 1.000 | 0.940 | 6.06 | 6 | 7 | 8 | 1.988 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2868 | 0.0015 | 1.002 | 1.367 | 1.000 | 0.000 | 1.000 | 0.988 | 6.01 | 6 | 6 | 7 | 1.989 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2869 | 0.0016 | 1.002 | 1.368 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 7 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2865 | 0.0011 | 1.002 | 1.400 | 1.000 | 0.000 | 1.000 | 0.992 | 6.01 | 6 | 6 | 7 | 1.996 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1540 | 0.7156 | 0.6818 | 1.020 | 2.485 | 1.000 | 0.000 | 0.105 | 0.000 | 18.79 | 10 | 32 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0988 | 0.7627 | 0.7385 | 1.028 | 2.875 | 1.000 | 0.000 | 0.072 | 0.000 | 23.37 | 11 | 40 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0734 | 0.7808 | 0.7586 | 1.030 | 3.022 | 1.000 | 0.000 | 0.081 | 0.000 | 25.73 | 11 | 43 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0238 | 0.1445 | 0.1378 | 1.007 | 1.528 | 1.000 | 0.753 | 0.007 | 0.000 | 6.28 | 4 | 18 | 30 | - | - | - | - |
| | 200 | 1.0000 | 0.0257 | 0.2594 | 0.2523 | 1.014 | 1.866 | 1.000 | 0.611 | 0.013 | 0.000 | 9.04 | 4 | 24 | 42 | - | - | - | - |
| | 300 | 1.0000 | 0.0236 | 0.3312 | 0.3225 | 1.019 | 2.065 | 1.000 | 0.521 | 0.013 | 0.000 | 10.98 | 4 | 27 | 47 | - | - | - | - |

Notes: See notes to Table 46.

**Table 373: MC findings for DGPIV(a)**

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9403 | 0.0169 | 0.2384 | 0.0281 | 1.039 | 1.806 | 0.812 | 0.048 | 0.490 | 0.402 | 5.38 | 3 | 7 | 11 | 1.950 | 0.91 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9063 | 0.0079 | 0.2326 | 0.0394 | 1.055 | 1.988 | 0.746 | 0.061 | 0.420 | 0.325 | 5.18 | 3 | 7 | 10 | 1.919 | 0.86 | 0.05 | 0.00 |
| | 300 | 0.8823 | 0.0050 | 0.2243 | 0.0372 | 1.063 | 2.118 | 0.702 | 0.065 | 0.381 | 0.305 | 5.00 | 2 | 7 | 9 | 1.878 | 0.83 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 0.9145 | 0.0148 | 0.2151 | 0.0171 | 1.045 | 1.912 | 0.757 | 0.062 | 0.423 | 0.377 | 5.08 | 3 | 6.5 | 10 | 1.922 | 0.88 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8794 | 0.0068 | 0.2063 | 0.0255 | 1.061 | 2.078 | 0.695 | 0.078 | 0.345 | 0.297 | 4.84 | 2 | 7 | 9 | 1.879 | 0.84 | 0.04 | 0.00 |
| | 300 | 0.8534 | 0.0043 | 0.1974 | 0.0235 | 1.070 | 2.219 | 0.648 | 0.079 | 0.315 | 0.274 | 4.68 | 1 | 6 | 9 | 1.831 | 0.80 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.8339 | 0.0110 | 0.1715 | 0.0061 | 1.070 | 2.273 | 0.618 | 0.093 | 0.266 | 0.255 | 4.40 | 1 | 6 | 9 | 1.806 | 0.78 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7933 | 0.0049 | 0.1610 | 0.0097 | 1.087 | 2.415 | 0.555 | 0.102 | 0.217 | 0.206 | 4.14 | 1 | 6 | 8 | 1.750 | 0.73 | 0.02 | 0.00 |
| | 300 | 0.7659 | 0.0031 | 0.1530 | 0.0092 | 1.096 | 2.542 | 0.514 | 0.100 | 0.194 | 0.183 | 3.98 | 1 | 6 | 8 | 1.707 | 0.68 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.9201 | 0.0164 | 0.2362 | 0.0222 | 1.048 | 1.968 | 0.756 | 0.044 | 0.458 | 0.395 | 5.25 | 3 | 7 | 9 | 1.845 | 0.84 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8839 | 0.0076 | 0.2298 | 0.0329 | 1.065 | 2.145 | 0.688 | 0.058 | 0.391 | 0.329 | 5.03 | 2 | 7 | 9 | 1.793 | 0.79 | 0.01 | 0.00 |
| | 300 | 0.8568 | 0.0048 | 0.2228 | 0.0321 | 1.076 | 2.303 | 0.637 | 0.059 | 0.347 | 0.289 | 4.86 | 2 | 7 | 9 | 1.745 | 0.74 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8911 | 0.0145 | 0.2150 | 0.0135 | 1.057 | 2.097 | 0.703 | 0.053 | 0.395 | 0.362 | 4.95 | 2 | 6 | 9 | 1.813 | 0.80 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8539 | 0.0066 | 0.2056 | 0.0214 | 1.073 | 2.261 | 0.633 | 0.075 | 0.314 | 0.280 | 4.71 | 2 | 6 | 9 | 1.754 | 0.74 | 0.01 | 0.00 |
| | 300 | 0.8274 | 0.0042 | 0.1973 | 0.0199 | 1.083 | 2.405 | 0.585 | 0.074 | 0.283 | 0.254 | 4.54 | 1 | 6 | 9 | 1.705 | 0.70 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8115 | 0.0109 | 0.1726 | 0.0048 | 1.082 | 2.430 | 0.571 | 0.081 | 0.249 | 0.242 | 4.29 | 1 | 6 | 8 | 1.713 | 0.70 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7686 | 0.0049 | 0.1617 | 0.0080 | 1.099 | 2.577 | 0.496 | 0.087 | 0.198 | 0.188 | 4.03 | 1 | 6 | 8 | 1.646 | 0.64 | 0.01 | 0.00 |
| | 300 | 0.7368 | 0.0030 | 0.1548 | 0.0076 | 1.111 | 2.727 | 0.452 | 0.088 | 0.170 | 0.164 | 3.85 | 1 | 6 | 8 | 1.583 | 0.58 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9073 | 0.1075 | 0.6207 | 0.5786 | 1.130 | 2.927 | 0.707 | 0.003 | 0.059 | 0.000 | 13.95 | 4 | 27 | 50 | - | - | - | - |
| | 200 | 0.8681 | 0.0702 | 0.6767 | 0.6440 | 1.161 | 3.137 | 0.604 | 0.001 | 0.038 | 0.000 | 17.22 | 4 | 36 | 70 | - | - | - | - |
| | 300 | 0.8363 | 0.0537 | 0.7079 | 0.6781 | 1.177 | 3.305 | 0.524 | 0.001 | 0.039 | 0.000 | 19.23 | 4 | 41 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8116 | 0.0332 | 0.3196 | 0.2849 | 1.111 | 2.689 | 0.541 | 0.086 | 0.009 | 0.000 | 6.43 | 2 | 14 | 34 | - | - | - | - |
| | 200 | 0.7739 | 0.0285 | 0.4221 | 0.3933 | 1.155 | 2.964 | 0.480 | 0.041 | 0.006 | 0.000 | 8.68 | 2 | 23 | 53 | - | - | - | - |
| | 300 | 0.7441 | 0.0250 | 0.4756 | 0.4477 | 1.184 | 3.217 | 0.408 | 0.026 | 0.005 | 0.000 | 10.37 | 2 | 30 | 63 | - | - | - | - |

Notes: See notes to Table 46.

## Table 374: MC findings for DGPIV(a)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0223 | 0.2976 | 0.0169 | 1.005 | 1.427 | 1.000 | 0.000 | 0.999 | 0.872 | 6.14 | 6 | 7 | 9 | 1.995 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0109 | 0.2975 | 0.0173 | 1.005 | 1.443 | 1.000 | 0.000 | 0.995 | 0.869 | 6.14 | 6 | 7 | 10 | 1.998 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2982 | 0.0182 | 1.006 | 1.418 | 1.000 | 0.000 | 0.996 | 0.865 | 6.14 | 6 | 7 | 9 | 2.000 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2916 | 0.0091 | 1.005 | 1.404 | 1.000 | 0.000 | 0.995 | 0.926 | 6.07 | 6 | 7 | 8 | 1.997 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2910 | 0.0086 | 1.005 | 1.413 | 1.000 | 0.000 | 0.993 | 0.929 | 6.06 | 6 | 7 | 9 | 1.998 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2912 | 0.0088 | 1.005 | 1.386 | 1.000 | 0.001 | 0.994 | 0.928 | 6.07 | 6 | 7 | 8 | 1.999 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0209 | 0.2855 | 0.0020 | 1.004 | 1.378 | 1.000 | 0.001 | 0.987 | 0.971 | 6.00 | 6 | 6 | 7 | 1.997 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0102 | 0.2848 | 0.0017 | 1.004 | 1.382 | 1.000 | 0.000 | 0.982 | 0.969 | 6.00 | 6 | 6 | 8 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2851 | 0.0029 | 1.004 | 1.353 | 1.000 | 0.001 | 0.978 | 0.957 | 6.00 | 6 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2962 | 0.0149 | 1.005 | 1.413 | 1.000 | 0.000 | 0.999 | 0.886 | 6.12 | 6 | 7 | 9 | 1.986 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2959 | 0.0151 | 1.005 | 1.426 | 1.000 | 0.000 | 0.995 | 0.884 | 6.12 | 6 | 7 | 10 | 1.986 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2968 | 0.0162 | 1.005 | 1.401 | 1.000 | 0.000 | 0.996 | 0.878 | 6.13 | 6 | 7 | 9 | 1.991 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2906 | 0.0077 | 1.004 | 1.394 | 1.000 | 0.000 | 0.995 | 0.936 | 6.06 | 6 | 7 | 8 | 1.990 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2901 | 0.0073 | 1.004 | 1.403 | 1.000 | 0.000 | 0.993 | 0.939 | 6.05 | 6 | 7 | 9 | 1.991 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2904 | 0.0078 | 1.004 | 1.376 | 1.000 | 0.001 | 0.994 | 0.936 | 6.06 | 6 | 7 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0208 | 0.2852 | 0.0016 | 1.004 | 1.375 | 1.000 | 0.001 | 0.987 | 0.974 | 6.00 | 6 | 6 | 7 | 1.996 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0102 | 0.2847 | 0.0016 | 1.004 | 1.382 | 1.000 | 0.000 | 0.982 | 0.970 | 6.00 | 6 | 6 | 8 | 1.995 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0068 | 0.2849 | 0.0026 | 1.004 | 1.356 | 1.000 | 0.001 | 0.978 | 0.959 | 6.00 | 6 | 6 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.1524 | 0.7156 | 0.6827 | 1.035 | 2.536 | 0.999 | 0.000 | 0.106 | 0.000 | 18.63 | 9 | 30 | 45 | - | - | - | - |
| | 200 | 0.9998 | 0.0948 | 0.7555 | 0.7297 | 1.045 | 2.875 | 0.999 | 0.001 | 0.081 | 0.000 | 22.59 | 10 | 38 | 76 | - | - | - | - |
| | 300 | 0.9995 | 0.0741 | 0.7808 | 0.7587 | 1.051 | 3.062 | 0.998 | 0.001 | 0.073 | 0.001 | 25.93 | 11 | 45 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9978 | 0.0269 | 0.2267 | 0.2103 | 1.014 | 1.674 | 0.992 | 0.363 | 0.007 | 0.000 | 6.57 | 4 | 17 | 36 | - | - | - | - |
| | 200 | 0.9986 | 0.0286 | 0.3470 | 0.3321 | 1.028 | 2.012 | 0.995 | 0.225 | 0.010 | 0.001 | 9.59 | 4 | 27 | 60 | - | - | - | - |
| | 300 | 0.9981 | 0.0291 | 0.4367 | 0.4216 | 1.042 | 2.324 | 0.994 | 0.157 | 0.011 | 0.001 | 12.60 | 4 | 35 | 66 | - | - | - | - |

Notes: See notes to Table 46.

## Table 375: MC findings for DGPIV(a)

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2963 | 0.0149 | 1.003 | 1.439 | 1.000 | 0.000 | 1.000 | 0.891 | 6.12 | 6 | 7 | 9 | 1.996 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0109 | 0.2971 | 0.0160 | 1.003 | 1.440 | 1.000 | 0.000 | 1.000 | 0.882 | 6.13 | 6 | 7 | 8 | 1.997 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2980 | 0.0172 | 1.003 | 1.458 | 1.000 | 0.000 | 1.000 | 0.875 | 6.14 | 6 | 7 | 10 | 2.003 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0215 | 0.2914 | 0.0079 | 1.003 | 1.418 | 1.000 | 0.000 | 1.000 | 0.941 | 6.06 | 6 | 7 | 8 | 1.994 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0106 | 0.2918 | 0.0085 | 1.003 | 1.415 | 1.000 | 0.000 | 1.000 | 0.935 | 6.07 | 6 | 7 | 8 | 1.999 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2921 | 0.0090 | 1.003 | 1.427 | 1.000 | 0.000 | 1.000 | 0.933 | 6.07 | 6 | 7 | 9 | 1.997 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2871 | 0.0019 | 1.002 | 1.396 | 1.000 | 0.000 | 1.000 | 0.985 | 6.02 | 6 | 6 | 7 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2872 | 0.0021 | 1.002 | 1.390 | 1.000 | 0.000 | 1.000 | 0.983 | 6.02 | 6 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2875 | 0.0025 | 1.002 | 1.397 | 1.000 | 0.000 | 1.000 | 0.981 | 6.02 | 6 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0219 | 0.2946 | 0.0125 | 1.003 | 1.422 | 1.000 | 0.000 | 1.000 | 0.910 | 6.10 | 6 | 7 | 9 | 1.984 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2958 | 0.0141 | 1.003 | 1.426 | 1.000 | 0.000 | 1.000 | 0.895 | 6.12 | 6 | 7 | 8 | 1.988 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2964 | 0.0149 | 1.003 | 1.441 | 1.000 | 0.000 | 1.000 | 0.891 | 6.12 | 6 | 7 | 10 | 1.989 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2905 | 0.0067 | 1.003 | 1.408 | 1.000 | 0.000 | 1.000 | 0.951 | 6.05 | 6 | 6 | 8 | 1.988 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2910 | 0.0074 | 1.002 | 1.406 | 1.000 | 0.000 | 1.000 | 0.944 | 6.06 | 6 | 7 | 8 | 1.993 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2915 | 0.0081 | 1.002 | 1.419 | 1.000 | 0.000 | 1.000 | 0.940 | 6.07 | 6 | 7 | 9 | 1.992 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0210 | 0.2870 | 0.0018 | 1.002 | 1.395 | 1.000 | 0.000 | 1.000 | 0.986 | 6.01 | 6 | 6 | 7 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0103 | 0.2869 | 0.0017 | 1.002 | 1.386 | 1.000 | 0.000 | 1.000 | 0.987 | 6.01 | 6 | 6 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2874 | 0.0023 | 1.002 | 1.396 | 1.000 | 0.000 | 1.000 | 0.982 | 6.02 | 6 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1532 | 0.7151 | 0.6826 | 1.019 | 2.497 | 1.000 | 0.002 | 0.094 | 0.000 | 18.71 | 9 | 31 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.0986 | 0.7646 | 0.7395 | 1.025 | 2.814 | 1.000 | 0.000 | 0.087 | 0.000 | 23.32 | 11 | 39 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0741 | 0.7846 | 0.7630 | 1.029 | 3.000 | 1.000 | 0.000 | 0.070 | 0.000 | 25.94 | 12 | 45 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0236 | 0.1652 | 0.1528 | 1.007 | 1.550 | 1.000 | 0.542 | 0.006 | 0.001 | 6.26 | 4 | 19 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0288 | 0.2948 | 0.2831 | 1.016 | 1.949 | 1.000 | 0.376 | 0.017 | 0.000 | 9.64 | 4 | 28 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0280 | 0.3754 | 0.3630 | 1.024 | 2.260 | 1.000 | 0.302 | 0.017 | 0.001 | 12.29 | 4 | 34 | 58 | - | - | - | - |

Notes: See notes to Table 46.

## Table 376: MC findings for DGPIV(a)

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6138 | 0.0101 | 0.1827 | 0.0430 | 1.077 | 2.227 | 0.265 | 0.038 | 0.101 | 0.081 | 3.42 | 0 | 6 | 9 | 1.432 | 0.42 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5223 | 0.0046 | 0.1826 | 0.0583 | 1.094 | 2.415 | 0.174 | 0.021 | 0.073 | 0.057 | 2.99 | 0 | 6 | 9 | 1.313 | 0.30 | 0.01 | 0.00 |
| | 300 | 0.4951 | 0.0028 | 0.1749 | 0.0611 | 1.099 | 2.430 | 0.153 | 0.029 | 0.053 | 0.040 | 2.82 | 0 | 6 | 9 | 1.282 | 0.27 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5451 | 0.0080 | 0.1545 | 0.0290 | 1.084 | 2.316 | 0.204 | 0.040 | 0.068 | 0.058 | 2.95 | 0 | 6 | 9 | 1.344 | 0.34 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4605 | 0.0036 | 0.1494 | 0.0372 | 1.100 | 2.472 | 0.129 | 0.017 | 0.048 | 0.039 | 2.55 | 0 | 6 | 8 | 1.246 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.4368 | 0.0021 | 0.1373 | 0.0388 | 1.103 | 2.473 | 0.110 | 0.025 | 0.032 | 0.026 | 2.37 | 0 | 5 | 8 | 1.215 | 0.21 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.4089 | 0.0049 | 0.1029 | 0.0109 | 1.102 | 2.484 | 0.105 | 0.024 | 0.030 | 0.030 | 2.11 | 0 | 5 | 7 | 1.195 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3421 | 0.0022 | 0.1008 | 0.0155 | 1.112 | 2.591 | 0.079 | 0.018 | 0.024 | 0.023 | 1.79 | 0 | 5 | 7 | 1.139 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.3166 | 0.0012 | 0.0863 | 0.0135 | 1.117 | 2.587 | 0.052 | 0.017 | 0.012 | 0.011 | 1.62 | 0 | 5 | 8 | 1.113 | 0.11 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5785 | 0.0099 | 0.1859 | 0.0416 | 1.085 | 2.335 | 0.192 | 0.027 | 0.076 | 0.064 | 3.27 | 0 | 6 | 8 | 1.281 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4943 | 0.0045 | 0.1847 | 0.0569 | 1.100 | 2.494 | 0.120 | 0.014 | 0.052 | 0.045 | 2.86 | 0 | 6 | 9 | 1.189 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.4669 | 0.0028 | 0.1760 | 0.0591 | 1.105 | 2.500 | 0.095 | 0.018 | 0.032 | 0.024 | 2.69 | 0 | 6 | 8 | 1.157 | 0.16 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5173 | 0.0079 | 0.1565 | 0.0276 | 1.090 | 2.397 | 0.148 | 0.028 | 0.050 | 0.044 | 2.83 | 0 | 6 | 8 | 1.225 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4374 | 0.0036 | 0.1509 | 0.0361 | 1.104 | 2.535 | 0.087 | 0.012 | 0.035 | 0.032 | 2.45 | 0 | 6 | 8 | 1.146 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.4148 | 0.0021 | 0.1379 | 0.0375 | 1.107 | 2.527 | 0.069 | 0.015 | 0.021 | 0.017 | 2.27 | 0 | 5 | 8 | 1.119 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3911 | 0.0049 | 0.1046 | 0.0106 | 1.105 | 2.531 | 0.074 | 0.018 | 0.021 | 0.021 | 2.04 | 0 | 5 | 7 | 1.122 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3268 | 0.0021 | 0.1020 | 0.0150 | 1.115 | 2.629 | 0.047 | 0.011 | 0.015 | 0.014 | 1.73 | 0 | 5 | 7 | 1.076 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.3053 | 0.0012 | 0.0864 | 0.0123 | 1.119 | 2.613 | 0.032 | 0.013 | 0.009 | 0.008 | 1.57 | 0 | 5 | 8 | 1.063 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6809 | 0.0788 | 0.5916 | 0.5446 | 1.092 | 2.408 | 0.246 | 0.002 | 0.009 | 0.000 | 10.29 | 3 | 22 | 45 | - | - | - | - |
| | 200 | 0.6025 | 0.0490 | 0.6498 | 0.6097 | 1.106 | 2.567 | 0.144 | 0.000 | 0.008 | 0.000 | 12.01 | 3 | 28 | 63 | - | - | - | - |
| | 300 | 0.5725 | 0.0372 | 0.6783 | 0.6439 | 1.115 | 2.588 | 0.100 | 0.000 | 0.006 | 0.000 | 13.31 | 3 | 31 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5330 | 0.0297 | 0.3658 | 0.3221 | 1.098 | 2.458 | 0.132 | 0.012 | 0.001 | 0.000 | 4.98 | 1 | 12 | 27 | - | - | - | - |
| | 200 | 0.4725 | 0.0227 | 0.4580 | 0.4207 | 1.130 | 2.714 | 0.080 | 0.001 | 0.001 | 0.000 | 6.34 | 1 | 17.5 | 54 | - | - | - | - |
| | 300 | 0.4545 | 0.0189 | 0.5115 | 0.4769 | 1.147 | 2.790 | 0.061 | 0.000 | 0.001 | 0.000 | 7.40 | 1 | 21 | 59 | - | - | - | - |

Notes: See notes to Table 46.

**Table 377: MC findings for DGPIV(a)**

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9974 | 0.0212 | 0.2856 | 0.0168 | 1.006 | 1.478 | 0.990 | 0.005 | 0.898 | 0.791 | 6.02 | 5 | 7 | 9 | 1.991 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9938 | 0.0102 | 0.2812 | 0.0188 | 1.007 | 1.514 | 0.976 | 0.010 | 0.841 | 0.730 | 5.97 | 5 | 7 | 9 | 1.988 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9929 | 0.0067 | 0.2791 | 0.0203 | 1.007 | 1.547 | 0.974 | 0.015 | 0.826 | 0.711 | 5.95 | 5 | 7 | 9 | 1.986 | 0.98 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9956 | 0.0202 | 0.2764 | 0.0107 | 1.005 | 1.467 | 0.983 | 0.011 | 0.865 | 0.799 | 5.93 | 5 | 7 | 9 | 1.992 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9914 | 0.0096 | 0.2689 | 0.0115 | 1.007 | 1.507 | 0.967 | 0.016 | 0.791 | 0.726 | 5.84 | 5 | 7 | 9 | 1.985 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9894 | 0.0063 | 0.2656 | 0.0114 | 1.007 | 1.540 | 0.962 | 0.026 | 0.779 | 0.715 | 5.81 | 5 | 7 | 9 | 1.976 | 0.97 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9893 | 0.0180 | 0.2523 | 0.0031 | 1.005 | 1.482 | 0.959 | 0.024 | 0.729 | 0.713 | 5.68 | 4 | 6 | 8 | 1.986 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9830 | 0.0084 | 0.2419 | 0.0030 | 1.007 | 1.535 | 0.939 | 0.048 | 0.664 | 0.651 | 5.58 | 4 | 6 | 8 | 1.971 | 0.97 | 0.00 | 0.00 |
| | 300 | 0.9753 | 0.0055 | 0.2394 | 0.0033 | 1.008 | 1.620 | 0.917 | 0.043 | 0.638 | 0.626 | 5.52 | 4 | 6 | 8 | 1.958 | 0.96 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9951 | 0.0211 | 0.2850 | 0.0155 | 1.006 | 1.507 | 0.981 | 0.005 | 0.889 | 0.792 | 6.00 | 5 | 7 | 9 | 1.976 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9890 | 0.0101 | 0.2811 | 0.0176 | 1.008 | 1.586 | 0.958 | 0.010 | 0.826 | 0.725 | 5.94 | 5 | 7 | 9 | 1.962 | 0.96 | 0.00 | 0.00 |
| | 300 | 0.9856 | 0.0066 | 0.2791 | 0.0186 | 1.009 | 1.658 | 0.945 | 0.016 | 0.801 | 0.698 | 5.91 | 5 | 7 | 9 | 1.948 | 0.95 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9923 | 0.0202 | 0.2765 | 0.0099 | 1.006 | 1.521 | 0.970 | 0.011 | 0.854 | 0.793 | 5.91 | 5 | 7 | 9 | 1.973 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9848 | 0.0095 | 0.2694 | 0.0106 | 1.008 | 1.614 | 0.942 | 0.015 | 0.773 | 0.715 | 5.81 | 5 | 7 | 9 | 1.954 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9806 | 0.0062 | 0.2664 | 0.0104 | 1.009 | 1.680 | 0.928 | 0.026 | 0.751 | 0.695 | 5.77 | 5 | 7 | 9 | 1.937 | 0.94 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9830 | 0.0180 | 0.2530 | 0.0028 | 1.007 | 1.585 | 0.937 | 0.024 | 0.712 | 0.698 | 5.66 | 4 | 6 | 7 | 1.959 | 0.96 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9706 | 0.0084 | 0.2436 | 0.0028 | 1.010 | 1.734 | 0.893 | 0.043 | 0.638 | 0.626 | 5.52 | 4 | 6 | 8 | 1.921 | 0.92 | 0.00 | 0.00 |
| | 300 | 0.9613 | 0.0055 | 0.2412 | 0.0028 | 1.012 | 1.827 | 0.869 | 0.041 | 0.607 | 0.598 | 5.46 | 4 | 6 | 7 | 1.901 | 0.90 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9876 | 0.1333 | 0.6723 | 0.6368 | 1.035 | 2.648 | 0.954 | 0.002 | 0.080 | 0.001 | 16.75 | 7 | 29 | 41 | - | - | - | - |
| | 200 | 0.9728 | 0.0831 | 0.7109 | 0.6814 | 1.048 | 3.022 | 0.899 | 0.002 | 0.069 | 0.000 | 20.18 | 7 | 37.5 | 63 | - | - | - | - |
| | 300 | 0.9649 | 0.0606 | 0.7257 | 0.6977 | 1.055 | 3.164 | 0.875 | 0.001 | 0.066 | 0.001 | 21.80 | 6 | 42 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9491 | 0.0352 | 0.3214 | 0.2940 | 1.023 | 2.160 | 0.840 | 0.137 | 0.009 | 0.000 | 7.18 | 3 | 14 | 35 | - | - | - | - |
| | 200 | 0.9286 | 0.0316 | 0.4344 | 0.4092 | 1.041 | 2.543 | 0.802 | 0.067 | 0.015 | 0.000 | 9.90 | 3 | 24 | 48 | - | - | - | - |
| | 300 | 0.9239 | 0.0266 | 0.4853 | 0.4615 | 1.050 | 2.744 | 0.782 | 0.051 | 0.016 | 0.000 | 11.56 | 3 | 28 | 67 | - | - | - | - |

Notes: See notes to Table 46.

## Table 378: MC findings for DGPIV(a)

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0221 | 0.2960 | 0.0146 | 1.004 | 1.442 | 1.000 | 0.000 | 0.999 | 0.891 | 6.12 | 6 | 7 | 9 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2964 | 0.0156 | 1.003 | 1.458 | 1.000 | 0.000 | 0.996 | 0.878 | 6.12 | 6 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2965 | 0.0161 | 1.003 | 1.448 | 1.000 | 0.000 | 0.994 | 0.875 | 6.13 | 6 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2907 | 0.0075 | 1.003 | 1.417 | 1.000 | 0.000 | 0.997 | 0.941 | 6.06 | 6 | 7 | 8 | 1.997 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0105 | 0.2909 | 0.0084 | 1.003 | 1.430 | 1.000 | 0.000 | 0.994 | 0.929 | 6.06 | 6 | 7 | 8 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0070 | 0.2912 | 0.0093 | 1.003 | 1.417 | 1.000 | 0.000 | 0.990 | 0.919 | 6.07 | 6 | 7 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0208 | 0.2852 | 0.0019 | 1.002 | 1.391 | 1.000 | 0.000 | 0.985 | 0.970 | 6.00 | 6 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0102 | 0.2846 | 0.0020 | 1.002 | 1.399 | 1.000 | 0.001 | 0.980 | 0.964 | 6.00 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2842 | 0.0025 | 1.002 | 1.380 | 1.000 | 0.000 | 0.972 | 0.954 | 5.99 | 6 | 6 | 7 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0220 | 0.2955 | 0.0139 | 1.003 | 1.436 | 1.000 | 0.000 | 0.999 | 0.895 | 6.11 | 6 | 7 | 9 | 1.990 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2959 | 0.0149 | 1.003 | 1.452 | 1.000 | 0.000 | 0.996 | 0.883 | 6.12 | 6 | 7 | 8 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2961 | 0.0155 | 1.003 | 1.443 | 1.000 | 0.000 | 0.994 | 0.879 | 6.12 | 6 | 7 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0214 | 0.2904 | 0.0070 | 1.003 | 1.414 | 1.000 | 0.000 | 0.997 | 0.944 | 6.05 | 6 | 7 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0105 | 0.2906 | 0.0079 | 1.003 | 1.425 | 1.000 | 0.000 | 0.994 | 0.932 | 6.06 | 6 | 7 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0070 | 0.2909 | 0.0088 | 1.003 | 1.416 | 1.000 | 0.000 | 0.990 | 0.922 | 6.06 | 6 | 7 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0208 | 0.2851 | 0.0018 | 1.002 | 1.390 | 1.000 | 0.000 | 0.985 | 0.971 | 6.00 | 6 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0102 | 0.2845 | 0.0018 | 1.002 | 1.405 | 0.999 | 0.001 | 0.979 | 0.965 | 5.99 | 6 | 6 | 7 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0067 | 0.2839 | 0.0020 | 1.002 | 1.382 | 0.999 | 0.000 | 0.971 | 0.956 | 5.99 | 6 | 6 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.1494 | 0.7074 | 0.6737 | 1.019 | 2.508 | 0.999 | 0.001 | 0.091 | 0.000 | 18.34 | 8 | 30 | 45 | - | - | - | - |
| | 200 | 0.9991 | 0.0962 | 0.7553 | 0.7295 | 1.026 | 2.873 | 0.997 | 0.001 | 0.079 | 0.000 | 22.85 | 10 | 39 | 67 | - | - | - | - |
| | 300 | 0.9994 | 0.0718 | 0.7742 | 0.7526 | 1.030 | 3.074 | 0.998 | 0.002 | 0.059 | 0.000 | 25.25 | 10 | 44 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9944 | 0.0302 | 0.2701 | 0.2491 | 1.009 | 1.740 | 0.980 | 0.267 | 0.008 | 0.001 | 6.88 | 4 | 15 | 37 | - | - | - | - |
| | 200 | 0.9950 | 0.0316 | 0.4047 | 0.3854 | 1.017 | 2.106 | 0.981 | 0.142 | 0.016 | 0.000 | 10.17 | 4 | 28 | 50 | - | - | - | - |
| | 300 | 0.9944 | 0.0297 | 0.4754 | 0.4589 | 1.025 | 2.413 | 0.978 | 0.112 | 0.012 | 0.000 | 12.78 | 4 | 34 | 59 | - | - | - | - |

Notes: See notes to Table 46.

## Table 379: MC findings for DGPIV(b)

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9613 | 0.0085 | 0.1285 | 0.0318 | 1.032 | 1.586 | 0.853 | 0.324 | 4.66 | 3 | 6 | 10 | 1.890 | 0.86 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9471 | 0.0039 | 0.1237 | 0.0403 | 1.041 | 1.700 | 0.808 | 0.337 | 4.56 | 3 | 6 | 8 | 1.857 | 0.82 | 0.04 | 0.00 |
| | 300 | 0.9325 | 0.0026 | 0.1218 | 0.0462 | 1.049 | 1.844 | 0.754 | 0.325 | 4.49 | 3 | 6 | 9 | 1.813 | 0.77 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 0.9509 | 0.0068 | 0.1056 | 0.0214 | 1.034 | 1.644 | 0.818 | 0.381 | 4.45 | 3 | 6 | 10 | 1.851 | 0.83 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9355 | 0.0030 | 0.0973 | 0.0250 | 1.042 | 1.747 | 0.772 | 0.393 | 4.33 | 3 | 6 | 7 | 1.809 | 0.79 | 0.02 | 0.00 |
| | 300 | 0.9218 | 0.0020 | 0.0961 | 0.0302 | 1.049 | 1.876 | 0.719 | 0.373 | 4.27 | 3 | 6 | 8 | 1.761 | 0.74 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.9204 | 0.0041 | 0.0677 | 0.0072 | 1.043 | 1.837 | 0.724 | 0.456 | 4.08 | 3 | 5 | 7 | 1.743 | 0.73 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8996 | 0.0017 | 0.0594 | 0.0097 | 1.053 | 1.952 | 0.663 | 0.454 | 3.94 | 3 | 5 | 7 | 1.691 | 0.67 | 0.02 | 0.00 |
| | 300 | 0.8845 | 0.0011 | 0.0553 | 0.0095 | 1.059 | 2.070 | 0.604 | 0.425 | 3.85 | 3 | 5 | 7 | 1.630 | 0.62 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9334 | 0.0079 | 0.1241 | 0.0253 | 1.043 | 1.794 | 0.745 | 0.292 | 4.50 | 3 | 6 | 10 | 1.754 | 0.75 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9135 | 0.0036 | 0.1184 | 0.0327 | 1.054 | 1.929 | 0.676 | 0.297 | 4.37 | 3 | 6 | 8 | 1.689 | 0.68 | 0.01 | 0.00 |
| | 300 | 0.8948 | 0.0023 | 0.1144 | 0.0362 | 1.063 | 2.068 | 0.605 | 0.284 | 4.26 | 3 | 6 | 8 | 1.621 | 0.61 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9231 | 0.0064 | 0.1022 | 0.0162 | 1.046 | 1.850 | 0.710 | 0.335 | 4.31 | 3 | 6 | 9 | 1.721 | 0.72 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8989 | 0.0028 | 0.0949 | 0.0205 | 1.059 | 2.004 | 0.629 | 0.329 | 4.15 | 3 | 5 | 7 | 1.645 | 0.64 | 0.01 | 0.00 |
| | 300 | 0.8815 | 0.0018 | 0.0919 | 0.0239 | 1.067 | 2.135 | 0.562 | 0.308 | 4.06 | 3 | 5 | 8 | 1.575 | 0.57 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8910 | 0.0040 | 0.0676 | 0.0057 | 1.057 | 2.046 | 0.610 | 0.383 | 3.95 | 3 | 5 | 7 | 1.621 | 0.62 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8651 | 0.0017 | 0.0583 | 0.0074 | 1.069 | 2.173 | 0.531 | 0.363 | 3.78 | 2 | 5 | 7 | 1.545 | 0.54 | 0.01 | 0.00 |
| | 300 | 0.8491 | 0.0010 | 0.0547 | 0.0077 | 1.076 | 2.294 | 0.469 | 0.335 | 3.70 | 2 | 5 | 7 | 1.483 | 0.48 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9608 | 0.0930 | 0.5672 | 0.5206 | 1.106 | 2.499 | 0.852 | 0.013 | 12.77 | 4 | 25 | 48 | - | - | - | - |
| | 200 | 0.9399 | 0.0624 | 0.6349 | 0.6058 | 1.130 | 2.669 | 0.779 | 0.007 | 15.98 | 4.5 | 33 | 60 | - | - | - | - |
| | 300 | 0.9240 | 0.0473 | 0.6622 | 0.6410 | 1.144 | 2.830 | 0.722 | 0.002 | 17.70 | 4 | 37 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8895 | 0.0261 | 0.2116 | 0.1933 | 1.100 | 2.547 | 0.681 | 0.212 | 6.07 | 2 | 16.5 | 45 | - | - | - | - |
| | 200 | 0.8760 | 0.0238 | 0.3126 | 0.2979 | 1.129 | 2.695 | 0.655 | 0.116 | 8.17 | 2 | 24 | 46 | - | - | - | - |
| | 300 | 0.8615 | 0.0207 | 0.3636 | 0.3512 | 1.148 | 2.881 | 0.605 | 0.081 | 9.58 | 2 | 28 | 48 | - | - | - | - |

Notes: See notes to Table 1.

## Table 380: MC findings for DGPIV(b)

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0154 | 0.2205 | 0.0190 | 1.004 | 1.251 | 1.000 | 0.006 | 5.48 | 5 | 7 | 9 | 2.011 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0074 | 0.2162 | 0.0231 | 1.005 | 1.261 | 1.000 | 0.012 | 5.45 | 5 | 7 | 10 | 2.018 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0047 | 0.2098 | 0.0214 | 1.004 | 1.262 | 1.000 | 0.015 | 5.39 | 5 | 7 | 9 | 2.011 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0139 | 0.2048 | 0.0104 | 1.004 | 1.222 | 1.000 | 0.011 | 5.34 | 5 | 6 | 9 | 2.010 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0066 | 0.2002 | 0.0142 | 1.004 | 1.222 | 1.000 | 0.020 | 5.30 | 5 | 6 | 8 | 2.014 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0043 | 0.1956 | 0.0125 | 1.004 | 1.224 | 1.000 | 0.024 | 5.26 | 5 | 6 | 8 | 2.007 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0119 | 0.1814 | 0.0029 | 1.003 | 1.173 | 1.000 | 0.033 | 5.14 | 5 | 6 | 8 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0056 | 0.1769 | 0.0040 | 1.002 | 1.165 | 1.000 | 0.040 | 5.10 | 5 | 6 | 7 | 2.004 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0036 | 0.1733 | 0.0032 | 1.002 | 1.175 | 1.000 | 0.053 | 5.08 | 4 | 6 | 7 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0152 | 0.2183 | 0.0164 | 1.004 | 1.232 | 1.000 | 0.006 | 5.46 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0072 | 0.2127 | 0.0189 | 1.004 | 1.230 | 1.000 | 0.012 | 5.41 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0046 | 0.2072 | 0.0184 | 1.004 | 1.241 | 1.000 | 0.015 | 5.36 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0137 | 0.2030 | 0.0082 | 1.003 | 1.207 | 1.000 | 0.011 | 5.32 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0065 | 0.1974 | 0.0109 | 1.003 | 1.198 | 1.000 | 0.020 | 5.28 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0042 | 0.1939 | 0.0104 | 1.003 | 1.215 | 0.999 | 0.024 | 5.24 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0118 | 0.1806 | 0.0020 | 1.002 | 1.176 | 0.999 | 0.033 | 5.13 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0056 | 0.1761 | 0.0030 | 1.002 | 1.163 | 0.999 | 0.040 | 5.10 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0036 | 0.1728 | 0.0026 | 1.002 | 1.182 | 0.998 | 0.054 | 5.07 | 4 | 6 | 7 | 1.998 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1157 | 0.6410 | 0.5888 | 1.030 | 2.259 | 1.000 | 0.007 | 15.11 | 7 | 27 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0742 | 0.6942 | 0.6631 | 1.039 | 2.469 | 1.000 | 0.005 | 18.54 | 8 | 34 | 58 | - | - | - | - |
| | 300 | 1.0000 | 0.0569 | 0.7213 | 0.6994 | 1.042 | 2.604 | 1.000 | 0.002 | 20.85 | 8 | 40 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9990 | 0.0278 | 0.1861 | 0.1694 | 1.018 | 1.813 | 0.997 | 0.614 | 6.66 | 4 | 18 | 30 | - | - | - | - |
| | 200 | 0.9986 | 0.0261 | 0.3012 | 0.2884 | 1.030 | 2.067 | 0.995 | 0.456 | 9.11 | 4 | 23 | 44 | - | - | - | - |
| | 300 | 0.9986 | 0.0242 | 0.3756 | 0.3647 | 1.039 | 2.287 | 0.995 | 0.384 | 11.16 | 4 | 27 | 47 | - | - | - | - |

Notes: See notes to Table 1.

## Table 381: MC findings for DGPIV(b)

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0191 | 0.2603 | 0.0169 | 1.003 | 1.286 | 1.000 | 0.000 | 5.84 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0088 | 0.2483 | 0.0166 | 1.002 | 1.275 | 1.000 | 0.000 | 5.72 | 5 | 7 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2418 | 0.0181 | 1.003 | 1.274 | 1.000 | 0.000 | 5.66 | 5 | 7 | 8 | 2.009 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0174 | 0.2430 | 0.0099 | 1.002 | 1.251 | 1.000 | 0.000 | 5.67 | 5 | 7 | 8 | 2.004 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0080 | 0.2329 | 0.0089 | 1.002 | 1.242 | 1.000 | 0.000 | 5.58 | 5 | 7 | 8 | 2.004 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0051 | 0.2258 | 0.0096 | 1.002 | 1.238 | 1.000 | 0.000 | 5.51 | 5 | 7 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0148 | 0.2152 | 0.0025 | 1.002 | 1.203 | 1.000 | 0.000 | 5.42 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0069 | 0.2083 | 0.0023 | 1.001 | 1.198 | 1.000 | 0.000 | 5.36 | 5 | 6 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2020 | 0.0022 | 1.002 | 1.190 | 1.000 | 0.001 | 5.30 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0189 | 0.2582 | 0.0144 | 1.003 | 1.263 | 1.000 | 0.000 | 5.81 | 5 | 7 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0087 | 0.2467 | 0.0145 | 1.002 | 1.256 | 1.000 | 0.000 | 5.71 | 5 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0055 | 0.2397 | 0.0154 | 1.003 | 1.249 | 1.000 | 0.000 | 5.64 | 5 | 7 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0173 | 0.2418 | 0.0084 | 1.002 | 1.238 | 1.000 | 0.000 | 5.66 | 5 | 7 | 8 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0080 | 0.2318 | 0.0075 | 1.002 | 1.226 | 1.000 | 0.000 | 5.56 | 5 | 7 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0051 | 0.2246 | 0.0081 | 1.002 | 1.222 | 1.000 | 0.000 | 5.50 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0147 | 0.2150 | 0.0021 | 1.002 | 1.199 | 1.000 | 0.000 | 5.41 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0069 | 0.2078 | 0.0016 | 1.001 | 1.190 | 1.000 | 0.000 | 5.35 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.2017 | 0.0018 | 1.002 | 1.186 | 1.000 | 0.001 | 5.30 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1198 | 0.6400 | 0.5881 | 1.017 | 2.185 | 1.000 | 0.007 | 15.50 | 7 | 27 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.0747 | 0.6956 | 0.6660 | 1.021 | 2.471 | 1.000 | 0.002 | 18.65 | 8 | 37.5 | 55 | - | - | - | - |
| | 300 | 1.0000 | 0.0556 | 0.7139 | 0.6917 | 1.024 | 2.592 | 1.000 | 0.001 | 20.45 | 8 | 38 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0307 | 0.2086 | 0.1925 | 1.010 | 1.688 | 1.000 | 0.632 | 6.94 | 4 | 17 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0247 | 0.3035 | 0.2914 | 1.015 | 1.946 | 1.000 | 0.500 | 8.85 | 4 | 22 | 38 | - | - | - | - |
| | 300 | 1.0000 | 0.0213 | 0.3709 | 0.3596 | 1.019 | 2.094 | 1.000 | 0.410 | 10.32 | 4 | 23 | 50 | - | - | - | - |

Notes: See notes to Table 1.

## Table 382: MC findings for DGPIV(b)

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8124 | 0.0063 | 0.1062 | 0.0384 | 1.051 | 1.857 | 0.351 | 0.176 | 3.85 | 2 | 6 | 8 | 1.389 | 0.38 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7730 | 0.0030 | 0.1080 | 0.0515 | 1.060 | 1.981 | 0.253 | 0.139 | 3.69 | 2 | 5 | 8 | 1.301 | 0.29 | 0.01 | 0.00 |
| | 300 | 0.7635 | 0.0018 | 0.0956 | 0.0490 | 1.060 | 2.035 | 0.232 | 0.129 | 3.58 | 2 | 5 | 8 | 1.276 | 0.26 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7876 | 0.0046 | 0.0812 | 0.0251 | 1.052 | 1.892 | 0.294 | 0.174 | 3.59 | 2 | 5 | 8 | 1.324 | 0.31 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7486 | 0.0021 | 0.0783 | 0.0323 | 1.059 | 1.997 | 0.203 | 0.130 | 3.41 | 2 | 5 | 8 | 1.239 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.7389 | 0.0013 | 0.0714 | 0.0331 | 1.060 | 2.065 | 0.176 | 0.118 | 3.33 | 2 | 5 | 7 | 1.208 | 0.20 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.7313 | 0.0023 | 0.0437 | 0.0087 | 1.056 | 1.992 | 0.188 | 0.141 | 3.15 | 2 | 5 | 7 | 1.206 | 0.20 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6951 | 0.0011 | 0.0426 | 0.0142 | 1.061 | 2.075 | 0.123 | 0.097 | 2.99 | 2 | 4 | 6 | 1.142 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.6841 | 0.0006 | 0.0356 | 0.0127 | 1.063 | 2.142 | 0.104 | 0.086 | 2.91 | 2 | 4 | 6 | 1.121 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7780 | 0.0059 | 0.1035 | 0.0339 | 1.056 | 1.947 | 0.219 | 0.116 | 3.68 | 2 | 5 | 8 | 1.232 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7419 | 0.0028 | 0.1030 | 0.0455 | 1.063 | 2.042 | 0.136 | 0.084 | 3.52 | 2 | 5 | 8 | 1.143 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.7324 | 0.0017 | 0.0923 | 0.0445 | 1.064 | 2.103 | 0.117 | 0.065 | 3.42 | 2 | 5 | 8 | 1.123 | 0.12 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7591 | 0.0043 | 0.0789 | 0.0217 | 1.056 | 1.964 | 0.185 | 0.111 | 3.45 | 2 | 5 | 7 | 1.196 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7239 | 0.0020 | 0.0750 | 0.0283 | 1.062 | 2.045 | 0.111 | 0.075 | 3.28 | 2 | 5 | 8 | 1.120 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.7158 | 0.0012 | 0.0694 | 0.0304 | 1.063 | 2.115 | 0.093 | 0.061 | 3.22 | 2 | 5 | 7 | 1.099 | 0.10 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7121 | 0.0022 | 0.0425 | 0.0069 | 1.059 | 2.036 | 0.116 | 0.090 | 3.06 | 2 | 4 | 7 | 1.120 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6800 | 0.0010 | 0.0413 | 0.0124 | 1.063 | 2.099 | 0.067 | 0.053 | 2.92 | 2 | 4 | 6 | 1.073 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.6695 | 0.0005 | 0.0340 | 0.0108 | 1.065 | 2.171 | 0.051 | 0.045 | 2.84 | 2 | 4 | 5 | 1.054 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8311 | 0.0694 | 0.5109 | 0.4645 | 1.087 | 2.182 | 0.442 | 0.006 | 9.99 | 3 | 21 | 43 | - | - | - | - |
| | 200 | 0.7849 | 0.0463 | 0.5808 | 0.5517 | 1.101 | 2.301 | 0.322 | 0.002 | 12.21 | 3 | 29 | 58 | - | - | - | - |
| | 300 | 0.7711 | 0.0365 | 0.6207 | 0.5985 | 1.108 | 2.413 | 0.281 | 0.001 | 13.88 | 3 | 33 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6889 | 0.0196 | 0.2113 | 0.1913 | 1.088 | 2.363 | 0.275 | 0.037 | 4.63 | 1 | 11 | 31 | - | - | - | - |
| | 200 | 0.6703 | 0.0175 | 0.3042 | 0.2882 | 1.107 | 2.508 | 0.220 | 0.020 | 6.11 | 1 | 17 | 45 | - | - | - | - |
| | 300 | 0.6686 | 0.0162 | 0.3526 | 0.3388 | 1.125 | 2.675 | 0.197 | 0.004 | 7.47 | 1 | 24 | 50 | - | - | - | - |

Notes: See notes to Table 1.

## Table 383: MC findings for DGPIV(b)

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9921 | 0.0131 | 0.1933 | 0.0179 | 1.006 | 1.335 | 0.969 | 0.062 | 5.22 | 4 | 6 | 9 | 1.971 | 0.97 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9846 | 0.0062 | 0.1885 | 0.0228 | 1.008 | 1.436 | 0.939 | 0.088 | 5.15 | 4 | 6 | 9 | 1.949 | 0.94 | 0.01 | 0.00 |
| | 300 | 0.9781 | 0.0039 | 0.1815 | 0.0241 | 1.010 | 1.530 | 0.913 | 0.093 | 5.06 | 4 | 6 | 9 | 1.924 | 0.91 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9884 | 0.0117 | 0.1773 | 0.0100 | 1.006 | 1.353 | 0.954 | 0.092 | 5.07 | 4 | 6 | 8 | 1.958 | 0.95 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9799 | 0.0054 | 0.1697 | 0.0137 | 1.008 | 1.452 | 0.920 | 0.128 | 4.98 | 4 | 6 | 8 | 1.928 | 0.92 | 0.01 | 0.00 |
| | 300 | 0.9751 | 0.0034 | 0.1632 | 0.0140 | 1.009 | 1.528 | 0.901 | 0.132 | 4.91 | 4 | 6 | 8 | 1.909 | 0.90 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9790 | 0.0094 | 0.1483 | 0.0027 | 1.007 | 1.433 | 0.916 | 0.167 | 4.82 | 4 | 6 | 7 | 1.919 | 0.92 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9699 | 0.0042 | 0.1371 | 0.0044 | 1.009 | 1.527 | 0.880 | 0.223 | 4.71 | 4 | 6 | 8 | 1.884 | 0.88 | 0.00 | 0.00 |
| | 300 | 0.9611 | 0.0027 | 0.1327 | 0.0038 | 1.011 | 1.645 | 0.845 | 0.224 | 4.64 | 4 | 5 | 7 | 1.847 | 0.85 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9786 | 0.0129 | 0.1935 | 0.0161 | 1.009 | 1.504 | 0.915 | 0.062 | 5.15 | 4 | 6 | 8 | 1.912 | 0.91 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9655 | 0.0061 | 0.1887 | 0.0203 | 1.012 | 1.646 | 0.862 | 0.085 | 5.06 | 4 | 6 | 9 | 1.863 | 0.86 | 0.00 | 0.00 |
| | 300 | 0.9559 | 0.0038 | 0.1815 | 0.0210 | 1.014 | 1.773 | 0.824 | 0.089 | 4.95 | 4 | 6 | 9 | 1.825 | 0.82 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9723 | 0.0116 | 0.1782 | 0.0088 | 1.009 | 1.557 | 0.889 | 0.084 | 5.00 | 4 | 6 | 8 | 1.890 | 0.89 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9599 | 0.0053 | 0.1705 | 0.0119 | 1.013 | 1.678 | 0.840 | 0.119 | 4.89 | 4 | 6 | 8 | 1.841 | 0.84 | 0.00 | 0.00 |
| | 300 | 0.9496 | 0.0034 | 0.1643 | 0.0120 | 1.015 | 1.812 | 0.799 | 0.118 | 4.79 | 4 | 6 | 8 | 1.800 | 0.80 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9570 | 0.0093 | 0.1502 | 0.0020 | 1.012 | 1.697 | 0.828 | 0.153 | 4.73 | 4 | 6 | 7 | 1.829 | 0.83 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9429 | 0.0042 | 0.1391 | 0.0037 | 1.015 | 1.823 | 0.772 | 0.198 | 4.59 | 3 | 6 | 8 | 1.773 | 0.77 | 0.00 | 0.00 |
| | 300 | 0.9305 | 0.0027 | 0.1352 | 0.0034 | 1.018 | 1.977 | 0.722 | 0.188 | 4.51 | 3 | 5 | 7 | 1.723 | 0.72 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9949 | 0.1064 | 0.6100 | 0.5610 | 1.030 | 2.310 | 0.981 | 0.016 | 14.19 | 6 | 26 | 51 | - | - | - | - |
| | 200 | 0.9884 | 0.0669 | 0.6604 | 0.6295 | 1.038 | 2.512 | 0.954 | 0.009 | 17.07 | 6 | 32 | 66 | - | - | - | - |
| | 300 | 0.9811 | 0.0495 | 0.6764 | 0.6552 | 1.045 | 2.733 | 0.926 | 0.008 | 18.58 | 6 | 37 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9691 | 0.0273 | 0.2116 | 0.1943 | 1.024 | 2.166 | 0.902 | 0.349 | 6.50 | 3 | 18 | 41 | - | - | - | - |
| | 200 | 0.9635 | 0.0254 | 0.3162 | 0.3029 | 1.036 | 2.383 | 0.880 | 0.237 | 8.84 | 3 | 24 | 57 | - | - | - | - |
| | 300 | 0.9551 | 0.0224 | 0.3680 | 0.3570 | 1.049 | 2.689 | 0.853 | 0.188 | 10.46 | 3 | 29 | 53 | - | - | - | - |

Notes: See notes to Table 1.

## Table 384: MC findings for DGPIV(b)

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0163 | 0.2303 | 0.0178 | 1.003 | 1.269 | 1.000 | 0.003 | 5.56 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0076 | 0.2229 | 0.0191 | 1.003 | 1.274 | 1.000 | 0.002 | 5.49 | 5 | 7 | 9 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9998 | 0.0049 | 0.2169 | 0.0190 | 1.003 | 1.270 | 0.999 | 0.006 | 5.44 | 5 | 7 | 9 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0148 | 0.2149 | 0.0104 | 1.002 | 1.235 | 1.000 | 0.006 | 5.42 | 5 | 6 | 8 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0069 | 0.2078 | 0.0099 | 1.002 | 1.227 | 1.000 | 0.005 | 5.36 | 5 | 6 | 8 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0044 | 0.2021 | 0.0101 | 1.002 | 1.231 | 0.998 | 0.009 | 5.31 | 5 | 6 | 8 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9995 | 0.0125 | 0.1900 | 0.0024 | 1.002 | 1.188 | 0.998 | 0.015 | 5.20 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9989 | 0.0060 | 0.1860 | 0.0023 | 1.002 | 1.196 | 0.996 | 0.019 | 5.17 | 5 | 6 | 7 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9986 | 0.0038 | 0.1810 | 0.0025 | 1.002 | 1.200 | 0.995 | 0.025 | 5.13 | 5 | 6 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9994 | 0.0161 | 0.2286 | 0.0155 | 1.003 | 1.265 | 0.998 | 0.003 | 5.54 | 5 | 7 | 9 | 1.996 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9988 | 0.0075 | 0.2210 | 0.0166 | 1.003 | 1.278 | 0.995 | 0.002 | 5.47 | 5 | 7 | 9 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9980 | 0.0048 | 0.2157 | 0.0173 | 1.003 | 1.292 | 0.992 | 0.006 | 5.42 | 5 | 7 | 9 | 1.994 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9991 | 0.0147 | 0.2141 | 0.0092 | 1.002 | 1.241 | 0.997 | 0.006 | 5.41 | 5 | 6 | 8 | 1.996 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9978 | 0.0069 | 0.2072 | 0.0087 | 1.003 | 1.266 | 0.991 | 0.005 | 5.34 | 5 | 6 | 8 | 1.991 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9973 | 0.0044 | 0.2014 | 0.0089 | 1.003 | 1.271 | 0.989 | 0.009 | 5.29 | 5 | 6 | 8 | 1.990 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9969 | 0.0125 | 0.1901 | 0.0021 | 1.002 | 1.248 | 0.988 | 0.015 | 5.19 | 5 | 6 | 8 | 1.987 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9956 | 0.0060 | 0.1861 | 0.0019 | 1.002 | 1.271 | 0.983 | 0.019 | 5.15 | 5 | 6 | 7 | 1.983 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9941 | 0.0038 | 0.1814 | 0.0023 | 1.003 | 1.301 | 0.977 | 0.024 | 5.11 | 5 | 6 | 8 | 1.977 | 0.98 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1161 | 0.6421 | 0.5922 | 1.016 | 2.232 | 1.000 | 0.005 | 15.15 | 7 | 26 | 47 | - | - | - | - |
| | 200 | 0.9999 | 0.0737 | 0.6927 | 0.6610 | 1.021 | 2.433 | 1.000 | 0.005 | 18.44 | 8 | 34 | 78 | - | - | - | - |
| | 300 | 0.9995 | 0.0547 | 0.7123 | 0.6903 | 1.024 | 2.551 | 0.998 | 0.004 | 20.20 | 8 | 37 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9978 | 0.0283 | 0.1893 | 0.1753 | 1.010 | 1.861 | 0.992 | 0.567 | 6.71 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.9975 | 0.0284 | 0.3101 | 0.2964 | 1.019 | 2.149 | 0.991 | 0.406 | 9.56 | 4 | 25 | 55 | - | - | - | - |
| | 300 | 0.9970 | 0.0260 | 0.3952 | 0.3820 | 1.027 | 2.405 | 0.991 | 0.319 | 11.69 | 4 | 28 | 56 | - | - | - | - |

Notes: See notes to Table 1.

## Table 385: MC findings for DGPIV(b)

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6089 | 0.0042 | 0.0838 | 0.0477 | 1.043 | 1.686 | 0.044 | 0.030 | 2.84 | 1 | 5 | 8 | 1.074 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5659 | 0.0021 | 0.0895 | 0.0618 | 1.050 | 1.785 | 0.023 | 0.014 | 2.67 | 1 | 4.5 | 8 | 1.051 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.5476 | 0.0014 | 0.0939 | 0.0684 | 1.057 | 1.832 | 0.019 | 0.010 | 2.61 | 1 | 4 | 7 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5728 | 0.0028 | 0.0586 | 0.0310 | 1.043 | 1.691 | 0.030 | 0.022 | 2.56 | 1 | 4 | 7 | 1.053 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5293 | 0.0014 | 0.0645 | 0.0419 | 1.050 | 1.791 | 0.017 | 0.011 | 2.39 | 0 | 4 | 7 | 1.035 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.5120 | 0.0009 | 0.0627 | 0.0440 | 1.055 | 1.827 | 0.014 | 0.009 | 2.31 | 0 | 4 | 6 | 1.032 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4894 | 0.0013 | 0.0296 | 0.0123 | 1.049 | 1.760 | 0.013 | 0.011 | 2.08 | 0 | 4 | 5 | 1.026 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4465 | 0.0006 | 0.0293 | 0.0172 | 1.055 | 1.850 | 0.005 | 0.003 | 1.90 | 0 | 3 | 5 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4331 | 0.0004 | 0.0297 | 0.0192 | 1.061 | 1.881 | 0.006 | 0.005 | 1.85 | 0 | 3 | 5 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.6018 | 0.0039 | 0.0801 | 0.0438 | 1.042 | 1.675 | 0.020 | 0.014 | 2.79 | 1 | 4 | 8 | 1.025 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5605 | 0.0020 | 0.0860 | 0.0582 | 1.049 | 1.773 | 0.009 | 0.006 | 2.63 | 1 | 4 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5429 | 0.0013 | 0.0895 | 0.0638 | 1.055 | 1.814 | 0.005 | 0.002 | 2.57 | 1 | 4 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5671 | 0.0026 | 0.0558 | 0.0283 | 1.042 | 1.680 | 0.012 | 0.009 | 2.52 | 1 | 4 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5251 | 0.0013 | 0.0620 | 0.0392 | 1.049 | 1.782 | 0.006 | 0.003 | 2.36 | 0 | 4 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.5084 | 0.0009 | 0.0609 | 0.0420 | 1.054 | 1.818 | 0.004 | 0.002 | 2.29 | 0 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4865 | 0.0012 | 0.0279 | 0.0105 | 1.048 | 1.754 | 0.005 | 0.004 | 2.06 | 0 | 4 | 5 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4456 | 0.0005 | 0.0275 | 0.0153 | 1.054 | 1.843 | 0.003 | 0.002 | 1.89 | 0 | 3 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4315 | 0.0004 | 0.0283 | 0.0177 | 1.061 | 1.876 | 0.001 | 0.001 | 1.83 | 0 | 3 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6589 | 0.0569 | 0.4951 | 0.4484 | 1.056 | 1.731 | 0.123 | 0.002 | 8.10 | 2 | 19 | 40 | - | - | - | - |
| | 200 | 0.6156 | 0.0391 | 0.5853 | 0.5561 | 1.065 | 1.827 | 0.065 | 0.000 | 10.14 | 2 | 23 | 62 | - | - | - | - |
| | 300 | 0.6031 | 0.0325 | 0.6222 | 0.5986 | 1.074 | 1.880 | 0.049 | 0.000 | 12.03 | 2 | 29 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5009 | 0.0193 | 0.2512 | 0.2263 | 1.061 | 1.940 | 0.053 | 0.003 | 3.85 | 1 | 10 | 27 | - | - | - | - |
| | 200 | 0.4806 | 0.0154 | 0.3441 | 0.3256 | 1.079 | 2.108 | 0.029 | 0.001 | 4.94 | 1 | 14 | 58 | - | - | - | - |
| | 300 | 0.4835 | 0.0148 | 0.4091 | 0.3921 | 1.096 | 2.234 | 0.027 | 0.000 | 6.31 | 1 | 19 | 65 | - | - | - | - |

Notes: See notes to Table 1.

**Table 386: MC findings for DGPIV(b)**

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8815 | 0.0090 | 0.1468 | 0.0207 | 1.016 | 1.823 | 0.527 | 0.165 | 4.39 | 3 | 6 | 9 | 1.531 | 0.53 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8624 | 0.0041 | 0.1373 | 0.0233 | 1.018 | 1.895 | 0.459 | 0.165 | 4.24 | 3 | 6 | 8 | 1.468 | 0.47 | 0.00 | 0.00 |
| | 300 | 0.8451 | 0.0025 | 0.1315 | 0.0283 | 1.018 | 1.976 | 0.395 | 0.156 | 4.13 | 3 | 6 | 8 | 1.403 | 0.40 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8661 | 0.0072 | 0.1212 | 0.0121 | 1.016 | 1.863 | 0.468 | 0.186 | 4.16 | 3 | 5 | 8 | 1.475 | 0.47 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8454 | 0.0033 | 0.1160 | 0.0145 | 1.019 | 1.935 | 0.398 | 0.178 | 4.03 | 3 | 5 | 7 | 1.407 | 0.41 | 0.00 | 0.00 |
| | 300 | 0.8308 | 0.0020 | 0.1068 | 0.0161 | 1.018 | 1.994 | 0.342 | 0.168 | 3.92 | 3 | 5 | 7 | 1.350 | 0.35 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8283 | 0.0048 | 0.0844 | 0.0033 | 1.019 | 1.983 | 0.338 | 0.196 | 3.77 | 3 | 5 | 7 | 1.342 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8140 | 0.0022 | 0.0789 | 0.0044 | 1.020 | 2.013 | 0.289 | 0.176 | 3.68 | 3 | 5 | 6 | 1.295 | 0.29 | 0.00 | 0.00 |
| | 300 | 0.7985 | 0.0012 | 0.0685 | 0.0054 | 1.020 | 2.065 | 0.233 | 0.151 | 3.56 | 3 | 5 | 6 | 1.236 | 0.24 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8361 | 0.0090 | 0.1503 | 0.0204 | 1.020 | 2.023 | 0.347 | 0.111 | 4.20 | 3 | 6 | 8 | 1.345 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8154 | 0.0040 | 0.1401 | 0.0223 | 1.023 | 2.080 | 0.272 | 0.099 | 4.05 | 3 | 5 | 8 | 1.273 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.7965 | 0.0025 | 0.1340 | 0.0274 | 1.023 | 2.158 | 0.201 | 0.078 | 3.93 | 3 | 5 | 7 | 1.200 | 0.20 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8223 | 0.0072 | 0.1242 | 0.0116 | 1.020 | 2.051 | 0.295 | 0.121 | 3.98 | 3 | 5 | 7 | 1.296 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8021 | 0.0033 | 0.1181 | 0.0134 | 1.023 | 2.100 | 0.228 | 0.104 | 3.85 | 3 | 5 | 7 | 1.229 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.7879 | 0.0020 | 0.1085 | 0.0152 | 1.022 | 2.150 | 0.171 | 0.083 | 3.74 | 3 | 5 | 7 | 1.171 | 0.17 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7911 | 0.0048 | 0.0864 | 0.0033 | 1.022 | 2.133 | 0.191 | 0.113 | 3.62 | 3 | 5 | 7 | 1.193 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7770 | 0.0021 | 0.0808 | 0.0041 | 1.023 | 2.146 | 0.144 | 0.093 | 3.53 | 3 | 5 | 6 | 1.145 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.7671 | 0.0012 | 0.0693 | 0.0049 | 1.022 | 2.175 | 0.108 | 0.066 | 3.43 | 3 | 5 | 6 | 1.108 | 0.11 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9083 | 0.0797 | 0.5344 | 0.4889 | 1.029 | 2.270 | 0.676 | 0.009 | 11.29 | 3 | 23 | 40 | - | - | - | - |
| | 200 | 0.8713 | 0.0469 | 0.5701 | 0.5395 | 1.036 | 2.384 | 0.545 | 0.004 | 12.68 | 3 | 28 | 47 | - | - | - | - |
| | 300 | 0.8480 | 0.0345 | 0.5928 | 0.5707 | 1.037 | 2.483 | 0.478 | 0.002 | 13.60 | 3 | 31 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7980 | 0.0222 | 0.2158 | 0.1977 | 1.029 | 2.395 | 0.472 | 0.080 | 5.33 | 2 | 13 | 31 | - | - | - | - |
| | 200 | 0.7758 | 0.0173 | 0.2799 | 0.2647 | 1.038 | 2.540 | 0.405 | 0.042 | 6.50 | 2 | 18 | 42 | - | - | - | - |
| | 300 | 0.7545 | 0.0152 | 0.3255 | 0.3142 | 1.045 | 2.724 | 0.352 | 0.028 | 7.52 | 2 | 23 | 51 | - | - | - | - |

Notes: See notes to Table 1.

## Table 387: MC findings for DGPIV(b)

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | FDR* | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_k$ | $\hat{\pi}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9666 | 0.0132 | 0.1976 | 0.0185 | 1.006 | 1.544 | 0.867 | 0.055 | 5.13 | 4 | 6 | 8 | 1.869 | 0.87 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9536 | 0.0059 | 0.1845 | 0.0184 | 1.007 | 1.652 | 0.815 | 0.081 | 4.96 | 4 | 6 | 9 | 1.820 | 0.82 | 0.00 | 0.00 |
| | 300 | 0.9448 | 0.0038 | 0.1833 | 0.0209 | 1.008 | 1.744 | 0.779 | 0.091 | 4.92 | 4 | 6 | 8 | 1.782 | 0.78 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9581 | 0.0116 | 0.1801 | 0.0103 | 1.006 | 1.584 | 0.833 | 0.086 | 4.95 | 4 | 6 | 8 | 1.834 | 0.83 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9440 | 0.0052 | 0.1678 | 0.0102 | 1.007 | 1.693 | 0.776 | 0.109 | 4.79 | 4 | 6 | 9 | 1.779 | 0.78 | 0.00 | 0.00 |
| | 300 | 0.9356 | 0.0033 | 0.1648 | 0.0120 | 1.008 | 1.779 | 0.743 | 0.121 | 4.73 | 4 | 6 | 8 | 1.747 | 0.74 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9345 | 0.0091 | 0.1481 | 0.0020 | 1.007 | 1.723 | 0.738 | 0.158 | 4.61 | 3 | 6 | 7 | 1.737 | 0.74 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9188 | 0.0041 | 0.1383 | 0.0024 | 1.009 | 1.847 | 0.675 | 0.178 | 4.47 | 3 | 5 | 7 | 1.676 | 0.68 | 0.00 | 0.00 |
| | 300 | 0.9095 | 0.0026 | 0.1338 | 0.0032 | 1.010 | 1.931 | 0.639 | 0.173 | 4.41 | 3 | 5 | 7 | 1.641 | 0.64 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9340 | 0.0130 | 0.2007 | 0.0170 | 1.009 | 1.797 | 0.736 | 0.047 | 4.99 | 4 | 6 | 8 | 1.734 | 0.73 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9110 | 0.0058 | 0.1891 | 0.0176 | 1.011 | 1.972 | 0.644 | 0.066 | 4.79 | 4 | 6 | 9 | 1.644 | 0.64 | 0.00 | 0.00 |
| | 300 | 0.9024 | 0.0038 | 0.1873 | 0.0198 | 1.012 | 2.054 | 0.610 | 0.065 | 4.74 | 3 | 6 | 8 | 1.610 | 0.61 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9230 | 0.0116 | 0.1840 | 0.0097 | 1.009 | 1.854 | 0.692 | 0.075 | 4.80 | 4 | 6 | 8 | 1.691 | 0.69 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8991 | 0.0052 | 0.1727 | 0.0096 | 1.012 | 2.025 | 0.597 | 0.087 | 4.61 | 3 | 6 | 9 | 1.596 | 0.60 | 0.00 | 0.00 |
| | 300 | 0.8911 | 0.0033 | 0.1692 | 0.0115 | 1.012 | 2.102 | 0.565 | 0.088 | 4.55 | 3 | 6 | 7 | 1.565 | 0.56 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8951 | 0.0091 | 0.1522 | 0.0020 | 1.011 | 2.014 | 0.581 | 0.122 | 4.45 | 3 | 6 | 7 | 1.580 | 0.58 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8719 | 0.0040 | 0.1425 | 0.0021 | 1.014 | 2.175 | 0.488 | 0.124 | 4.28 | 3 | 5 | 7 | 1.488 | 0.49 | 0.00 | 0.00 |
| | 300 | 0.8616 | 0.0026 | 0.1380 | 0.0029 | 1.015 | 2.252 | 0.447 | 0.115 | 4.21 | 3 | 5 | 7 | 1.448 | 0.45 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9843 | 0.1014 | 0.5926 | 0.5416 | 1.018 | 2.254 | 0.940 | 0.015 | 13.67 | 5 | 25 | 46 | - | - | - | - |
| | 200 | 0.9656 | 0.0597 | 0.6283 | 0.5991 | 1.022 | 2.503 | 0.870 | 0.004 | 15.57 | 5 | 31 | 60 | - | - | - | - |
| | 300 | 0.9605 | 0.0438 | 0.6462 | 0.6248 | 1.024 | 2.634 | 0.847 | 0.004 | 16.82 | 5 | 34 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9335 | 0.0264 | 0.2197 | 0.2012 | 1.016 | 2.219 | 0.804 | 0.254 | 6.27 | 2 | 16 | 34 | - | - | - | - |
| | 200 | 0.9144 | 0.0241 | 0.3153 | 0.3019 | 1.023 | 2.535 | 0.742 | 0.138 | 8.38 | 2 | 24 | 52 | - | - | - | - |
| | 300 | 0.9103 | 0.0211 | 0.3711 | 0.3587 | 1.030 | 2.763 | 0.733 | 0.104 | 9.89 | 2 | 28 | 56 | - | - | - | - |

Notes: See notes to Table 1.

### 4.1.5 Findings for designs featuring many signals

## Table 388: MC findings for DGPV

$T = 100$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2785 | 0.0026 | 0.0442 | 0.0442 | 0.975 | 0.662 | 0.000 | 3.29 | 2 | 5 | 8 | 1.067 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2680 | 0.0016 | 0.0576 | 0.0576 | 0.981 | 0.686 | 0.000 | 3.25 | 2 | 5 | 9 | 1.079 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.2592 | 0.0010 | 0.0593 | 0.0593 | 0.983 | 0.683 | 0.000 | 3.15 | 2 | 5 | 8 | 1.067 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2661 | 0.0016 | 0.0288 | 0.0288 | 0.974 | 0.644 | 0.000 | 3.07 | 2 | 5 | 8 | 1.051 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2566 | 0.0010 | 0.0373 | 0.0373 | 0.978 | 0.655 | 0.000 | 3.01 | 2 | 4 | 6 | 1.060 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.2491 | 0.0007 | 0.0399 | 0.0399 | 0.979 | 0.656 | 0.000 | 2.93 | 2 | 4 | 6 | 1.047 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2407 | 0.0005 | 0.0099 | 0.0099 | 0.972 | 0.616 | 0.000 | 2.69 | 2 | 4 | 6 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2365 | 0.0004 | 0.0146 | 0.0146 | 0.974 | 0.620 | 0.000 | 2.67 | 2 | 4 | 6 | 1.031 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2290 | 0.0003 | 0.0164 | 0.0164 | 0.976 | 0.628 | 0.000 | 2.59 | 2 | 4 | 6 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2769 | 0.0022 | 0.0375 | 0.0375 | 0.973 | 0.638 | 0.000 | 3.24 | 2 | 5 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2670 | 0.0013 | 0.0481 | 0.0481 | 0.977 | 0.654 | 0.000 | 3.18 | 2 | 5 | 7 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2587 | 0.0009 | 0.0503 | 0.0503 | 0.979 | 0.652 | 0.000 | 3.10 | 2 | 5 | 7 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2648 | 0.0013 | 0.0242 | 0.0242 | 0.972 | 0.625 | 0.000 | 3.03 | 2 | 4 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2557 | 0.0008 | 0.0307 | 0.0307 | 0.975 | 0.631 | 0.000 | 2.96 | 2 | 4 | 6 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2489 | 0.0006 | 0.0335 | 0.0335 | 0.977 | 0.636 | 0.000 | 2.90 | 2 | 4 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2399 | 0.0004 | 0.0077 | 0.0077 | 0.971 | 0.605 | 0.000 | 2.67 | 2 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2360 | 0.0003 | 0.0106 | 0.0106 | 0.972 | 0.604 | 0.000 | 2.65 | 2 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2287 | 0.0002 | 0.0129 | 0.0129 | 0.975 | 0.613 | 0.000 | 2.57 | 2 | 4 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3186 | 0.0464 | 0.3788 | 0.3788 | 1.003 | 0.714 | 0.000 | 7.63 | 2 | 17 | 36 | - | - | - | - |
| | 200 | 0.3089 | 0.0350 | 0.4821 | 0.4821 | 1.013 | 0.755 | 0.000 | 10.02 | 2 | 23 | 63 | - | - | - | - |
| | 300 | 0.2975 | 0.0277 | 0.5352 | 0.5352 | 1.019 | 0.777 | 0.000 | 11.27 | 3 | 27 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1780 | 0.0101 | 0.0929 | 0.0929 | 1.012 | 0.820 | 0.000 | 2.86 | 1 | 10 | 31 | - | - | - | - |
| | 200 | 0.1874 | 0.0107 | 0.1633 | 0.1633 | 1.026 | 0.907 | 0.000 | 4.09 | 1 | 16 | 36 | - | - | - | - |
| | 300 | 0.1890 | 0.0091 | 0.1990 | 0.1990 | 1.034 | 0.941 | 0.000 | 4.70 | 1 | 18 | 40 | - | - | - | - |

Notes: See notes to Table 91.

## Table 389: MC findings for DGPV

$T = 300$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3767 | 0.0018 | 0.0250 | 0.0250 | 0.995 | 0.744 | 0.000 | 4.30 | 3 | 6 | 8 | 1.044 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3645 | 0.0009 | 0.0278 | 0.0278 | 0.997 | 0.752 | 0.000 | 4.18 | 3 | 6 | 9 | 1.037 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.3567 | 0.0006 | 0.0305 | 0.0305 | 0.997 | 0.758 | 0.000 | 4.11 | 3 | 6 | 8 | 1.035 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3646 | 0.0010 | 0.0152 | 0.0152 | 0.994 | 0.728 | 0.000 | 4.10 | 3 | 5 | 8 | 1.031 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3530 | 0.0005 | 0.0174 | 0.0174 | 0.996 | 0.736 | 0.000 | 3.99 | 3 | 5 | 8 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.3467 | 0.0004 | 0.0182 | 0.0182 | 0.997 | 0.741 | 0.000 | 3.92 | 3 | 5 | 7 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3400 | 0.0003 | 0.0051 | 0.0051 | 0.994 | 0.711 | 0.000 | 3.77 | 3 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3290 | 0.0002 | 0.0052 | 0.0052 | 0.996 | 0.716 | 0.000 | 3.65 | 3 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3251 | 0.0001 | 0.0059 | 0.0059 | 0.996 | 0.719 | 0.000 | 3.61 | 3 | 5 | 6 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3755 | 0.0015 | 0.0220 | 0.0220 | 0.994 | 0.729 | 0.000 | 4.27 | 3 | 6 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3636 | 0.0008 | 0.0242 | 0.0242 | 0.996 | 0.733 | 0.000 | 4.15 | 3 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3561 | 0.0006 | 0.0264 | 0.0264 | 0.997 | 0.739 | 0.000 | 4.08 | 3 | 6 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3638 | 0.0009 | 0.0129 | 0.0129 | 0.994 | 0.715 | 0.000 | 4.08 | 3 | 5 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3522 | 0.0005 | 0.0147 | 0.0147 | 0.995 | 0.721 | 0.000 | 3.96 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3463 | 0.0003 | 0.0153 | 0.0153 | 0.996 | 0.726 | 0.000 | 3.90 | 3 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3394 | 0.0002 | 0.0039 | 0.0039 | 0.994 | 0.701 | 0.000 | 3.76 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3286 | 0.0001 | 0.0044 | 0.0044 | 0.995 | 0.710 | 0.000 | 3.64 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3248 | 0.0001 | 0.0048 | 0.0048 | 0.996 | 0.711 | 0.000 | 3.60 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4338 | 0.0551 | 0.3804 | 0.3804 | 1.006 | 0.810 | 0.000 | 9.68 | 4 | 19 | 38 | - | - | - | - |
| | 200 | 0.4124 | 0.0336 | 0.4379 | 0.4379 | 1.010 | 0.841 | 0.000 | 10.88 | 4 | 23 | 60 | - | - | - | - |
| | 300 | 0.3980 | 0.0263 | 0.4862 | 0.4862 | 1.014 | 0.865 | 0.000 | 11.98 | 4 | 26 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2820 | 0.0180 | 0.1557 | 0.1557 | 1.021 | 1.099 | 0.000 | 4.70 | 1 | 12 | 23 | - | - | - | - |
| | 200 | 0.2785 | 0.0123 | 0.2023 | 0.2023 | 1.025 | 1.156 | 0.000 | 5.38 | 1 | 14 | 42 | - | - | - | - |
| | 300 | 0.2858 | 0.0109 | 0.2560 | 0.2560 | 1.028 | 1.194 | 0.000 | 6.28 | 1 | 16 | 37 | - | - | - | - |

Notes: See notes to Table 91.

**Table 390: MC findings for DGPV**

$T = 500$, $R^2 = 70\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4317 | 0.0015 | 0.0195 | 0.0195 | 0.998 | 0.789 | 0.000 | 4.88 | 4 | 6 | 9 | 1.033 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4157 | 0.0007 | 0.0211 | 0.0211 | 0.999 | 0.784 | 0.000 | 4.71 | 4 | 6 | 9 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.4113 | 0.0005 | 0.0228 | 0.0228 | 0.999 | 0.794 | 0.000 | 4.67 | 4 | 6 | 9 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4168 | 0.0008 | 0.0112 | 0.0112 | 0.998 | 0.776 | 0.000 | 4.66 | 4 | 6 | 9 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4030 | 0.0005 | 0.0132 | 0.0132 | 0.999 | 0.773 | 0.000 | 4.52 | 4 | 6 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3998 | 0.0003 | 0.0131 | 0.0131 | 0.999 | 0.779 | 0.000 | 4.48 | 3.5 | 6 | 8 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3902 | 0.0002 | 0.0031 | 0.0031 | 0.998 | 0.759 | 0.000 | 4.31 | 3 | 5 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3787 | 0.0001 | 0.0034 | 0.0034 | 0.999 | 0.756 | 0.000 | 4.19 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3775 | 0.0001 | 0.0031 | 0.0031 | 0.999 | 0.762 | 0.000 | 4.17 | 3 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4308 | 0.0013 | 0.0170 | 0.0170 | 0.998 | 0.775 | 0.000 | 4.86 | 4 | 6 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4153 | 0.0006 | 0.0182 | 0.0182 | 0.998 | 0.769 | 0.000 | 4.69 | 4 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4105 | 0.0005 | 0.0198 | 0.0198 | 0.998 | 0.777 | 0.000 | 4.65 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4160 | 0.0007 | 0.0095 | 0.0095 | 0.998 | 0.765 | 0.000 | 4.64 | 4 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4027 | 0.0004 | 0.0113 | 0.0113 | 0.998 | 0.763 | 0.000 | 4.50 | 4 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3993 | 0.0002 | 0.0112 | 0.0112 | 0.998 | 0.767 | 0.000 | 4.46 | 3 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3897 | 0.0002 | 0.0026 | 0.0026 | 0.998 | 0.755 | 0.000 | 4.30 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3785 | 0.0001 | 0.0031 | 0.0031 | 0.999 | 0.753 | 0.000 | 4.18 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3772 | 0.0001 | 0.0025 | 0.0025 | 0.999 | 0.757 | 0.000 | 4.16 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.4937 | 0.0627 | 0.3852 | 0.3852 | 1.006 | 0.857 | 0.000 | 11.01 | 4 | 21 | 35 | - | - | - | - |
| | 200 | 0.4683 | 0.0374 | 0.4424 | 0.4424 | 1.008 | 0.883 | 0.000 | 12.21 | 4 | 28 | 47 | - | - | - | - |
| | 300 | 0.4538 | 0.0268 | 0.4641 | 0.4641 | 1.008 | 0.907 | 0.000 | 12.73 | 4 | 26 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3599 | 0.0210 | 0.1932 | 0.1932 | 1.012 | 1.092 | 0.000 | 5.83 | 2 | 12 | 20 | - | - | - | - |
| | 200 | 0.3515 | 0.0131 | 0.2375 | 0.2375 | 1.013 | 1.135 | 0.000 | 6.34 | 2 | 13 | 26 | - | - | - | - |
| | 300 | 0.3502 | 0.0095 | 0.2563 | 0.2563 | 1.014 | 1.167 | 0.000 | 6.61 | 2 | 14 | 30 | - | - | - | - |

Notes: See notes to Table 91.

**Table 391: MC findings for DGPV**

$T = 100$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2438 | 0.0026 | 0.0470 | 0.0470 | 0.970 | 0.606 | 0.000 | 2.91 | 2 | 5 | 7 | 1.041 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2307 | 0.0015 | 0.0602 | 0.0602 | 0.976 | 0.632 | 0.000 | 2.82 | 2 | 4 | 7 | 1.053 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2230 | 0.0012 | 0.0714 | 0.0714 | 0.977 | 0.650 | 0.000 | 2.79 | 2 | 4 | 7 | 1.051 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2311 | 0.0016 | 0.0305 | 0.0305 | 0.967 | 0.574 | 0.000 | 2.68 | 2 | 4 | 6 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2203 | 0.0010 | 0.0405 | 0.0405 | 0.973 | 0.600 | 0.000 | 2.60 | 2 | 4 | 7 | 1.035 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2125 | 0.0008 | 0.0493 | 0.0493 | 0.973 | 0.615 | 0.000 | 2.56 | 2 | 4 | 6 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2076 | 0.0005 | 0.0104 | 0.0104 | 0.965 | 0.541 | 0.000 | 2.33 | 1 | 3 | 5 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1999 | 0.0004 | 0.0171 | 0.0171 | 0.969 | 0.555 | 0.000 | 2.27 | 1 | 3 | 6 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.1952 | 0.0003 | 0.0188 | 0.0188 | 0.967 | 0.559 | 0.000 | 2.23 | 1 | 3 | 6 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2433 | 0.0022 | 0.0408 | 0.0408 | 0.968 | 0.587 | 0.000 | 2.88 | 2 | 4 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2301 | 0.0013 | 0.0523 | 0.0523 | 0.973 | 0.605 | 0.000 | 2.78 | 2 | 4 | 7 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2228 | 0.0010 | 0.0627 | 0.0627 | 0.973 | 0.622 | 0.000 | 2.74 | 2 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2308 | 0.0013 | 0.0261 | 0.0261 | 0.966 | 0.560 | 0.000 | 2.66 | 2 | 4 | 6 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2199 | 0.0008 | 0.0356 | 0.0356 | 0.971 | 0.582 | 0.000 | 2.58 | 2 | 4 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2124 | 0.0006 | 0.0414 | 0.0414 | 0.970 | 0.589 | 0.000 | 2.52 | 2 | 4 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2074 | 0.0004 | 0.0081 | 0.0081 | 0.964 | 0.531 | 0.000 | 2.32 | 1 | 3 | 5 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1998 | 0.0003 | 0.0147 | 0.0147 | 0.968 | 0.546 | 0.000 | 2.26 | 1 | 3 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1951 | 0.0002 | 0.0151 | 0.0151 | 0.965 | 0.546 | 0.000 | 2.21 | 1 | 3 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2575 | 0.0446 | 0.4014 | 0.4014 | 0.994 | 0.652 | 0.000 | 6.80 | 2 | 15 | 36 | - | - | - | - |
| | 200 | 0.2422 | 0.0324 | 0.5036 | 0.5036 | 1.003 | 0.694 | 0.000 | 8.79 | 2 | 22 | 49 | - | - | - | - |
| | 300 | 0.2324 | 0.0267 | 0.5497 | 0.5497 | 1.007 | 0.714 | 0.000 | 10.29 | 2 | 26 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1451 | 0.0090 | 0.1108 | 0.1108 | 0.987 | 0.646 | 0.000 | 2.40 | 1 | 7 | 34 | - | - | - | - |
| | 200 | 0.1509 | 0.0082 | 0.1817 | 0.1817 | 0.997 | 0.723 | 0.000 | 3.21 | 1 | 12 | 43 | - | - | - | - |
| | 300 | 0.1520 | 0.0087 | 0.2283 | 0.2283 | 1.006 | 0.794 | 0.000 | 4.19 | 1 | 17.5 | 43 | - | - | - | - |

Notes: See notes to Table 91.

## Table 392: MC findings for DGPV

$T = 300$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | **OCMT method** | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3424 | 0.0016 | 0.0238 | 0.0238 | 0.993 | 0.679 | 0.000 | 3.91 | 3 | 6 | 8 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3308 | 0.0008 | 0.0271 | 0.0271 | 0.993 | 0.688 | 0.000 | 3.79 | 3 | 5 | 7 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3235 | 0.0006 | 0.0287 | 0.0287 | 0.993 | 0.691 | 0.000 | 3.72 | 3 | 5 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3304 | 0.0010 | 0.0147 | 0.0147 | 0.992 | 0.658 | 0.000 | 3.72 | 3 | 5 | 8 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3209 | 0.0005 | 0.0166 | 0.0166 | 0.992 | 0.663 | 0.000 | 3.62 | 3 | 5 | 7 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3135 | 0.0003 | 0.0170 | 0.0170 | 0.992 | 0.665 | 0.000 | 3.54 | 3 | 5 | 7 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3053 | 0.0003 | 0.0046 | 0.0046 | 0.991 | 0.623 | 0.000 | 3.38 | 3 | 5 | 6 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2992 | 0.0001 | 0.0047 | 0.0047 | 0.991 | 0.626 | 0.000 | 3.32 | 2 | 4 | 6 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2935 | 0.0001 | 0.0053 | 0.0053 | 0.991 | 0.630 | 0.000 | 3.26 | 2 | 4 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3420 | 0.0014 | 0.0211 | 0.0211 | 0.992 | 0.667 | 0.000 | 3.89 | 3 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3307 | 0.0007 | 0.0243 | 0.0243 | 0.993 | 0.675 | 0.000 | 3.78 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3234 | 0.0005 | 0.0262 | 0.0262 | 0.992 | 0.680 | 0.000 | 3.71 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3300 | 0.0008 | 0.0128 | 0.0128 | 0.992 | 0.647 | 0.000 | 3.71 | 3 | 5 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3208 | 0.0004 | 0.0144 | 0.0144 | 0.992 | 0.653 | 0.000 | 3.61 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3134 | 0.0003 | 0.0150 | 0.0150 | 0.991 | 0.656 | 0.000 | 3.53 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3051 | 0.0002 | 0.0040 | 0.0040 | 0.991 | 0.619 | 0.000 | 3.38 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2991 | 0.0001 | 0.0038 | 0.0038 | 0.991 | 0.621 | 0.000 | 3.31 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2934 | 0.0001 | 0.0046 | 0.0046 | 0.991 | 0.625 | 0.000 | 3.25 | 2 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | **Penalised regression methods** | | | | | | | | | | |
| Lasso | 100 | 0.3468 | 0.0481 | 0.3813 | 0.3813 | 1.003 | 0.741 | 0.000 | 8.10 | 3 | 17 | 38 | - | - | - | - |
| | 200 | 0.3226 | 0.0309 | 0.4518 | 0.4518 | 1.006 | 0.769 | 0.000 | 9.39 | 3 | 21 | 58 | - | - | - | - |
| | 300 | 0.3170 | 0.0232 | 0.4784 | 0.4784 | 1.007 | 0.789 | 0.000 | 10.20 | 3 | 24 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1942 | 0.0113 | 0.0914 | 0.0914 | 1.011 | 0.931 | 0.000 | 3.14 | 1 | 11 | 25 | - | - | - | - |
| | 200 | 0.2010 | 0.0099 | 0.1540 | 0.1540 | 1.014 | 1.010 | 0.000 | 4.08 | 1 | 14.5 | 39 | - | - | - | - |
| | 300 | 0.2039 | 0.0086 | 0.1832 | 0.1832 | 1.018 | 1.064 | 0.000 | 4.73 | 1 | 17 | 51 | - | - | - | - |

Notes: See notes to Table 91.

## Table 393: MC findings for DGPV

$T = 500$, $R^2 = 50\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3940 | 0.0012 | 0.0174 | 0.0174 | 0.996 | 0.716 | 0.000 | 4.45 | 3 | 6 | 8 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3841 | 0.0007 | 0.0222 | 0.0222 | 0.996 | 0.727 | 0.000 | 4.36 | 3 | 6 | 8 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3733 | 0.0005 | 0.0237 | 0.0237 | 0.996 | 0.732 | 0.000 | 4.25 | 3 | 6 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3801 | 0.0007 | 0.0098 | 0.0098 | 0.996 | 0.695 | 0.000 | 4.24 | 3 | 6 | 7 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3723 | 0.0004 | 0.0132 | 0.0132 | 0.996 | 0.705 | 0.000 | 4.18 | 3 | 6 | 8 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3625 | 0.0003 | 0.0143 | 0.0143 | 0.996 | 0.710 | 0.000 | 4.07 | 3 | 5 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3545 | 0.0002 | 0.0024 | 0.0024 | 0.996 | 0.672 | 0.000 | 3.91 | 3 | 5 | 7 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3476 | 0.0001 | 0.0040 | 0.0040 | 0.995 | 0.675 | 0.000 | 3.85 | 3 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3412 | 0.0001 | 0.0039 | 0.0039 | 0.995 | 0.679 | 0.000 | 3.78 | 3 | 5 | 6 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3936 | 0.0011 | 0.0155 | 0.0155 | 0.996 | 0.706 | 0.000 | 4.43 | 3 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3838 | 0.0006 | 0.0194 | 0.0194 | 0.996 | 0.713 | 0.000 | 4.34 | 3 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3730 | 0.0005 | 0.0219 | 0.0219 | 0.996 | 0.723 | 0.000 | 4.24 | 3 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3796 | 0.0006 | 0.0081 | 0.0081 | 0.996 | 0.684 | 0.000 | 4.23 | 3 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3720 | 0.0004 | 0.0115 | 0.0115 | 0.996 | 0.696 | 0.000 | 4.16 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3624 | 0.0003 | 0.0132 | 0.0132 | 0.996 | 0.703 | 0.000 | 4.06 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3543 | 0.0001 | 0.0017 | 0.0017 | 0.996 | 0.666 | 0.000 | 3.91 | 3 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3475 | 0.0001 | 0.0035 | 0.0035 | 0.995 | 0.670 | 0.000 | 3.84 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3412 | 0.0001 | 0.0034 | 0.0034 | 0.995 | 0.676 | 0.000 | 3.77 | 3 | 5 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4003 | 0.0532 | 0.3882 | 0.3882 | 1.002 | 0.777 | 0.000 | 9.14 | 3 | 19 | 38 | - | - | - | - |
| | 200 | 0.3810 | 0.0322 | 0.4391 | 0.4391 | 1.005 | 0.806 | 0.000 | 10.28 | 3 | 22 | 52 | - | - | - | - |
| | 300 | 0.3632 | 0.0243 | 0.4787 | 0.4787 | 1.005 | 0.827 | 0.000 | 11.01 | 3 | 25 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2446 | 0.0163 | 0.1321 | 0.1321 | 1.010 | 1.048 | 0.000 | 4.14 | 1 | 12 | 25 | - | - | - | - |
| | 200 | 0.2507 | 0.0123 | 0.1912 | 0.1912 | 1.013 | 1.127 | 0.000 | 5.07 | 1 | 15 | 36 | - | - | - | - |
| | 300 | 0.2488 | 0.0101 | 0.2279 | 0.2279 | 1.015 | 1.181 | 0.000 | 5.66 | 1 | 17 | 34 | - | - | - | - |

Notes: See notes to Table 91.

## Table 394: MC findings for DGPV

$T = 100$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.1914 | 0.0025 | 0.0525 | 0.0525 | 0.969 | 0.581 | 0.000 | 2.33 | 1 | 4 | 7 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1729 | 0.0015 | 0.0674 | 0.0674 | 0.974 | 0.617 | 0.000 | 2.18 | 1 | 4 | 7 | 1.032 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.1719 | 0.0011 | 0.0795 | 0.0795 | 0.978 | 0.650 | 0.000 | 2.21 | 1 | 4 | 7 | 1.033 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.1776 | 0.0015 | 0.0325 | 0.0325 | 0.967 | 0.557 | 0.000 | 2.08 | 1 | 4 | 7 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1620 | 0.0009 | 0.0423 | 0.0423 | 0.971 | 0.588 | 0.000 | 1.94 | 1 | 3 | 7 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.1608 | 0.0007 | 0.0547 | 0.0547 | 0.974 | 0.613 | 0.000 | 1.98 | 1 | 3.5 | 6 | 1.022 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1516 | 0.0005 | 0.0131 | 0.0131 | 0.966 | 0.547 | 0.000 | 1.72 | 1 | 3 | 5 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1388 | 0.0003 | 0.0189 | 0.0189 | 0.972 | 0.584 | 0.000 | 1.59 | 0 | 3 | 5 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.1377 | 0.0003 | 0.0223 | 0.0223 | 0.974 | 0.592 | 0.000 | 1.59 | 0 | 3 | 4 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.1911 | 0.0022 | 0.0468 | 0.0468 | 0.967 | 0.564 | 0.000 | 2.30 | 1 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1728 | 0.0013 | 0.0609 | 0.0609 | 0.971 | 0.600 | 0.000 | 2.15 | 1 | 4 | 6 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.1716 | 0.0010 | 0.0733 | 0.0733 | 0.976 | 0.631 | 0.000 | 2.18 | 1 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.1775 | 0.0013 | 0.0291 | 0.0291 | 0.966 | 0.547 | 0.000 | 2.07 | 1 | 4 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1620 | 0.0008 | 0.0377 | 0.0377 | 0.969 | 0.576 | 0.000 | 1.93 | 1 | 3 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1607 | 0.0007 | 0.0498 | 0.0498 | 0.973 | 0.598 | 0.000 | 1.96 | 1 | 3 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1515 | 0.0005 | 0.0116 | 0.0116 | 0.965 | 0.542 | 0.000 | 1.71 | 1 | 3 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1388 | 0.0003 | 0.0166 | 0.0166 | 0.971 | 0.577 | 0.000 | 1.58 | 0 | 3 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.1376 | 0.0002 | 0.0204 | 0.0204 | 0.974 | 0.588 | 0.000 | 1.58 | 0 | 3 | 4 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2139 | 0.0456 | 0.4419 | 0.4419 | 0.984 | 0.605 | 0.000 | 6.41 | 2 | 15 | 51 | - | - | - | - |
| | 200 | 0.2001 | 0.0332 | 0.5462 | 0.5462 | 0.992 | 0.649 | 0.000 | 8.48 | 2 | 21 | 63 | - | - | - | - |
| | 300 | 0.1946 | 0.0286 | 0.6055 | 0.6055 | 0.998 | 0.682 | 0.000 | 10.40 | 2 | 27 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1372 | 0.0120 | 0.1764 | 0.1764 | 0.974 | 0.588 | 0.000 | 2.58 | 1 | 7 | 46 | - | - | - | - |
| | 200 | 0.1386 | 0.0109 | 0.2719 | 0.2719 | 0.988 | 0.695 | 0.000 | 3.58 | 1 | 11 | 36 | - | - | - | - |
| | 300 | 0.1420 | 0.0116 | 0.3453 | 0.3453 | 1.006 | 0.806 | 0.000 | 4.91 | 1 | 17 | 52 | - | - | - | - |

Notes: See notes to Table 91.

## Table 395: MC findings for DGPV

$T = 300$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2917 | 0.0016 | 0.0277 | 0.0277 | 0.991 | 0.637 | 0.000 | 3.36 | 2 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2799 | 0.0008 | 0.0295 | 0.0295 | 0.991 | 0.634 | 0.000 | 3.23 | 2 | 5 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2738 | 0.0006 | 0.0326 | 0.0326 | 0.992 | 0.636 | 0.000 | 3.18 | 2 | 5 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2787 | 0.0009 | 0.0160 | 0.0160 | 0.990 | 0.608 | 0.000 | 3.15 | 2 | 5 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2686 | 0.0005 | 0.0184 | 0.0184 | 0.990 | 0.605 | 0.000 | 3.05 | 2 | 4 | 6 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2625 | 0.0003 | 0.0200 | 0.0200 | 0.991 | 0.602 | 0.000 | 2.99 | 2 | 4 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2532 | 0.0002 | 0.0045 | 0.0045 | 0.989 | 0.566 | 0.000 | 2.81 | 2 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2460 | 0.0001 | 0.0058 | 0.0058 | 0.988 | 0.563 | 0.000 | 2.73 | 2 | 4 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2416 | 0.0001 | 0.0054 | 0.0054 | 0.989 | 0.556 | 0.000 | 2.68 | 2 | 4 | 5 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2916 | 0.0015 | 0.0256 | 0.0256 | 0.991 | 0.629 | 0.000 | 3.34 | 2 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2798 | 0.0008 | 0.0276 | 0.0276 | 0.990 | 0.626 | 0.000 | 3.22 | 2 | 5 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2738 | 0.0005 | 0.0301 | 0.0301 | 0.991 | 0.627 | 0.000 | 3.17 | 2 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2786 | 0.0008 | 0.0143 | 0.0143 | 0.990 | 0.600 | 0.000 | 3.14 | 2 | 4 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2685 | 0.0004 | 0.0171 | 0.0171 | 0.989 | 0.598 | 0.000 | 3.04 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2625 | 0.0003 | 0.0180 | 0.0180 | 0.990 | 0.593 | 0.000 | 2.98 | 2 | 4 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2530 | 0.0002 | 0.0042 | 0.0042 | 0.989 | 0.563 | 0.000 | 2.80 | 2 | 4 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2460 | 0.0001 | 0.0049 | 0.0049 | 0.988 | 0.558 | 0.000 | 2.73 | 2 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2416 | 0.0001 | 0.0050 | 0.0050 | 0.989 | 0.555 | 0.000 | 2.68 | 2 | 4 | 5 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2787 | 0.0451 | 0.3934 | 0.3934 | 1.000 | 0.684 | 0.000 | 7.08 | 2 | 16 | 32 | - | - | - | - |
| | 200 | 0.2582 | 0.0277 | 0.4562 | 0.4562 | 1.002 | 0.711 | 0.000 | 8.08 | 2 | 19 | 42 | - | - | - | - |
| | 300 | 0.2497 | 0.0209 | 0.4849 | 0.4849 | 1.003 | 0.719 | 0.000 | 8.77 | 2 | 22 | 44 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1539 | 0.0073 | 0.0920 | 0.0920 | 0.998 | 0.711 | 0.000 | 2.35 | 1 | 6 | 29 | - | - | - | - |
| | 200 | 0.1588 | 0.0074 | 0.1494 | 0.1494 | 1.002 | 0.806 | 0.000 | 3.14 | 1 | 12 | 36 | - | - | - | - |
| | 300 | 0.1610 | 0.0065 | 0.1751 | 0.1751 | 1.006 | 0.855 | 0.000 | 3.66 | 1 | 14 | 38 | - | - | - | - |

Notes: See notes to Table 91.

**Table 396: MC findings for DGPV**

$T = 500$, $R^2 = 30\%$, NG, static specifications.

| | $n$ | TPR | FPR | FDR | | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3400 | 0.0014 | 0.0211 | 0.0211 | 0.995 | 0.667 | 0.000 | 3.86 | 3 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3260 | 0.0007 | 0.0243 | 0.0243 | 0.995 | 0.669 | 0.000 | 3.72 | 3 | 5 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3203 | 0.0004 | 0.0205 | 0.0205 | 0.995 | 0.668 | 0.000 | 3.64 | 3 | 5 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3276 | 0.0008 | 0.0131 | 0.0131 | 0.995 | 0.647 | 0.000 | 3.68 | 3 | 5 | 7 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3135 | 0.0004 | 0.0142 | 0.0142 | 0.995 | 0.641 | 0.000 | 3.53 | 3 | 5 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3105 | 0.0002 | 0.0126 | 0.0126 | 0.995 | 0.642 | 0.000 | 3.49 | 3 | 5 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3017 | 0.0002 | 0.0041 | 0.0041 | 0.994 | 0.609 | 0.000 | 3.34 | 3 | 5 | 6 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2920 | 0.0001 | 0.0031 | 0.0031 | 0.994 | 0.602 | 0.000 | 3.23 | 2 | 4 | 6 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2900 | 0.0001 | 0.0034 | 0.0034 | 0.994 | 0.604 | 0.000 | 3.21 | 2 | 4 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3399 | 0.0013 | 0.0203 | 0.0203 | 0.995 | 0.663 | 0.000 | 3.86 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3260 | 0.0007 | 0.0233 | 0.0233 | 0.995 | 0.665 | 0.000 | 3.72 | 3 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3203 | 0.0004 | 0.0197 | 0.0197 | 0.995 | 0.665 | 0.000 | 3.64 | 3 | 5 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3275 | 0.0008 | 0.0124 | 0.0124 | 0.995 | 0.643 | 0.000 | 3.67 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3135 | 0.0004 | 0.0135 | 0.0135 | 0.994 | 0.637 | 0.000 | 3.52 | 3 | 5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3105 | 0.0002 | 0.0117 | 0.0117 | 0.995 | 0.638 | 0.000 | 3.48 | 3 | 5 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3016 | 0.0002 | 0.0036 | 0.0036 | 0.994 | 0.606 | 0.000 | 3.34 | 3 | 5 | 6 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2920 | 0.0001 | 0.0028 | 0.0028 | 0.994 | 0.600 | 0.000 | 3.23 | 2 | 4 | 6 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2900 | 0.0001 | 0.0032 | 0.0032 | 0.994 | 0.602 | 0.000 | 3.21 | 2 | 4 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3205 | 0.0470 | 0.3838 | 0.3838 | 1.001 | 0.711 | 0.000 | 7.71 | 2 | 16.5 | 37 | - | - | - | - |
| | 200 | 0.2955 | 0.0290 | 0.4557 | 0.4557 | 1.002 | 0.740 | 0.000 | 8.73 | 2 | 20 | 37 | - | - | - | - |
| | 300 | 0.2868 | 0.0216 | 0.4765 | 0.4765 | 1.004 | 0.773 | 0.000 | 9.41 | 2 | 22 | 49 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1772 | 0.0101 | 0.0879 | 0.0879 | 1.004 | 0.845 | 0.000 | 2.85 | 1 | 11 | 27 | - | - | - | - |
| | 200 | 0.1803 | 0.0087 | 0.1382 | 0.1382 | 1.006 | 0.942 | 0.000 | 3.63 | 1 | 14 | 28 | - | - | - | - |
| | 300 | 0.1846 | 0.0076 | 0.1695 | 0.1695 | 1.008 | 1.008 | 0.000 | 4.22 | 1 | 17 | 42 | - | - | - | - |

Notes: See notes to Table 91.

## 4.2 Dynamic specifications with $\lambda_y = 0.4$

We ordered and numbered individual tables as follows:

**Summary table for experiments with Non-Gaussian innovations, (NG) and dynamic specifications with $\lambda_y = 0.4$: List of experiments.**

| Table No. | DGP | $\omega$ | $R^2$ | T | Table No. | DGP | $R^2$ | T | Table No. | DGP | $R^2$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 397 | I(a) | - | 70% | 100 | 442 | II(a) | 70% | 100 | 487 | V | 70% | 100 |
| 398 | I(a) | - | 70% | 300 | 443 | II(a) | 70% | 300 | 488 | V | 70% | 300 |
| 399 | I(a) | - | 70% | 500 | 444 | II(a) | 70% | 500 | 489 | V | 70% | 500 |
| 400 | I(a) | - | 50% | 100 | 445 | II(a) | 50% | 100 | 490 | V | 50% | 100 |
| 401 | I(a) | - | 50% | 300 | 446 | II(a) | 50% | 300 | 491 | V | 50% | 300 |
| 402 | I(a) | - | 50% | 500 | 447 | II(a) | 50% | 500 | 492 | V | 50% | 500 |
| 403 | I(a) | - | 30% | 100 | 448 | II(a) | 30% | 100 | 493 | V | 30% | 100 |
| 404 | I(a) | - | 30% | 300 | 449 | II(a) | 30% | 300 | 494 | V | 30% | 300 |
| 405 | I(a) | - | 30% | 500 | 450 | II(a) | 30% | 500 | 495 | V | 30% | 500 |
| 406 | I(b) | - | 70% | 100 | 451 | II(b) | 70% | 100 | | | | |
| 407 | I(b) | - | 70% | 300 | 452 | II(b) | 70% | 300 | | | | |
| 408 | I(b) | - | 70% | 500 | 453 | II(b) | 70% | 500 | | | | |
| 409 | I(b) | - | 50% | 100 | 454 | II(b) | 50% | 100 | | | | |
| 410 | I(b) | - | 50% | 300 | 455 | II(b) | 50% | 300 | | | | |
| 411 | I(b) | - | 50% | 500 | 456 | II(b) | 50% | 500 | | | | |
| 412 | I(b) | - | 30% | 100 | 457 | II(b) | 30% | 100 | | | | |
| 413 | I(b) | - | 30% | 300 | 458 | II(b) | 30% | 300 | | | | |
| 414 | I(b) | - | 30% | 500 | 459 | II(b) | 30% | 500 | | | | |
| 415 | I(c) | - | 70% | 100 | 460 | III | 70% | 100 | | | | |
| 416 | I(c) | - | 70% | 300 | 461 | III | 70% | 300 | | | | |
| 417 | I(c) | - | 70% | 500 | 462 | III | 70% | 500 | | | | |
| 418 | I(c) | - | 50% | 100 | 463 | III | 50% | 100 | | | | |
| 419 | I(c) | - | 50% | 300 | 464 | III | 50% | 300 | | | | |
| 420 | I(c) | - | 50% | 500 | 465 | III | 50% | 500 | | | | |
| 421 | I(c) | - | 30% | 100 | 466 | III | 30% | 100 | | | | |
| 422 | I(c) | - | 30% | 300 | 467 | III | 30% | 300 | | | | |
| 423 | I(c) | - | 30% | 500 | 468 | III | 30% | 500 | | | | |
| 424 | I(d) | low | 70% | 100 | 469 | IV(a) | 70% | 100 | | | | |
| 425 | I(d) | low | 70% | 300 | 470 | IV(a) | 70% | 300 | | | | |
| 426 | I(d) | low | 70% | 500 | 471 | IV(a) | 70% | 500 | | | | |
| 427 | I(d) | low | 50% | 100 | 472 | IV(a) | 50% | 100 | | | | |
| 428 | I(d) | low | 50% | 300 | 473 | IV(a) | 50% | 300 | | | | |
| 429 | I(d) | low | 50% | 500 | 474 | IV(a) | 50% | 500 | | | | |
| 430 | I(d) | low | 30% | 100 | 475 | IV(a) | 30% | 100 | | | | |
| 431 | I(d) | low | 30% | 300 | 476 | IV(a) | 30% | 300 | | | | |
| 432 | I(d) | low | 30% | 500 | 477 | IV(a) | 30% | 500 | | | | |
| 433 | I(d) | high | 70% | 100 | 478 | IV(b) | 70% | 100 | | | | |
| 434 | I(d) | high | 70% | 300 | 479 | IV(b) | 70% | 300 | | | | |
| 435 | I(d) | high | 70% | 500 | 480 | IV(b) | 70% | 500 | | | | |
| 436 | I(d) | high | 50% | 100 | 481 | IV(b) | 50% | 100 | | | | |
| 437 | I(d) | high | 50% | 300 | 482 | IV(b) | 50% | 300 | | | | |
| 438 | I(d) | high | 50% | 500 | 483 | IV(b) | 50% | 500 | | | | |
| 439 | I(d) | high | 30% | 100 | 484 | IV(b) | 30% | 100 | | | | |
| 440 | I(d) | high | 30% | 300 | 485 | IV(b) | 30% | 300 | | | | |
| 441 | I(d) | high | 30% | 500 | 486 | IV(b) | 30% | 500 | | | | |

Notes: $\omega$ is the average pair-wise correlation of the signal variables. The low value is $\omega = 0.2$ and the high value is $\omega = 0.8$. See Section 5 of CKP for a full description of MC design.

### 4.2.1 Findings for designs featuring no hidden signals and no pseudo-signals

## Table 397: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9995 | 0.0029 | 0.0384 | 0.0296 | 1.009 | 1.105 | 0.999 | 0.820 | 0.999 | 0.052 | 0.008 | 0.005 | 5.28 | 5 | 6 | 9 | 1.273 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9982 | 0.0016 | 0.0425 | 0.0359 | 1.012 | 1.135 | 0.999 | 0.781 | 0.994 | 0.041 | 0.004 | 0.004 | 5.30 | 5 | 6 | 9 | 1.331 | 0.32 | 0.01 | 0.00 |
| | 300 | 0.9977 | 0.0011 | 0.0448 | 0.0401 | 1.014 | 1.166 | 0.996 | 0.747 | 0.994 | 0.029 | 0.005 | 0.001 | 5.31 | 5 | 6 | 8 | 1.358 | 0.34 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9986 | 0.0018 | 0.0242 | 0.0177 | 1.007 | 1.079 | 0.997 | 0.882 | 0.997 | 0.039 | 0.006 | 0.003 | 5.17 | 5 | 6 | 8 | 1.308 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9972 | 0.0009 | 0.0255 | 0.0207 | 1.010 | 1.097 | 0.997 | 0.869 | 0.990 | 0.031 | 0.003 | 0.002 | 5.17 | 5 | 6 | 8 | 1.366 | 0.36 | 0.01 | 0.00 |
| | 300 | 0.9975 | 0.0007 | 0.0273 | 0.0239 | 1.010 | 1.114 | 0.995 | 0.842 | 0.994 | 0.022 | 0.003 | 0.000 | 5.18 | 5 | 6 | 8 | 1.397 | 0.39 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9967 | 0.0007 | 0.0091 | 0.0058 | 1.007 | 1.050 | 0.994 | 0.954 | 0.991 | 0.019 | 0.003 | 0.002 | 5.05 | 5 | 6 | 7 | 1.425 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9936 | 0.0003 | 0.0093 | 0.0071 | 1.009 | 1.065 | 0.989 | 0.941 | 0.981 | 0.014 | 0.002 | 0.001 | 5.03 | 5 | 6 | 8 | 1.466 | 0.46 | 0.01 | 0.00 |
| | 300 | 0.9939 | 0.0002 | 0.0103 | 0.0091 | 1.008 | 1.080 | 0.985 | 0.925 | 0.989 | 0.008 | 0.000 | 0.000 | 5.04 | 5 | 6 | 7 | 1.513 | 0.51 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9982 | 0.0025 | 0.0338 | 0.0251 | 1.009 | 1.080 | 0.999 | 0.844 | 0.992 | 0.052 | 0.008 | 0.005 | 5.24 | 5 | 6 | 9 | 1.240 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9958 | 0.0013 | 0.0360 | 0.0296 | 1.012 | 1.093 | 0.999 | 0.816 | 0.982 | 0.040 | 0.004 | 0.004 | 5.24 | 5 | 6 | 9 | 1.282 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9963 | 0.0009 | 0.0372 | 0.0327 | 1.012 | 1.118 | 0.996 | 0.790 | 0.987 | 0.027 | 0.005 | 0.001 | 5.25 | 5 | 6 | 8 | 1.306 | 0.30 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9972 | 0.0015 | 0.0211 | 0.0147 | 1.008 | 1.061 | 0.997 | 0.900 | 0.990 | 0.038 | 0.006 | 0.003 | 5.14 | 5 | 6 | 8 | 1.283 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9947 | 0.0007 | 0.0204 | 0.0158 | 1.010 | 1.066 | 0.997 | 0.897 | 0.978 | 0.030 | 0.003 | 0.002 | 5.12 | 5 | 6 | 8 | 1.327 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.9950 | 0.0005 | 0.0221 | 0.0188 | 1.010 | 1.080 | 0.995 | 0.874 | 0.982 | 0.021 | 0.003 | 0.000 | 5.13 | 5 | 6 | 8 | 1.353 | 0.35 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9937 | 0.0005 | 0.0074 | 0.0042 | 1.010 | 1.045 | 0.994 | 0.965 | 0.976 | 0.018 | 0.003 | 0.002 | 5.02 | 5 | 5 | 7 | 1.402 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9903 | 0.0003 | 0.0070 | 0.0049 | 1.012 | 1.052 | 0.989 | 0.956 | 0.964 | 0.013 | 0.002 | 0.001 | 5.00 | 5 | 5 | 8 | 1.439 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9901 | 0.0002 | 0.0077 | 0.0066 | 1.012 | 1.066 | 0.985 | 0.942 | 0.970 | 0.008 | 0.000 | 0.000 | 5.00 | 5 | 5.5 | 7 | 1.478 | 0.48 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9975 | 0.0700 | 0.4609 | 0.4435 | 1.076 | 1.386 | 0.988 | 0.061 | 1.000 | 0.087 | 0.078 | 0.082 | 11.92 | 5 | 22 | 36 | - | - | - | - |
| | 200 | 0.9974 | 0.0524 | 0.5493 | 0.5372 | 1.090 | 1.486 | 0.988 | 0.038 | 1.000 | 0.082 | 0.062 | 0.061 | 15.41 | 6 | 30 | 53 | - | - | - | - |
| | 300 | 0.9975 | 0.0434 | 0.5990 | 0.5902 | 1.103 | 1.573 | 0.988 | 0.030 | 1.000 | 0.066 | 0.044 | 0.049 | 17.97 | 6 | 37 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9527 | 0.0175 | 0.1487 | 0.1445 | 1.068 | 1.765 | 0.798 | 0.369 | 0.996 | 0.016 | 0.014 | 0.015 | 6.50 | 4 | 14 | 27 | - | - | - | - |
| | 200 | 0.9591 | 0.0184 | 0.2427 | 0.2389 | 1.087 | 1.923 | 0.826 | 0.265 | 0.997 | 0.028 | 0.019 | 0.020 | 8.45 | 4 | 22.5 | 41 | - | - | - | - |
| | 300 | 0.9657 | 0.0186 | 0.3096 | 0.3053 | 1.105 | 2.084 | 0.849 | 0.216 | 0.997 | 0.025 | 0.020 | 0.020 | 10.40 | 4 | 29 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 398: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0613 | 0.0174 | 1.002 | 1.066 | 1.000 | 0.882 | 1.000 | 0.290 | 0.024 | 0.007 | 5.45 | 5 | 7 | 9 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0020 | 0.0543 | 0.0191 | 1.002 | 1.070 | 1.000 | 0.874 | 1.000 | 0.231 | 0.019 | 0.007 | 5.40 | 5 | 7 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0518 | 0.0202 | 1.002 | 1.070 | 1.000 | 0.866 | 1.000 | 0.213 | 0.013 | 0.003 | 5.38 | 5 | 6 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0448 | 0.0097 | 1.001 | 1.042 | 1.000 | 0.932 | 1.000 | 0.233 | 0.017 | 0.004 | 5.32 | 5 | 6 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0388 | 0.0103 | 1.002 | 1.044 | 1.000 | 0.931 | 1.000 | 0.186 | 0.014 | 0.004 | 5.28 | 5 | 6 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0372 | 0.0114 | 1.001 | 1.041 | 1.000 | 0.922 | 1.000 | 0.173 | 0.010 | 0.003 | 5.27 | 5 | 6 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0227 | 0.0022 | 1.001 | 1.014 | 1.000 | 0.985 | 1.000 | 0.137 | 0.007 | 0.002 | 5.16 | 5 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0199 | 0.0027 | 1.001 | 1.018 | 1.000 | 0.982 | 1.000 | 0.116 | 0.006 | 0.001 | 5.14 | 5 | 6 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0182 | 0.0034 | 1.001 | 1.015 | 1.000 | 0.977 | 1.000 | 0.101 | 0.005 | 0.000 | 5.13 | 5 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0586 | 0.0146 | 1.002 | 1.041 | 1.000 | 0.900 | 1.000 | 0.290 | 0.024 | 0.007 | 5.43 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0019 | 0.0521 | 0.0167 | 1.002 | 1.048 | 1.000 | 0.888 | 1.000 | 0.231 | 0.019 | 0.007 | 5.38 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0499 | 0.0183 | 1.002 | 1.051 | 1.000 | 0.877 | 1.000 | 0.213 | 0.013 | 0.003 | 5.36 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0031 | 0.0430 | 0.0079 | 1.001 | 1.025 | 1.000 | 0.945 | 1.000 | 0.233 | 0.017 | 0.004 | 5.31 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0374 | 0.0089 | 1.001 | 1.029 | 1.000 | 0.940 | 1.000 | 0.186 | 0.014 | 0.004 | 5.27 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0363 | 0.0105 | 1.001 | 1.031 | 1.000 | 0.927 | 1.000 | 0.173 | 0.010 | 0.003 | 5.26 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0223 | 0.0019 | 1.001 | 1.010 | 1.000 | 0.987 | 1.000 | 0.137 | 0.007 | 0.002 | 5.16 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0194 | 0.0021 | 1.001 | 1.010 | 1.000 | 0.986 | 1.000 | 0.116 | 0.006 | 0.001 | 5.14 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0178 | 0.0029 | 1.000 | 1.009 | 1.000 | 0.980 | 1.000 | 0.101 | 0.005 | 0.000 | 5.13 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0734 | 0.4807 | 0.4604 | 1.020 | 1.338 | 1.000 | 0.038 | 1.000 | 0.118 | 0.081 | 0.078 | 12.27 | 6 | 22 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0467 | 0.5304 | 0.5190 | 1.026 | 1.404 | 1.000 | 0.033 | 1.000 | 0.094 | 0.056 | 0.062 | 14.29 | 6 | 28 | 57 | - | - | - | - |
| | 300 | 1.0000 | 0.0361 | 0.5589 | 0.5503 | 1.028 | 1.454 | 1.000 | 0.029 | 1.000 | 0.074 | 0.044 | 0.044 | 15.81 | 6 | 32 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9997 | 0.0137 | 0.0993 | 0.0954 | 1.011 | 1.433 | 0.999 | 0.736 | 1.000 | 0.022 | 0.017 | 0.017 | 6.35 | 5 | 15 | 27 | - | - | - | - |
| | 200 | 1.0000 | 0.0139 | 0.1727 | 0.1692 | 1.019 | 1.636 | 1.000 | 0.612 | 1.000 | 0.022 | 0.021 | 0.023 | 7.78 | 5 | 19 | 39 | - | - | - | - |
| | 300 | 1.0000 | 0.0136 | 0.2261 | 0.2231 | 1.026 | 1.843 | 1.000 | 0.537 | 1.000 | 0.023 | 0.014 | 0.016 | 9.08 | 5 | 24 | 60 | - | - | - | - |

Notes: See notes to Table 100.

## Table 399: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1009 | 0.0150 | 1.001 | 1.054 | 1.000 | 0.896 | 1.000 | 0.574 | 0.039 | 0.010 | 5.74 | 5 | 7 | 10 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0035 | 0.0945 | 0.0170 | 1.002 | 1.068 | 1.000 | 0.881 | 1.000 | 0.516 | 0.040 | 0.008 | 5.69 | 5 | 7 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0859 | 0.0160 | 1.001 | 1.057 | 1.000 | 0.892 | 1.000 | 0.474 | 0.027 | 0.003 | 5.63 | 5 | 7 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0824 | 0.0079 | 1.001 | 1.036 | 1.000 | 0.944 | 1.000 | 0.499 | 0.031 | 0.006 | 5.60 | 5 | 7 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0761 | 0.0086 | 1.001 | 1.039 | 1.000 | 0.938 | 1.000 | 0.453 | 0.028 | 0.004 | 5.55 | 5 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0696 | 0.0091 | 1.001 | 1.037 | 1.000 | 0.936 | 1.000 | 0.413 | 0.016 | 0.003 | 5.50 | 5 | 6 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0549 | 0.0023 | 1.001 | 1.014 | 1.000 | 0.984 | 1.000 | 0.356 | 0.016 | 0.002 | 5.39 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0486 | 0.0022 | 1.001 | 1.014 | 1.000 | 0.984 | 1.000 | 0.314 | 0.013 | 0.003 | 5.35 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0446 | 0.0022 | 1.000 | 1.012 | 1.000 | 0.985 | 1.000 | 0.289 | 0.011 | 0.001 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0992 | 0.0132 | 1.001 | 1.038 | 1.000 | 0.908 | 1.000 | 0.574 | 0.039 | 0.010 | 5.73 | 5 | 7 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0034 | 0.0926 | 0.0151 | 1.001 | 1.049 | 1.000 | 0.893 | 1.000 | 0.516 | 0.040 | 0.008 | 5.68 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0849 | 0.0150 | 1.001 | 1.045 | 1.000 | 0.898 | 1.000 | 0.474 | 0.027 | 0.003 | 5.62 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0814 | 0.0067 | 1.001 | 1.025 | 1.000 | 0.952 | 1.000 | 0.499 | 0.031 | 0.006 | 5.59 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0750 | 0.0076 | 1.001 | 1.027 | 1.000 | 0.945 | 1.000 | 0.453 | 0.028 | 0.004 | 5.54 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0689 | 0.0084 | 1.001 | 1.028 | 1.000 | 0.941 | 1.000 | 0.413 | 0.016 | 0.003 | 5.49 | 5 | 6 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0547 | 0.0021 | 1.001 | 1.011 | 1.000 | 0.986 | 1.000 | 0.356 | 0.016 | 0.002 | 5.39 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0482 | 0.0018 | 1.001 | 1.009 | 1.000 | 0.987 | 1.000 | 0.314 | 0.013 | 0.003 | 5.34 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0444 | 0.0021 | 1.000 | 1.010 | 1.000 | 0.985 | 1.000 | 0.289 | 0.011 | 0.001 | 5.32 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0749 | 0.4827 | 0.4633 | 1.012 | 1.337 | 1.000 | 0.041 | 1.000 | 0.104 | 0.082 | 0.088 | 12.42 | 6 | 24 | 35 | - | - | - | - |
| | 200 | 1.0000 | 0.0441 | 0.5107 | 0.4991 | 1.015 | 1.395 | 1.000 | 0.042 | 1.000 | 0.094 | 0.048 | 0.056 | 13.78 | 6 | 26 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0351 | 0.5458 | 0.5368 | 1.016 | 1.426 | 1.000 | 0.032 | 1.000 | 0.070 | 0.047 | 0.050 | 15.51 | 6 | 31 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0155 | 0.1066 | 0.1031 | 1.007 | 1.411 | 1.000 | 0.775 | 1.000 | 0.020 | 0.018 | 0.012 | 6.54 | 5 | 15 | 24 | - | - | - | - |
| | 200 | 1.0000 | 0.0120 | 0.1501 | 0.1474 | 1.010 | 1.557 | 1.000 | 0.707 | 1.000 | 0.020 | 0.012 | 0.016 | 7.39 | 5 | 18 | 37 | - | - | - | - |
| | 300 | 1.0000 | 0.0121 | 0.2059 | 0.2032 | 1.013 | 1.728 | 1.000 | 0.633 | 1.000 | 0.018 | 0.016 | 0.017 | 8.62 | 5 | 21 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 400: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9764 | 0.0029 | 0.0397 | 0.0310 | 1.018 | 1.153 | 0.939 | 0.767 | 0.959 | 0.051 | 0.008 | 0.005 | 5.17 | 4 | 6 | 9 | 1.232 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9689 | 0.0015 | 0.0413 | 0.0346 | 1.026 | 1.205 | 0.933 | 0.740 | 0.929 | 0.039 | 0.007 | 0.004 | 5.14 | 4 | 6 | 10 | 1.260 | 0.25 | 0.01 | 0.00 |
| | 300 | 0.9590 | 0.0011 | 0.0461 | 0.0397 | 1.031 | 1.233 | 0.907 | 0.684 | 0.918 | 0.039 | 0.005 | 0.003 | 5.12 | 4 | 6 | 9 | 1.280 | 0.27 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9648 | 0.0017 | 0.0245 | 0.0182 | 1.019 | 1.137 | 0.910 | 0.810 | 0.941 | 0.037 | 0.005 | 0.004 | 5.00 | 4 | 6 | 8 | 1.261 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9576 | 0.0009 | 0.0265 | 0.0214 | 1.027 | 1.185 | 0.910 | 0.791 | 0.909 | 0.029 | 0.004 | 0.003 | 4.97 | 4 | 6 | 9 | 1.284 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.9443 | 0.0007 | 0.0303 | 0.0254 | 1.034 | 1.221 | 0.878 | 0.737 | 0.893 | 0.031 | 0.004 | 0.001 | 4.93 | 4 | 6 | 8 | 1.297 | 0.29 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9311 | 0.0006 | 0.0093 | 0.0063 | 1.028 | 1.168 | 0.834 | 0.801 | 0.891 | 0.019 | 0.002 | 0.001 | 4.72 | 3 | 5 | 7 | 1.329 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9164 | 0.0003 | 0.0089 | 0.0063 | 1.037 | 1.217 | 0.823 | 0.787 | 0.849 | 0.015 | 0.001 | 0.002 | 4.64 | 3 | 5 | 7 | 1.349 | 0.35 | 0.00 | 0.00 |
| | 300 | 0.9014 | 0.0003 | 0.0129 | 0.0101 | 1.046 | 1.253 | 0.793 | 0.743 | 0.822 | 0.016 | 0.003 | 0.001 | 4.59 | 3 | 6 | 8 | 1.339 | 0.34 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9672 | 0.0026 | 0.0357 | 0.0271 | 1.024 | 1.138 | 0.939 | 0.788 | 0.914 | 0.051 | 0.008 | 0.005 | 5.09 | 4 | 6 | 9 | 1.159 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9567 | 0.0013 | 0.0356 | 0.0290 | 1.033 | 1.173 | 0.933 | 0.775 | 0.868 | 0.039 | 0.006 | 0.004 | 5.03 | 4 | 6 | 9 | 1.161 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.9432 | 0.0010 | 0.0406 | 0.0342 | 1.042 | 1.210 | 0.907 | 0.717 | 0.839 | 0.039 | 0.005 | 0.003 | 5.00 | 4 | 6 | 9 | 1.164 | 0.16 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9534 | 0.0015 | 0.0213 | 0.0151 | 1.028 | 1.128 | 0.910 | 0.828 | 0.885 | 0.036 | 0.005 | 0.004 | 4.92 | 4 | 6 | 8 | 1.185 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9443 | 0.0008 | 0.0225 | 0.0175 | 1.036 | 1.167 | 0.910 | 0.816 | 0.843 | 0.029 | 0.004 | 0.003 | 4.88 | 4 | 6 | 8 | 1.193 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.9284 | 0.0006 | 0.0261 | 0.0212 | 1.045 | 1.203 | 0.878 | 0.763 | 0.814 | 0.031 | 0.004 | 0.001 | 4.82 | 3 | 6 | 8 | 1.191 | 0.19 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9166 | 0.0005 | 0.0077 | 0.0047 | 1.041 | 1.168 | 0.834 | 0.809 | 0.820 | 0.018 | 0.002 | 0.001 | 4.64 | 3 | 5 | 7 | 1.248 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8984 | 0.0002 | 0.0073 | 0.0047 | 1.052 | 1.221 | 0.823 | 0.798 | 0.760 | 0.015 | 0.001 | 0.002 | 4.54 | 3 | 5 | 7 | 1.250 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.8828 | 0.0002 | 0.0108 | 0.0080 | 1.061 | 1.254 | 0.793 | 0.752 | 0.729 | 0.015 | 0.003 | 0.001 | 4.48 | 3 | 5 | 8 | 1.234 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9621 | 0.0698 | 0.4655 | 0.4471 | 1.075 | 1.343 | 0.824 | 0.043 | 0.998 | 0.077 | 0.074 | 0.092 | 11.72 | 5 | 22 | 50 | - | - | - | - |
| | 200 | 0.9573 | 0.0487 | 0.5401 | 0.5284 | 1.087 | 1.433 | 0.802 | 0.024 | 0.997 | 0.074 | 0.056 | 0.056 | 14.48 | 5 | 29 | 58 | - | - | - | - |
| | 300 | 0.9505 | 0.0420 | 0.5971 | 0.5892 | 1.099 | 1.494 | 0.778 | 0.015 | 0.996 | 0.059 | 0.051 | 0.058 | 17.30 | 6 | 36 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8194 | 0.0195 | 0.1861 | 0.1801 | 1.075 | 1.781 | 0.364 | 0.104 | 0.981 | 0.022 | 0.017 | 0.024 | 6.03 | 3 | 12 | 34 | - | - | - | - |
| | 200 | 0.8386 | 0.0181 | 0.2726 | 0.2668 | 1.089 | 1.933 | 0.424 | 0.082 | 0.979 | 0.022 | 0.024 | 0.021 | 7.79 | 3 | 19 | 48 | - | - | - | - |
| | 300 | 0.8368 | 0.0190 | 0.3495 | 0.3455 | 1.111 | 2.072 | 0.409 | 0.048 | 0.978 | 0.024 | 0.024 | 0.027 | 9.85 | 3 | 28 | 54 | - | - | - | - |

Notes: See notes to Table 100.

## Table 401: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0619 | 0.0160 | 1.002 | 1.065 | 1.000 | 0.893 | 1.000 | 0.301 | 0.026 | 0.008 | 5.45 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0019 | 0.0520 | 0.0188 | 1.003 | 1.080 | 1.000 | 0.874 | 1.000 | 0.221 | 0.015 | 0.005 | 5.38 | 5 | 6 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0528 | 0.0207 | 1.003 | 1.096 | 1.000 | 0.861 | 1.000 | 0.216 | 0.015 | 0.003 | 5.39 | 5 | 7 | 8 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0467 | 0.0094 | 1.002 | 1.045 | 1.000 | 0.935 | 1.000 | 0.246 | 0.019 | 0.004 | 5.34 | 5 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0378 | 0.0116 | 1.002 | 1.053 | 1.000 | 0.921 | 1.000 | 0.174 | 0.012 | 0.003 | 5.27 | 5 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0376 | 0.0116 | 1.002 | 1.061 | 1.000 | 0.919 | 1.000 | 0.176 | 0.011 | 0.001 | 5.27 | 5 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0250 | 0.0023 | 1.001 | 1.016 | 1.000 | 0.985 | 1.000 | 0.153 | 0.007 | 0.003 | 5.18 | 5 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0183 | 0.0031 | 1.001 | 1.017 | 1.000 | 0.979 | 1.000 | 0.103 | 0.005 | 0.001 | 5.13 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0182 | 0.0030 | 1.001 | 1.021 | 1.000 | 0.979 | 1.000 | 0.103 | 0.005 | 0.001 | 5.13 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0608 | 0.0148 | 1.002 | 1.055 | 1.000 | 0.900 | 1.000 | 0.301 | 0.026 | 0.008 | 5.45 | 5 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0504 | 0.0171 | 1.002 | 1.063 | 1.000 | 0.885 | 1.000 | 0.221 | 0.015 | 0.005 | 5.37 | 5 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0507 | 0.0187 | 1.002 | 1.076 | 1.000 | 0.874 | 1.000 | 0.216 | 0.015 | 0.003 | 5.37 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0458 | 0.0085 | 1.001 | 1.036 | 1.000 | 0.941 | 1.000 | 0.246 | 0.019 | 0.004 | 5.33 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0368 | 0.0105 | 1.002 | 1.043 | 1.000 | 0.928 | 1.000 | 0.174 | 0.012 | 0.003 | 5.26 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0364 | 0.0104 | 1.001 | 1.050 | 1.000 | 0.927 | 1.000 | 0.176 | 0.011 | 0.001 | 5.26 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0243 | 0.0015 | 1.001 | 1.008 | 1.000 | 0.990 | 1.000 | 0.153 | 0.007 | 0.003 | 5.17 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0178 | 0.0026 | 1.001 | 1.012 | 1.000 | 0.983 | 1.000 | 0.103 | 0.005 | 0.001 | 5.13 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0175 | 0.0023 | 1.001 | 1.013 | 1.000 | 0.984 | 1.000 | 0.103 | 0.005 | 0.001 | 5.13 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0763 | 0.4935 | 0.4739 | 1.020 | 1.335 | 1.000 | 0.030 | 1.000 | 0.118 | 0.083 | 0.086 | 12.55 | 6 | 23 | 48 | - | - | - | - |
| | 200 | 0.9998 | 0.0486 | 0.5469 | 0.5350 | 1.027 | 1.400 | 0.999 | 0.023 | 1.000 | 0.085 | 0.049 | 0.050 | 14.67 | 6 | 27 | 46 | - | - | - | - |
| | 300 | 0.9994 | 0.0365 | 0.5696 | 0.5602 | 1.029 | 1.446 | 0.997 | 0.019 | 1.000 | 0.072 | 0.048 | 0.044 | 15.90 | 6.5 | 31 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9887 | 0.0189 | 0.1504 | 0.1449 | 1.016 | 1.625 | 0.945 | 0.488 | 1.000 | 0.020 | 0.023 | 0.019 | 6.81 | 5 | 15 | 39 | - | - | - | - |
| | 200 | 0.9900 | 0.0172 | 0.2290 | 0.2247 | 1.024 | 1.826 | 0.953 | 0.371 | 1.000 | 0.026 | 0.017 | 0.019 | 8.38 | 5 | 21 | 38 | - | - | - | - |
| | 300 | 0.9907 | 0.0144 | 0.2604 | 0.2567 | 1.030 | 1.974 | 0.954 | 0.342 | 1.000 | 0.027 | 0.018 | 0.017 | 9.27 | 5 | 24 | 73 | - | - | - | - |

Notes: See notes to Table 100.

## Table 402: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1030 | 0.0155 | 1.001 | 1.067 | 1.000 | 0.890 | 1.000 | 0.575 | 0.051 | 0.012 | 5.76 | 5 | 7 | 9 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0033 | 0.0901 | 0.0160 | 1.002 | 1.072 | 1.000 | 0.889 | 1.000 | 0.497 | 0.034 | 0.007 | 5.66 | 5 | 7 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0886 | 0.0167 | 1.002 | 1.084 | 1.000 | 0.884 | 1.000 | 0.482 | 0.033 | 0.007 | 5.65 | 5 | 7 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0826 | 0.0074 | 1.001 | 1.037 | 1.000 | 0.947 | 1.000 | 0.498 | 0.037 | 0.007 | 5.60 | 5 | 7 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0745 | 0.0091 | 1.001 | 1.045 | 1.000 | 0.935 | 1.000 | 0.440 | 0.024 | 0.005 | 5.54 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0698 | 0.0079 | 1.001 | 1.046 | 1.000 | 0.943 | 1.000 | 0.416 | 0.024 | 0.004 | 5.50 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0546 | 0.0017 | 1.001 | 1.014 | 1.000 | 0.988 | 1.000 | 0.357 | 0.018 | 0.002 | 5.39 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0468 | 0.0020 | 1.001 | 1.012 | 1.000 | 0.986 | 1.000 | 0.307 | 0.009 | 0.001 | 5.33 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0437 | 0.0019 | 1.001 | 1.016 | 1.000 | 0.987 | 1.000 | 0.286 | 0.010 | 0.001 | 5.31 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1016 | 0.0140 | 1.001 | 1.053 | 1.000 | 0.902 | 1.000 | 0.575 | 0.051 | 0.012 | 5.75 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0889 | 0.0146 | 1.001 | 1.058 | 1.000 | 0.898 | 1.000 | 0.497 | 0.034 | 0.007 | 5.65 | 5 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0872 | 0.0152 | 1.002 | 1.068 | 1.000 | 0.893 | 1.000 | 0.482 | 0.033 | 0.007 | 5.64 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0818 | 0.0066 | 1.001 | 1.029 | 1.000 | 0.953 | 1.000 | 0.498 | 0.037 | 0.007 | 5.59 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0737 | 0.0082 | 1.001 | 1.037 | 1.000 | 0.942 | 1.000 | 0.440 | 0.024 | 0.005 | 5.53 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0692 | 0.0072 | 1.001 | 1.039 | 1.000 | 0.948 | 1.000 | 0.416 | 0.024 | 0.004 | 5.50 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0543 | 0.0013 | 1.000 | 1.010 | 1.000 | 0.991 | 1.000 | 0.357 | 0.018 | 0.002 | 5.39 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0019 | 1.001 | 1.010 | 1.000 | 0.987 | 1.000 | 0.307 | 0.009 | 0.001 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0434 | 0.0016 | 1.000 | 1.013 | 1.000 | 0.989 | 1.000 | 0.286 | 0.010 | 0.001 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0768 | 0.4905 | 0.4705 | 1.012 | 1.331 | 1.000 | 0.040 | 1.000 | 0.108 | 0.091 | 0.086 | 12.60 | 6 | 23 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0469 | 0.5342 | 0.5231 | 1.015 | 1.385 | 1.000 | 0.025 | 1.000 | 0.088 | 0.050 | 0.057 | 14.34 | 6 | 27 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0354 | 0.5588 | 0.5501 | 1.017 | 1.418 | 1.000 | 0.020 | 1.000 | 0.071 | 0.050 | 0.039 | 15.59 | 6 | 31 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9993 | 0.0170 | 0.1210 | 0.1158 | 1.008 | 1.514 | 0.997 | 0.668 | 1.000 | 0.023 | 0.018 | 0.020 | 6.68 | 5 | 16 | 30 | - | - | - | - |
| | 200 | 0.9998 | 0.0161 | 0.1960 | 0.1919 | 1.013 | 1.738 | 0.999 | 0.554 | 1.000 | 0.026 | 0.015 | 0.020 | 8.19 | 5 | 21 | 43 | - | - | - | - |
| | 300 | 0.9993 | 0.0142 | 0.2386 | 0.2357 | 1.017 | 1.917 | 0.997 | 0.494 | 1.000 | 0.025 | 0.023 | 0.017 | 9.24 | 5 | 24 | 46 | - | - | - | - |

Notes: See notes to Table 100.

**Table 403: Monte Carlo findings for DGPI(a)**

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8069 | 0.0027 | 0.0440 | 0.0361 | 1.041 | 1.264 | 0.574 | 0.462 | 0.849 | 0.041 | 0.008 | 0.003 | 4.31 | 2 | 6 | 8 | 1.133 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7694 | 0.0014 | 0.0492 | 0.0415 | 1.052 | 1.342 | 0.527 | 0.427 | 0.808 | 0.040 | 0.005 | 0.002 | 4.13 | 1 | 6 | 9 | 1.140 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.7441 | 0.0010 | 0.0524 | 0.0471 | 1.060 | 1.373 | 0.472 | 0.369 | 0.780 | 0.029 | 0.003 | 0.002 | 4.02 | 1 | 6 | 9 | 1.141 | 0.14 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7647 | 0.0019 | 0.0315 | 0.0255 | 1.047 | 1.278 | 0.511 | 0.439 | 0.810 | 0.028 | 0.006 | 0.002 | 4.01 | 1 | 6 | 8 | 1.148 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7223 | 0.0009 | 0.0330 | 0.0271 | 1.058 | 1.351 | 0.453 | 0.405 | 0.762 | 0.029 | 0.004 | 0.000 | 3.79 | 1 | 6 | 8 | 1.141 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.6924 | 0.0006 | 0.0343 | 0.0309 | 1.069 | 1.374 | 0.401 | 0.347 | 0.726 | 0.019 | 0.002 | 0.001 | 3.64 | 1 | 6 | 9 | 1.146 | 0.14 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6528 | 0.0006 | 0.0127 | 0.0093 | 1.069 | 1.350 | 0.364 | 0.347 | 0.699 | 0.014 | 0.003 | 0.001 | 3.33 | 1 | 5 | 8 | 1.153 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6026 | 0.0003 | 0.0141 | 0.0110 | 1.084 | 1.431 | 0.308 | 0.298 | 0.646 | 0.016 | 0.001 | 0.001 | 3.08 | 0 | 5 | 7 | 1.146 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.5775 | 0.0002 | 0.0133 | 0.0117 | 1.093 | 1.442 | 0.282 | 0.271 | 0.605 | 0.009 | 0.001 | 0.001 | 2.95 | 0 | 5 | 6 | 1.155 | 0.15 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7955 | 0.0025 | 0.0405 | 0.0325 | 1.046 | 1.246 | 0.574 | 0.475 | 0.798 | 0.041 | 0.008 | 0.003 | 4.22 | 1 | 6 | 8 | 1.055 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7563 | 0.0013 | 0.0454 | 0.0377 | 1.057 | 1.321 | 0.526 | 0.438 | 0.750 | 0.040 | 0.005 | 0.002 | 4.04 | 1 | 6 | 9 | 1.052 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.7292 | 0.0009 | 0.0489 | 0.0436 | 1.067 | 1.351 | 0.472 | 0.383 | 0.713 | 0.029 | 0.003 | 0.002 | 3.92 | 1 | 6 | 9 | 1.043 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7508 | 0.0017 | 0.0287 | 0.0227 | 1.054 | 1.262 | 0.511 | 0.450 | 0.750 | 0.028 | 0.006 | 0.002 | 3.92 | 1 | 6 | 8 | 1.063 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7075 | 0.0008 | 0.0307 | 0.0248 | 1.066 | 1.338 | 0.453 | 0.409 | 0.700 | 0.029 | 0.004 | 0.000 | 3.70 | 1 | 5 | 8 | 1.054 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.6770 | 0.0005 | 0.0323 | 0.0288 | 1.076 | 1.360 | 0.401 | 0.353 | 0.659 | 0.019 | 0.002 | 0.001 | 3.55 | 1 | 6 | 9 | 1.059 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6356 | 0.0006 | 0.0116 | 0.0081 | 1.077 | 1.342 | 0.364 | 0.351 | 0.634 | 0.014 | 0.003 | 0.001 | 3.23 | 1 | 5 | 8 | 1.068 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5853 | 0.0003 | 0.0136 | 0.0105 | 1.093 | 1.427 | 0.308 | 0.298 | 0.582 | 0.016 | 0.001 | 0.000 | 2.98 | 0 | 5 | 7 | 1.063 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.5594 | 0.0002 | 0.0120 | 0.0103 | 1.102 | 1.432 | 0.282 | 0.272 | 0.530 | 0.009 | 0.001 | 0.001 | 2.85 | 0 | 5 | 6 | 1.061 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8360 | 0.0659 | 0.4790 | 0.4617 | 1.067 | 1.205 | 0.402 | 0.016 | 0.986 | 0.089 | 0.074 | 0.084 | 10.70 | 4 | 21 | 40 | - | - | - | - |
| | 200 | 0.8263 | 0.0485 | 0.5702 | 0.5593 | 1.079 | 1.299 | 0.372 | 0.006 | 0.981 | 0.073 | 0.051 | 0.061 | 13.79 | 5 | 28 | 60 | - | - | - | - |
| | 300 | 0.8109 | 0.0411 | 0.6255 | 0.6173 | 1.088 | 1.348 | 0.332 | 0.003 | 0.980 | 0.047 | 0.049 | 0.052 | 16.33 | 5 | 34 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6418 | 0.0212 | 0.2314 | 0.2246 | 1.067 | 1.585 | 0.091 | 0.010 | 0.953 | 0.024 | 0.021 | 0.024 | 5.31 | 2 | 12 | 32 | - | - | - | - |
| | 200 | 0.6573 | 0.0189 | 0.3280 | 0.3228 | 1.085 | 1.787 | 0.097 | 0.008 | 0.948 | 0.026 | 0.017 | 0.029 | 7.06 | 2 | 17 | 51 | - | - | - | - |
| | 300 | 0.6602 | 0.0189 | 0.4065 | 0.4013 | 1.103 | 1.933 | 0.102 | 0.004 | 0.951 | 0.018 | 0.018 | 0.017 | 8.95 | 2 | 23 | 64 | - | - | - | - |

Notes: See notes to Table 100.

**Table 404: Monte Carlo findings for DGPI(a)**

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.0048 | 0.0637 | 0.0172 | 1.003 | 1.085 | 0.999 | 0.886 | 1.000 | 0.299 | 0.033 | 0.008 | 5.47 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0020 | 0.0554 | 0.0198 | 1.003 | 1.101 | 0.999 | 0.872 | 1.000 | 0.236 | 0.018 | 0.004 | 5.41 | 5 | 7 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0013 | 0.0528 | 0.0217 | 1.003 | 1.119 | 0.999 | 0.860 | 1.000 | 0.212 | 0.012 | 0.003 | 5.39 | 5 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9995 | 0.0035 | 0.0478 | 0.0098 | 1.002 | 1.055 | 0.998 | 0.930 | 1.000 | 0.246 | 0.025 | 0.005 | 5.35 | 5 | 6 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9995 | 0.0015 | 0.0400 | 0.0115 | 1.002 | 1.067 | 0.998 | 0.922 | 1.000 | 0.190 | 0.012 | 0.003 | 5.29 | 5 | 6 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0009 | 0.0385 | 0.0127 | 1.002 | 1.077 | 0.998 | 0.916 | 1.000 | 0.175 | 0.009 | 0.003 | 5.28 | 5 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9986 | 0.0019 | 0.0268 | 0.0028 | 1.001 | 1.025 | 0.994 | 0.974 | 1.000 | 0.159 | 0.010 | 0.003 | 5.18 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9987 | 0.0007 | 0.0200 | 0.0033 | 1.001 | 1.027 | 0.994 | 0.972 | 1.000 | 0.112 | 0.006 | 0.001 | 5.14 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0004 | 0.0182 | 0.0036 | 1.001 | 1.034 | 0.990 | 0.965 | 1.000 | 0.099 | 0.005 | 0.000 | 5.12 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9997 | 0.0046 | 0.0620 | 0.0155 | 1.002 | 1.070 | 0.999 | 0.896 | 1.000 | 0.299 | 0.033 | 0.008 | 5.46 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0020 | 0.0542 | 0.0186 | 1.003 | 1.091 | 0.999 | 0.878 | 1.000 | 0.236 | 0.018 | 0.004 | 5.40 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0013 | 0.0508 | 0.0197 | 1.003 | 1.100 | 0.999 | 0.873 | 1.000 | 0.212 | 0.012 | 0.003 | 5.37 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9995 | 0.0034 | 0.0468 | 0.0087 | 1.002 | 1.045 | 0.998 | 0.939 | 1.000 | 0.246 | 0.025 | 0.005 | 5.34 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9995 | 0.0014 | 0.0389 | 0.0103 | 1.002 | 1.058 | 0.998 | 0.929 | 1.000 | 0.190 | 0.012 | 0.003 | 5.28 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0009 | 0.0375 | 0.0116 | 1.002 | 1.067 | 0.998 | 0.923 | 1.000 | 0.175 | 0.009 | 0.003 | 5.27 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9986 | 0.0019 | 0.0266 | 0.0025 | 1.001 | 1.022 | 0.994 | 0.976 | 1.000 | 0.159 | 0.010 | 0.003 | 5.18 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9987 | 0.0007 | 0.0194 | 0.0026 | 1.001 | 1.020 | 0.994 | 0.976 | 1.000 | 0.112 | 0.006 | 0.001 | 5.13 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0004 | 0.0179 | 0.0032 | 1.001 | 1.029 | 0.990 | 0.968 | 1.000 | 0.099 | 0.005 | 0.000 | 5.12 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9900 | 0.0726 | 0.4806 | 0.4610 | 1.020 | 1.322 | 0.951 | 0.032 | 1.000 | 0.100 | 0.080 | 0.091 | 12.14 | 6 | 22 | 37 | - | - | - | - |
| | 200 | 0.9866 | 0.0480 | 0.5410 | 0.5287 | 1.025 | 1.385 | 0.934 | 0.024 | 1.000 | 0.072 | 0.054 | 0.050 | 14.48 | 6 | 28 | 53 | - | - | - | - |
| | 300 | 0.9856 | 0.0358 | 0.5716 | 0.5637 | 1.029 | 1.412 | 0.928 | 0.017 | 1.000 | 0.064 | 0.043 | 0.047 | 15.65 | 6 | 30.5 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9008 | 0.0186 | 0.1671 | 0.1605 | 1.019 | 1.771 | 0.581 | 0.220 | 1.000 | 0.023 | 0.015 | 0.029 | 6.35 | 3 | 14 | 30 | - | - | - | - |
| | 200 | 0.9067 | 0.0175 | 0.2537 | 0.2481 | 1.027 | 1.935 | 0.615 | 0.141 | 1.000 | 0.023 | 0.017 | 0.019 | 8.01 | 3 | 20 | 47 | - | - | - | - |
| | 300 | 0.9099 | 0.0151 | 0.2973 | 0.2940 | 1.034 | 2.088 | 0.623 | 0.123 | 1.000 | 0.025 | 0.015 | 0.018 | 9.07 | 4 | 23 | 47 | - | - | - | - |

Notes: See notes to Table 100.

## Table 405: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1019 | 0.0158 | 1.001 | 1.078 | 1.000 | 0.890 | 1.000 | 0.565 | 0.053 | 0.012 | 5.75 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0032 | 0.0880 | 0.0169 | 1.002 | 1.092 | 1.000 | 0.882 | 1.000 | 0.479 | 0.028 | 0.008 | 5.64 | 5 | 7 | 8 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0847 | 0.0165 | 1.002 | 1.089 | 1.000 | 0.885 | 1.000 | 0.461 | 0.030 | 0.004 | 5.62 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0849 | 0.0082 | 1.001 | 1.046 | 1.000 | 0.943 | 1.000 | 0.508 | 0.039 | 0.007 | 5.62 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0025 | 0.0698 | 0.0082 | 1.001 | 1.052 | 1.000 | 0.942 | 1.000 | 0.416 | 0.022 | 0.004 | 5.50 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0704 | 0.0097 | 1.001 | 1.058 | 1.000 | 0.930 | 1.000 | 0.411 | 0.022 | 0.003 | 5.51 | 5 | 7 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0042 | 0.0577 | 0.0024 | 1.001 | 1.018 | 1.000 | 0.984 | 1.000 | 0.374 | 0.016 | 0.003 | 5.41 | 5 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0016 | 0.0449 | 0.0019 | 1.000 | 1.016 | 1.000 | 0.987 | 1.000 | 0.293 | 0.010 | 0.002 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0447 | 0.0022 | 1.001 | 1.016 | 1.000 | 0.984 | 1.000 | 0.290 | 0.009 | 0.002 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1012 | 0.0150 | 1.001 | 1.071 | 1.000 | 0.895 | 1.000 | 0.565 | 0.053 | 0.012 | 5.75 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0032 | 0.0865 | 0.0154 | 1.001 | 1.079 | 1.000 | 0.893 | 1.000 | 0.479 | 0.028 | 0.008 | 5.63 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0840 | 0.0157 | 1.002 | 1.081 | 1.000 | 0.890 | 1.000 | 0.461 | 0.030 | 0.004 | 5.62 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0842 | 0.0074 | 1.001 | 1.038 | 1.000 | 0.948 | 1.000 | 0.508 | 0.039 | 0.007 | 5.61 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0025 | 0.0691 | 0.0074 | 1.001 | 1.044 | 1.000 | 0.948 | 1.000 | 0.416 | 0.022 | 0.004 | 5.50 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0699 | 0.0091 | 1.001 | 1.052 | 1.000 | 0.935 | 1.000 | 0.411 | 0.022 | 0.003 | 5.50 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0573 | 0.0020 | 1.001 | 1.013 | 1.000 | 0.987 | 1.000 | 0.374 | 0.016 | 0.003 | 5.41 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0016 | 0.0446 | 0.0017 | 1.000 | 1.012 | 1.000 | 0.989 | 1.000 | 0.293 | 0.010 | 0.002 | 5.32 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0446 | 0.0021 | 1.001 | 1.014 | 1.000 | 0.985 | 1.000 | 0.290 | 0.009 | 0.002 | 5.32 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9987 | 0.0779 | 0.5026 | 0.4830 | 1.011 | 1.329 | 0.994 | 0.022 | 1.000 | 0.119 | 0.075 | 0.096 | 12.71 | 6 | 23 | 44 | - | - | - | - |
| | 200 | 0.9994 | 0.0484 | 0.5473 | 0.5362 | 1.016 | 1.391 | 0.997 | 0.020 | 1.000 | 0.085 | 0.052 | 0.061 | 14.64 | 6 | 28 | 41 | - | - | - | - |
| | 300 | 0.9988 | 0.0367 | 0.5721 | 0.5635 | 1.016 | 1.409 | 0.994 | 0.017 | 1.000 | 0.079 | 0.042 | 0.050 | 15.95 | 6 | 30.5 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9708 | 0.0211 | 0.1621 | 0.1564 | 1.011 | 1.728 | 0.866 | 0.420 | 1.000 | 0.028 | 0.018 | 0.035 | 6.95 | 4 | 16 | 30 | - | - | - | - |
| | 200 | 0.9726 | 0.0187 | 0.2420 | 0.2374 | 1.018 | 1.965 | 0.867 | 0.302 | 1.000 | 0.029 | 0.021 | 0.026 | 8.59 | 4 | 21 | 34 | - | - | - | - |
| | 300 | 0.9767 | 0.0163 | 0.2805 | 0.2763 | 1.021 | 2.100 | 0.890 | 0.294 | 1.000 | 0.024 | 0.019 | 0.027 | 9.75 | 4 | 25 | 54 | - | - | - | - |

Notes: See notes to Table 100.

## Table 406: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9986 | 0.0131 | 0.1514 | 0.1320 | 1.025 | 1.252 | 0.996 | 0.386 | 0.997 | 0.141 | 0.020 | 0.010 | 6.29 | 5 | 9 | 15 | 1.102 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9967 | 0.0086 | 0.1928 | 0.1786 | 1.040 | 1.353 | 0.992 | 0.258 | 0.992 | 0.118 | 0.011 | 0.006 | 6.69 | 5 | 10 | 16 | 1.141 | 0.14 | 0.01 | 0.00 |
| | 300 | 0.9955 | 0.0067 | 0.2164 | 0.2059 | 1.048 | 1.409 | 0.990 | 0.214 | 0.988 | 0.096 | 0.011 | 0.002 | 6.98 | 5 | 10.5 | 18 | 1.153 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9982 | 0.0087 | 0.1060 | 0.0906 | 1.017 | 1.179 | 0.994 | 0.531 | 0.997 | 0.107 | 0.013 | 0.008 | 5.85 | 5 | 8 | 12 | 1.114 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9956 | 0.0056 | 0.1352 | 0.1236 | 1.030 | 1.270 | 0.989 | 0.406 | 0.990 | 0.089 | 0.010 | 0.004 | 6.10 | 5 | 9 | 15 | 1.151 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.9942 | 0.0046 | 0.1595 | 0.1509 | 1.038 | 1.324 | 0.986 | 0.333 | 0.987 | 0.073 | 0.009 | 0.002 | 6.35 | 5 | 9 | 16 | 1.163 | 0.16 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9951 | 0.0035 | 0.0462 | 0.0373 | 1.010 | 1.111 | 0.983 | 0.765 | 0.994 | 0.062 | 0.005 | 0.003 | 5.33 | 5 | 7 | 9 | 1.169 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9905 | 0.0023 | 0.0610 | 0.0543 | 1.021 | 1.178 | 0.974 | 0.674 | 0.981 | 0.046 | 0.004 | 0.002 | 5.41 | 5 | 7 | 10 | 1.216 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.9897 | 0.0019 | 0.0747 | 0.0695 | 1.025 | 1.208 | 0.973 | 0.599 | 0.981 | 0.038 | 0.004 | 0.001 | 5.52 | 5 | 7 | 13 | 1.223 | 0.22 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9982 | 0.0127 | 0.1473 | 0.1280 | 1.022 | 1.216 | 0.996 | 0.399 | 0.995 | 0.140 | 0.020 | 0.010 | 6.25 | 5 | 9 | 15 | 1.068 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9948 | 0.0083 | 0.1886 | 0.1745 | 1.040 | 1.325 | 0.992 | 0.271 | 0.983 | 0.118 | 0.011 | 0.005 | 6.64 | 5 | 10 | 15 | 1.096 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.9932 | 0.0065 | 0.2125 | 0.2020 | 1.048 | 1.377 | 0.990 | 0.223 | 0.977 | 0.096 | 0.011 | 0.002 | 6.92 | 5 | 10 | 18 | 1.111 | 0.11 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9973 | 0.0085 | 0.1037 | 0.0883 | 1.017 | 1.162 | 0.994 | 0.542 | 0.993 | 0.107 | 0.013 | 0.008 | 5.83 | 5 | 8 | 12 | 1.093 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9937 | 0.0055 | 0.1320 | 0.1205 | 1.031 | 1.251 | 0.989 | 0.420 | 0.981 | 0.089 | 0.009 | 0.004 | 6.06 | 5 | 9 | 13 | 1.120 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.9912 | 0.0045 | 0.1561 | 0.1475 | 1.040 | 1.302 | 0.986 | 0.346 | 0.972 | 0.073 | 0.009 | 0.002 | 6.30 | 5 | 9 | 16 | 1.131 | 0.13 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9932 | 0.0034 | 0.0451 | 0.0361 | 1.013 | 1.108 | 0.983 | 0.773 | 0.985 | 0.062 | 0.005 | 0.003 | 5.31 | 5 | 7 | 9 | 1.155 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9879 | 0.0023 | 0.0592 | 0.0526 | 1.024 | 1.172 | 0.974 | 0.683 | 0.968 | 0.046 | 0.004 | 0.002 | 5.39 | 5 | 7 | 10 | 1.194 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.9855 | 0.0019 | 0.0733 | 0.0682 | 1.030 | 1.209 | 0.972 | 0.605 | 0.961 | 0.038 | 0.004 | 0.001 | 5.49 | 5 | 7 | 13 | 1.196 | 0.20 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9949 | 0.0716 | 0.4772 | 0.4619 | 1.092 | 1.454 | 0.975 | 0.039 | 1.000 | 0.095 | 0.076 | 0.070 | 12.06 | 6 | 22 | 41 | - | - | - | - |
| | 200 | 0.9922 | 0.0542 | 0.5724 | 0.5630 | 1.121 | 1.590 | 0.962 | 0.025 | 0.999 | 0.065 | 0.048 | 0.054 | 15.75 | 6 | 30 | 62 | - | - | - | - |
| | 300 | 0.9906 | 0.0452 | 0.6235 | 0.6170 | 1.140 | 1.655 | 0.956 | 0.011 | 1.000 | 0.059 | 0.039 | 0.042 | 18.47 | 7 | 36 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9366 | 0.0172 | 0.1508 | 0.1465 | 1.082 | 1.850 | 0.732 | 0.327 | 0.998 | 0.023 | 0.019 | 0.017 | 6.39 | 4 | 14 | 28 | - | - | - | - |
| | 200 | 0.9419 | 0.0190 | 0.2553 | 0.2519 | 1.114 | 2.037 | 0.756 | 0.230 | 0.994 | 0.017 | 0.017 | 0.020 | 8.48 | 4 | 21 | 47 | - | - | - | - |
| | 300 | 0.9435 | 0.0187 | 0.3254 | 0.3220 | 1.144 | 2.167 | 0.758 | 0.183 | 0.994 | 0.022 | 0.019 | 0.014 | 10.32 | 4 | 26 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 407: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0180 | 0.2063 | 0.1126 | 1.006 | 1.199 | 1.000 | 0.405 | 1.000 | 0.653 | 0.107 | 0.019 | 6.78 | 5 | 9 | 13 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0103 | 0.2271 | 0.1484 | 1.009 | 1.280 | 1.000 | 0.303 | 1.000 | 0.593 | 0.075 | 0.014 | 7.05 | 5 | 10 | 14 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2382 | 0.1670 | 1.010 | 1.309 | 1.000 | 0.255 | 1.000 | 0.557 | 0.063 | 0.010 | 7.17 | 5 | 10 | 15 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0135 | 0.1639 | 0.0773 | 1.005 | 1.144 | 1.000 | 0.545 | 1.000 | 0.591 | 0.083 | 0.014 | 6.34 | 5 | 8 | 13 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0075 | 0.1760 | 0.1023 | 1.007 | 1.199 | 1.000 | 0.455 | 1.000 | 0.535 | 0.057 | 0.010 | 6.49 | 5 | 9 | 13 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0052 | 0.1843 | 0.1179 | 1.007 | 1.224 | 1.000 | 0.384 | 1.000 | 0.500 | 0.044 | 0.007 | 6.56 | 5 | 9 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0077 | 0.1001 | 0.0317 | 1.002 | 1.065 | 1.000 | 0.790 | 1.000 | 0.462 | 0.040 | 0.007 | 5.76 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0039 | 0.1016 | 0.0412 | 1.003 | 1.090 | 1.000 | 0.743 | 1.000 | 0.420 | 0.033 | 0.002 | 5.79 | 5 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1014 | 0.0479 | 1.003 | 1.102 | 1.000 | 0.695 | 1.000 | 0.381 | 0.021 | 0.004 | 5.78 | 5 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0179 | 0.2053 | 0.1115 | 1.006 | 1.187 | 1.000 | 0.408 | 1.000 | 0.652 | 0.107 | 0.019 | 6.77 | 5 | 9 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0102 | 0.2257 | 0.1469 | 1.008 | 1.264 | 1.000 | 0.306 | 1.000 | 0.593 | 0.075 | 0.014 | 7.03 | 5 | 10 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.2372 | 0.1659 | 1.010 | 1.297 | 1.000 | 0.257 | 1.000 | 0.557 | 0.063 | 0.010 | 7.16 | 5 | 10 | 15 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0135 | 0.1632 | 0.0764 | 1.005 | 1.135 | 1.000 | 0.551 | 1.000 | 0.591 | 0.083 | 0.014 | 6.33 | 5 | 8 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0074 | 0.1752 | 0.1014 | 1.006 | 1.189 | 1.000 | 0.457 | 1.000 | 0.535 | 0.057 | 0.010 | 6.48 | 5 | 9 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0052 | 0.1836 | 0.1171 | 1.007 | 1.215 | 1.000 | 0.386 | 1.000 | 0.500 | 0.044 | 0.007 | 6.56 | 5 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0077 | 0.1000 | 0.0316 | 1.002 | 1.063 | 1.000 | 0.791 | 1.000 | 0.462 | 0.040 | 0.007 | 5.76 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0039 | 0.1014 | 0.0410 | 1.003 | 1.088 | 1.000 | 0.744 | 1.000 | 0.420 | 0.033 | 0.002 | 5.78 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1010 | 0.0475 | 1.003 | 1.099 | 1.000 | 0.697 | 1.000 | 0.381 | 0.021 | 0.004 | 5.78 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0688 | 0.4652 | 0.4469 | 1.022 | 1.354 | 1.000 | 0.043 | 1.000 | 0.102 | 0.073 | 0.075 | 11.81 | 6 | 21 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0436 | 0.5216 | 0.5105 | 1.029 | 1.431 | 1.000 | 0.026 | 1.000 | 0.084 | 0.044 | 0.048 | 13.68 | 6 | 26 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0327 | 0.5434 | 0.5353 | 1.033 | 1.455 | 1.000 | 0.024 | 1.000 | 0.075 | 0.036 | 0.033 | 14.78 | 6 | 28.5 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9997 | 0.0156 | 0.1118 | 0.1080 | 1.013 | 1.498 | 0.999 | 0.728 | 1.000 | 0.014 | 0.015 | 0.018 | 6.54 | 5 | 15 | 27 | - | - | - | - |
| | 200 | 0.9995 | 0.0143 | 0.1805 | 0.1775 | 1.021 | 1.705 | 0.998 | 0.615 | 1.000 | 0.021 | 0.011 | 0.013 | 7.84 | 5 | 19 | 37 | - | - | - | - |
| | 300 | 0.9999 | 0.0123 | 0.2175 | 0.2150 | 1.028 | 1.819 | 1.000 | 0.562 | 1.000 | 0.024 | 0.012 | 0.013 | 8.67 | 5 | 21 | 46 | - | - | - | - |

Notes: See notes to Table 100.

## Table 408: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0215 | 0.2446 | 0.1066 | 1.004 | 1.191 | 1.000 | 0.411 | 1.000 | 0.913 | 0.199 | 0.036 | 7.13 | 6 | 9 | 14 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2606 | 0.1346 | 1.005 | 1.250 | 1.000 | 0.325 | 1.000 | 0.890 | 0.159 | 0.023 | 7.34 | 6 | 10 | 17 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2735 | 0.1542 | 1.005 | 1.306 | 1.000 | 0.263 | 1.000 | 0.870 | 0.148 | 0.020 | 7.51 | 5.5 | 10 | 15 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0172 | 0.2066 | 0.0715 | 1.003 | 1.140 | 1.000 | 0.557 | 1.000 | 0.886 | 0.157 | 0.027 | 6.70 | 5 | 9 | 13 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0091 | 0.2160 | 0.0918 | 1.004 | 1.178 | 1.000 | 0.482 | 1.000 | 0.856 | 0.125 | 0.016 | 6.82 | 5 | 9 | 15 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0065 | 0.2268 | 0.1078 | 1.004 | 1.220 | 1.000 | 0.415 | 1.000 | 0.839 | 0.121 | 0.014 | 6.95 | 5 | 9 | 14 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0118 | 0.1532 | 0.0292 | 1.002 | 1.066 | 1.000 | 0.796 | 1.000 | 0.814 | 0.099 | 0.012 | 6.17 | 5 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0058 | 0.1498 | 0.0352 | 1.002 | 1.078 | 1.000 | 0.764 | 1.000 | 0.778 | 0.070 | 0.007 | 6.15 | 5 | 8 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1504 | 0.0416 | 1.002 | 1.098 | 1.000 | 0.720 | 1.000 | 0.739 | 0.073 | 0.007 | 6.16 | 5 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0214 | 0.2438 | 0.1057 | 1.004 | 1.182 | 1.000 | 0.415 | 1.000 | 0.913 | 0.199 | 0.036 | 7.12 | 6 | 9 | 14 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0117 | 0.2600 | 0.1339 | 1.005 | 1.239 | 1.000 | 0.327 | 1.000 | 0.890 | 0.159 | 0.023 | 7.33 | 5.5 | 10 | 17 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2727 | 0.1532 | 1.005 | 1.294 | 1.000 | 0.266 | 1.000 | 0.870 | 0.148 | 0.020 | 7.50 | 5.5 | 10 | 15 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0171 | 0.2059 | 0.0706 | 1.003 | 1.131 | 1.000 | 0.562 | 1.000 | 0.886 | 0.157 | 0.027 | 6.69 | 5 | 9 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0091 | 0.2156 | 0.0913 | 1.003 | 1.170 | 1.000 | 0.483 | 1.000 | 0.856 | 0.125 | 0.016 | 6.81 | 5 | 9 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0065 | 0.2264 | 0.1074 | 1.004 | 1.215 | 1.000 | 0.416 | 1.000 | 0.839 | 0.121 | 0.014 | 6.94 | 5 | 9 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0117 | 0.1528 | 0.0287 | 1.002 | 1.061 | 1.000 | 0.800 | 1.000 | 0.814 | 0.099 | 0.012 | 6.16 | 5 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0058 | 0.1497 | 0.0350 | 1.002 | 1.075 | 1.000 | 0.765 | 1.000 | 0.778 | 0.070 | 0.007 | 6.15 | 5 | 8 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0039 | 0.1502 | 0.0414 | 1.002 | 1.095 | 1.000 | 0.721 | 1.000 | 0.739 | 0.073 | 0.007 | 6.16 | 5 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0707 | 0.4662 | 0.4472 | 1.014 | 1.339 | 1.000 | 0.053 | 1.000 | 0.108 | 0.072 | 0.078 | 12.00 | 6 | 23 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0419 | 0.5007 | 0.4900 | 1.016 | 1.390 | 1.000 | 0.039 | 1.000 | 0.088 | 0.049 | 0.038 | 13.34 | 6 | 26 | 46 | - | - | - | - |
| | 300 | 1.0000 | 0.0314 | 0.5260 | 0.5178 | 1.017 | 1.428 | 1.000 | 0.034 | 1.000 | 0.081 | 0.035 | 0.029 | 14.38 | 6 | 28 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0146 | 0.1055 | 0.1020 | 1.007 | 1.417 | 1.000 | 0.771 | 1.000 | 0.018 | 0.011 | 0.020 | 6.45 | 5 | 15 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0129 | 0.1688 | 0.1652 | 1.010 | 1.587 | 1.000 | 0.669 | 1.000 | 0.019 | 0.017 | 0.012 | 7.56 | 5 | 17 | 32 | - | - | - | - |
| | 300 | 1.0000 | 0.0108 | 0.1978 | 0.1953 | 1.013 | 1.704 | 1.000 | 0.637 | 1.000 | 0.023 | 0.016 | 0.010 | 8.23 | 5 | 20 | 40 | - | - | - | - |

Notes: See notes to Table 100.

## Table 409: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9741 | 0.0120 | 0.1439 | 0.1294 | 1.037 | 1.323 | 0.929 | 0.383 | 0.958 | 0.104 | 0.016 | 0.006 | 6.06 | 5 | 9 | 14 | 1.099 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9636 | 0.0078 | 0.1800 | 0.1691 | 1.057 | 1.461 | 0.909 | 0.277 | 0.930 | 0.082 | 0.013 | 0.010 | 6.37 | 4 | 10 | 16 | 1.120 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.9465 | 0.0058 | 0.2017 | 0.1940 | 1.071 | 1.547 | 0.875 | 0.220 | 0.904 | 0.062 | 0.008 | 0.004 | 6.46 | 4 | 10 | 16 | 1.104 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9650 | 0.0080 | 0.1017 | 0.0905 | 1.035 | 1.273 | 0.905 | 0.493 | 0.942 | 0.078 | 0.011 | 0.004 | 5.62 | 4 | 8 | 11 | 1.104 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9514 | 0.0053 | 0.1303 | 0.1212 | 1.051 | 1.397 | 0.872 | 0.382 | 0.918 | 0.065 | 0.009 | 0.006 | 5.81 | 4 | 8 | 14 | 1.136 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.9343 | 0.0039 | 0.1467 | 0.1406 | 1.063 | 1.476 | 0.845 | 0.325 | 0.890 | 0.048 | 0.003 | 0.003 | 5.84 | 4 | 8 | 13 | 1.120 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9375 | 0.0035 | 0.0477 | 0.0405 | 1.035 | 1.232 | 0.836 | 0.641 | 0.908 | 0.048 | 0.005 | 0.002 | 5.03 | 4 | 7 | 9 | 1.153 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9162 | 0.0022 | 0.0607 | 0.0552 | 1.047 | 1.330 | 0.791 | 0.547 | 0.871 | 0.036 | 0.005 | 0.002 | 5.02 | 3 | 7 | 11 | 1.165 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.8983 | 0.0016 | 0.0690 | 0.0652 | 1.059 | 1.399 | 0.767 | 0.498 | 0.842 | 0.024 | 0.002 | 0.003 | 4.98 | 3 | 7 | 10 | 1.167 | 0.17 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9707 | 0.0118 | 0.1413 | 0.1268 | 1.038 | 1.306 | 0.929 | 0.389 | 0.941 | 0.104 | 0.016 | 0.006 | 6.02 | 4 | 9 | 14 | 1.060 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9565 | 0.0076 | 0.1763 | 0.1655 | 1.061 | 1.445 | 0.909 | 0.286 | 0.895 | 0.082 | 0.013 | 0.010 | 6.29 | 4 | 10 | 16 | 1.053 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9406 | 0.0057 | 0.1976 | 0.1900 | 1.073 | 1.525 | 0.875 | 0.232 | 0.875 | 0.061 | 0.008 | 0.004 | 6.39 | 4 | 10 | 14 | 1.046 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9602 | 0.0078 | 0.0995 | 0.0883 | 1.038 | 1.263 | 0.905 | 0.502 | 0.918 | 0.078 | 0.011 | 0.004 | 5.58 | 4 | 8 | 11 | 1.065 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9414 | 0.0051 | 0.1271 | 0.1181 | 1.058 | 1.388 | 0.871 | 0.394 | 0.869 | 0.065 | 0.009 | 0.006 | 5.73 | 4 | 8 | 14 | 1.064 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9261 | 0.0038 | 0.1432 | 0.1371 | 1.067 | 1.462 | 0.845 | 0.339 | 0.850 | 0.048 | 0.003 | 0.003 | 5.76 | 4 | 8 | 13 | 1.060 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9294 | 0.0033 | 0.0453 | 0.0381 | 1.041 | 1.225 | 0.836 | 0.650 | 0.867 | 0.048 | 0.005 | 0.002 | 4.97 | 3 | 6 | 9 | 1.101 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9052 | 0.0021 | 0.0592 | 0.0537 | 1.056 | 1.334 | 0.791 | 0.554 | 0.816 | 0.036 | 0.005 | 0.002 | 4.95 | 3 | 7 | 11 | 1.101 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8858 | 0.0016 | 0.0666 | 0.0628 | 1.069 | 1.398 | 0.767 | 0.508 | 0.780 | 0.024 | 0.002 | 0.003 | 4.89 | 3 | 7 | 10 | 1.093 | 0.09 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9430 | 0.0724 | 0.4857 | 0.4719 | 1.097 | 1.417 | 0.745 | 0.028 | 0.998 | 0.085 | 0.071 | 0.073 | 11.88 | 5 | 22 | 40 | - | - | - | - |
| | 200 | 0.9342 | 0.0551 | 0.5856 | 0.5772 | 1.122 | 1.559 | 0.709 | 0.013 | 0.992 | 0.057 | 0.044 | 0.052 | 15.64 | 6 | 31 | 52 | - | - | - | - |
| | 300 | 0.9218 | 0.0458 | 0.6347 | 0.6290 | 1.145 | 1.646 | 0.681 | 0.007 | 0.981 | 0.051 | 0.041 | 0.045 | 18.30 | 6 | 37 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7941 | 0.0208 | 0.2025 | 0.1972 | 1.094 | 1.849 | 0.303 | 0.071 | 0.970 | 0.022 | 0.022 | 0.023 | 6.03 | 3 | 13 | 33 | - | - | - | - |
| | 200 | 0.7978 | 0.0206 | 0.3132 | 0.3097 | 1.126 | 2.060 | 0.321 | 0.042 | 0.952 | 0.019 | 0.017 | 0.022 | 8.08 | 3 | 20 | 45 | - | - | - | - |
| | 300 | 0.7972 | 0.0203 | 0.3821 | 0.3789 | 1.165 | 2.241 | 0.346 | 0.031 | 0.942 | 0.022 | 0.018 | 0.022 | 10.05 | 3 | 27 | 56 | - | - | - | - |

Notes: See notes to Table 100.

**Table 410: Monte Carlo findings for DGPI(b)**

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0157 | 0.1835 | 0.1042 | 1.008 | 1.254 | 1.000 | 0.455 | 1.000 | 0.564 | 0.066 | 0.018 | 6.56 | 5 | 9 | 13 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0088 | 0.2004 | 0.1334 | 1.010 | 1.337 | 1.000 | 0.343 | 1.000 | 0.496 | 0.057 | 0.014 | 6.74 | 5 | 9 | 13 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0065 | 0.2172 | 0.1590 | 1.012 | 1.391 | 1.000 | 0.270 | 1.000 | 0.460 | 0.045 | 0.008 | 6.95 | 5 | 10 | 14 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0116 | 0.1426 | 0.0721 | 1.006 | 1.191 | 1.000 | 0.583 | 1.000 | 0.491 | 0.051 | 0.012 | 6.15 | 5 | 8 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0063 | 0.1526 | 0.0927 | 1.008 | 1.258 | 1.000 | 0.492 | 1.000 | 0.429 | 0.041 | 0.012 | 6.26 | 5 | 8 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.1638 | 0.1103 | 1.009 | 1.291 | 1.000 | 0.431 | 1.000 | 0.401 | 0.034 | 0.007 | 6.39 | 5 | 9 | 13 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0062 | 0.0807 | 0.0290 | 1.003 | 1.087 | 1.000 | 0.813 | 1.000 | 0.353 | 0.026 | 0.005 | 5.61 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0031 | 0.0825 | 0.0386 | 1.004 | 1.128 | 1.000 | 0.749 | 1.000 | 0.303 | 0.021 | 0.004 | 5.62 | 5 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0839 | 0.0437 | 1.004 | 1.139 | 1.000 | 0.731 | 1.000 | 0.286 | 0.016 | 0.003 | 5.65 | 5 | 7 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0156 | 0.1824 | 0.1030 | 1.008 | 1.242 | 1.000 | 0.461 | 1.000 | 0.564 | 0.066 | 0.018 | 6.55 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0087 | 0.1996 | 0.1326 | 1.010 | 1.330 | 1.000 | 0.345 | 1.000 | 0.496 | 0.057 | 0.014 | 6.73 | 5 | 9 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0065 | 0.2164 | 0.1581 | 1.012 | 1.384 | 1.000 | 0.274 | 1.000 | 0.460 | 0.045 | 0.008 | 6.95 | 5 | 10 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0116 | 0.1421 | 0.0714 | 1.006 | 1.184 | 1.000 | 0.587 | 1.000 | 0.491 | 0.051 | 0.012 | 6.15 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0063 | 0.1521 | 0.0922 | 1.007 | 1.252 | 1.000 | 0.493 | 1.000 | 0.429 | 0.041 | 0.012 | 6.25 | 5 | 8 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.1632 | 0.1097 | 1.009 | 1.285 | 1.000 | 0.433 | 1.000 | 0.401 | 0.034 | 0.007 | 6.38 | 5 | 9 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0062 | 0.0807 | 0.0289 | 1.003 | 1.087 | 1.000 | 0.813 | 1.000 | 0.353 | 0.026 | 0.005 | 5.61 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0031 | 0.0823 | 0.0384 | 1.004 | 1.126 | 1.000 | 0.749 | 1.000 | 0.303 | 0.021 | 0.004 | 5.62 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0835 | 0.0433 | 1.004 | 1.136 | 1.000 | 0.733 | 1.000 | 0.286 | 0.016 | 0.003 | 5.65 | 5 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9997 | 0.0725 | 0.4816 | 0.4653 | 1.024 | 1.383 | 0.999 | 0.031 | 1.000 | 0.090 | 0.076 | 0.081 | 12.18 | 6 | 22 | 37 | - | - | - | - |
| | 200 | 0.9992 | 0.0458 | 0.5351 | 0.5249 | 1.029 | 1.443 | 0.996 | 0.021 | 1.000 | 0.070 | 0.049 | 0.050 | 14.10 | 6 | 26 | 55 | - | - | - | - |
| | 300 | 0.9992 | 0.0339 | 0.5581 | 0.5511 | 1.033 | 1.470 | 0.996 | 0.017 | 1.000 | 0.062 | 0.041 | 0.032 | 15.12 | 6 | 28 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9854 | 0.0176 | 0.1382 | 0.1341 | 1.018 | 1.689 | 0.930 | 0.517 | 1.000 | 0.021 | 0.021 | 0.024 | 6.67 | 4 | 15 | 33 | - | - | - | - |
| | 200 | 0.9861 | 0.0154 | 0.2098 | 0.2067 | 1.025 | 1.850 | 0.933 | 0.396 | 1.000 | 0.019 | 0.019 | 0.020 | 7.99 | 4 | 20 | 46 | - | - | - | - |
| | 300 | 0.9857 | 0.0136 | 0.2553 | 0.2525 | 1.033 | 1.993 | 0.930 | 0.335 | 1.000 | 0.017 | 0.016 | 0.016 | 9.00 | 5 | 22 | 44 | - | - | - | - |

Notes: See notes to Table 100.

**Table 411: Monte Carlo findings for DGPI(b)**

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0194 | 0.2250 | 0.1002 | 1.005 | 1.245 | 1.000 | 0.454 | 1.000 | 0.851 | 0.138 | 0.025 | 6.92 | 5 | 9 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2435 | 0.1295 | 1.006 | 1.338 | 1.000 | 0.346 | 1.000 | 0.826 | 0.115 | 0.015 | 7.16 | 5 | 10 | 14 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0076 | 0.2532 | 0.1468 | 1.008 | 1.400 | 1.000 | 0.292 | 1.000 | 0.806 | 0.085 | 0.014 | 7.27 | 5 | 10 | 16 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0153 | 0.1869 | 0.0662 | 1.003 | 1.175 | 1.000 | 0.602 | 1.000 | 0.816 | 0.101 | 0.022 | 6.51 | 5 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0083 | 0.1992 | 0.0891 | 1.004 | 1.250 | 1.000 | 0.484 | 1.000 | 0.778 | 0.090 | 0.009 | 6.66 | 5 | 9 | 13 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0057 | 0.2033 | 0.0991 | 1.005 | 1.287 | 1.000 | 0.453 | 1.000 | 0.759 | 0.066 | 0.009 | 6.70 | 5 | 9 | 16 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0099 | 0.1308 | 0.0262 | 1.002 | 1.080 | 1.000 | 0.823 | 1.000 | 0.712 | 0.051 | 0.006 | 5.98 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0051 | 0.1324 | 0.0357 | 1.002 | 1.121 | 1.000 | 0.762 | 1.000 | 0.664 | 0.048 | 0.006 | 6.01 | 5 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.1316 | 0.0392 | 1.003 | 1.139 | 1.000 | 0.743 | 1.000 | 0.648 | 0.035 | 0.005 | 6.01 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0193 | 0.2242 | 0.0993 | 1.004 | 1.237 | 1.000 | 0.458 | 1.000 | 0.851 | 0.138 | 0.025 | 6.91 | 5 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2426 | 0.1286 | 1.006 | 1.329 | 1.000 | 0.348 | 1.000 | 0.826 | 0.115 | 0.014 | 7.15 | 5 | 10 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0076 | 0.2525 | 0.1460 | 1.008 | 1.391 | 1.000 | 0.295 | 1.000 | 0.806 | 0.085 | 0.014 | 7.27 | 5 | 10 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0152 | 0.1863 | 0.0656 | 1.003 | 1.169 | 1.000 | 0.605 | 1.000 | 0.816 | 0.101 | 0.021 | 6.51 | 5 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0083 | 0.1986 | 0.0885 | 1.004 | 1.243 | 1.000 | 0.488 | 1.000 | 0.778 | 0.090 | 0.008 | 6.65 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0057 | 0.2030 | 0.0988 | 1.005 | 1.283 | 1.000 | 0.454 | 1.000 | 0.759 | 0.066 | 0.009 | 6.70 | 5 | 9 | 16 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0099 | 0.1308 | 0.0262 | 1.002 | 1.080 | 1.000 | 0.823 | 1.000 | 0.712 | 0.051 | 0.006 | 5.98 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0051 | 0.1321 | 0.0355 | 1.002 | 1.118 | 1.000 | 0.763 | 1.000 | 0.664 | 0.048 | 0.005 | 6.01 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.1315 | 0.0390 | 1.003 | 1.137 | 1.000 | 0.744 | 1.000 | 0.648 | 0.035 | 0.005 | 6.01 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0733 | 0.4856 | 0.4670 | 1.013 | 1.345 | 1.000 | 0.036 | 1.000 | 0.110 | 0.067 | 0.077 | 12.25 | 6 | 22 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0437 | 0.5196 | 0.5083 | 1.016 | 1.417 | 1.000 | 0.026 | 1.000 | 0.074 | 0.047 | 0.044 | 13.69 | 6 | 26 | 53 | - | - | - | - |
| | 300 | 1.0000 | 0.0330 | 0.5478 | 0.5386 | 1.018 | 1.452 | 1.000 | 0.021 | 1.000 | 0.063 | 0.035 | 0.033 | 14.86 | 6 | 28 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9983 | 0.0192 | 0.1381 | 0.1327 | 1.009 | 1.575 | 0.992 | 0.651 | 1.000 | 0.018 | 0.016 | 0.019 | 6.89 | 5 | 15 | 33 | - | - | - | - |
| | 200 | 0.9991 | 0.0165 | 0.2042 | 0.2002 | 1.014 | 1.805 | 0.996 | 0.560 | 1.000 | 0.022 | 0.015 | 0.018 | 8.28 | 5 | 20 | 44 | - | - | - | - |
| | 300 | 0.9991 | 0.0135 | 0.2391 | 0.2356 | 1.019 | 1.944 | 0.996 | 0.504 | 1.000 | 0.021 | 0.010 | 0.010 | 9.03 | 5 | 22 | 43 | - | - | - | - |

Notes: See notes to Table 100.

## Table 412: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8356 | 0.0111 | 0.1495 | 0.1360 | 1.055 | 1.395 | 0.593 | 0.257 | 0.873 | 0.084 | 0.014 | 0.006 | 5.28 | 2 | 8 | 14 | 1.044 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7937 | 0.0071 | 0.1887 | 0.1792 | 1.077 | 1.527 | 0.518 | 0.165 | 0.823 | 0.066 | 0.010 | 0.005 | 5.37 | 2 | 9 | 15 | 1.054 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.7771 | 0.0056 | 0.2198 | 0.2140 | 1.091 | 1.641 | 0.485 | 0.129 | 0.807 | 0.047 | 0.006 | 0.003 | 5.57 | 2 | 9 | 19 | 1.062 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7980 | 0.0072 | 0.1065 | 0.0961 | 1.053 | 1.358 | 0.524 | 0.297 | 0.844 | 0.062 | 0.009 | 0.005 | 4.71 | 2 | 7 | 12 | 1.046 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7501 | 0.0047 | 0.1397 | 0.1323 | 1.076 | 1.478 | 0.454 | 0.207 | 0.781 | 0.047 | 0.006 | 0.003 | 4.69 | 2 | 8 | 13 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.7335 | 0.0038 | 0.1659 | 0.1612 | 1.088 | 1.587 | 0.430 | 0.168 | 0.762 | 0.036 | 0.004 | 0.002 | 4.80 | 2 | 8 | 14 | 1.069 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7027 | 0.0030 | 0.0516 | 0.0466 | 1.064 | 1.368 | 0.380 | 0.296 | 0.745 | 0.026 | 0.003 | 0.003 | 3.81 | 1 | 6 | 9 | 1.055 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6474 | 0.0019 | 0.0668 | 0.0626 | 1.086 | 1.448 | 0.319 | 0.223 | 0.680 | 0.023 | 0.003 | 0.001 | 3.61 | 1 | 6 | 9 | 1.054 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.6312 | 0.0016 | 0.0835 | 0.0804 | 1.093 | 1.524 | 0.299 | 0.194 | 0.663 | 0.020 | 0.002 | 0.001 | 3.63 | 1 | 6 | 13 | 1.062 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8321 | 0.0109 | 0.1474 | 0.1339 | 1.056 | 1.382 | 0.593 | 0.262 | 0.859 | 0.084 | 0.014 | 0.006 | 5.24 | 2 | 8 | 13 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7899 | 0.0069 | 0.1855 | 0.1760 | 1.077 | 1.504 | 0.518 | 0.171 | 0.807 | 0.066 | 0.010 | 0.005 | 5.33 | 2 | 9 | 15 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7728 | 0.0055 | 0.2165 | 0.2108 | 1.091 | 1.621 | 0.485 | 0.133 | 0.790 | 0.047 | 0.006 | 0.003 | 5.51 | 2 | 9 | 19 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7933 | 0.0071 | 0.1051 | 0.0948 | 1.056 | 1.350 | 0.524 | 0.300 | 0.825 | 0.061 | 0.009 | 0.005 | 4.67 | 2 | 7 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7453 | 0.0046 | 0.1373 | 0.1300 | 1.078 | 1.465 | 0.454 | 0.212 | 0.761 | 0.047 | 0.005 | 0.003 | 4.64 | 2 | 8 | 13 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.7271 | 0.0037 | 0.1620 | 0.1573 | 1.089 | 1.565 | 0.430 | 0.174 | 0.737 | 0.036 | 0.003 | 0.002 | 4.74 | 2 | 8 | 14 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6969 | 0.0030 | 0.0508 | 0.0458 | 1.067 | 1.366 | 0.380 | 0.298 | 0.718 | 0.026 | 0.003 | 0.003 | 3.78 | 1 | 6 | 9 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6411 | 0.0018 | 0.0658 | 0.0616 | 1.089 | 1.445 | 0.319 | 0.225 | 0.651 | 0.023 | 0.003 | 0.001 | 3.57 | 1 | 6 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.6238 | 0.0015 | 0.0815 | 0.0785 | 1.096 | 1.516 | 0.299 | 0.198 | 0.631 | 0.020 | 0.002 | 0.001 | 3.58 | 1 | 6 | 13 | 1.016 | 0.02 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8008 | 0.0715 | 0.5106 | 0.4967 | 1.088 | 1.270 | 0.310 | 0.007 | 0.983 | 0.070 | 0.068 | 0.065 | 11.08 | 4 | 22 | 37 | - | - | - | - |
| | 200 | 0.7788 | 0.0534 | 0.6083 | 0.5995 | 1.111 | 1.374 | 0.259 | 0.002 | 0.956 | 0.043 | 0.051 | 0.042 | 14.53 | 5 | 30 | 58 | - | - | - | - |
| | 300 | 0.7755 | 0.0479 | 0.6745 | 0.6691 | 1.129 | 1.492 | 0.268 | 0.001 | 0.921 | 0.050 | 0.036 | 0.044 | 18.21 | 6 | 37 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6167 | 0.0246 | 0.2617 | 0.2547 | 1.088 | 1.657 | 0.055 | 0.006 | 0.917 | 0.020 | 0.022 | 0.021 | 5.52 | 2 | 12.5 | 33 | - | - | - | - |
| | 200 | 0.6084 | 0.0218 | 0.3780 | 0.3733 | 1.125 | 1.882 | 0.063 | 0.003 | 0.864 | 0.014 | 0.020 | 0.016 | 7.38 | 2 | 18 | 51 | - | - | - | - |
| | 300 | 0.6103 | 0.0224 | 0.4716 | 0.4681 | 1.163 | 2.118 | 0.075 | 0.002 | 0.827 | 0.019 | 0.016 | 0.025 | 9.74 | 2 | 25 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 413: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9998 | 0.0133 | 0.1598 | 0.0987 | 1.009 | 1.283 | 0.999 | 0.470 | 1.000 | 0.439 | 0.043 | 0.010 | 6.32 | 5 | 9 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0079 | 0.1827 | 0.1313 | 1.012 | 1.379 | 0.997 | 0.356 | 1.000 | 0.388 | 0.038 | 0.011 | 6.57 | 5 | 9 | 15 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0055 | 0.1884 | 0.1442 | 1.014 | 1.451 | 0.998 | 0.323 | 1.000 | 0.342 | 0.031 | 0.006 | 6.63 | 5 | 9 | 15 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0095 | 0.1190 | 0.0646 | 1.006 | 1.210 | 0.998 | 0.624 | 1.000 | 0.379 | 0.033 | 0.008 | 5.94 | 5 | 8 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9989 | 0.0056 | 0.1360 | 0.0903 | 1.009 | 1.286 | 0.995 | 0.502 | 1.000 | 0.335 | 0.023 | 0.008 | 6.11 | 5 | 8 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9992 | 0.0037 | 0.1373 | 0.0984 | 1.010 | 1.337 | 0.996 | 0.473 | 1.000 | 0.289 | 0.022 | 0.005 | 6.12 | 5 | 8 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9985 | 0.0048 | 0.0633 | 0.0249 | 1.003 | 1.105 | 0.994 | 0.833 | 1.000 | 0.264 | 0.014 | 0.003 | 5.46 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9975 | 0.0026 | 0.0681 | 0.0355 | 1.004 | 1.144 | 0.990 | 0.766 | 1.000 | 0.226 | 0.014 | 0.004 | 5.50 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9970 | 0.0018 | 0.0700 | 0.0417 | 1.005 | 1.174 | 0.987 | 0.728 | 1.000 | 0.202 | 0.008 | 0.001 | 5.51 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9998 | 0.0133 | 0.1591 | 0.0979 | 1.009 | 1.278 | 0.999 | 0.475 | 1.000 | 0.439 | 0.043 | 0.010 | 6.31 | 5 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9992 | 0.0079 | 0.1820 | 0.1306 | 1.012 | 1.373 | 0.997 | 0.359 | 1.000 | 0.387 | 0.038 | 0.011 | 6.57 | 5 | 9 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0054 | 0.1880 | 0.1438 | 1.014 | 1.447 | 0.998 | 0.324 | 1.000 | 0.342 | 0.031 | 0.006 | 6.63 | 5 | 9 | 15 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0094 | 0.1183 | 0.0639 | 1.006 | 1.204 | 0.998 | 0.628 | 1.000 | 0.379 | 0.033 | 0.008 | 5.93 | 5 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9989 | 0.0056 | 0.1355 | 0.0898 | 1.009 | 1.281 | 0.995 | 0.504 | 1.000 | 0.335 | 0.023 | 0.008 | 6.10 | 5 | 8 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9992 | 0.0037 | 0.1370 | 0.0981 | 1.010 | 1.334 | 0.996 | 0.474 | 1.000 | 0.289 | 0.022 | 0.005 | 6.11 | 5 | 8 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9985 | 0.0047 | 0.0632 | 0.0248 | 1.003 | 1.103 | 0.994 | 0.834 | 1.000 | 0.264 | 0.014 | 0.003 | 5.46 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9975 | 0.0026 | 0.0680 | 0.0354 | 1.004 | 1.143 | 0.990 | 0.767 | 1.000 | 0.226 | 0.014 | 0.004 | 5.50 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9970 | 0.0018 | 0.0699 | 0.0416 | 1.005 | 1.173 | 0.987 | 0.729 | 1.000 | 0.202 | 0.008 | 0.001 | 5.51 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9846 | 0.0709 | 0.4805 | 0.4651 | 1.025 | 1.356 | 0.924 | 0.029 | 1.000 | 0.091 | 0.065 | 0.070 | 11.94 | 6 | 21 | 36 | - | - | - | - |
| | 200 | 0.9772 | 0.0442 | 0.5291 | 0.5190 | 1.030 | 1.410 | 0.889 | 0.020 | 1.000 | 0.063 | 0.042 | 0.039 | 13.68 | 6 | 25 | 46 | - | - | - | - |
| | 300 | 0.9780 | 0.0331 | 0.5536 | 0.5469 | 1.035 | 1.470 | 0.894 | 0.015 | 1.000 | 0.045 | 0.027 | 0.031 | 14.79 | 6 | 29 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8848 | 0.0183 | 0.1670 | 0.1623 | 1.022 | 1.802 | 0.532 | 0.188 | 1.000 | 0.023 | 0.014 | 0.021 | 6.23 | 3 | 14 | 30 | - | - | - | - |
| | 200 | 0.8865 | 0.0164 | 0.2483 | 0.2439 | 1.031 | 1.946 | 0.541 | 0.118 | 1.000 | 0.020 | 0.018 | 0.015 | 7.70 | 3 | 19 | 39 | - | - | - | - |
| | 300 | 0.8954 | 0.0145 | 0.2920 | 0.2889 | 1.038 | 2.132 | 0.579 | 0.110 | 1.000 | 0.017 | 0.011 | 0.015 | 8.80 | 3 | 23 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 414: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0167 | 0.1981 | 0.0892 | 1.005 | 1.272 | 1.000 | 0.489 | 1.000 | 0.755 | 0.099 | 0.018 | 6.65 | 5 | 9 | 14 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0093 | 0.2151 | 0.1186 | 1.007 | 1.371 | 1.000 | 0.375 | 1.000 | 0.707 | 0.078 | 0.012 | 6.85 | 5 | 9 | 13 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2286 | 0.1384 | 1.008 | 1.455 | 1.000 | 0.316 | 1.000 | 0.689 | 0.058 | 0.008 | 7.01 | 5 | 10 | 14 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0130 | 0.1617 | 0.0589 | 1.004 | 1.198 | 1.000 | 0.635 | 1.000 | 0.703 | 0.074 | 0.015 | 6.29 | 5 | 8 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0070 | 0.1710 | 0.0788 | 1.005 | 1.271 | 1.000 | 0.540 | 1.000 | 0.655 | 0.061 | 0.009 | 6.40 | 5 | 8 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1800 | 0.0938 | 1.006 | 1.340 | 1.000 | 0.473 | 1.000 | 0.631 | 0.049 | 0.004 | 6.49 | 5 | 9 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0080 | 0.1065 | 0.0231 | 1.002 | 1.095 | 1.000 | 0.843 | 1.000 | 0.569 | 0.036 | 0.006 | 5.79 | 5 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0040 | 0.1047 | 0.0283 | 1.002 | 1.120 | 1.000 | 0.807 | 1.000 | 0.528 | 0.032 | 0.004 | 5.79 | 5 | 7 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1073 | 0.0368 | 1.002 | 1.160 | 1.000 | 0.760 | 1.000 | 0.498 | 0.022 | 0.001 | 5.81 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0167 | 0.1978 | 0.0890 | 1.005 | 1.270 | 1.000 | 0.491 | 1.000 | 0.755 | 0.099 | 0.018 | 6.65 | 5 | 9 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0093 | 0.2146 | 0.1181 | 1.007 | 1.365 | 1.000 | 0.377 | 1.000 | 0.707 | 0.078 | 0.012 | 6.85 | 5 | 9 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0067 | 0.2282 | 0.1380 | 1.008 | 1.450 | 1.000 | 0.317 | 1.000 | 0.689 | 0.058 | 0.008 | 7.00 | 5 | 10 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0130 | 0.1615 | 0.0588 | 1.004 | 1.197 | 1.000 | 0.636 | 1.000 | 0.702 | 0.074 | 0.015 | 6.29 | 5 | 8 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0070 | 0.1709 | 0.0786 | 1.005 | 1.269 | 1.000 | 0.540 | 1.000 | 0.655 | 0.061 | 0.009 | 6.39 | 5 | 8 | 13 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1795 | 0.0933 | 1.006 | 1.335 | 1.000 | 0.475 | 1.000 | 0.631 | 0.049 | 0.004 | 6.48 | 5 | 9 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0080 | 0.1064 | 0.0230 | 1.002 | 1.093 | 1.000 | 0.844 | 1.000 | 0.569 | 0.036 | 0.006 | 5.79 | 5 | 7 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0040 | 0.1046 | 0.0282 | 1.002 | 1.119 | 1.000 | 0.807 | 1.000 | 0.528 | 0.032 | 0.004 | 5.79 | 5 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1072 | 0.0368 | 1.002 | 1.159 | 1.000 | 0.761 | 1.000 | 0.498 | 0.022 | 0.001 | 5.81 | 5 | 7 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9989 | 0.0763 | 0.4963 | 0.4790 | 1.013 | 1.359 | 0.995 | 0.032 | 1.000 | 0.110 | 0.070 | 0.069 | 12.55 | 6 | 22 | 36 | - | - | - | - |
| | 200 | 0.9980 | 0.0446 | 0.5303 | 0.5204 | 1.017 | 1.409 | 0.990 | 0.023 | 1.000 | 0.082 | 0.048 | 0.049 | 13.87 | 6 | 25 | 43 | - | - | - | - |
| | 300 | 0.9979 | 0.0324 | 0.5482 | 0.5407 | 1.019 | 1.448 | 0.990 | 0.018 | 1.000 | 0.050 | 0.036 | 0.038 | 14.68 | 6 | 27 | 47 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9602 | 0.0211 | 0.1626 | 0.1569 | 1.012 | 1.776 | 0.817 | 0.400 | 1.000 | 0.023 | 0.020 | 0.015 | 6.89 | 4 | 16 | 31 | - | - | - | - |
| | 200 | 0.9649 | 0.0177 | 0.2342 | 0.2298 | 1.018 | 1.983 | 0.838 | 0.318 | 1.000 | 0.025 | 0.018 | 0.021 | 8.34 | 4 | 20 | 36 | - | - | - | - |
| | 300 | 0.9681 | 0.0145 | 0.2662 | 0.2631 | 1.023 | 2.138 | 0.851 | 0.289 | 1.000 | 0.020 | 0.014 | 0.018 | 9.17 | 4 | 23 | 40 | - | - | - | - |

Notes: See notes to Table 100.

## Table 415: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9988 | 0.0092 | 0.0617 | 0.0530 | 1.015 | 1.390 | 0.998 | 0.807 | 0.997 | 0.057 | 0.011 | 0.005 | 5.91 | 5 | 8 | 73 | 1.262 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0091 | 0.0683 | 0.0632 | 1.041 | 2.139 | 0.999 | 0.787 | 0.996 | 0.039 | 0.010 | 0.007 | 6.80 | 5 | 10 | 204 | 1.350 | 0.31 | 0.01 | 0.01 |
| | 300 | 0.9975 | 0.0078 | 0.0678 | 0.0633 | 1.043 | 1.961 | 0.996 | 0.777 | 0.992 | 0.035 | 0.009 | 0.009 | 7.33 | 5 | 9 | 264 | 1.421 | 0.35 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 0.9983 | 0.0063 | 0.0434 | 0.0369 | 1.011 | 1.252 | 0.996 | 0.858 | 0.996 | 0.040 | 0.008 | 0.003 | 5.62 | 5 | 7 | 64 | 1.300 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9982 | 0.0062 | 0.0488 | 0.0449 | 1.028 | 1.751 | 0.998 | 0.846 | 0.994 | 0.028 | 0.008 | 0.005 | 6.22 | 5 | 8 | 191 | 1.379 | 0.35 | 0.01 | 0.00 |
| | 300 | 0.9965 | 0.0053 | 0.0473 | 0.0441 | 1.033 | 1.709 | 0.994 | 0.835 | 0.990 | 0.025 | 0.005 | 0.006 | 6.57 | 5 | 7 | 265 | 1.441 | 0.40 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9954 | 0.0027 | 0.0194 | 0.0166 | 1.008 | 1.137 | 0.990 | 0.932 | 0.989 | 0.017 | 0.003 | 0.001 | 5.25 | 5 | 6 | 52 | 1.418 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9951 | 0.0028 | 0.0227 | 0.0203 | 1.019 | 1.506 | 0.990 | 0.922 | 0.987 | 0.016 | 0.004 | 0.003 | 5.53 | 5 | 6 | 186 | 1.476 | 0.46 | 0.01 | 0.00 |
| | 300 | 0.9934 | 0.0025 | 0.0222 | 0.0209 | 1.019 | 1.384 | 0.987 | 0.909 | 0.983 | 0.011 | 0.002 | 0.003 | 5.72 | 5 | 6 | 274 | 1.541 | 0.52 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9974 | 0.0089 | 0.0581 | 0.0497 | 1.015 | 1.338 | 0.998 | 0.822 | 0.990 | 0.056 | 0.010 | 0.005 | 5.87 | 5 | 8 | 71 | 1.236 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9972 | 0.0078 | 0.0642 | 0.0592 | 1.035 | 1.952 | 0.999 | 0.806 | 0.987 | 0.037 | 0.009 | 0.006 | 6.54 | 5 | 9 | 192 | 1.299 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.9955 | 0.0067 | 0.0634 | 0.0593 | 1.038 | 1.840 | 0.996 | 0.797 | 0.982 | 0.032 | 0.007 | 0.008 | 6.98 | 5 | 9 | 261 | 1.361 | 0.32 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.9966 | 0.0061 | 0.0410 | 0.0348 | 1.012 | 1.229 | 0.996 | 0.869 | 0.988 | 0.039 | 0.007 | 0.003 | 5.59 | 5 | 7 | 64 | 1.282 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9956 | 0.0057 | 0.0460 | 0.0420 | 1.034 | 1.846 | 0.998 | 0.862 | 0.981 | 0.028 | 0.007 | 0.005 | 6.12 | 5 | 7 | 189 | 1.341 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0049 | 0.0445 | 0.0416 | 1.031 | 1.606 | 0.994 | 0.851 | 0.977 | 0.023 | 0.005 | 0.006 | 6.43 | 5 | 7 | 267 | 1.407 | 0.37 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9937 | 0.0026 | 0.0175 | 0.0148 | 1.010 | 1.115 | 0.990 | 0.941 | 0.981 | 0.016 | 0.003 | 0.001 | 5.22 | 5 | 6 | 52 | 1.402 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9909 | 0.0027 | 0.0214 | 0.0191 | 1.027 | 1.597 | 0.990 | 0.928 | 0.966 | 0.016 | 0.004 | 0.003 | 5.50 | 5 | 6 | 192 | 1.450 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9883 | 0.0022 | 0.0207 | 0.0194 | 1.025 | 1.334 | 0.987 | 0.918 | 0.958 | 0.011 | 0.002 | 0.003 | 5.59 | 4.5 | 6 | 277 | 1.499 | 0.49 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9980 | 0.0599 | 0.4231 | 0.3966 | 1.070 | 1.534 | 0.990 | 0.080 | 1.000 | 0.103 | 0.103 | 0.116 | 10.92 | 5 | 20 | 33 | - | - | - | - |
| | 200 | 0.9980 | 0.0407 | 0.4952 | 0.4786 | 1.080 | 1.636 | 0.990 | 0.051 | 1.000 | 0.074 | 0.081 | 0.075 | 13.09 | 6 | 25 | 47 | - | - | - | - |
| | 300 | 0.9972 | 0.0340 | 0.5441 | 0.5308 | 1.091 | 1.769 | 0.987 | 0.032 | 1.000 | 0.083 | 0.060 | 0.076 | 15.15 | 6 | 31 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9540 | 0.0134 | 0.1203 | 0.1137 | 1.065 | 1.917 | 0.795 | 0.425 | 0.999 | 0.024 | 0.024 | 0.027 | 6.10 | 4 | 11 | 28 | - | - | - | - |
| | 200 | 0.9565 | 0.0115 | 0.1747 | 0.1695 | 1.075 | 2.131 | 0.814 | 0.351 | 0.998 | 0.026 | 0.021 | 0.019 | 7.08 | 4 | 17 | 37 | - | - | - | - |
| | 300 | 0.9579 | 0.0122 | 0.2320 | 0.2266 | 1.089 | 2.419 | 0.816 | 0.286 | 0.997 | 0.027 | 0.018 | 0.030 | 8.42 | 4 | 23 | 53 | - | - | - | - |

Notes: See notes to Table 100.

## Table 416: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0147 | 0.0967 | 0.0543 | 1.004 | 1.383 | 1.000 | 0.833 | 1.000 | 0.295 | 0.030 | 0.008 | 6.45 | 5 | 10 | 71 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0072 | 0.0841 | 0.0501 | 1.004 | 1.407 | 1.000 | 0.839 | 1.000 | 0.240 | 0.018 | 0.005 | 6.44 | 5 | 9 | 98 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0065 | 0.0859 | 0.0540 | 1.006 | 1.716 | 1.000 | 0.839 | 1.000 | 0.224 | 0.016 | 0.005 | 6.95 | 5 | 9 | 198 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0107 | 0.0736 | 0.0381 | 1.003 | 1.257 | 1.000 | 0.886 | 1.000 | 0.245 | 0.019 | 0.006 | 6.06 | 5 | 8 | 68 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0049 | 0.0598 | 0.0338 | 1.003 | 1.272 | 1.000 | 0.888 | 1.000 | 0.183 | 0.012 | 0.004 | 5.97 | 5 | 7 | 85 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.0643 | 0.0379 | 1.004 | 1.514 | 1.000 | 0.889 | 1.000 | 0.185 | 0.012 | 0.003 | 6.39 | 5 | 8 | 190 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0054 | 0.0400 | 0.0175 | 1.001 | 1.111 | 1.000 | 0.950 | 1.000 | 0.154 | 0.011 | 0.002 | 5.53 | 5 | 6 | 58 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0022 | 0.0320 | 0.0159 | 1.001 | 1.099 | 1.000 | 0.950 | 1.000 | 0.111 | 0.006 | 0.004 | 5.44 | 5 | 6 | 68 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0346 | 0.0184 | 1.002 | 1.212 | 1.000 | 0.947 | 1.000 | 0.111 | 0.006 | 0.001 | 5.66 | 5 | 6 | 169 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0145 | 0.0957 | 0.0532 | 1.003 | 1.356 | 1.000 | 0.839 | 1.000 | 0.295 | 0.030 | 0.008 | 6.44 | 5 | 9 | 71 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0071 | 0.0825 | 0.0485 | 1.003 | 1.371 | 1.000 | 0.850 | 1.000 | 0.240 | 0.018 | 0.005 | 6.42 | 5 | 8.5 | 98 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0064 | 0.0847 | 0.0529 | 1.005 | 1.659 | 1.000 | 0.844 | 1.000 | 0.224 | 0.016 | 0.004 | 6.92 | 5 | 9 | 198 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0107 | 0.0728 | 0.0373 | 1.002 | 1.241 | 1.000 | 0.891 | 1.000 | 0.245 | 0.019 | 0.006 | 6.06 | 5 | 8 | 68 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0049 | 0.0591 | 0.0330 | 1.002 | 1.251 | 1.000 | 0.893 | 1.000 | 0.183 | 0.012 | 0.004 | 5.97 | 5 | 7 | 85 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.0633 | 0.0368 | 1.004 | 1.458 | 1.000 | 0.895 | 1.000 | 0.185 | 0.012 | 0.003 | 6.37 | 5 | 8 | 186 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0054 | 0.0400 | 0.0174 | 1.001 | 1.108 | 1.000 | 0.950 | 1.000 | 0.154 | 0.011 | 0.002 | 5.53 | 5 | 6 | 58 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0022 | 0.0317 | 0.0156 | 1.001 | 1.091 | 1.000 | 0.952 | 1.000 | 0.111 | 0.006 | 0.004 | 5.44 | 5 | 6 | 68 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0341 | 0.0179 | 1.002 | 1.207 | 1.000 | 0.949 | 1.000 | 0.111 | 0.006 | 0.001 | 5.65 | 5 | 6 | 169 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0561 | 0.4178 | 0.3886 | 1.017 | 1.448 | 1.000 | 0.061 | 1.000 | 0.141 | 0.107 | 0.132 | 10.56 | 6 | 19 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0345 | 0.4647 | 0.4457 | 1.021 | 1.523 | 1.000 | 0.041 | 1.000 | 0.099 | 0.081 | 0.083 | 11.87 | 6 | 21.5 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0273 | 0.4973 | 0.4818 | 1.024 | 1.589 | 1.000 | 0.034 | 1.000 | 0.083 | 0.062 | 0.063 | 13.16 | 6 | 26 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0094 | 0.0726 | 0.0680 | 1.009 | 1.586 | 1.000 | 0.799 | 1.000 | 0.025 | 0.016 | 0.025 | 5.93 | 5 | 12 | 30 | - | - | - | - |
| | 200 | 0.9999 | 0.0078 | 0.1093 | 0.1051 | 1.013 | 1.842 | 1.000 | 0.722 | 1.000 | 0.021 | 0.017 | 0.021 | 6.55 | 5 | 15 | 32 | - | - | - | - |
| | 300 | 0.9998 | 0.0084 | 0.1563 | 0.1521 | 1.018 | 2.143 | 0.999 | 0.650 | 1.000 | 0.017 | 0.017 | 0.016 | 7.52 | 5 | 19 | 56 | - | - | - | - |

Notes: See notes to Table 100.

## Table 417: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0194 | 0.1400 | 0.0553 | 1.003 | 1.394 | 1.000 | 0.838 | 1.000 | 0.592 | 0.048 | 0.009 | 6.92 | 5 | 10 | 66 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0088 | 0.1220 | 0.0512 | 1.002 | 1.421 | 1.000 | 0.845 | 1.000 | 0.503 | 0.027 | 0.006 | 6.75 | 5 | 10 | 108 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0092 | 0.1233 | 0.0576 | 1.004 | 1.686 | 1.000 | 0.833 | 1.000 | 0.468 | 0.031 | 0.004 | 7.74 | 5 | 10 | 164 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0149 | 0.1157 | 0.0400 | 1.002 | 1.291 | 1.000 | 0.887 | 1.000 | 0.528 | 0.034 | 0.005 | 6.48 | 5 | 8 | 62 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0064 | 0.0976 | 0.0351 | 1.002 | 1.276 | 1.000 | 0.892 | 1.000 | 0.441 | 0.019 | 0.004 | 6.28 | 5 | 8 | 104 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.0987 | 0.0405 | 1.003 | 1.498 | 1.000 | 0.884 | 1.000 | 0.410 | 0.023 | 0.003 | 7.03 | 5 | 8 | 151 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0082 | 0.0751 | 0.0202 | 1.001 | 1.130 | 1.000 | 0.947 | 1.000 | 0.382 | 0.015 | 0.003 | 5.82 | 5 | 7 | 53 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0032 | 0.0601 | 0.0145 | 1.001 | 1.099 | 1.000 | 0.953 | 1.000 | 0.318 | 0.009 | 0.002 | 5.63 | 5 | 6 | 82 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.0620 | 0.0198 | 1.001 | 1.231 | 1.000 | 0.947 | 1.000 | 0.297 | 0.010 | 0.000 | 6.02 | 5 | 6 | 117 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0193 | 0.1389 | 0.0543 | 1.002 | 1.369 | 1.000 | 0.843 | 1.000 | 0.591 | 0.048 | 0.008 | 6.91 | 5 | 10 | 66 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0087 | 0.1211 | 0.0502 | 1.002 | 1.383 | 1.000 | 0.849 | 1.000 | 0.503 | 0.027 | 0.006 | 6.74 | 5 | 10 | 108 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0091 | 0.1227 | 0.0570 | 1.004 | 1.668 | 1.000 | 0.835 | 1.000 | 0.468 | 0.031 | 0.004 | 7.73 | 5 | 10 | 164 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0148 | 0.1150 | 0.0394 | 1.002 | 1.275 | 1.000 | 0.891 | 1.000 | 0.527 | 0.034 | 0.005 | 6.47 | 5 | 8 | 62 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0064 | 0.0973 | 0.0347 | 1.002 | 1.256 | 1.000 | 0.895 | 1.000 | 0.441 | 0.019 | 0.004 | 6.27 | 5 | 8 | 104 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.0986 | 0.0403 | 1.003 | 1.488 | 1.000 | 0.885 | 1.000 | 0.410 | 0.023 | 0.003 | 7.03 | 5 | 8 | 151 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0082 | 0.0751 | 0.0201 | 1.001 | 1.129 | 1.000 | 0.947 | 1.000 | 0.382 | 0.015 | 0.003 | 5.82 | 5 | 7 | 53 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0031 | 0.0600 | 0.0144 | 1.001 | 1.096 | 1.000 | 0.954 | 1.000 | 0.318 | 0.009 | 0.002 | 5.63 | 5 | 6 | 82 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.0618 | 0.0196 | 1.001 | 1.225 | 1.000 | 0.948 | 1.000 | 0.297 | 0.010 | 0.000 | 6.02 | 5 | 6 | 117 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0552 | 0.4093 | 0.3783 | 1.010 | 1.438 | 1.000 | 0.071 | 1.000 | 0.130 | 0.119 | 0.129 | 10.47 | 5 | 19 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0333 | 0.4491 | 0.4302 | 1.012 | 1.517 | 1.000 | 0.053 | 1.000 | 0.109 | 0.077 | 0.079 | 11.63 | 6 | 23 | 40 | - | - | - | - |
| | 300 | 1.0000 | 0.0258 | 0.4810 | 0.4653 | 1.013 | 1.556 | 1.000 | 0.044 | 1.000 | 0.086 | 0.070 | 0.064 | 12.71 | 6 | 26 | 49 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0084 | 0.0650 | 0.0606 | 1.005 | 1.521 | 1.000 | 0.849 | 1.000 | 0.017 | 0.017 | 0.016 | 5.83 | 5 | 12 | 26 | - | - | - | - |
| | 200 | 1.0000 | 0.0079 | 0.1064 | 0.1028 | 1.007 | 1.802 | 1.000 | 0.778 | 1.000 | 0.017 | 0.013 | 0.015 | 6.58 | 5 | 16 | 33 | - | - | - | - |
| | 300 | 1.0000 | 0.0073 | 0.1388 | 0.1345 | 1.009 | 2.009 | 1.000 | 0.725 | 1.000 | 0.018 | 0.020 | 0.014 | 7.17 | 5 | 18 | 38 | - | - | - | - |

Notes: See notes to Table 100.

## Table 418: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9753 | 0.0101 | 0.0682 | 0.0609 | 1.030 | 1.533 | 0.945 | 0.756 | 0.946 | 0.048 | 0.011 | 0.003 | 5.88 | 4 | 9 | 65 | 1.223 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9614 | 0.0108 | 0.0759 | 0.0711 | 1.069 | 2.345 | 0.920 | 0.703 | 0.919 | 0.039 | 0.008 | 0.008 | 6.95 | 4 | 10 | 204 | 1.305 | 0.24 | 0.02 | 0.01 |
| | 300 | 0.9568 | 0.0096 | 0.0841 | 0.0787 | 1.074 | 2.304 | 0.908 | 0.676 | 0.913 | 0.042 | 0.011 | 0.010 | 7.64 | 4 | 10.5 | 279 | 1.366 | 0.28 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 0.9669 | 0.0067 | 0.0482 | 0.0428 | 1.028 | 1.340 | 0.922 | 0.790 | 0.932 | 0.035 | 0.006 | 0.002 | 5.50 | 4 | 7 | 54 | 1.248 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9510 | 0.0055 | 0.0534 | 0.0497 | 1.047 | 1.779 | 0.899 | 0.754 | 0.904 | 0.026 | 0.003 | 0.004 | 5.84 | 4 | 8 | 191 | 1.280 | 0.27 | 0.01 | 0.00 |
| | 300 | 0.9450 | 0.0064 | 0.0606 | 0.0563 | 1.064 | 2.044 | 0.879 | 0.715 | 0.899 | 0.031 | 0.007 | 0.008 | 6.63 | 4 | 8 | 273 | 1.349 | 0.29 | 0.01 | 0.01 |
| $p = 0.01$, | 100 | 0.9363 | 0.0027 | 0.0234 | 0.0203 | 1.031 | 1.234 | 0.852 | 0.796 | 0.887 | 0.021 | 0.002 | 0.000 | 4.95 | 3 | 6 | 38 | 1.327 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9124 | 0.0022 | 0.0264 | 0.0239 | 1.046 | 1.456 | 0.812 | 0.753 | 0.852 | 0.017 | 0.001 | 0.001 | 4.99 | 3 | 6 | 187 | 1.334 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.8997 | 0.0023 | 0.0274 | 0.0246 | 1.059 | 1.590 | 0.790 | 0.722 | 0.833 | 0.018 | 0.004 | 0.003 | 5.18 | 3 | 6 | 256 | 1.363 | 0.34 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9663 | 0.0097 | 0.0647 | 0.0574 | 1.036 | 1.458 | 0.945 | 0.772 | 0.901 | 0.048 | 0.011 | 0.003 | 5.79 | 4 | 9 | 64 | 1.154 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9501 | 0.0096 | 0.0723 | 0.0676 | 1.073 | 2.250 | 0.920 | 0.721 | 0.864 | 0.037 | 0.006 | 0.007 | 6.65 | 4 | 9 | 193 | 1.207 | 0.16 | 0.01 | 0.00 |
| | 300 | 0.9460 | 0.0086 | 0.0794 | 0.0741 | 1.081 | 2.237 | 0.908 | 0.695 | 0.859 | 0.040 | 0.010 | 0.009 | 7.30 | 4 | 10 | 270 | 1.249 | 0.19 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.9564 | 0.0065 | 0.0458 | 0.0405 | 1.036 | 1.314 | 0.922 | 0.801 | 0.880 | 0.034 | 0.006 | 0.002 | 5.43 | 4 | 7 | 54 | 1.183 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9380 | 0.0053 | 0.0512 | 0.0474 | 1.063 | 1.898 | 0.899 | 0.766 | 0.840 | 0.026 | 0.003 | 0.004 | 5.75 | 3 | 7 | 183 | 1.198 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.9295 | 0.0052 | 0.0573 | 0.0531 | 1.073 | 1.932 | 0.879 | 0.731 | 0.823 | 0.029 | 0.006 | 0.006 | 6.21 | 3 | 8 | 273 | 1.238 | 0.20 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9212 | 0.0026 | 0.0224 | 0.0194 | 1.044 | 1.234 | 0.852 | 0.801 | 0.812 | 0.020 | 0.002 | 0.000 | 4.86 | 3 | 6 | 38 | 1.247 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8946 | 0.0021 | 0.0254 | 0.0230 | 1.063 | 1.458 | 0.812 | 0.757 | 0.765 | 0.017 | 0.001 | 0.001 | 4.89 | 3 | 6 | 187 | 1.243 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.8815 | 0.0016 | 0.0259 | 0.0232 | 1.071 | 1.492 | 0.790 | 0.729 | 0.743 | 0.017 | 0.003 | 0.002 | 4.90 | 2 | 6 | 263 | 1.254 | 0.25 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9674 | 0.0583 | 0.4259 | 0.4010 | 1.068 | 1.485 | 0.851 | 0.055 | 0.995 | 0.097 | 0.117 | 0.112 | 10.61 | 5 | 19 | 46 | - | - | - | - |
| | 200 | 0.9654 | 0.0402 | 0.4928 | 0.4772 | 1.082 | 1.655 | 0.842 | 0.041 | 0.998 | 0.085 | 0.086 | 0.094 | 12.83 | 5 | 25 | 61 | - | - | - | - |
| | 300 | 0.9641 | 0.0328 | 0.5404 | 0.5280 | 1.091 | 1.724 | 0.832 | 0.026 | 0.996 | 0.072 | 0.072 | 0.081 | 14.62 | 6 | 30 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8255 | 0.0146 | 0.1495 | 0.1421 | 1.071 | 1.913 | 0.377 | 0.145 | 0.976 | 0.021 | 0.028 | 0.028 | 5.57 | 3 | 10.5 | 41 | - | - | - | - |
| | 200 | 0.8297 | 0.0132 | 0.2178 | 0.2121 | 1.085 | 2.231 | 0.393 | 0.099 | 0.977 | 0.020 | 0.027 | 0.034 | 6.78 | 3 | 16 | 45 | - | - | - | - |
| | 300 | 0.8433 | 0.0126 | 0.2691 | 0.2640 | 1.096 | 2.439 | 0.435 | 0.077 | 0.976 | 0.027 | 0.029 | 0.031 | 7.99 | 3 | 21 | 56 | - | - | - | - |

Notes: See notes to Table 100.

**Table 419: Monte Carlo findings for DGPI(c)**

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0146 | 0.0967 | 0.0549 | 1.005 | 1.427 | 1.000 | 0.839 | 1.000 | 0.292 | 0.027 | 0.005 | 6.44 | 5 | 10.5 | 66 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0073 | 0.0861 | 0.0522 | 1.004 | 1.464 | 1.000 | 0.841 | 1.000 | 0.240 | 0.016 | 0.004 | 6.46 | 5 | 9.5 | 127 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0072 | 0.0926 | 0.0623 | 1.008 | 1.744 | 1.000 | 0.823 | 1.000 | 0.219 | 0.012 | 0.004 | 7.15 | 5 | 11 | 174 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0103 | 0.0739 | 0.0391 | 1.003 | 1.314 | 1.000 | 0.884 | 1.000 | 0.243 | 0.017 | 0.003 | 6.02 | 5 | 8 | 62 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0051 | 0.0654 | 0.0366 | 1.003 | 1.304 | 1.000 | 0.885 | 1.000 | 0.201 | 0.011 | 0.004 | 6.01 | 5 | 7 | 115 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.0682 | 0.0439 | 1.005 | 1.500 | 1.000 | 0.876 | 1.000 | 0.172 | 0.011 | 0.001 | 6.48 | 5 | 8 | 163 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0047 | 0.0385 | 0.0172 | 1.002 | 1.143 | 1.000 | 0.949 | 1.000 | 0.147 | 0.009 | 0.002 | 5.46 | 5 | 6 | 51 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0326 | 0.0149 | 1.001 | 1.114 | 1.000 | 0.955 | 1.000 | 0.123 | 0.006 | 0.001 | 5.43 | 5 | 6 | 92 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0333 | 0.0194 | 1.003 | 1.221 | 1.000 | 0.940 | 1.000 | 0.098 | 0.005 | 0.001 | 5.66 | 5 | 6 | 132 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0145 | 0.0958 | 0.0540 | 1.004 | 1.396 | 1.000 | 0.843 | 1.000 | 0.292 | 0.027 | 0.005 | 6.43 | 5 | 10 | 66 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0072 | 0.0849 | 0.0510 | 1.004 | 1.435 | 1.000 | 0.846 | 1.000 | 0.240 | 0.016 | 0.004 | 6.44 | 5 | 9 | 127 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.0914 | 0.0610 | 1.008 | 1.708 | 1.000 | 0.828 | 1.000 | 0.219 | 0.012 | 0.004 | 7.13 | 5 | 11 | 174 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0102 | 0.0731 | 0.0383 | 1.003 | 1.294 | 1.000 | 0.888 | 1.000 | 0.243 | 0.017 | 0.003 | 6.01 | 5 | 8 | 62 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0050 | 0.0650 | 0.0362 | 1.003 | 1.291 | 1.000 | 0.886 | 1.000 | 0.201 | 0.011 | 0.004 | 6.00 | 5 | 7 | 115 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.0672 | 0.0429 | 1.005 | 1.473 | 1.000 | 0.881 | 1.000 | 0.172 | 0.011 | 0.001 | 6.47 | 5 | 8 | 163 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0046 | 0.0382 | 0.0170 | 1.002 | 1.138 | 1.000 | 0.951 | 1.000 | 0.147 | 0.009 | 0.002 | 5.46 | 5 | 6 | 51 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0021 | 0.0324 | 0.0146 | 1.001 | 1.108 | 1.000 | 0.956 | 1.000 | 0.123 | 0.006 | 0.001 | 5.43 | 5 | 6 | 92 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0331 | 0.0192 | 1.003 | 1.217 | 1.000 | 0.941 | 1.000 | 0.098 | 0.005 | 0.001 | 5.66 | 5 | 6 | 132 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0588 | 0.4313 | 0.4037 | 1.018 | 1.487 | 1.000 | 0.050 | 1.000 | 0.141 | 0.118 | 0.131 | 10.82 | 6 | 19 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0355 | 0.4754 | 0.4584 | 1.021 | 1.536 | 1.000 | 0.039 | 1.000 | 0.108 | 0.101 | 0.093 | 12.07 | 6 | 22 | 47 | - | - | - | - |
| | 300 | 0.9999 | 0.0282 | 0.5105 | 0.4957 | 1.024 | 1.596 | 1.000 | 0.028 | 1.000 | 0.092 | 0.074 | 0.084 | 13.43 | 6 | 26 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9894 | 0.0117 | 0.1059 | 0.0999 | 1.013 | 1.772 | 0.948 | 0.578 | 1.000 | 0.027 | 0.019 | 0.025 | 6.11 | 5 | 12 | 31 | - | - | - | - |
| | 200 | 0.9902 | 0.0086 | 0.1334 | 0.1297 | 1.017 | 1.993 | 0.953 | 0.538 | 1.000 | 0.020 | 0.026 | 0.025 | 6.66 | 5 | 15 | 43 | - | - | - | - |
| | 300 | 0.9908 | 0.0094 | 0.1885 | 0.1843 | 1.022 | 2.303 | 0.955 | 0.449 | 1.000 | 0.027 | 0.020 | 0.029 | 7.78 | 5 | 19 | 58 | - | - | - | - |

Notes: See notes to Table 100.

**Table 420: Monte Carlo findings for DGPI(c)**

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0151 | 0.1324 | 0.0486 | 1.003 | 1.295 | 1.000 | 0.843 | 1.000 | 0.571 | 0.056 | 0.013 | 6.49 | 5 | 9 | 62 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0093 | 0.1209 | 0.0490 | 1.003 | 1.443 | 1.000 | 0.844 | 1.000 | 0.502 | 0.035 | 0.006 | 6.84 | 5 | 9 | 113 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0080 | 0.1204 | 0.0508 | 1.004 | 1.669 | 1.000 | 0.851 | 1.000 | 0.485 | 0.035 | 0.007 | 7.38 | 5 | 9 | 203 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0111 | 0.1087 | 0.0337 | 1.002 | 1.203 | 1.000 | 0.882 | 1.000 | 0.510 | 0.040 | 0.008 | 6.10 | 5 | 8 | 58 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0069 | 0.0994 | 0.0349 | 1.002 | 1.335 | 1.000 | 0.890 | 1.000 | 0.451 | 0.023 | 0.003 | 6.38 | 5 | 7.5 | 101 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0059 | 0.0977 | 0.0367 | 1.003 | 1.498 | 1.000 | 0.889 | 1.000 | 0.423 | 0.027 | 0.005 | 6.78 | 5 | 7 | 198 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0060 | 0.0677 | 0.0127 | 1.001 | 1.091 | 1.000 | 0.951 | 1.000 | 0.372 | 0.021 | 0.002 | 5.59 | 5 | 6.5 | 43 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0036 | 0.0622 | 0.0153 | 1.001 | 1.129 | 1.000 | 0.956 | 1.000 | 0.326 | 0.010 | 0.001 | 5.71 | 5 | 6 | 79 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.0622 | 0.0177 | 1.001 | 1.265 | 1.000 | 0.952 | 1.000 | 0.312 | 0.009 | 0.002 | 5.94 | 5 | 6 | 183 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0150 | 0.1319 | 0.0480 | 1.002 | 1.282 | 1.000 | 0.846 | 1.000 | 0.571 | 0.056 | 0.013 | 6.49 | 5 | 9 | 62 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0092 | 0.1202 | 0.0482 | 1.003 | 1.423 | 1.000 | 0.848 | 1.000 | 0.502 | 0.035 | 0.006 | 6.83 | 5 | 9 | 113 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.1198 | 0.0502 | 1.004 | 1.644 | 1.000 | 0.852 | 1.000 | 0.485 | 0.035 | 0.007 | 7.37 | 5 | 9 | 203 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0110 | 0.1083 | 0.0333 | 1.002 | 1.191 | 1.000 | 0.885 | 1.000 | 0.510 | 0.040 | 0.008 | 6.09 | 5 | 8 | 58 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0069 | 0.0989 | 0.0343 | 1.002 | 1.321 | 1.000 | 0.893 | 1.000 | 0.451 | 0.023 | 0.003 | 6.37 | 5 | 7.5 | 101 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0059 | 0.0975 | 0.0364 | 1.003 | 1.487 | 1.000 | 0.890 | 1.000 | 0.423 | 0.027 | 0.005 | 6.77 | 5 | 7 | 198 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0059 | 0.0674 | 0.0125 | 1.001 | 1.085 | 1.000 | 0.953 | 1.000 | 0.372 | 0.021 | 0.002 | 5.59 | 5 | 6 | 43 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0036 | 0.0621 | 0.0152 | 1.001 | 1.127 | 1.000 | 0.956 | 1.000 | 0.326 | 0.010 | 0.001 | 5.71 | 5 | 6 | 79 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.0622 | 0.0177 | 1.001 | 1.265 | 1.000 | 0.952 | 1.000 | 0.312 | 0.009 | 0.002 | 5.94 | 5 | 6 | 183 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0553 | 0.4179 | 0.3893 | 1.010 | 1.446 | 1.000 | 0.058 | 1.000 | 0.144 | 0.118 | 0.134 | 10.48 | 6 | 18 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0357 | 0.4736 | 0.4523 | 1.012 | 1.524 | 1.000 | 0.040 | 1.000 | 0.118 | 0.084 | 0.085 | 12.10 | 6 | 23 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0266 | 0.4969 | 0.4811 | 1.013 | 1.570 | 1.000 | 0.029 | 1.000 | 0.102 | 0.057 | 0.075 | 12.94 | 6 | 24 | 42 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0101 | 0.0832 | 0.0781 | 1.006 | 1.662 | 0.998 | 0.747 | 1.000 | 0.023 | 0.020 | 0.021 | 6.00 | 5 | 13 | 27 | - | - | - | - |
| | 200 | 0.9992 | 0.0095 | 0.1316 | 0.1268 | 1.009 | 1.976 | 0.996 | 0.663 | 1.000 | 0.027 | 0.021 | 0.026 | 6.89 | 5 | 17 | 36 | - | - | - | - |
| | 300 | 0.9997 | 0.0078 | 0.1530 | 0.1489 | 1.010 | 2.182 | 0.999 | 0.623 | 1.000 | 0.028 | 0.019 | 0.030 | 7.32 | 5 | 18 | 35 | - | - | - | - |

Notes: See notes to Table 100.

## Table 421: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8175 | 0.0129 | 0.0793 | 0.0705 | 1.053 | 1.917 | 0.582 | 0.463 | 0.852 | 0.049 | 0.010 | 0.006 | 5.36 | 2 | 9 | 75 | 1.114 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7774 | 0.0083 | 0.0792 | 0.0732 | 1.080 | 2.107 | 0.540 | 0.420 | 0.804 | 0.036 | 0.009 | 0.007 | 5.54 | 1 | 8 | 197 | 1.168 | 0.13 | 0.01 | 0.00 |
| | 300 | 0.7472 | 0.0073 | 0.0808 | 0.0752 | 1.092 | 2.132 | 0.490 | 0.382 | 0.766 | 0.035 | 0.009 | 0.007 | 5.93 | 1 | 8 | 278 | 1.181 | 0.13 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.7704 | 0.0093 | 0.0592 | 0.0528 | 1.056 | 1.633 | 0.514 | 0.442 | 0.806 | 0.035 | 0.007 | 0.004 | 4.77 | 1 | 7 | 63 | 1.110 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7307 | 0.0052 | 0.0575 | 0.0531 | 1.082 | 1.988 | 0.467 | 0.387 | 0.756 | 0.025 | 0.006 | 0.004 | 4.70 | 1 | 7 | 196 | 1.156 | 0.13 | 0.01 | 0.00 |
| | 300 | 0.6945 | 0.0044 | 0.0580 | 0.0535 | 1.087 | 1.827 | 0.423 | 0.359 | 0.713 | 0.027 | 0.005 | 0.004 | 4.78 | 1 | 6 | 283 | 1.150 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6571 | 0.0046 | 0.0322 | 0.0289 | 1.075 | 1.532 | 0.363 | 0.338 | 0.700 | 0.017 | 0.003 | 0.001 | 3.74 | 1 | 5 | 54 | 1.147 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6235 | 0.0017 | 0.0284 | 0.0262 | 1.088 | 1.551 | 0.339 | 0.313 | 0.646 | 0.011 | 0.002 | 0.001 | 3.45 | 0 | 5 | 61 | 1.146 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.5798 | 0.0014 | 0.0268 | 0.0247 | 1.100 | 1.563 | 0.294 | 0.269 | 0.611 | 0.011 | 0.001 | 0.001 | 3.33 | 0 | 5 | 304 | 1.138 | 0.14 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8066 | 0.0125 | 0.0773 | 0.0685 | 1.057 | 1.717 | 0.582 | 0.470 | 0.802 | 0.048 | 0.010 | 0.006 | 5.27 | 2 | 9 | 69 | 1.040 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7630 | 0.0073 | 0.0769 | 0.0709 | 1.086 | 2.012 | 0.539 | 0.426 | 0.742 | 0.035 | 0.007 | 0.005 | 5.27 | 1 | 8 | 204 | 1.073 | 0.05 | 0.01 | 0.00 |
| | 300 | 0.7343 | 0.0068 | 0.0783 | 0.0727 | 1.096 | 2.048 | 0.489 | 0.386 | 0.710 | 0.035 | 0.008 | 0.007 | 5.70 | 1 | 8 | 262 | 1.093 | 0.05 | 0.01 | 0.01 |
| $p = 0.05$, | 100 | 0.7591 | 0.0091 | 0.0578 | 0.0515 | 1.063 | 1.600 | 0.514 | 0.445 | 0.759 | 0.035 | 0.007 | 0.004 | 4.69 | 1 | 7 | 63 | 1.046 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7167 | 0.0045 | 0.0559 | 0.0515 | 1.087 | 1.867 | 0.466 | 0.392 | 0.698 | 0.024 | 0.005 | 0.003 | 4.48 | 1 | 7 | 186 | 1.063 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.6820 | 0.0042 | 0.0560 | 0.0514 | 1.095 | 1.856 | 0.423 | 0.362 | 0.659 | 0.027 | 0.005 | 0.004 | 4.68 | 1 | 6 | 268 | 1.075 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6421 | 0.0046 | 0.0320 | 0.0285 | 1.083 | 1.513 | 0.363 | 0.338 | 0.644 | 0.017 | 0.003 | 0.001 | 3.67 | 1 | 5 | 54 | 1.072 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6075 | 0.0016 | 0.0276 | 0.0255 | 1.097 | 1.522 | 0.338 | 0.314 | 0.583 | 0.011 | 0.002 | 0.001 | 3.36 | 0 | 5 | 61 | 1.065 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.5635 | 0.0014 | 0.0262 | 0.0240 | 1.109 | 1.542 | 0.294 | 0.271 | 0.544 | 0.011 | 0.001 | 0.001 | 3.24 | 0 | 5 | 304 | 1.054 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8570 | 0.0532 | 0.4247 | 0.4011 | 1.062 | 1.376 | 0.461 | 0.024 | 0.995 | 0.108 | 0.095 | 0.116 | 9.55 | 4 | 18 | 36 | - | - | - | - |
| | 200 | 0.8375 | 0.0384 | 0.5107 | 0.4932 | 1.073 | 1.485 | 0.400 | 0.017 | 0.991 | 0.068 | 0.087 | 0.090 | 11.84 | 4 | 24 | 51 | - | - | - | - |
| | 300 | 0.8351 | 0.0314 | 0.5549 | 0.5412 | 1.082 | 1.560 | 0.402 | 0.008 | 0.983 | 0.067 | 0.055 | 0.077 | 13.57 | 5 | 29 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6465 | 0.0149 | 0.1783 | 0.1695 | 1.063 | 1.757 | 0.084 | 0.021 | 0.965 | 0.029 | 0.024 | 0.034 | 4.71 | 2 | 10 | 31 | - | - | - | - |
| | 200 | 0.6514 | 0.0131 | 0.2532 | 0.2451 | 1.075 | 2.006 | 0.081 | 0.008 | 0.948 | 0.029 | 0.029 | 0.031 | 5.87 | 2 | 14 | 44 | - | - | - | - |
| | 300 | 0.6591 | 0.0124 | 0.3098 | 0.3032 | 1.091 | 2.238 | 0.107 | 0.012 | 0.944 | 0.026 | 0.028 | 0.030 | 7.01 | 2 | 19 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 422: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9999 | 0.0147 | 0.0990 | 0.0565 | 1.005 | 1.448 | 1.000 | 0.824 | 1.000 | 0.304 | 0.016 | 0.006 | 6.46 | 5 | 10 | 67 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0076 | 0.0835 | 0.0514 | 1.006 | 1.517 | 0.998 | 0.835 | 1.000 | 0.226 | 0.018 | 0.006 | 6.50 | 5 | 9 | 119 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0072 | 0.0890 | 0.0602 | 1.007 | 1.703 | 0.999 | 0.827 | 1.000 | 0.203 | 0.014 | 0.006 | 7.15 | 5 | 10.5 | 169 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0106 | 0.0745 | 0.0395 | 1.004 | 1.298 | 0.999 | 0.878 | 1.000 | 0.247 | 0.011 | 0.004 | 6.05 | 5 | 8 | 62 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0053 | 0.0612 | 0.0353 | 1.004 | 1.350 | 0.995 | 0.882 | 1.000 | 0.180 | 0.014 | 0.004 | 6.05 | 5 | 7 | 111 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0050 | 0.0673 | 0.0431 | 1.005 | 1.492 | 0.998 | 0.873 | 1.000 | 0.169 | 0.011 | 0.003 | 6.49 | 5 | 8 | 156 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9993 | 0.0049 | 0.0378 | 0.0175 | 1.002 | 1.137 | 0.997 | 0.942 | 1.000 | 0.142 | 0.005 | 0.002 | 5.48 | 5 | 6 | 54 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9981 | 0.0024 | 0.0327 | 0.0159 | 1.002 | 1.147 | 0.993 | 0.945 | 1.000 | 0.116 | 0.006 | 0.002 | 5.47 | 5 | 6 | 101 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9985 | 0.0022 | 0.0354 | 0.0203 | 1.002 | 1.194 | 0.993 | 0.934 | 1.000 | 0.103 | 0.006 | 0.001 | 5.64 | 5 | 6 | 120 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9999 | 0.0146 | 0.0981 | 0.0556 | 1.005 | 1.424 | 1.000 | 0.828 | 1.000 | 0.304 | 0.016 | 0.006 | 6.45 | 5 | 10 | 67 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0075 | 0.0824 | 0.0504 | 1.006 | 1.462 | 0.998 | 0.840 | 1.000 | 0.226 | 0.018 | 0.006 | 6.49 | 5 | 8.5 | 119 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0071 | 0.0881 | 0.0593 | 1.007 | 1.653 | 0.999 | 0.828 | 1.000 | 0.203 | 0.014 | 0.006 | 7.12 | 5 | 10 | 169 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0106 | 0.0741 | 0.0391 | 1.004 | 1.288 | 0.999 | 0.881 | 1.000 | 0.247 | 0.011 | 0.004 | 6.04 | 5 | 8 | 62 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9990 | 0.0053 | 0.0608 | 0.0349 | 1.004 | 1.333 | 0.995 | 0.884 | 1.000 | 0.180 | 0.014 | 0.004 | 6.04 | 5 | 7 | 111 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0050 | 0.0669 | 0.0426 | 1.005 | 1.451 | 0.998 | 0.875 | 1.000 | 0.169 | 0.011 | 0.003 | 6.48 | 5 | 8 | 155 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9993 | 0.0049 | 0.0377 | 0.0175 | 1.002 | 1.137 | 0.997 | 0.942 | 1.000 | 0.142 | 0.005 | 0.001 | 5.48 | 5 | 6 | 54 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9980 | 0.0024 | 0.0326 | 0.0158 | 1.002 | 1.145 | 0.993 | 0.946 | 1.000 | 0.116 | 0.006 | 0.002 | 5.46 | 5 | 6 | 101 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9984 | 0.0022 | 0.0353 | 0.0202 | 1.002 | 1.191 | 0.993 | 0.934 | 1.000 | 0.103 | 0.006 | 0.001 | 5.64 | 5 | 6 | 120 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9904 | 0.0594 | 0.4371 | 0.4082 | 1.018 | 1.477 | 0.952 | 0.046 | 1.000 | 0.133 | 0.119 | 0.118 | 10.83 | 5 | 19 | 37 | - | - | - | - |
| | 200 | 0.9906 | 0.0370 | 0.4829 | 0.4638 | 1.021 | 1.560 | 0.954 | 0.036 | 1.000 | 0.090 | 0.079 | 0.087 | 12.31 | 6 | 23 | 46 | - | - | - | - |
| | 300 | 0.9889 | 0.0280 | 0.5135 | 0.4987 | 1.024 | 1.576 | 0.945 | 0.028 | 1.000 | 0.087 | 0.060 | 0.075 | 13.31 | 6 | 25 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9019 | 0.0134 | 0.1307 | 0.1229 | 1.017 | 1.893 | 0.586 | 0.251 | 1.000 | 0.027 | 0.021 | 0.025 | 5.83 | 3 | 11 | 33 | - | - | - | - |
| | 200 | 0.9069 | 0.0115 | 0.1846 | 0.1782 | 1.023 | 2.213 | 0.610 | 0.198 | 1.000 | 0.023 | 0.020 | 0.026 | 6.82 | 3 | 16 | 39 | - | - | - | - |
| | 300 | 0.9061 | 0.0095 | 0.2164 | 0.2107 | 1.026 | 2.365 | 0.598 | 0.167 | 1.000 | 0.021 | 0.024 | 0.024 | 7.38 | 3 | 18 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 423: Monte Carlo findings for DGPI(c)**

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0168 | 0.1365 | 0.0553 | 1.003 | 1.349 | 1.000 | 0.829 | 1.000 | 0.562 | 0.050 | 0.013 | 6.66 | 5 | 10.5 | 64 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0102 | 0.1218 | 0.0494 | 1.004 | 1.527 | 1.000 | 0.843 | 1.000 | 0.504 | 0.040 | 0.008 | 7.03 | 5 | 8 | 136 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.1156 | 0.0505 | 1.004 | 1.622 | 1.000 | 0.855 | 1.000 | 0.459 | 0.029 | 0.003 | 7.19 | 5 | 9 | 171 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0123 | 0.1102 | 0.0375 | 1.002 | 1.224 | 1.000 | 0.883 | 1.000 | 0.502 | 0.034 | 0.008 | 6.21 | 5 | 8 | 59 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0079 | 0.1001 | 0.0359 | 1.003 | 1.395 | 1.000 | 0.888 | 1.000 | 0.451 | 0.024 | 0.005 | 6.57 | 5 | 7 | 129 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0054 | 0.0930 | 0.0358 | 1.003 | 1.442 | 1.000 | 0.899 | 1.000 | 0.400 | 0.021 | 0.002 | 6.61 | 5 | 8 | 160 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0062 | 0.0669 | 0.0150 | 1.001 | 1.087 | 1.000 | 0.949 | 1.000 | 0.358 | 0.015 | 0.002 | 5.61 | 5 | 7 | 48 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0042 | 0.0628 | 0.0166 | 1.001 | 1.186 | 1.000 | 0.956 | 1.000 | 0.323 | 0.010 | 0.002 | 5.84 | 5 | 6 | 111 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.0570 | 0.0163 | 1.002 | 1.206 | 1.000 | 0.955 | 1.000 | 0.283 | 0.012 | 0.001 | 5.83 | 5 | 6 | 126 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0167 | 0.1358 | 0.0546 | 1.003 | 1.324 | 1.000 | 0.832 | 1.000 | 0.561 | 0.050 | 0.013 | 6.65 | 5 | 10 | 64 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0102 | 0.1213 | 0.0488 | 1.004 | 1.507 | 1.000 | 0.846 | 1.000 | 0.504 | 0.040 | 0.008 | 7.03 | 5 | 8 | 136 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0073 | 0.1149 | 0.0497 | 1.004 | 1.575 | 1.000 | 0.857 | 1.000 | 0.459 | 0.029 | 0.003 | 7.17 | 5 | 9 | 171 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0122 | 0.1098 | 0.0371 | 1.002 | 1.215 | 1.000 | 0.885 | 1.000 | 0.502 | 0.034 | 0.008 | 6.21 | 5 | 8 | 59 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0079 | 0.0999 | 0.0357 | 1.003 | 1.390 | 1.000 | 0.889 | 1.000 | 0.451 | 0.024 | 0.005 | 6.57 | 5 | 7 | 129 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0054 | 0.0926 | 0.0355 | 1.003 | 1.423 | 1.000 | 0.901 | 1.000 | 0.400 | 0.021 | 0.002 | 6.60 | 5 | 8 | 160 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0061 | 0.0666 | 0.0147 | 1.001 | 1.080 | 1.000 | 0.951 | 1.000 | 0.358 | 0.015 | 0.002 | 5.61 | 5 | 7 | 48 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0042 | 0.0626 | 0.0165 | 1.001 | 1.182 | 1.000 | 0.957 | 1.000 | 0.323 | 0.010 | 0.002 | 5.84 | 5 | 6 | 111 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0028 | 0.0570 | 0.0162 | 1.002 | 1.200 | 1.000 | 0.955 | 1.000 | 0.283 | 0.012 | 0.001 | 5.83 | 5 | 6 | 126 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9994 | 0.0598 | 0.4367 | 0.4061 | 1.011 | 1.445 | 0.997 | 0.049 | 1.000 | 0.145 | 0.120 | 0.121 | 10.92 | 6 | 20 | 43 | - | - | - | - |
| | 200 | 0.9988 | 0.0370 | 0.4838 | 0.4637 | 1.012 | 1.522 | 0.994 | 0.032 | 1.000 | 0.108 | 0.074 | 0.090 | 12.36 | 6 | 23 | 40 | - | - | - | - |
| | 300 | 0.9991 | 0.0277 | 0.5115 | 0.4972 | 1.014 | 1.591 | 0.996 | 0.023 | 1.000 | 0.096 | 0.063 | 0.074 | 13.28 | 6 | 25 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9684 | 0.0129 | 0.1109 | 0.1035 | 1.010 | 1.855 | 0.849 | 0.510 | 1.000 | 0.026 | 0.022 | 0.022 | 6.12 | 4 | 13 | 40 | - | - | - | - |
| | 200 | 0.9673 | 0.0121 | 0.1736 | 0.1667 | 1.013 | 2.239 | 0.843 | 0.402 | 1.000 | 0.028 | 0.017 | 0.035 | 7.24 | 4 | 18 | 35 | - | - | - | - |
| | 300 | 0.9755 | 0.0102 | 0.2047 | 0.1995 | 1.015 | 2.518 | 0.883 | 0.384 | 1.000 | 0.028 | 0.021 | 0.029 | 7.92 | 4 | 20 | 46 | - | - | - | - |

Notes: See notes to Table 100.

**Table 424: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9918 | 0.0028 | 0.0383 | 0.0288 | 1.015 | 1.252 | 0.963 | 0.791 | 0.998 | 0.059 | 0.007 | 0.004 | 5.24 | 5 | 6 | 9 | 1.331 | 0.31 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9832 | 0.0015 | 0.0400 | 0.0335 | 1.023 | 1.389 | 0.932 | 0.745 | 0.991 | 0.039 | 0.005 | 0.004 | 5.21 | 4 | 6 | 9 | 1.405 | 0.37 | 0.03 | 0.00 |
| | 300 | 0.9799 | 0.0011 | 0.0441 | 0.0397 | 1.030 | 1.454 | 0.922 | 0.702 | 0.988 | 0.029 | 0.002 | 0.002 | 5.22 | 4 | 6 | 8 | 1.443 | 0.40 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 0.9862 | 0.0018 | 0.0248 | 0.0178 | 1.017 | 1.279 | 0.943 | 0.838 | 0.993 | 0.044 | 0.005 | 0.002 | 5.11 | 4 | 6 | 8 | 1.389 | 0.36 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9749 | 0.0009 | 0.0251 | 0.0199 | 1.027 | 1.443 | 0.899 | 0.790 | 0.987 | 0.031 | 0.005 | 0.002 | 5.05 | 4 | 6 | 8 | 1.469 | 0.43 | 0.04 | 0.00 |
| | 300 | 0.9695 | 0.0006 | 0.0265 | 0.0230 | 1.034 | 1.509 | 0.883 | 0.759 | 0.983 | 0.022 | 0.001 | 0.002 | 5.03 | 4 | 6 | 8 | 1.493 | 0.45 | 0.04 | 0.00 |
| $p = 0.01$, | 100 | 0.9611 | 0.0006 | 0.0089 | 0.0063 | 1.036 | 1.514 | 0.853 | 0.818 | 0.975 | 0.015 | 0.003 | 0.000 | 4.87 | 4 | 5 | 7 | 1.522 | 0.48 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9460 | 0.0003 | 0.0099 | 0.0068 | 1.052 | 1.683 | 0.814 | 0.782 | 0.962 | 0.019 | 0.002 | 0.000 | 4.80 | 3 | 5 | 8 | 1.607 | 0.54 | 0.07 | 0.00 |
| | 300 | 0.9338 | 0.0002 | 0.0092 | 0.0075 | 1.061 | 1.810 | 0.770 | 0.731 | 0.960 | 0.011 | 0.000 | 0.001 | 4.73 | 3 | 5 | 7 | 1.636 | 0.57 | 0.06 | 0.00 |
| $p = 0.1$, | 100 | 0.9867 | 0.0024 | 0.0324 | 0.0232 | 1.018 | 1.260 | 0.947 | 0.808 | 0.990 | 0.056 | 0.007 | 0.004 | 5.17 | 5 | 6 | 8 | 1.278 | 0.27 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9760 | 0.0012 | 0.0326 | 0.0261 | 1.027 | 1.402 | 0.910 | 0.764 | 0.980 | 0.039 | 0.005 | 0.004 | 5.11 | 4 | 6 | 8 | 1.331 | 0.32 | 0.01 | 0.00 |
| | 300 | 0.9693 | 0.0009 | 0.0361 | 0.0317 | 1.035 | 1.498 | 0.883 | 0.710 | 0.977 | 0.028 | 0.002 | 0.002 | 5.10 | 4 | 6 | 8 | 1.349 | 0.34 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9790 | 0.0015 | 0.0205 | 0.0136 | 1.023 | 1.319 | 0.921 | 0.843 | 0.982 | 0.042 | 0.005 | 0.002 | 5.04 | 4 | 6 | 8 | 1.333 | 0.32 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9649 | 0.0007 | 0.0201 | 0.0150 | 1.036 | 1.489 | 0.872 | 0.791 | 0.968 | 0.030 | 0.005 | 0.002 | 4.97 | 4 | 6 | 8 | 1.397 | 0.38 | 0.02 | 0.00 |
| | 300 | 0.9551 | 0.0005 | 0.0216 | 0.0183 | 1.046 | 1.604 | 0.838 | 0.744 | 0.964 | 0.021 | 0.001 | 0.002 | 4.92 | 4 | 6 | 7 | 1.401 | 0.39 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9477 | 0.0005 | 0.0069 | 0.0045 | 1.048 | 1.622 | 0.817 | 0.796 | 0.959 | 0.014 | 0.003 | 0.000 | 4.79 | 3 | 5 | 7 | 1.453 | 0.43 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9264 | 0.0003 | 0.0076 | 0.0047 | 1.072 | 1.821 | 0.766 | 0.746 | 0.929 | 0.018 | 0.002 | 0.000 | 4.68 | 3 | 5 | 8 | 1.509 | 0.48 | 0.03 | 0.00 |
| | 300 | 0.9086 | 0.0002 | 0.0071 | 0.0053 | 1.084 | 1.978 | 0.711 | 0.688 | 0.920 | 0.011 | 0.000 | 0.001 | 4.59 | 3 | 5 | 7 | 1.516 | 0.49 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0954 | 0.5556 | 0.5344 | 1.087 | 1.773 | 1.000 | 0.016 | 1.000 | 0.121 | 0.104 | 0.117 | 14.44 | 7 | 25 | 43 | - | - | - | - |
| | 200 | 0.9999 | 0.0692 | 0.6365 | 0.6246 | 1.109 | 1.960 | 1.000 | 0.008 | 1.000 | 0.095 | 0.081 | 0.092 | 18.77 | 8 | 35 | 55 | - | - | - | - |
| | 300 | 0.9997 | 0.0565 | 0.6809 | 0.6721 | 1.119 | 2.064 | 0.999 | 0.004 | 1.000 | 0.083 | 0.070 | 0.066 | 21.89 | 9 | 40 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9942 | 0.0234 | 0.1959 | 0.1887 | 1.055 | 1.721 | 0.975 | 0.389 | 1.000 | 0.026 | 0.023 | 0.028 | 7.29 | 5 | 15.5 | 35 | - | - | - | - |
| | 200 | 0.9958 | 0.0253 | 0.3071 | 0.3017 | 1.085 | 2.079 | 0.982 | 0.266 | 0.999 | 0.035 | 0.026 | 0.032 | 10.02 | 5 | 25 | 46 | - | - | - | - |
| | 300 | 0.9948 | 0.0245 | 0.3829 | 0.3784 | 1.106 | 2.310 | 0.977 | 0.186 | 1.000 | 0.034 | 0.029 | 0.024 | 12.31 | 5 | 32 | 52 | - | - | - | - |

Notes: See notes to Table 100.

**Table 425: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0623 | 0.0190 | 1.002 | 1.092 | 1.000 | 0.875 | 1.000 | 0.288 | 0.021 | 0.008 | 5.46 | 5 | 7 | 9 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0019 | 0.0533 | 0.0184 | 1.002 | 1.105 | 1.000 | 0.877 | 1.000 | 0.233 | 0.017 | 0.002 | 5.39 | 5 | 6.5 | 8 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0506 | 0.0202 | 1.002 | 1.117 | 1.000 | 0.866 | 1.000 | 0.205 | 0.011 | 0.004 | 5.37 | 5 | 6 | 9 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0463 | 0.0102 | 1.002 | 1.061 | 1.000 | 0.931 | 1.000 | 0.240 | 0.016 | 0.005 | 5.34 | 5 | 6 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0381 | 0.0096 | 1.001 | 1.062 | 1.000 | 0.935 | 1.000 | 0.190 | 0.013 | 0.001 | 5.27 | 5 | 6 | 7 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0354 | 0.0112 | 1.001 | 1.080 | 1.000 | 0.924 | 1.000 | 0.163 | 0.008 | 0.002 | 5.25 | 5 | 6 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0248 | 0.0023 | 1.001 | 1.018 | 1.000 | 0.984 | 1.000 | 0.150 | 0.010 | 0.002 | 5.18 | 5 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0186 | 0.0020 | 1.001 | 1.021 | 1.000 | 0.987 | 1.000 | 0.112 | 0.006 | 0.000 | 5.13 | 5 | 6 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0177 | 0.0037 | 1.001 | 1.038 | 1.000 | 0.976 | 1.000 | 0.096 | 0.003 | 0.001 | 5.13 | 5 | 6 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0601 | 0.0167 | 1.002 | 1.065 | 1.000 | 0.889 | 1.000 | 0.288 | 0.020 | 0.008 | 5.44 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0504 | 0.0155 | 1.002 | 1.069 | 1.000 | 0.896 | 1.000 | 0.233 | 0.017 | 0.002 | 5.37 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0485 | 0.0180 | 1.002 | 1.088 | 1.000 | 0.880 | 1.000 | 0.205 | 0.011 | 0.004 | 5.35 | 5 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0446 | 0.0085 | 1.001 | 1.041 | 1.000 | 0.942 | 1.000 | 0.240 | 0.016 | 0.005 | 5.32 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0365 | 0.0079 | 1.001 | 1.040 | 1.000 | 0.946 | 1.000 | 0.190 | 0.013 | 0.001 | 5.26 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0340 | 0.0098 | 1.001 | 1.058 | 1.000 | 0.934 | 1.000 | 0.163 | 0.008 | 0.002 | 5.24 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0243 | 0.0017 | 1.000 | 1.010 | 1.000 | 0.988 | 1.000 | 0.150 | 0.010 | 0.002 | 5.17 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0181 | 0.0014 | 1.000 | 1.012 | 1.000 | 0.990 | 1.000 | 0.112 | 0.006 | 0.000 | 5.13 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0171 | 0.0030 | 1.001 | 1.025 | 1.000 | 0.980 | 1.000 | 0.096 | 0.003 | 0.001 | 5.12 | 5 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0941 | 0.5541 | 0.5331 | 1.025 | 1.705 | 1.000 | 0.014 | 1.000 | 0.129 | 0.099 | 0.108 | 14.31 | 7 | 25 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0603 | 0.6099 | 0.5976 | 1.031 | 1.837 | 1.000 | 0.006 | 1.000 | 0.102 | 0.062 | 0.068 | 17.01 | 8 | 31 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.0467 | 0.6390 | 0.6303 | 1.034 | 1.899 | 1.000 | 0.003 | 1.000 | 0.073 | 0.059 | 0.059 | 18.98 | 8 | 36 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0182 | 0.1240 | 0.1194 | 1.012 | 1.508 | 1.000 | 0.683 | 1.000 | 0.020 | 0.016 | 0.023 | 6.80 | 5 | 17 | 27 | - | - | - | - |
| | 200 | 1.0000 | 0.0173 | 0.1996 | 0.1957 | 1.019 | 1.850 | 1.000 | 0.566 | 1.000 | 0.034 | 0.016 | 0.022 | 8.45 | 5 | 22 | 43 | - | - | - | - |
| | 300 | 1.0000 | 0.0174 | 0.2637 | 0.2597 | 1.029 | 2.143 | 1.000 | 0.488 | 1.000 | 0.019 | 0.023 | 0.017 | 10.20 | 5 | 27 | 52 | - | - | - | - |

Notes: See notes to Table 100.

**Table 426: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1034 | 0.0169 | 1.001 | 1.085 | 1.000 | 0.882 | 1.000 | 0.572 | 0.048 | 0.011 | 5.76 | 5 | 7 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0035 | 0.0960 | 0.0164 | 1.001 | 1.087 | 1.000 | 0.889 | 1.000 | 0.534 | 0.037 | 0.007 | 5.71 | 5 | 7 | 9 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0860 | 0.0173 | 1.001 | 1.086 | 1.000 | 0.880 | 1.000 | 0.467 | 0.027 | 0.004 | 5.63 | 5 | 7 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0834 | 0.0091 | 1.001 | 1.054 | 1.000 | 0.935 | 1.000 | 0.495 | 0.034 | 0.006 | 5.60 | 5 | 7 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0782 | 0.0087 | 1.001 | 1.057 | 1.000 | 0.940 | 1.000 | 0.467 | 0.027 | 0.005 | 5.57 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0682 | 0.0088 | 1.001 | 1.048 | 1.000 | 0.940 | 1.000 | 0.405 | 0.018 | 0.002 | 5.49 | 5 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0565 | 0.0021 | 1.000 | 1.019 | 1.000 | 0.985 | 1.000 | 0.370 | 0.015 | 0.002 | 5.40 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0018 | 0.0515 | 0.0024 | 1.000 | 1.022 | 1.000 | 0.983 | 1.000 | 0.332 | 0.016 | 0.002 | 5.37 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0445 | 0.0021 | 1.000 | 1.017 | 1.000 | 0.985 | 1.000 | 0.292 | 0.006 | 0.001 | 5.31 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1017 | 0.0150 | 1.001 | 1.061 | 1.000 | 0.895 | 1.000 | 0.572 | 0.048 | 0.011 | 5.75 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0035 | 0.0948 | 0.0151 | 1.001 | 1.067 | 1.000 | 0.898 | 1.000 | 0.534 | 0.037 | 0.007 | 5.70 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0847 | 0.0159 | 1.001 | 1.065 | 1.000 | 0.890 | 1.000 | 0.467 | 0.027 | 0.004 | 5.62 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0821 | 0.0077 | 1.001 | 1.035 | 1.000 | 0.945 | 1.000 | 0.495 | 0.034 | 0.006 | 5.59 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0028 | 0.0772 | 0.0077 | 1.001 | 1.039 | 1.000 | 0.947 | 1.000 | 0.467 | 0.027 | 0.005 | 5.56 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0675 | 0.0081 | 1.001 | 1.036 | 1.000 | 0.945 | 1.000 | 0.405 | 0.018 | 0.002 | 5.49 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0561 | 0.0017 | 1.000 | 1.013 | 1.000 | 0.988 | 1.000 | 0.370 | 0.014 | 0.002 | 5.40 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0513 | 0.0021 | 1.000 | 1.017 | 1.000 | 0.985 | 1.000 | 0.332 | 0.016 | 0.002 | 5.36 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0443 | 0.0019 | 1.000 | 1.013 | 1.000 | 0.987 | 1.000 | 0.292 | 0.006 | 0.001 | 5.31 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0945 | 0.5506 | 0.5290 | 1.014 | 1.677 | 1.000 | 0.018 | 1.000 | 0.135 | 0.108 | 0.098 | 14.36 | 7 | 25 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0576 | 0.5947 | 0.5819 | 1.018 | 1.807 | 1.000 | 0.008 | 1.000 | 0.112 | 0.067 | 0.070 | 16.46 | 7 | 31 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0440 | 0.6207 | 0.6121 | 1.020 | 1.870 | 1.000 | 0.009 | 1.000 | 0.086 | 0.051 | 0.063 | 18.15 | 7 | 35 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0154 | 0.1006 | 0.0971 | 1.006 | 1.451 | 1.000 | 0.794 | 1.000 | 0.021 | 0.018 | 0.019 | 6.53 | 5 | 15 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0143 | 0.1662 | 0.1630 | 1.010 | 1.728 | 1.000 | 0.699 | 1.000 | 0.029 | 0.017 | 0.020 | 7.84 | 5 | 20 | 37 | - | - | - | - |
| | 300 | 1.0000 | 0.0146 | 0.2322 | 0.2289 | 1.015 | 2.004 | 1.000 | 0.607 | 1.000 | 0.023 | 0.019 | 0.018 | 9.38 | 5 | 24 | 40 | - | - | - | - |

Notes: See notes to Table 100.

**Table 427: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8853 | 0.0029 | 0.0426 | 0.0318 | 1.052 | 1.690 | 0.618 | 0.513 | 0.946 | 0.059 | 0.008 | 0.006 | 4.71 | 3 | 6 | 9 | 1.261 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8424 | 0.0013 | 0.0401 | 0.0330 | 1.073 | 1.885 | 0.523 | 0.426 | 0.908 | 0.038 | 0.005 | 0.003 | 4.47 | 2 | 6 | 8 | 1.248 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.8172 | 0.0009 | 0.0415 | 0.0366 | 1.086 | 1.974 | 0.496 | 0.399 | 0.871 | 0.026 | 0.004 | 0.001 | 4.34 | 2 | 6 | 8 | 1.277 | 0.26 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8445 | 0.0017 | 0.0273 | 0.0197 | 1.067 | 1.823 | 0.525 | 0.470 | 0.920 | 0.039 | 0.007 | 0.004 | 4.40 | 2 | 6 | 8 | 1.274 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7988 | 0.0008 | 0.0269 | 0.0211 | 1.089 | 2.026 | 0.440 | 0.383 | 0.881 | 0.031 | 0.004 | 0.002 | 4.16 | 2 | 6 | 8 | 1.277 | 0.27 | 0.01 | 0.00 |
| | 300 | 0.7742 | 0.0005 | 0.0259 | 0.0218 | 1.101 | 2.094 | 0.405 | 0.357 | 0.839 | 0.021 | 0.003 | 0.001 | 4.02 | 2 | 6 | 8 | 1.299 | 0.28 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.7405 | 0.0006 | 0.0100 | 0.0064 | 1.114 | 2.151 | 0.339 | 0.325 | 0.829 | 0.018 | 0.003 | 0.001 | 3.76 | 1 | 5 | 7 | 1.317 | 0.30 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6825 | 0.0003 | 0.0096 | 0.0071 | 1.140 | 2.371 | 0.271 | 0.259 | 0.772 | 0.012 | 0.002 | 0.000 | 3.47 | 1 | 5 | 7 | 1.297 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.6550 | 0.0002 | 0.0094 | 0.0076 | 1.157 | 2.430 | 0.252 | 0.242 | 0.713 | 0.009 | 0.001 | 0.000 | 3.32 | 1 | 5 | 7 | 1.302 | 0.29 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.8703 | 0.0025 | 0.0377 | 0.0270 | 1.060 | 1.698 | 0.603 | 0.518 | 0.902 | 0.058 | 0.008 | 0.005 | 4.60 | 3 | 6 | 8 | 1.159 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8248 | 0.0011 | 0.0369 | 0.0298 | 1.082 | 1.905 | 0.503 | 0.422 | 0.857 | 0.038 | 0.005 | 0.003 | 4.35 | 2 | 6 | 8 | 1.146 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.7978 | 0.0007 | 0.0369 | 0.0320 | 1.097 | 1.982 | 0.483 | 0.405 | 0.806 | 0.026 | 0.004 | 0.001 | 4.21 | 2 | 6 | 8 | 1.153 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8288 | 0.0015 | 0.0243 | 0.0167 | 1.077 | 1.834 | 0.514 | 0.467 | 0.867 | 0.039 | 0.007 | 0.003 | 4.29 | 2 | 6 | 8 | 1.181 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7777 | 0.0007 | 0.0239 | 0.0181 | 1.101 | 2.051 | 0.422 | 0.380 | 0.818 | 0.031 | 0.004 | 0.002 | 4.03 | 2 | 6 | 7 | 1.158 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.7527 | 0.0004 | 0.0236 | 0.0196 | 1.115 | 2.117 | 0.393 | 0.353 | 0.769 | 0.021 | 0.003 | 0.001 | 3.90 | 2 | 5 | 8 | 1.179 | 0.18 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7192 | 0.0005 | 0.0091 | 0.0055 | 1.128 | 2.180 | 0.331 | 0.319 | 0.759 | 0.017 | 0.003 | 0.001 | 3.65 | 1 | 5 | 7 | 1.209 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6595 | 0.0002 | 0.0089 | 0.0065 | 1.154 | 2.402 | 0.260 | 0.250 | 0.699 | 0.012 | 0.002 | 0.000 | 3.35 | 1 | 5 | 7 | 1.182 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.6319 | 0.0001 | 0.0085 | 0.0069 | 1.172 | 2.455 | 0.245 | 0.236 | 0.634 | 0.008 | 0.001 | 0.000 | 3.20 | 1 | 5 | 7 | 1.184 | 0.18 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9881 | 0.0897 | 0.5374 | 0.5174 | 1.088 | 1.754 | 0.945 | 0.013 | 0.999 | 0.099 | 0.093 | 0.099 | 13.82 | 6 | 25 | 48 | - | - | - | - |
| | 200 | 0.9845 | 0.0648 | 0.6195 | 0.6078 | 1.109 | 1.946 | 0.932 | 0.009 | 0.998 | 0.087 | 0.078 | 0.081 | 17.82 | 7 | 34 | 66 | - | - | - | - |
| | 300 | 0.9811 | 0.0530 | 0.6669 | 0.6583 | 1.124 | 2.032 | 0.921 | 0.004 | 0.998 | 0.067 | 0.058 | 0.062 | 20.76 | 8 | 40 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9323 | 0.0269 | 0.2327 | 0.2245 | 1.077 | 1.928 | 0.740 | 0.189 | 0.992 | 0.027 | 0.028 | 0.028 | 7.32 | 4 | 14 | 35 | - | - | - | - |
| | 200 | 0.9345 | 0.0255 | 0.3426 | 0.3363 | 1.104 | 2.248 | 0.750 | 0.109 | 0.989 | 0.033 | 0.035 | 0.037 | 9.75 | 4 | 23 | 52 | - | - | - | - |
| | 300 | 0.9381 | 0.0252 | 0.4236 | 0.4186 | 1.132 | 2.475 | 0.763 | 0.078 | 0.989 | 0.026 | 0.028 | 0.031 | 12.23 | 4 | 31 | 56 | - | - | - | - |

Notes: See notes to Table 100.

**Table 428: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0581 | 0.0176 | 1.002 | 1.101 | 1.000 | 0.883 | 1.000 | 0.267 | 0.022 | 0.007 | 5.43 | 5 | 7 | 8 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0558 | 0.0203 | 1.003 | 1.126 | 1.000 | 0.865 | 1.000 | 0.238 | 0.016 | 0.004 | 5.41 | 5 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0513 | 0.0197 | 1.003 | 1.120 | 1.000 | 0.867 | 1.000 | 0.206 | 0.019 | 0.006 | 5.38 | 5 | 7 | 8 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0031 | 0.0424 | 0.0095 | 1.001 | 1.067 | 1.000 | 0.935 | 1.000 | 0.215 | 0.017 | 0.005 | 5.31 | 5 | 6 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0015 | 0.0407 | 0.0112 | 1.002 | 1.081 | 1.000 | 0.924 | 1.000 | 0.198 | 0.012 | 0.002 | 5.29 | 5 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0373 | 0.0117 | 1.002 | 1.078 | 1.000 | 0.921 | 1.000 | 0.167 | 0.014 | 0.005 | 5.27 | 5 | 6 | 8 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0016 | 0.0226 | 0.0025 | 1.001 | 1.028 | 0.999 | 0.982 | 1.000 | 0.134 | 0.006 | 0.003 | 5.16 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0206 | 0.0029 | 1.001 | 1.024 | 1.000 | 0.981 | 1.000 | 0.122 | 0.004 | 0.000 | 5.15 | 5 | 6 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0005 | 0.0193 | 0.0032 | 1.001 | 1.028 | 0.999 | 0.977 | 1.000 | 0.107 | 0.006 | 0.002 | 5.14 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0042 | 0.0564 | 0.0159 | 1.002 | 1.084 | 1.000 | 0.895 | 1.000 | 0.267 | 0.022 | 0.006 | 5.41 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0020 | 0.0539 | 0.0183 | 1.002 | 1.101 | 1.000 | 0.877 | 1.000 | 0.238 | 0.016 | 0.004 | 5.39 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0493 | 0.0176 | 1.002 | 1.092 | 1.000 | 0.881 | 1.000 | 0.206 | 0.019 | 0.006 | 5.36 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0030 | 0.0414 | 0.0084 | 1.001 | 1.057 | 1.000 | 0.942 | 1.000 | 0.215 | 0.017 | 0.005 | 5.30 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0394 | 0.0099 | 1.001 | 1.063 | 1.000 | 0.933 | 1.000 | 0.198 | 0.012 | 0.002 | 5.28 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0362 | 0.0105 | 1.002 | 1.060 | 1.000 | 0.929 | 1.000 | 0.167 | 0.014 | 0.005 | 5.26 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9997 | 0.0016 | 0.0222 | 0.0022 | 1.001 | 1.025 | 0.999 | 0.984 | 1.000 | 0.134 | 0.006 | 0.003 | 5.16 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0007 | 0.0204 | 0.0027 | 1.001 | 1.024 | 1.000 | 0.982 | 1.000 | 0.122 | 0.004 | 0.000 | 5.14 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0005 | 0.0190 | 0.0029 | 1.001 | 1.022 | 0.999 | 0.979 | 1.000 | 0.107 | 0.006 | 0.002 | 5.13 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0975 | 0.5667 | 0.5463 | 1.025 | 1.690 | 1.000 | 0.012 | 1.000 | 0.112 | 0.116 | 0.113 | 14.65 | 7 | 25 | 40 | - | - | - | - |
| | 200 | 1.0000 | 0.0606 | 0.6124 | 0.5991 | 1.031 | 1.822 | 1.000 | 0.005 | 1.000 | 0.099 | 0.061 | 0.068 | 17.07 | 8 | 31 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0473 | 0.6463 | 0.6364 | 1.032 | 1.890 | 1.000 | 0.004 | 1.000 | 0.078 | 0.060 | 0.066 | 19.16 | 8 | 35 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0212 | 0.1672 | 0.1608 | 1.013 | 1.570 | 1.000 | 0.476 | 1.000 | 0.023 | 0.027 | 0.028 | 7.10 | 5 | 16 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0200 | 0.2521 | 0.2467 | 1.022 | 1.930 | 1.000 | 0.359 | 1.000 | 0.028 | 0.020 | 0.017 | 8.98 | 5 | 23 | 44 | - | - | - | - |
| | 300 | 0.9999 | 0.0187 | 0.3091 | 0.3046 | 1.031 | 2.237 | 1.000 | 0.285 | 1.000 | 0.028 | 0.028 | 0.031 | 10.60 | 5 | 28 | 49 | - | - | - | - |

Notes: See notes to Table 100.

**Table 429: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1038 | 0.0152 | 1.001 | 1.099 | 1.000 | 0.895 | 1.000 | 0.584 | 0.050 | 0.013 | 5.77 | 5 | 7 | 9 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0923 | 0.0169 | 1.002 | 1.117 | 1.000 | 0.886 | 1.000 | 0.505 | 0.035 | 0.008 | 5.68 | 5 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0876 | 0.0176 | 1.001 | 1.126 | 1.000 | 0.882 | 1.000 | 0.474 | 0.029 | 0.004 | 5.64 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0064 | 0.0869 | 0.0079 | 1.001 | 1.061 | 1.000 | 0.944 | 1.000 | 0.525 | 0.037 | 0.007 | 5.63 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0754 | 0.0099 | 1.001 | 1.081 | 1.000 | 0.932 | 1.000 | 0.442 | 0.025 | 0.004 | 5.55 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0716 | 0.0099 | 1.001 | 1.085 | 1.000 | 0.930 | 1.000 | 0.417 | 0.024 | 0.002 | 5.52 | 5 | 7 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0043 | 0.0594 | 0.0022 | 1.001 | 1.022 | 1.000 | 0.985 | 1.000 | 0.385 | 0.019 | 0.004 | 5.42 | 5 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0480 | 0.0024 | 1.001 | 1.027 | 1.000 | 0.984 | 1.000 | 0.311 | 0.012 | 0.001 | 5.34 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0452 | 0.0028 | 1.001 | 1.033 | 1.000 | 0.980 | 1.000 | 0.287 | 0.013 | 0.001 | 5.32 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1023 | 0.0137 | 1.001 | 1.080 | 1.000 | 0.904 | 1.000 | 0.583 | 0.050 | 0.013 | 5.75 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0906 | 0.0151 | 1.001 | 1.090 | 1.000 | 0.896 | 1.000 | 0.505 | 0.035 | 0.008 | 5.66 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0863 | 0.0162 | 1.001 | 1.103 | 1.000 | 0.891 | 1.000 | 0.474 | 0.029 | 0.004 | 5.63 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0063 | 0.0862 | 0.0073 | 1.001 | 1.052 | 1.000 | 0.948 | 1.000 | 0.524 | 0.037 | 0.007 | 5.62 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0744 | 0.0088 | 1.001 | 1.063 | 1.000 | 0.939 | 1.000 | 0.442 | 0.025 | 0.004 | 5.54 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0705 | 0.0087 | 1.001 | 1.063 | 1.000 | 0.939 | 1.000 | 0.417 | 0.024 | 0.002 | 5.51 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0042 | 0.0590 | 0.0018 | 1.001 | 1.016 | 1.000 | 0.988 | 1.000 | 0.385 | 0.019 | 0.004 | 5.42 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0478 | 0.0021 | 1.001 | 1.021 | 1.000 | 0.986 | 1.000 | 0.311 | 0.012 | 0.001 | 5.34 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0446 | 0.0022 | 1.000 | 1.022 | 1.000 | 0.985 | 1.000 | 0.287 | 0.013 | 0.001 | 5.32 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0960 | 0.5601 | 0.5377 | 1.014 | 1.687 | 1.000 | 0.016 | 1.000 | 0.122 | 0.093 | 0.109 | 14.51 | 7 | 25 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0623 | 0.6184 | 0.6065 | 1.017 | 1.803 | 1.000 | 0.006 | 1.000 | 0.096 | 0.072 | 0.081 | 17.39 | 8 | 32 | 71 | - | - | - | - |
| | 300 | 1.0000 | 0.0451 | 0.6374 | 0.6277 | 1.020 | 1.878 | 1.000 | 0.002 | 1.000 | 0.089 | 0.050 | 0.056 | 18.50 | 8 | 34 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0190 | 0.1317 | 0.1268 | 1.007 | 1.544 | 1.000 | 0.638 | 1.000 | 0.020 | 0.016 | 0.022 | 6.88 | 5 | 17 | 30 | - | - | - | - |
| | 200 | 1.0000 | 0.0198 | 0.2277 | 0.2226 | 1.013 | 1.947 | 1.000 | 0.485 | 1.000 | 0.026 | 0.017 | 0.026 | 8.95 | 5 | 23 | 58 | - | - | - | - |
| | 300 | 1.0000 | 0.0174 | 0.2725 | 0.2681 | 1.019 | 2.216 | 1.000 | 0.448 | 1.000 | 0.033 | 0.019 | 0.023 | 10.21 | 5 | 26 | 43 | - | - | - | - |

Notes: See notes to Table 100.

**Table 430: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5872 | 0.0025 | 0.0498 | 0.0392 | 1.092 | 1.956 | 0.143 | 0.117 | 0.837 | 0.045 | 0.004 | 0.005 | 3.18 | 1 | 5 | 7 | 1.122 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5181 | 0.0013 | 0.0559 | 0.0483 | 1.112 | 2.097 | 0.100 | 0.078 | 0.768 | 0.032 | 0.005 | 0.002 | 2.84 | 1 | 5 | 8 | 1.108 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.5013 | 0.0010 | 0.0656 | 0.0553 | 1.118 | 2.135 | 0.082 | 0.061 | 0.754 | 0.039 | 0.005 | 0.002 | 2.80 | 1 | 5 | 7 | 1.093 | 0.09 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5300 | 0.0014 | 0.0308 | 0.0235 | 1.105 | 2.012 | 0.102 | 0.091 | 0.788 | 0.030 | 0.003 | 0.002 | 2.79 | 1 | 5 | 7 | 1.125 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4586 | 0.0008 | 0.0370 | 0.0313 | 1.126 | 2.148 | 0.066 | 0.057 | 0.708 | 0.024 | 0.003 | 0.001 | 2.45 | 0 | 5 | 7 | 1.096 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.4492 | 0.0006 | 0.0435 | 0.0356 | 1.129 | 2.164 | 0.059 | 0.048 | 0.695 | 0.029 | 0.004 | 0.002 | 2.43 | 0 | 5 | 7 | 1.096 | 0.09 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3942 | 0.0005 | 0.0116 | 0.0082 | 1.142 | 2.167 | 0.037 | 0.036 | 0.647 | 0.014 | 0.001 | 0.001 | 2.02 | 0 | 4 | 6 | 1.106 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3380 | 0.0002 | 0.0133 | 0.0103 | 1.160 | 2.249 | 0.027 | 0.026 | 0.570 | 0.011 | 0.002 | 0.000 | 1.74 | 0 | 4 | 6 | 1.085 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.3235 | 0.0002 | 0.0171 | 0.0138 | 1.165 | 2.269 | 0.018 | 0.017 | 0.538 | 0.011 | 0.002 | 0.001 | 1.68 | 0 | 4 | 6 | 1.087 | 0.08 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5744 | 0.0022 | 0.0465 | 0.0357 | 1.096 | 1.945 | 0.143 | 0.125 | 0.800 | 0.045 | 0.004 | 0.005 | 3.09 | 1 | 5 | 7 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5043 | 0.0012 | 0.0535 | 0.0458 | 1.117 | 2.088 | 0.099 | 0.080 | 0.724 | 0.032 | 0.005 | 0.002 | 2.76 | 1 | 5 | 8 | 1.025 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.4911 | 0.0009 | 0.0632 | 0.0527 | 1.121 | 2.122 | 0.082 | 0.063 | 0.720 | 0.039 | 0.005 | 0.002 | 2.74 | 1 | 5 | 7 | 1.028 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5155 | 0.0013 | 0.0290 | 0.0217 | 1.111 | 2.007 | 0.101 | 0.095 | 0.746 | 0.030 | 0.003 | 0.002 | 2.71 | 1 | 5 | 7 | 1.042 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4465 | 0.0007 | 0.0351 | 0.0294 | 1.130 | 2.141 | 0.065 | 0.058 | 0.670 | 0.024 | 0.002 | 0.001 | 2.37 | 0 | 5 | 7 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.4372 | 0.0006 | 0.0421 | 0.0343 | 1.133 | 2.157 | 0.059 | 0.048 | 0.660 | 0.028 | 0.004 | 0.002 | 2.36 | 0 | 5 | 7 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3820 | 0.0004 | 0.0106 | 0.0072 | 1.148 | 2.166 | 0.036 | 0.036 | 0.615 | 0.014 | 0.001 | 0.001 | 1.95 | 0 | 4 | 5 | 1.041 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3271 | 0.0002 | 0.0124 | 0.0096 | 1.164 | 2.248 | 0.027 | 0.026 | 0.542 | 0.011 | 0.002 | 0.000 | 1.68 | 0 | 4 | 6 | 1.029 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.3123 | 0.0002 | 0.0168 | 0.0136 | 1.170 | 2.269 | 0.017 | 0.017 | 0.508 | 0.010 | 0.002 | 0.001 | 1.62 | 0 | 4 | 6 | 1.030 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8882 | 0.0802 | 0.5292 | 0.5101 | 1.084 | 1.662 | 0.580 | 0.011 | 0.994 | 0.091 | 0.097 | 0.102 | 12.38 | 5 | 23 | 53 | - | - | - | - |
| | 200 | 0.8647 | 0.0570 | 0.6111 | 0.5991 | 1.102 | 1.819 | 0.529 | 0.005 | 0.986 | 0.074 | 0.064 | 0.066 | 15.67 | 6 | 31 | 56 | - | - | - | - |
| | 300 | 0.8531 | 0.0475 | 0.6575 | 0.6476 | 1.109 | 1.888 | 0.490 | 0.003 | 0.979 | 0.059 | 0.058 | 0.052 | 18.47 | 6 | 39 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7452 | 0.0272 | 0.2697 | 0.2602 | 1.082 | 1.946 | 0.259 | 0.030 | 0.968 | 0.030 | 0.032 | 0.030 | 6.42 | 2 | 13 | 35 | - | - | - | - |
| | 200 | 0.7400 | 0.0244 | 0.3814 | 0.3745 | 1.112 | 2.255 | 0.270 | 0.018 | 0.963 | 0.033 | 0.026 | 0.029 | 8.56 | 2 | 20 | 51 | - | - | - | - |
| | 300 | 0.7357 | 0.0230 | 0.4469 | 0.4412 | 1.133 | 2.456 | 0.255 | 0.011 | 0.956 | 0.023 | 0.030 | 0.027 | 10.56 | 2 | 28 | 54 | - | - | - | - |

Notes: See notes to Table 100.

**Table 431: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9911 | 0.0043 | 0.0588 | 0.0188 | 1.004 | 1.203 | 0.957 | 0.834 | 1.000 | 0.264 | 0.020 | 0.005 | 5.38 | 5 | 7 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9877 | 0.0019 | 0.0532 | 0.0179 | 1.004 | 1.232 | 0.943 | 0.830 | 1.000 | 0.233 | 0.016 | 0.006 | 5.33 | 5 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9838 | 0.0013 | 0.0523 | 0.0192 | 1.005 | 1.260 | 0.926 | 0.813 | 1.000 | 0.216 | 0.015 | 0.006 | 5.30 | 4 | 6 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9851 | 0.0031 | 0.0427 | 0.0096 | 1.004 | 1.201 | 0.932 | 0.871 | 1.000 | 0.217 | 0.016 | 0.003 | 5.23 | 4 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9818 | 0.0014 | 0.0398 | 0.0103 | 1.004 | 1.239 | 0.918 | 0.850 | 1.000 | 0.196 | 0.011 | 0.004 | 5.19 | 4 | 6 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9758 | 0.0009 | 0.0374 | 0.0107 | 1.005 | 1.278 | 0.892 | 0.832 | 1.000 | 0.177 | 0.009 | 0.003 | 5.14 | 4 | 6 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9635 | 0.0015 | 0.0223 | 0.0025 | 1.006 | 1.336 | 0.847 | 0.834 | 1.000 | 0.126 | 0.008 | 0.001 | 4.97 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9591 | 0.0007 | 0.0203 | 0.0017 | 1.006 | 1.372 | 0.829 | 0.819 | 1.000 | 0.123 | 0.003 | 0.002 | 4.94 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9438 | 0.0004 | 0.0188 | 0.0022 | 1.009 | 1.476 | 0.779 | 0.768 | 1.000 | 0.108 | 0.004 | 0.002 | 4.85 | 4 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9911 | 0.0042 | 0.0569 | 0.0168 | 1.004 | 1.182 | 0.957 | 0.846 | 1.000 | 0.264 | 0.020 | 0.005 | 5.37 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9876 | 0.0019 | 0.0519 | 0.0166 | 1.004 | 1.218 | 0.942 | 0.838 | 1.000 | 0.233 | 0.016 | 0.006 | 5.32 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9836 | 0.0012 | 0.0510 | 0.0179 | 1.004 | 1.247 | 0.926 | 0.821 | 1.000 | 0.216 | 0.015 | 0.006 | 5.28 | 4 | 6 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9851 | 0.0030 | 0.0416 | 0.0085 | 1.003 | 1.188 | 0.932 | 0.878 | 1.000 | 0.217 | 0.016 | 0.003 | 5.22 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9818 | 0.0014 | 0.0388 | 0.0093 | 1.004 | 1.227 | 0.918 | 0.857 | 1.000 | 0.196 | 0.011 | 0.004 | 5.19 | 4 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9756 | 0.0009 | 0.0368 | 0.0100 | 1.005 | 1.272 | 0.892 | 0.835 | 1.000 | 0.177 | 0.009 | 0.003 | 5.14 | 4 | 6 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9631 | 0.0015 | 0.0217 | 0.0020 | 1.006 | 1.332 | 0.845 | 0.836 | 1.000 | 0.126 | 0.008 | 0.001 | 4.96 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9590 | 0.0007 | 0.0200 | 0.0014 | 1.006 | 1.369 | 0.829 | 0.821 | 1.000 | 0.123 | 0.003 | 0.002 | 4.93 | 4 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9437 | 0.0004 | 0.0186 | 0.0020 | 1.009 | 1.475 | 0.779 | 0.768 | 1.000 | 0.108 | 0.004 | 0.002 | 4.85 | 4 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9993 | 0.0976 | 0.5661 | 0.5454 | 1.025 | 1.717 | 0.997 | 0.009 | 1.000 | 0.126 | 0.116 | 0.120 | 14.66 | 7 | 25 | 43 | - | - | - | - |
| | 200 | 0.9993 | 0.0603 | 0.6080 | 0.5955 | 1.030 | 1.826 | 0.997 | 0.005 | 1.000 | 0.098 | 0.062 | 0.075 | 16.99 | 7 | 31 | 59 | - | - | - | - |
| | 300 | 0.9981 | 0.0467 | 0.6440 | 0.6337 | 1.034 | 1.886 | 0.991 | 0.004 | 1.000 | 0.072 | 0.058 | 0.053 | 18.94 | 8 | 34 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9840 | 0.0278 | 0.2273 | 0.2184 | 1.020 | 1.849 | 0.926 | 0.290 | 1.000 | 0.030 | 0.027 | 0.034 | 7.67 | 4 | 17 | 31 | - | - | - | - |
| | 200 | 0.9829 | 0.0228 | 0.3037 | 0.2977 | 1.029 | 2.174 | 0.924 | 0.202 | 1.000 | 0.028 | 0.016 | 0.029 | 9.45 | 5 | 23 | 51 | - | - | - | - |
| | 300 | 0.9832 | 0.0209 | 0.3689 | 0.3641 | 1.038 | 2.422 | 0.924 | 0.152 | 1.000 | 0.031 | 0.027 | 0.022 | 11.16 | 5 | 27 | 56 | - | - | - | - |

Notes: See notes to Table 100.

**Table 432: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0076 | 0.1027 | 0.0152 | 1.002 | 1.118 | 1.000 | 0.893 | 1.000 | 0.575 | 0.052 | 0.010 | 5.75 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0912 | 0.0159 | 1.002 | 1.121 | 1.000 | 0.889 | 1.000 | 0.502 | 0.036 | 0.009 | 5.67 | 5 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0021 | 0.0865 | 0.0174 | 1.002 | 1.138 | 1.000 | 0.882 | 1.000 | 0.468 | 0.029 | 0.004 | 5.64 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0851 | 0.0082 | 1.001 | 1.073 | 1.000 | 0.941 | 1.000 | 0.506 | 0.041 | 0.007 | 5.62 | 5 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0026 | 0.0730 | 0.0084 | 1.001 | 1.074 | 1.000 | 0.941 | 1.000 | 0.434 | 0.025 | 0.005 | 5.53 | 5 | 7 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0017 | 0.0696 | 0.0094 | 1.001 | 1.088 | 0.999 | 0.934 | 1.000 | 0.408 | 0.022 | 0.002 | 5.50 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0040 | 0.0563 | 0.0017 | 1.001 | 1.024 | 1.000 | 0.987 | 1.000 | 0.369 | 0.016 | 0.003 | 5.40 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0017 | 0.0472 | 0.0019 | 1.001 | 1.026 | 0.998 | 0.985 | 1.000 | 0.304 | 0.017 | 0.003 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0010 | 0.0441 | 0.0018 | 1.000 | 1.026 | 0.998 | 0.985 | 1.000 | 0.290 | 0.009 | 0.000 | 5.31 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1018 | 0.0142 | 1.002 | 1.106 | 1.000 | 0.899 | 1.000 | 0.575 | 0.052 | 0.010 | 5.75 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0903 | 0.0150 | 1.002 | 1.109 | 1.000 | 0.895 | 1.000 | 0.502 | 0.036 | 0.009 | 5.66 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0021 | 0.0857 | 0.0165 | 1.002 | 1.125 | 1.000 | 0.887 | 1.000 | 0.468 | 0.029 | 0.004 | 5.63 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0843 | 0.0074 | 1.001 | 1.061 | 1.000 | 0.947 | 1.000 | 0.506 | 0.041 | 0.007 | 5.61 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0026 | 0.0724 | 0.0078 | 1.001 | 1.066 | 1.000 | 0.945 | 1.000 | 0.434 | 0.025 | 0.005 | 5.52 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0017 | 0.0688 | 0.0086 | 1.001 | 1.074 | 0.999 | 0.939 | 1.000 | 0.408 | 0.022 | 0.002 | 5.50 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0040 | 0.0559 | 0.0013 | 1.000 | 1.017 | 1.000 | 0.990 | 1.000 | 0.369 | 0.016 | 0.003 | 5.40 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0017 | 0.0471 | 0.0018 | 1.001 | 1.024 | 0.998 | 0.985 | 1.000 | 0.304 | 0.017 | 0.003 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0010 | 0.0441 | 0.0018 | 1.000 | 1.026 | 0.998 | 0.985 | 1.000 | 0.290 | 0.009 | 0.000 | 5.31 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1005 | 0.5730 | 0.5519 | 1.014 | 1.667 | 1.000 | 0.010 | 1.000 | 0.135 | 0.115 | 0.129 | 14.95 | 7 | 26 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0607 | 0.6158 | 0.6033 | 1.017 | 1.783 | 1.000 | 0.005 | 1.000 | 0.100 | 0.065 | 0.076 | 17.07 | 8 | 30.5 | 55 | - | - | - | - |
| | 300 | 0.9999 | 0.0461 | 0.6401 | 0.6312 | 1.020 | 1.877 | 1.000 | 0.005 | 1.000 | 0.087 | 0.052 | 0.042 | 18.79 | 8 | 35 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9990 | 0.0258 | 0.1934 | 0.1866 | 1.009 | 1.704 | 0.995 | 0.425 | 1.000 | 0.036 | 0.026 | 0.035 | 7.55 | 5 | 17.5 | 36 | - | - | - | - |
| | 200 | 0.9988 | 0.0228 | 0.2757 | 0.2701 | 1.016 | 2.100 | 0.994 | 0.338 | 1.000 | 0.030 | 0.027 | 0.029 | 9.54 | 5 | 24 | 46 | - | - | - | - |
| | 300 | 0.9996 | 0.0211 | 0.3420 | 0.3380 | 1.023 | 2.456 | 0.998 | 0.257 | 1.000 | 0.035 | 0.022 | 0.020 | 11.30 | 5 | 28 | 68 | - | - | - | - |

Notes: See notes to Table 100.

**Table 433: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9990 | 0.0033 | 0.0435 | 0.0338 | 1.011 | 1.054 | 1.000 | 0.794 | 0.995 | 0.056 | 0.010 | 0.006 | 5.32 | 5 | 7 | 9 | 1.281 | 0.27 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0016 | 0.0425 | 0.0366 | 1.011 | 1.060 | 1.000 | 0.778 | 0.996 | 0.036 | 0.005 | 0.003 | 5.31 | 5 | 7 | 8 | 1.336 | 0.32 | 0.02 | 0.00 |
| | 300 | 0.9981 | 0.0011 | 0.0454 | 0.0403 | 1.015 | 1.072 | 1.000 | 0.759 | 0.991 | 0.031 | 0.005 | 0.002 | 5.33 | 5 | 7 | 10 | 1.376 | 0.36 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9989 | 0.0020 | 0.0268 | 0.0206 | 1.008 | 1.037 | 1.000 | 0.870 | 0.995 | 0.035 | 0.008 | 0.004 | 5.19 | 5 | 6 | 9 | 1.314 | 0.30 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9983 | 0.0010 | 0.0272 | 0.0228 | 1.009 | 1.045 | 1.000 | 0.855 | 0.992 | 0.027 | 0.003 | 0.002 | 5.19 | 5 | 6 | 8 | 1.371 | 0.36 | 0.01 | 0.00 |
| | 300 | 0.9980 | 0.0007 | 0.0276 | 0.0240 | 1.011 | 1.048 | 1.000 | 0.853 | 0.990 | 0.023 | 0.004 | 0.001 | 5.19 | 5 | 6 | 10 | 1.409 | 0.39 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9975 | 0.0007 | 0.0091 | 0.0067 | 1.006 | 1.017 | 1.000 | 0.956 | 0.988 | 0.013 | 0.004 | 0.002 | 5.05 | 5 | 6 | 9 | 1.419 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9973 | 0.0003 | 0.0097 | 0.0078 | 1.007 | 1.026 | 1.000 | 0.948 | 0.987 | 0.012 | 0.002 | 0.001 | 5.06 | 5 | 6 | 7 | 1.494 | 0.48 | 0.01 | 0.00 |
| | 300 | 0.9954 | 0.0003 | 0.0108 | 0.0091 | 1.010 | 1.026 | 1.000 | 0.940 | 0.977 | 0.011 | 0.001 | 0.000 | 5.05 | 5 | 6 | 7 | 1.521 | 0.51 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9978 | 0.0027 | 0.0362 | 0.0265 | 1.009 | 1.033 | 1.000 | 0.836 | 0.989 | 0.056 | 0.010 | 0.006 | 5.26 | 5 | 6 | 9 | 1.230 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9970 | 0.0013 | 0.0358 | 0.0301 | 1.011 | 1.043 | 1.000 | 0.813 | 0.985 | 0.035 | 0.005 | 0.003 | 5.25 | 5 | 6 | 8 | 1.286 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.9953 | 0.0009 | 0.0380 | 0.0330 | 1.014 | 1.045 | 1.000 | 0.797 | 0.977 | 0.031 | 0.005 | 0.002 | 5.25 | 5 | 6 | 9 | 1.315 | 0.31 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9970 | 0.0016 | 0.0217 | 0.0156 | 1.008 | 1.026 | 1.000 | 0.901 | 0.985 | 0.033 | 0.008 | 0.004 | 5.14 | 5 | 6 | 9 | 1.277 | 0.27 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9963 | 0.0008 | 0.0227 | 0.0185 | 1.010 | 1.034 | 1.000 | 0.882 | 0.982 | 0.026 | 0.003 | 0.002 | 5.14 | 5 | 6 | 8 | 1.338 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.9944 | 0.0006 | 0.0231 | 0.0194 | 1.012 | 1.033 | 1.000 | 0.879 | 0.972 | 0.023 | 0.004 | 0.001 | 5.14 | 5 | 6 | 9 | 1.359 | 0.36 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9951 | 0.0006 | 0.0075 | 0.0053 | 1.008 | 1.017 | 1.000 | 0.965 | 0.976 | 0.012 | 0.003 | 0.002 | 5.03 | 5 | 5 | 9 | 1.400 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9926 | 0.0003 | 0.0071 | 0.0052 | 1.013 | 1.024 | 1.000 | 0.965 | 0.963 | 0.011 | 0.002 | 0.001 | 5.01 | 5 | 5 | 7 | 1.456 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.9912 | 0.0002 | 0.0084 | 0.0068 | 1.014 | 1.023 | 1.000 | 0.955 | 0.956 | 0.011 | 0.001 | 0.000 | 5.02 | 5 | 6 | 7 | 1.486 | 0.48 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9580 | 0.0605 | 0.4189 | 0.4022 | 1.068 | 1.110 | 0.803 | 0.083 | 0.999 | 0.075 | 0.066 | 0.070 | 10.78 | 5 | 21 | 41 | - | - | - | - |
| | 200 | 0.9632 | 0.0422 | 0.4853 | 0.4753 | 1.081 | 1.154 | 0.825 | 0.059 | 1.000 | 0.065 | 0.048 | 0.057 | 13.21 | 5 | 28 | 49 | - | - | - | - |
| | 300 | 0.9584 | 0.0351 | 0.5390 | 0.5308 | 1.088 | 1.170 | 0.806 | 0.042 | 1.000 | 0.059 | 0.044 | 0.037 | 15.30 | 5 | 32 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7760 | 0.0133 | 0.1242 | 0.1195 | 1.071 | 1.741 | 0.255 | 0.098 | 0.990 | 0.015 | 0.014 | 0.018 | 5.20 | 3 | 11 | 32 | - | - | - | - |
| | 200 | 0.7870 | 0.0139 | 0.1957 | 0.1921 | 1.086 | 1.813 | 0.282 | 0.059 | 0.996 | 0.022 | 0.016 | 0.017 | 6.71 | 3 | 20 | 40 | - | - | - | - |
| | 300 | 0.8016 | 0.0135 | 0.2543 | 0.2511 | 1.096 | 1.805 | 0.323 | 0.054 | 0.994 | 0.019 | 0.011 | 0.017 | 8.04 | 3 | 24 | 47 | - | - | - | - |

Notes: See notes to Table 100.

**Table 434: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0616 | 0.0182 | 1.002 | 1.027 | 1.000 | 0.879 | 1.000 | 0.286 | 0.025 | 0.005 | 5.45 | 5 | 7 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0561 | 0.0204 | 1.002 | 1.030 | 1.000 | 0.865 | 1.000 | 0.243 | 0.012 | 0.004 | 5.41 | 5 | 6 | 8 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0540 | 0.0237 | 1.002 | 1.035 | 1.000 | 0.846 | 1.000 | 0.202 | 0.016 | 0.003 | 5.40 | 5 | 7 | 9 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0462 | 0.0108 | 1.001 | 1.016 | 1.000 | 0.927 | 1.000 | 0.235 | 0.017 | 0.003 | 5.33 | 5 | 6 | 8 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0394 | 0.0116 | 1.001 | 1.018 | 1.000 | 0.921 | 1.000 | 0.190 | 0.006 | 0.003 | 5.28 | 5 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0377 | 0.0132 | 1.002 | 1.023 | 1.000 | 0.913 | 1.000 | 0.165 | 0.009 | 0.002 | 5.27 | 5 | 6 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0246 | 0.0031 | 1.001 | 1.007 | 1.000 | 0.979 | 1.000 | 0.144 | 0.009 | 0.001 | 5.18 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0197 | 0.0034 | 1.000 | 1.005 | 1.000 | 0.977 | 1.000 | 0.110 | 0.004 | 0.002 | 5.14 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0189 | 0.0040 | 1.001 | 1.010 | 1.000 | 0.972 | 1.000 | 0.100 | 0.005 | 0.001 | 5.13 | 5 | 6 | 7 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0594 | 0.0160 | 1.001 | 1.019 | 1.000 | 0.892 | 1.000 | 0.286 | 0.025 | 0.004 | 5.43 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0020 | 0.0538 | 0.0180 | 1.001 | 1.020 | 1.000 | 0.881 | 1.000 | 0.243 | 0.012 | 0.004 | 5.39 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0518 | 0.0215 | 1.002 | 1.026 | 1.000 | 0.861 | 1.000 | 0.202 | 0.016 | 0.003 | 5.38 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0452 | 0.0098 | 1.001 | 1.012 | 1.000 | 0.933 | 1.000 | 0.235 | 0.017 | 0.003 | 5.33 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0380 | 0.0101 | 1.001 | 1.012 | 1.000 | 0.931 | 1.000 | 0.190 | 0.006 | 0.003 | 5.27 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0365 | 0.0120 | 1.001 | 1.017 | 1.000 | 0.922 | 1.000 | 0.165 | 0.009 | 0.002 | 5.26 | 5 | 6 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0244 | 0.0028 | 1.001 | 1.005 | 1.000 | 0.981 | 1.000 | 0.144 | 0.009 | 0.001 | 5.17 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0194 | 0.0031 | 1.000 | 1.004 | 1.000 | 0.979 | 1.000 | 0.110 | 0.004 | 0.002 | 5.14 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0182 | 0.0033 | 1.000 | 1.005 | 1.000 | 0.977 | 1.000 | 0.100 | 0.005 | 0.001 | 5.13 | 5 | 6 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0621 | 0.4312 | 0.4126 | 1.019 | 1.121 | 0.998 | 0.077 | 1.000 | 0.103 | 0.065 | 0.067 | 11.15 | 5 | 20 | 40 | - | - | - | - |
| | 200 | 0.9998 | 0.0373 | 0.4642 | 0.4531 | 1.024 | 1.140 | 0.999 | 0.059 | 1.000 | 0.075 | 0.043 | 0.040 | 12.43 | 5 | 25 | 62 | - | - | - | - |
| | 300 | 0.9995 | 0.0288 | 0.4930 | 0.4837 | 1.025 | 1.155 | 0.998 | 0.048 | 1.000 | 0.066 | 0.040 | 0.033 | 13.61 | 6 | 28 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9586 | 0.0148 | 0.1099 | 0.1063 | 1.019 | 1.750 | 0.806 | 0.544 | 1.000 | 0.026 | 0.017 | 0.014 | 6.26 | 4 | 14 | 33 | - | - | - | - |
| | 200 | 0.9603 | 0.0121 | 0.1532 | 0.1493 | 1.024 | 1.761 | 0.812 | 0.490 | 1.000 | 0.019 | 0.017 | 0.013 | 7.20 | 4 | 18 | 50 | - | - | - | - |
| | 300 | 0.9648 | 0.0109 | 0.1961 | 0.1931 | 1.028 | 1.802 | 0.834 | 0.437 | 1.000 | 0.020 | 0.012 | 0.015 | 8.08 | 4 | 20 | 49 | - | - | - | - |

Notes: See notes to Table 100.

**Table 435: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0991 | 0.0156 | 1.001 | 1.024 | 1.000 | 0.890 | 1.000 | 0.552 | 0.048 | 0.008 | 5.73 | 5 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0925 | 0.0176 | 1.001 | 1.028 | 1.000 | 0.879 | 1.000 | 0.503 | 0.035 | 0.006 | 5.68 | 5 | 7 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0874 | 0.0191 | 1.001 | 1.029 | 1.000 | 0.867 | 1.000 | 0.463 | 0.028 | 0.005 | 5.64 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0823 | 0.0091 | 1.001 | 1.015 | 1.000 | 0.935 | 1.000 | 0.489 | 0.033 | 0.004 | 5.59 | 5 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0752 | 0.0096 | 1.001 | 1.018 | 1.000 | 0.933 | 1.000 | 0.441 | 0.027 | 0.004 | 5.54 | 5 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0684 | 0.0099 | 1.001 | 1.017 | 1.000 | 0.930 | 1.000 | 0.396 | 0.019 | 0.004 | 5.49 | 5 | 6 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0549 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.984 | 1.000 | 0.355 | 0.019 | 0.001 | 5.39 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0471 | 0.0024 | 1.001 | 1.007 | 1.000 | 0.983 | 1.000 | 0.303 | 0.013 | 0.001 | 5.33 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0430 | 0.0026 | 1.001 | 1.006 | 1.000 | 0.982 | 1.000 | 0.277 | 0.008 | 0.001 | 5.31 | 5 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0072 | 0.0976 | 0.0140 | 1.001 | 1.018 | 1.000 | 0.903 | 1.000 | 0.552 | 0.048 | 0.008 | 5.71 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0909 | 0.0158 | 1.001 | 1.021 | 1.000 | 0.890 | 1.000 | 0.503 | 0.035 | 0.006 | 5.66 | 5 | 7 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0858 | 0.0175 | 1.001 | 1.022 | 1.000 | 0.876 | 1.000 | 0.463 | 0.028 | 0.005 | 5.63 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0816 | 0.0083 | 1.001 | 1.012 | 1.000 | 0.940 | 1.000 | 0.489 | 0.033 | 0.004 | 5.59 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0742 | 0.0085 | 1.001 | 1.013 | 1.000 | 0.940 | 1.000 | 0.441 | 0.027 | 0.004 | 5.54 | 5 | 7 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0675 | 0.0090 | 1.001 | 1.012 | 1.000 | 0.936 | 1.000 | 0.396 | 0.019 | 0.004 | 5.49 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0546 | 0.0020 | 1.000 | 1.003 | 1.000 | 0.986 | 1.000 | 0.355 | 0.019 | 0.001 | 5.39 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0467 | 0.0020 | 1.000 | 1.004 | 1.000 | 0.987 | 1.000 | 0.303 | 0.013 | 0.001 | 5.33 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0428 | 0.0023 | 1.000 | 1.004 | 1.000 | 0.984 | 1.000 | 0.277 | 0.008 | 0.001 | 5.30 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0612 | 0.4197 | 0.4019 | 1.012 | 1.120 | 1.000 | 0.078 | 1.000 | 0.106 | 0.064 | 0.076 | 11.06 | 5 | 22 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0379 | 0.4642 | 0.4521 | 1.013 | 1.136 | 1.000 | 0.063 | 1.000 | 0.075 | 0.046 | 0.048 | 12.55 | 5 | 27.5 | 47 | - | - | - | - |
| | 300 | 1.0000 | 0.0289 | 0.4981 | 0.4890 | 1.015 | 1.148 | 1.000 | 0.058 | 1.000 | 0.072 | 0.034 | 0.029 | 13.64 | 5 | 27 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9905 | 0.0144 | 0.1060 | 0.1021 | 1.010 | 1.634 | 0.953 | 0.714 | 1.000 | 0.017 | 0.015 | 0.019 | 6.38 | 5 | 14 | 31 | - | - | - | - |
| | 200 | 0.9920 | 0.0122 | 0.1594 | 0.1559 | 1.012 | 1.648 | 0.960 | 0.634 | 1.000 | 0.023 | 0.013 | 0.016 | 7.40 | 5 | 18 | 34 | - | - | - | - |
| | 300 | 0.9940 | 0.0109 | 0.2084 | 0.2052 | 1.015 | 1.666 | 0.971 | 0.561 | 1.000 | 0.026 | 0.007 | 0.011 | 8.22 | 5 | 19 | 39 | - | - | - | - |

Notes: See notes to Table 100.

**Table 436: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9892 | 0.0026 | 0.0349 | 0.0270 | 1.017 | 1.052 | 0.993 | 0.822 | 0.954 | 0.043 | 0.012 | 0.005 | 5.20 | 5 | 6 | 9 | 1.232 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9847 | 0.0015 | 0.0417 | 0.0355 | 1.021 | 1.064 | 0.992 | 0.778 | 0.937 | 0.036 | 0.006 | 0.004 | 5.23 | 4 | 6 | 9 | 1.265 | 0.26 | 0.01 | 0.00 |
| | 300 | 0.9815 | 0.0011 | 0.0462 | 0.0402 | 1.027 | 1.089 | 0.990 | 0.748 | 0.923 | 0.038 | 0.006 | 0.001 | 5.25 | 4 | 7 | 10 | 1.294 | 0.28 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9851 | 0.0016 | 0.0228 | 0.0167 | 1.016 | 1.040 | 0.989 | 0.881 | 0.941 | 0.033 | 0.008 | 0.003 | 5.09 | 4 | 6 | 8 | 1.261 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9809 | 0.0009 | 0.0264 | 0.0216 | 1.021 | 1.049 | 0.988 | 0.850 | 0.925 | 0.028 | 0.004 | 0.003 | 5.09 | 4 | 6 | 8 | 1.292 | 0.29 | 0.01 | 0.00 |
| | 300 | 0.9759 | 0.0007 | 0.0301 | 0.0250 | 1.027 | 1.073 | 0.987 | 0.832 | 0.901 | 0.033 | 0.004 | 0.001 | 5.10 | 4 | 6 | 10 | 1.319 | 0.31 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9715 | 0.0006 | 0.0083 | 0.0055 | 1.022 | 1.028 | 0.977 | 0.942 | 0.893 | 0.015 | 0.004 | 0.002 | 4.92 | 4 | 5 | 7 | 1.327 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9677 | 0.0003 | 0.0091 | 0.0068 | 1.025 | 1.033 | 0.981 | 0.936 | 0.876 | 0.014 | 0.002 | 0.001 | 4.90 | 4 | 6 | 8 | 1.361 | 0.36 | 0.01 | 0.00 |
| | 300 | 0.9584 | 0.0003 | 0.0124 | 0.0098 | 1.033 | 1.051 | 0.971 | 0.910 | 0.843 | 0.017 | 0.002 | 0.001 | 4.88 | 4 | 6 | 9 | 1.383 | 0.38 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9798 | 0.0022 | 0.0304 | 0.0225 | 1.023 | 1.041 | 0.993 | 0.851 | 0.907 | 0.042 | 0.012 | 0.005 | 5.12 | 4 | 6 | 9 | 1.154 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9745 | 0.0013 | 0.0369 | 0.0306 | 1.028 | 1.053 | 0.992 | 0.806 | 0.886 | 0.036 | 0.006 | 0.004 | 5.14 | 4 | 6 | 8 | 1.182 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.9679 | 0.0010 | 0.0398 | 0.0337 | 1.035 | 1.071 | 0.990 | 0.787 | 0.855 | 0.038 | 0.006 | 0.001 | 5.13 | 4 | 6 | 10 | 1.185 | 0.18 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9737 | 0.0014 | 0.0200 | 0.0139 | 1.025 | 1.035 | 0.989 | 0.900 | 0.884 | 0.033 | 0.008 | 0.003 | 5.01 | 4 | 6 | 7 | 1.185 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9680 | 0.0008 | 0.0223 | 0.0177 | 1.031 | 1.040 | 0.988 | 0.874 | 0.861 | 0.028 | 0.004 | 0.002 | 5.00 | 4 | 6 | 8 | 1.202 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.9611 | 0.0006 | 0.0253 | 0.0201 | 1.037 | 1.058 | 0.987 | 0.862 | 0.827 | 0.033 | 0.004 | 0.001 | 4.99 | 4 | 6 | 10 | 1.216 | 0.22 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9561 | 0.0005 | 0.0075 | 0.0048 | 1.035 | 1.036 | 0.977 | 0.947 | 0.816 | 0.014 | 0.004 | 0.002 | 4.83 | 4 | 5 | 7 | 1.246 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9503 | 0.0002 | 0.0069 | 0.0046 | 1.039 | 1.035 | 0.981 | 0.951 | 0.789 | 0.014 | 0.002 | 0.001 | 4.80 | 4 | 5 | 8 | 1.260 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.9361 | 0.0002 | 0.0108 | 0.0082 | 1.052 | 1.058 | 0.971 | 0.921 | 0.732 | 0.016 | 0.002 | 0.001 | 4.75 | 4 | 6 | 8 | 1.262 | 0.26 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8594 | 0.0568 | 0.4242 | 0.4088 | 1.062 | 0.975 | 0.437 | 0.043 | 0.997 | 0.085 | 0.071 | 0.063 | 9.92 | 4 | 20 | 46 | - | - | - | - |
| | 200 | 0.8533 | 0.0402 | 0.4969 | 0.4861 | 1.072 | 1.002 | 0.428 | 0.033 | 0.997 | 0.053 | 0.050 | 0.050 | 12.26 | 4 | 26 | 53 | - | - | - | - |
| | 300 | 0.8519 | 0.0353 | 0.5593 | 0.5510 | 1.084 | 1.048 | 0.405 | 0.016 | 0.994 | 0.042 | 0.038 | 0.044 | 14.80 | 5 | 33 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6228 | 0.0142 | 0.1551 | 0.1493 | 1.059 | 1.460 | 0.046 | 0.011 | 0.965 | 0.018 | 0.015 | 0.017 | 4.52 | 2 | 10 | 39 | - | - | - | - |
| | 200 | 0.6321 | 0.0126 | 0.2192 | 0.2154 | 1.069 | 1.503 | 0.063 | 0.008 | 0.964 | 0.014 | 0.011 | 0.015 | 5.66 | 2 | 15 | 44 | - | - | - | - |
| | 300 | 0.6451 | 0.0138 | 0.2972 | 0.2927 | 1.091 | 1.578 | 0.076 | 0.007 | 0.967 | 0.015 | 0.015 | 0.017 | 7.36 | 2 | 23 | 54 | - | - | - | - |

Notes: See notes to Table 100.

**Table 437: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0594 | 0.0168 | 1.002 | 1.031 | 1.000 | 0.889 | 1.000 | 0.278 | 0.026 | 0.008 | 5.44 | 5 | 7 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0557 | 0.0201 | 1.003 | 1.040 | 1.000 | 0.866 | 1.000 | 0.236 | 0.020 | 0.004 | 5.41 | 5 | 7 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0505 | 0.0190 | 1.003 | 1.038 | 1.000 | 0.871 | 1.000 | 0.207 | 0.018 | 0.007 | 5.37 | 5 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0445 | 0.0095 | 1.001 | 1.020 | 1.000 | 0.937 | 1.000 | 0.230 | 0.017 | 0.006 | 5.32 | 5 | 6 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0015 | 0.0405 | 0.0110 | 1.002 | 1.024 | 1.000 | 0.926 | 1.000 | 0.197 | 0.015 | 0.001 | 5.29 | 5 | 6 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0368 | 0.0110 | 1.002 | 1.023 | 1.000 | 0.925 | 1.000 | 0.170 | 0.013 | 0.003 | 5.27 | 5 | 6 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0233 | 0.0023 | 1.001 | 1.007 | 1.000 | 0.985 | 1.000 | 0.139 | 0.009 | 0.002 | 5.17 | 5 | 6 | 7 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0204 | 0.0036 | 1.001 | 1.010 | 1.000 | 0.975 | 1.000 | 0.115 | 0.005 | 0.000 | 5.15 | 5 | 6 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0172 | 0.0027 | 1.001 | 1.008 | 1.000 | 0.981 | 1.000 | 0.097 | 0.007 | 0.000 | 5.12 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0576 | 0.0149 | 1.002 | 1.024 | 1.000 | 0.901 | 1.000 | 0.278 | 0.026 | 0.008 | 5.42 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0020 | 0.0537 | 0.0180 | 1.002 | 1.032 | 1.000 | 0.880 | 1.000 | 0.236 | 0.020 | 0.004 | 5.39 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0486 | 0.0170 | 1.002 | 1.029 | 1.000 | 0.883 | 1.000 | 0.207 | 0.018 | 0.007 | 5.36 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0031 | 0.0431 | 0.0081 | 1.001 | 1.013 | 1.000 | 0.946 | 1.000 | 0.230 | 0.017 | 0.006 | 5.31 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0392 | 0.0096 | 1.001 | 1.019 | 1.000 | 0.935 | 1.000 | 0.197 | 0.015 | 0.001 | 5.28 | 5 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0357 | 0.0099 | 1.001 | 1.018 | 1.000 | 0.932 | 1.000 | 0.170 | 0.013 | 0.003 | 5.26 | 5 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0230 | 0.0020 | 1.001 | 1.005 | 1.000 | 0.987 | 1.000 | 0.139 | 0.009 | 0.002 | 5.16 | 5 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0197 | 0.0028 | 1.001 | 1.007 | 1.000 | 0.981 | 1.000 | 0.115 | 0.005 | 0.000 | 5.14 | 5 | 6 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0169 | 0.0024 | 1.001 | 1.006 | 1.000 | 0.984 | 1.000 | 0.097 | 0.007 | 0.000 | 5.12 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9874 | 0.0633 | 0.4406 | 0.4220 | 1.019 | 1.103 | 0.937 | 0.063 | 1.000 | 0.098 | 0.059 | 0.066 | 11.21 | 5 | 21 | 35 | - | - | - | - |
| | 200 | 0.9832 | 0.0394 | 0.4875 | 0.4762 | 1.023 | 1.122 | 0.917 | 0.047 | 1.000 | 0.070 | 0.048 | 0.045 | 12.76 | 5 | 25 | 42 | - | - | - | - |
| | 300 | 0.9853 | 0.0312 | 0.5229 | 0.5136 | 1.025 | 1.135 | 0.927 | 0.040 | 1.000 | 0.054 | 0.037 | 0.039 | 14.25 | 6 | 29 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8451 | 0.0122 | 0.1066 | 0.1027 | 1.019 | 1.757 | 0.392 | 0.196 | 1.000 | 0.018 | 0.012 | 0.012 | 5.43 | 3 | 12.5 | 33 | - | - | - | - |
| | 200 | 0.8534 | 0.0120 | 0.1700 | 0.1663 | 1.024 | 1.769 | 0.417 | 0.143 | 1.000 | 0.017 | 0.016 | 0.017 | 6.65 | 3 | 18.5 | 34 | - | - | - | - |
| | 300 | 0.8627 | 0.0115 | 0.2174 | 0.2142 | 1.030 | 1.824 | 0.462 | 0.127 | 1.000 | 0.016 | 0.012 | 0.015 | 7.76 | 3 | 22 | 52 | - | - | - | - |

Notes: See notes to Table 100.

**Table 438: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1010 | 0.0147 | 1.001 | 1.025 | 1.000 | 0.896 | 1.000 | 0.569 | 0.048 | 0.010 | 5.74 | 5 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0035 | 0.0939 | 0.0167 | 1.001 | 1.030 | 1.000 | 0.881 | 1.000 | 0.516 | 0.039 | 0.006 | 5.69 | 5 | 7 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0845 | 0.0169 | 1.001 | 1.033 | 1.000 | 0.882 | 1.000 | 0.461 | 0.026 | 0.002 | 5.62 | 5 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0841 | 0.0073 | 1.001 | 1.014 | 1.000 | 0.949 | 1.000 | 0.509 | 0.036 | 0.006 | 5.61 | 5 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0764 | 0.0084 | 1.001 | 1.017 | 1.000 | 0.939 | 1.000 | 0.455 | 0.030 | 0.004 | 5.55 | 5 | 7 | 8 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0695 | 0.0099 | 1.001 | 1.022 | 1.000 | 0.930 | 1.000 | 0.407 | 0.019 | 0.002 | 5.50 | 5 | 6 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0570 | 0.0017 | 1.001 | 1.004 | 1.000 | 0.988 | 1.000 | 0.372 | 0.018 | 0.003 | 5.40 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0491 | 0.0020 | 1.000 | 1.004 | 1.000 | 0.986 | 1.000 | 0.319 | 0.015 | 0.001 | 5.35 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0444 | 0.0018 | 1.001 | 1.005 | 1.000 | 0.987 | 1.000 | 0.291 | 0.010 | 0.001 | 5.31 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0993 | 0.0129 | 1.001 | 1.018 | 1.000 | 0.910 | 1.000 | 0.569 | 0.048 | 0.010 | 5.73 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0034 | 0.0924 | 0.0151 | 1.001 | 1.023 | 1.000 | 0.892 | 1.000 | 0.516 | 0.039 | 0.006 | 5.68 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0833 | 0.0156 | 1.001 | 1.027 | 1.000 | 0.891 | 1.000 | 0.461 | 0.026 | 0.002 | 5.61 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0061 | 0.0832 | 0.0064 | 1.001 | 1.011 | 1.000 | 0.956 | 1.000 | 0.509 | 0.036 | 0.006 | 5.60 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0755 | 0.0074 | 1.001 | 1.013 | 1.000 | 0.946 | 1.000 | 0.455 | 0.030 | 0.004 | 5.54 | 5 | 7 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0689 | 0.0092 | 1.001 | 1.018 | 1.000 | 0.935 | 1.000 | 0.407 | 0.019 | 0.002 | 5.50 | 5 | 6 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0041 | 0.0569 | 0.0016 | 1.000 | 1.004 | 1.000 | 0.989 | 1.000 | 0.372 | 0.018 | 0.003 | 5.40 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0490 | 0.0019 | 1.000 | 1.003 | 1.000 | 0.987 | 1.000 | 0.319 | 0.015 | 0.001 | 5.35 | 5 | 6 | 7 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0444 | 0.0018 | 1.001 | 1.005 | 1.000 | 0.987 | 1.000 | 0.291 | 0.010 | 0.001 | 5.31 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9978 | 0.0639 | 0.4374 | 0.4196 | 1.010 | 1.111 | 0.989 | 0.070 | 1.000 | 0.100 | 0.071 | 0.080 | 11.31 | 5 | 21 | 44 | - | - | - | - |
| | 200 | 0.9979 | 0.0404 | 0.4900 | 0.4791 | 1.012 | 1.130 | 0.990 | 0.036 | 1.000 | 0.079 | 0.048 | 0.045 | 13.02 | 6 | 25.5 | 48 | - | - | - | - |
| | 300 | 0.9980 | 0.0301 | 0.5108 | 0.5023 | 1.015 | 1.145 | 0.990 | 0.040 | 1.000 | 0.068 | 0.037 | 0.031 | 13.99 | 6 | 29 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9286 | 0.0155 | 0.1120 | 0.1076 | 1.012 | 1.771 | 0.680 | 0.426 | 1.000 | 0.017 | 0.010 | 0.016 | 6.18 | 4 | 14.5 | 32 | - | - | - | - |
| | 200 | 0.9344 | 0.0123 | 0.1601 | 0.1568 | 1.014 | 1.782 | 0.699 | 0.369 | 1.000 | 0.024 | 0.019 | 0.018 | 7.11 | 4 | 18 | 40 | - | - | - | - |
| | 300 | 0.9329 | 0.0115 | 0.2044 | 0.2014 | 1.019 | 1.820 | 0.691 | 0.304 | 1.000 | 0.024 | 0.014 | 0.014 | 8.10 | 4 | 22 | 44 | - | - | - | - |

Notes: See notes to Table 100.

**Table 439: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9215 | 0.0027 | 0.0388 | 0.0297 | 1.027 | 1.035 | 0.866 | 0.716 | 0.883 | 0.051 | 0.009 | 0.003 | 4.87 | 3 | 6 | 9 | 1.127 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8907 | 0.0015 | 0.0448 | 0.0387 | 1.039 | 1.048 | 0.830 | 0.656 | 0.817 | 0.031 | 0.007 | 0.005 | 4.75 | 2 | 6 | 9 | 1.139 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.8824 | 0.0010 | 0.0457 | 0.0411 | 1.045 | 1.072 | 0.823 | 0.634 | 0.792 | 0.025 | 0.004 | 0.002 | 4.72 | 2 | 6 | 10 | 1.150 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8974 | 0.0017 | 0.0266 | 0.0200 | 1.029 | 1.015 | 0.829 | 0.731 | 0.844 | 0.037 | 0.004 | 0.002 | 4.66 | 2 | 6 | 8 | 1.139 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8628 | 0.0009 | 0.0288 | 0.0246 | 1.042 | 1.028 | 0.787 | 0.680 | 0.775 | 0.020 | 0.004 | 0.004 | 4.49 | 2 | 6 | 8 | 1.157 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.8538 | 0.0006 | 0.0308 | 0.0276 | 1.047 | 1.043 | 0.780 | 0.664 | 0.751 | 0.018 | 0.002 | 0.001 | 4.46 | 2 | 6 | 8 | 1.166 | 0.16 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8230 | 0.0005 | 0.0089 | 0.0063 | 1.043 | 0.995 | 0.730 | 0.703 | 0.743 | 0.013 | 0.002 | 0.000 | 4.17 | 1 | 5 | 7 | 1.174 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7847 | 0.0003 | 0.0109 | 0.0090 | 1.059 | 1.002 | 0.692 | 0.656 | 0.653 | 0.010 | 0.001 | 0.001 | 3.99 | 1 | 5 | 7 | 1.172 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.7706 | 0.0002 | 0.0123 | 0.0107 | 1.064 | 1.020 | 0.674 | 0.636 | 0.629 | 0.009 | 0.001 | 0.000 | 3.92 | 1 | 5 | 7 | 1.170 | 0.17 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9107 | 0.0024 | 0.0352 | 0.0260 | 1.032 | 1.023 | 0.866 | 0.734 | 0.834 | 0.051 | 0.009 | 0.003 | 4.79 | 3 | 6 | 8 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8764 | 0.0013 | 0.0404 | 0.0345 | 1.046 | 1.038 | 0.829 | 0.677 | 0.754 | 0.030 | 0.007 | 0.005 | 4.64 | 2 | 6 | 8 | 1.045 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8679 | 0.0009 | 0.0419 | 0.0374 | 1.052 | 1.061 | 0.822 | 0.652 | 0.726 | 0.025 | 0.004 | 0.002 | 4.61 | 2 | 6 | 9 | 1.055 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8853 | 0.0016 | 0.0246 | 0.0181 | 1.036 | 1.010 | 0.829 | 0.743 | 0.789 | 0.037 | 0.004 | 0.002 | 4.58 | 2 | 6 | 8 | 1.066 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8470 | 0.0008 | 0.0259 | 0.0217 | 1.051 | 1.022 | 0.786 | 0.695 | 0.704 | 0.020 | 0.004 | 0.004 | 4.39 | 2 | 6 | 8 | 1.064 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.8348 | 0.0006 | 0.0281 | 0.0250 | 1.057 | 1.036 | 0.779 | 0.678 | 0.668 | 0.017 | 0.002 | 0.001 | 4.34 | 1 | 6 | 8 | 1.061 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8068 | 0.0004 | 0.0077 | 0.0052 | 1.052 | 0.994 | 0.729 | 0.709 | 0.672 | 0.013 | 0.002 | 0.000 | 4.08 | 1 | 5 | 7 | 1.090 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7671 | 0.0003 | 0.0092 | 0.0074 | 1.069 | 0.997 | 0.692 | 0.667 | 0.580 | 0.010 | 0.001 | 0.001 | 3.89 | 1 | 5 | 7 | 1.082 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.7516 | 0.0002 | 0.0109 | 0.0093 | 1.074 | 1.015 | 0.674 | 0.644 | 0.545 | 0.009 | 0.001 | 0.000 | 3.82 | 1 | 5 | 7 | 1.072 | 0.07 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7205 | 0.0587 | 0.4681 | 0.4502 | 1.053 | 0.812 | 0.150 | 0.015 | 0.991 | 0.073 | 0.058 | 0.068 | 9.42 | 3 | 19 | 41 | - | - | - | - |
| | 200 | 0.7099 | 0.0436 | 0.5613 | 0.5501 | 1.067 | 0.853 | 0.134 | 0.008 | 0.984 | 0.066 | 0.045 | 0.057 | 12.23 | 4 | 26.5 | 47 | - | - | - | - |
| | 300 | 0.7139 | 0.0364 | 0.6052 | 0.5971 | 1.075 | 0.894 | 0.136 | 0.004 | 0.978 | 0.048 | 0.041 | 0.043 | 14.45 | 4 | 33 | 58 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5206 | 0.0173 | 0.2137 | 0.2065 | 1.044 | 1.153 | 0.006 | 0.001 | 0.944 | 0.020 | 0.014 | 0.017 | 4.32 | 2 | 10 | 26 | - | - | - | - |
| | 200 | 0.5217 | 0.0161 | 0.3167 | 0.3107 | 1.063 | 1.259 | 0.010 | 0.000 | 0.943 | 0.024 | 0.016 | 0.021 | 5.82 | 2 | 15 | 41 | - | - | - | - |
| | 300 | 0.5318 | 0.0156 | 0.3763 | 0.3725 | 1.081 | 1.353 | 0.014 | 0.000 | 0.932 | 0.016 | 0.016 | 0.019 | 7.31 | 2 | 21 | 51 | - | - | - | - |

Notes: See notes to Table 100.

**Table 440: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0614 | 0.0178 | 1.003 | 1.038 | 1.000 | 0.882 | 1.000 | 0.285 | 0.026 | 0.008 | 5.45 | 5 | 7 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0575 | 0.0199 | 1.003 | 1.043 | 1.000 | 0.869 | 1.000 | 0.248 | 0.021 | 0.006 | 5.42 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0508 | 0.0210 | 1.003 | 1.049 | 1.000 | 0.861 | 1.000 | 0.196 | 0.016 | 0.005 | 5.37 | 5 | 6 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0457 | 0.0099 | 1.002 | 1.025 | 1.000 | 0.933 | 1.000 | 0.236 | 0.019 | 0.004 | 5.33 | 5 | 6 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0015 | 0.0417 | 0.0121 | 1.002 | 1.027 | 1.000 | 0.920 | 1.000 | 0.197 | 0.014 | 0.004 | 5.30 | 5 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0362 | 0.0117 | 1.002 | 1.030 | 1.000 | 0.922 | 1.000 | 0.164 | 0.009 | 0.004 | 5.26 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0239 | 0.0028 | 1.001 | 1.009 | 1.000 | 0.982 | 1.000 | 0.138 | 0.011 | 0.002 | 5.17 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0007 | 0.0198 | 0.0030 | 1.001 | 1.008 | 1.000 | 0.979 | 1.000 | 0.114 | 0.005 | 0.001 | 5.14 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0189 | 0.0030 | 1.001 | 1.010 | 1.000 | 0.979 | 1.000 | 0.106 | 0.005 | 0.002 | 5.13 | 5 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0044 | 0.0596 | 0.0158 | 1.002 | 1.032 | 1.000 | 0.894 | 1.000 | 0.285 | 0.026 | 0.008 | 5.44 | 5 | 7 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0021 | 0.0557 | 0.0181 | 1.003 | 1.036 | 1.000 | 0.881 | 1.000 | 0.248 | 0.021 | 0.006 | 5.41 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0495 | 0.0198 | 1.003 | 1.043 | 1.000 | 0.869 | 1.000 | 0.196 | 0.016 | 0.005 | 5.36 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0445 | 0.0086 | 1.002 | 1.020 | 1.000 | 0.942 | 1.000 | 0.236 | 0.019 | 0.004 | 5.32 | 5 | 6 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0015 | 0.0407 | 0.0110 | 1.002 | 1.022 | 1.000 | 0.927 | 1.000 | 0.197 | 0.014 | 0.004 | 5.29 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0355 | 0.0110 | 1.002 | 1.027 | 1.000 | 0.927 | 1.000 | 0.164 | 0.009 | 0.004 | 5.26 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0017 | 0.0234 | 0.0024 | 1.001 | 1.007 | 1.000 | 0.985 | 1.000 | 0.138 | 0.011 | 0.002 | 5.17 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0007 | 0.0194 | 0.0026 | 1.001 | 1.006 | 1.000 | 0.982 | 1.000 | 0.114 | 0.005 | 0.001 | 5.14 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0004 | 0.0186 | 0.0027 | 1.001 | 1.009 | 1.000 | 0.981 | 1.000 | 0.106 | 0.005 | 0.002 | 5.13 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9158 | 0.0642 | 0.4583 | 0.4406 | 1.018 | 1.022 | 0.625 | 0.033 | 1.000 | 0.094 | 0.062 | 0.084 | 10.93 | 5 | 21 | 40 | - | - | - | - |
| | 200 | 0.9089 | 0.0402 | 0.5091 | 0.4980 | 1.021 | 1.037 | 0.595 | 0.024 | 1.000 | 0.074 | 0.051 | 0.055 | 12.54 | 5 | 25 | 51 | - | - | - | - |
| | 300 | 0.9050 | 0.0292 | 0.5232 | 0.5146 | 1.025 | 1.046 | 0.574 | 0.024 | 1.000 | 0.064 | 0.039 | 0.034 | 13.26 | 5 | 27 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6935 | 0.0138 | 0.1447 | 0.1385 | 1.016 | 1.568 | 0.105 | 0.022 | 1.000 | 0.020 | 0.011 | 0.014 | 4.84 | 2 | 10 | 26 | - | - | - | - |
| | 200 | 0.7071 | 0.0118 | 0.2024 | 0.1982 | 1.020 | 1.608 | 0.110 | 0.019 | 1.000 | 0.023 | 0.014 | 0.017 | 5.88 | 2 | 15 | 45 | - | - | - | - |
| | 300 | 0.7161 | 0.0104 | 0.2393 | 0.2362 | 1.026 | 1.654 | 0.130 | 0.013 | 1.000 | 0.020 | 0.015 | 0.012 | 6.69 | 2 | 19 | 64 | - | - | - | - |

Notes: See notes to Table 100.

**Table 441: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0072 | 0.0975 | 0.0151 | 1.001 | 1.030 | 1.000 | 0.892 | 1.000 | 0.544 | 0.046 | 0.009 | 5.71 | 5 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0034 | 0.0926 | 0.0176 | 1.002 | 1.041 | 1.000 | 0.877 | 1.000 | 0.505 | 0.031 | 0.008 | 5.68 | 5 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0867 | 0.0178 | 1.002 | 1.043 | 1.000 | 0.878 | 1.000 | 0.468 | 0.028 | 0.004 | 5.64 | 5 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0807 | 0.0082 | 1.001 | 1.019 | 1.000 | 0.941 | 1.000 | 0.485 | 0.031 | 0.005 | 5.58 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0027 | 0.0737 | 0.0094 | 1.001 | 1.023 | 1.000 | 0.933 | 1.000 | 0.436 | 0.020 | 0.006 | 5.53 | 5 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0690 | 0.0090 | 1.001 | 1.024 | 1.000 | 0.937 | 1.000 | 0.409 | 0.018 | 0.003 | 5.50 | 5 | 7 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0037 | 0.0516 | 0.0016 | 1.001 | 1.005 | 1.000 | 0.989 | 1.000 | 0.341 | 0.013 | 0.001 | 5.37 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0016 | 0.0455 | 0.0025 | 1.001 | 1.008 | 1.000 | 0.983 | 1.000 | 0.295 | 0.009 | 0.002 | 5.32 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0011 | 0.0446 | 0.0026 | 1.000 | 1.009 | 1.000 | 0.981 | 1.000 | 0.289 | 0.007 | 0.001 | 5.32 | 5 | 6 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0072 | 0.0969 | 0.0144 | 1.001 | 1.028 | 1.000 | 0.897 | 1.000 | 0.544 | 0.046 | 0.009 | 5.71 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0034 | 0.0913 | 0.0163 | 1.002 | 1.034 | 1.000 | 0.886 | 1.000 | 0.505 | 0.031 | 0.008 | 5.67 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0855 | 0.0166 | 1.002 | 1.036 | 1.000 | 0.886 | 1.000 | 0.468 | 0.028 | 0.004 | 5.63 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0058 | 0.0803 | 0.0078 | 1.001 | 1.017 | 1.000 | 0.944 | 1.000 | 0.485 | 0.031 | 0.005 | 5.58 | 5 | 7 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0026 | 0.0731 | 0.0088 | 1.001 | 1.020 | 1.000 | 0.938 | 1.000 | 0.436 | 0.020 | 0.006 | 5.53 | 5 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0683 | 0.0082 | 1.001 | 1.020 | 1.000 | 0.943 | 1.000 | 0.409 | 0.018 | 0.003 | 5.49 | 5 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0037 | 0.0516 | 0.0016 | 1.001 | 1.005 | 1.000 | 0.989 | 1.000 | 0.341 | 0.013 | 0.001 | 5.37 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0016 | 0.0453 | 0.0023 | 1.001 | 1.007 | 1.000 | 0.984 | 1.000 | 0.295 | 0.009 | 0.002 | 5.32 | 5 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0441 | 0.0021 | 1.000 | 1.005 | 1.000 | 0.985 | 1.000 | 0.289 | 0.007 | 0.001 | 5.31 | 5 | 6 | 7 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9668 | 0.0685 | 0.4650 | 0.4457 | 1.010 | 1.073 | 0.839 | 0.041 | 1.000 | 0.105 | 0.066 | 0.070 | 11.62 | 5 | 21 | 35 | - | - | - | - |
| | 200 | 0.9644 | 0.0409 | 0.5056 | 0.4932 | 1.013 | 1.093 | 0.828 | 0.030 | 1.000 | 0.088 | 0.049 | 0.038 | 12.96 | 6 | 25 | 52 | - | - | - | - |
| | 300 | 0.9603 | 0.0294 | 0.5146 | 0.5057 | 1.015 | 1.103 | 0.809 | 0.037 | 1.000 | 0.062 | 0.040 | 0.032 | 13.60 | 5 | 28 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7838 | 0.0154 | 0.1260 | 0.1209 | 1.011 | 1.707 | 0.234 | 0.088 | 1.000 | 0.018 | 0.013 | 0.016 | 5.45 | 3 | 14.5 | 31 | - | - | - | - |
| | 200 | 0.8032 | 0.0129 | 0.1838 | 0.1801 | 1.014 | 1.752 | 0.279 | 0.072 | 1.000 | 0.026 | 0.017 | 0.008 | 6.57 | 3 | 18 | 46 | - | - | - | - |
| | 300 | 0.8109 | 0.0114 | 0.2179 | 0.2152 | 1.019 | 1.787 | 0.312 | 0.072 | 1.000 | 0.019 | 0.017 | 0.012 | 7.47 | 3 | 22 | 48 | - | - | - | - |

Notes: See notes to Table 100.

### 4.2.2 Findings for designs featuring pseudo-signals

## Table 442: MC findings for DGPII(a)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9992 | 0.0224 | 0.2654 | 0.0238 | 1.021 | 1.459 | 0.999 | 0.003 | 0.925 | 0.754 | 0.998 | 0.053 | 0.012 | 0.006 | 7.21 | 6 | 8 | 11 | 1.286 | 0.28 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9992 | 0.0110 | 0.2630 | 0.0287 | 1.023 | 1.475 | 0.999 | 0.008 | 0.901 | 0.701 | 0.997 | 0.030 | 0.004 | 0.003 | 7.19 | 6 | 8 | 12 | 1.336 | 0.32 | 0.01 | 0.00 |
| | 300 | 0.9970 | 0.0073 | 0.2616 | 0.0301 | 1.025 | 1.473 | 0.995 | 0.009 | 0.883 | 0.674 | 0.991 | 0.023 | 0.003 | 0.003 | 7.16 | 6 | 8 | 11 | 1.368 | 0.35 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9983 | 0.0211 | 0.2546 | 0.0151 | 1.019 | 1.436 | 0.997 | 0.005 | 0.901 | 0.791 | 0.995 | 0.039 | 0.008 | 0.004 | 7.08 | 6 | 8 | 10 | 1.318 | 0.31 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9987 | 0.0103 | 0.2512 | 0.0176 | 1.020 | 1.439 | 0.998 | 0.010 | 0.879 | 0.756 | 0.996 | 0.023 | 0.003 | 0.002 | 7.05 | 6 | 8 | 10 | 1.379 | 0.37 | 0.01 | 0.00 |
| | 300 | 0.9958 | 0.0067 | 0.2477 | 0.0189 | 1.022 | 1.443 | 0.993 | 0.015 | 0.843 | 0.714 | 0.987 | 0.018 | 0.002 | 0.003 | 7.00 | 6 | 8 | 10 | 1.408 | 0.40 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9957 | 0.0189 | 0.2345 | 0.0057 | 1.017 | 1.401 | 0.988 | 0.021 | 0.822 | 0.782 | 0.991 | 0.021 | 0.003 | 0.001 | 6.85 | 6 | 8 | 10 | 1.430 | 0.43 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9950 | 0.0092 | 0.2308 | 0.0064 | 1.018 | 1.402 | 0.988 | 0.026 | 0.794 | 0.755 | 0.988 | 0.012 | 0.000 | 0.001 | 6.81 | 6 | 7.5 | 10 | 1.493 | 0.48 | 0.01 | 0.00 |
| | 300 | 0.9925 | 0.0059 | 0.2240 | 0.0069 | 1.020 | 1.399 | 0.985 | 0.035 | 0.746 | 0.702 | 0.979 | 0.008 | 0.002 | 0.002 | 6.74 | 5 | 8 | 10 | 1.508 | 0.50 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9980 | 0.0219 | 0.2620 | 0.0194 | 1.020 | 1.429 | 0.999 | 0.003 | 0.925 | 0.784 | 0.992 | 0.051 | 0.012 | 0.006 | 7.16 | 6 | 8 | 11 | 1.245 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9967 | 0.0107 | 0.2585 | 0.0223 | 1.022 | 1.437 | 0.999 | 0.008 | 0.901 | 0.744 | 0.985 | 0.030 | 0.004 | 0.003 | 7.11 | 6 | 8 | 12 | 1.277 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.9939 | 0.0071 | 0.2579 | 0.0247 | 1.025 | 1.439 | 0.995 | 0.010 | 0.883 | 0.709 | 0.976 | 0.023 | 0.003 | 0.003 | 7.09 | 6 | 8 | 10 | 1.310 | 0.31 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9973 | 0.0208 | 0.2524 | 0.0122 | 1.019 | 1.415 | 0.997 | 0.005 | 0.901 | 0.812 | 0.990 | 0.038 | 0.008 | 0.004 | 7.04 | 6 | 8 | 10 | 1.291 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9954 | 0.0101 | 0.2483 | 0.0133 | 1.022 | 1.416 | 0.998 | 0.011 | 0.879 | 0.785 | 0.979 | 0.022 | 0.002 | 0.002 | 6.99 | 6 | 8 | 10 | 1.334 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.9926 | 0.0066 | 0.2448 | 0.0146 | 1.023 | 1.419 | 0.993 | 0.016 | 0.843 | 0.742 | 0.971 | 0.018 | 0.002 | 0.003 | 6.94 | 6 | 8 | 10 | 1.361 | 0.36 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9929 | 0.0188 | 0.2337 | 0.0044 | 1.020 | 1.395 | 0.988 | 0.021 | 0.822 | 0.792 | 0.978 | 0.018 | 0.003 | 0.001 | 6.83 | 6 | 7 | 9 | 1.408 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9903 | 0.0091 | 0.2297 | 0.0043 | 1.023 | 1.396 | 0.988 | 0.026 | 0.794 | 0.767 | 0.965 | 0.011 | 0.000 | 0.000 | 6.77 | 6 | 7 | 10 | 1.459 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.9887 | 0.0059 | 0.2230 | 0.0049 | 1.024 | 1.394 | 0.985 | 0.036 | 0.746 | 0.714 | 0.960 | 0.008 | 0.002 | 0.002 | 6.70 | 5 | 7 | 10 | 1.476 | 0.47 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9951 | 0.0734 | 0.4803 | 0.4222 | 1.076 | 1.489 | 0.976 | 0.038 | 0.066 | 0.003 | 1.000 | 0.097 | 0.086 | 0.099 | 12.24 | 6 | 22 | 51 | - | - | - | - |
| | 200 | 0.9930 | 0.0517 | 0.5526 | 0.5087 | 1.091 | 1.555 | 0.966 | 0.029 | 0.059 | 0.002 | 1.000 | 0.082 | 0.067 | 0.054 | 15.26 | 6 | 31 | 54 | - | - | - | - |
| | 300 | 0.9919 | 0.0438 | 0.6053 | 0.5692 | 1.105 | 1.628 | 0.962 | 0.015 | 0.050 | 0.001 | 1.000 | 0.057 | 0.055 | 0.060 | 18.06 | 7 | 36 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9426 | 0.0179 | 0.1615 | 0.1350 | 1.067 | 1.849 | 0.754 | 0.341 | 0.005 | 0.001 | 0.997 | 0.025 | 0.015 | 0.027 | 6.49 | 4 | 13 | 36 | - | - | - | - |
| | 200 | 0.9461 | 0.0178 | 0.2460 | 0.2225 | 1.085 | 1.977 | 0.768 | 0.237 | 0.006 | 0.001 | 0.998 | 0.024 | 0.018 | 0.017 | 8.28 | 4 | 21 | 47 | - | - | - | - |
| | 300 | 0.9494 | 0.0193 | 0.3265 | 0.3042 | 1.111 | 2.130 | 0.781 | 0.194 | 0.011 | 0.001 | 0.997 | 0.019 | 0.025 | 0.028 | 10.52 | 4 | 28 | 54 | - | - | - | - |

Notes: See notes to Table 145.

## Table 443: MC findings for DGPII(a)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0248 | 0.2864 | 0.0144 | 1.006 | 1.431 | 1.000 | 0.000 | 1.000 | 0.879 | 1.000 | 0.284 | 0.026 | 0.009 | 7.46 | 7 | 9 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0121 | 0.2822 | 0.0145 | 1.006 | 1.418 | 1.000 | 0.000 | 1.000 | 0.876 | 1.000 | 0.238 | 0.020 | 0.007 | 7.40 | 7 | 9 | 10 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0080 | 0.2808 | 0.0175 | 1.006 | 1.445 | 1.000 | 0.000 | 1.000 | 0.853 | 1.000 | 0.201 | 0.013 | 0.004 | 7.38 | 7 | 8 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0236 | 0.2772 | 0.0084 | 1.005 | 1.414 | 1.000 | 0.000 | 1.000 | 0.929 | 1.000 | 0.231 | 0.020 | 0.008 | 7.34 | 7 | 8 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0115 | 0.2737 | 0.0079 | 1.005 | 1.399 | 1.000 | 0.000 | 1.000 | 0.931 | 1.000 | 0.200 | 0.015 | 0.004 | 7.29 | 7 | 8 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0076 | 0.2713 | 0.0091 | 1.005 | 1.420 | 1.000 | 0.000 | 1.000 | 0.920 | 1.000 | 0.165 | 0.008 | 0.004 | 7.26 | 7 | 8 | 10 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0220 | 0.2647 | 0.0025 | 1.004 | 1.392 | 1.000 | 0.000 | 1.000 | 0.978 | 1.000 | 0.144 | 0.011 | 0.002 | 7.18 | 7 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0107 | 0.2612 | 0.0023 | 1.004 | 1.379 | 1.000 | 0.000 | 1.000 | 0.980 | 1.000 | 0.110 | 0.004 | 0.002 | 7.14 | 7 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2599 | 0.0020 | 1.004 | 1.394 | 1.000 | 0.000 | 1.000 | 0.982 | 1.000 | 0.098 | 0.004 | 0.001 | 7.12 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0246 | 0.2850 | 0.0125 | 1.006 | 1.415 | 1.000 | 0.000 | 1.000 | 0.895 | 1.000 | 0.284 | 0.026 | 0.009 | 7.44 | 7 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0120 | 0.2810 | 0.0129 | 1.006 | 1.404 | 1.000 | 0.000 | 1.000 | 0.888 | 1.000 | 0.238 | 0.020 | 0.007 | 7.39 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.2792 | 0.0153 | 1.005 | 1.424 | 1.000 | 0.000 | 1.000 | 0.869 | 1.000 | 0.201 | 0.013 | 0.004 | 7.36 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0235 | 0.2763 | 0.0072 | 1.005 | 1.403 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.231 | 0.020 | 0.008 | 7.33 | 7 | 8 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0115 | 0.2730 | 0.0069 | 1.005 | 1.390 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.200 | 0.014 | 0.004 | 7.28 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2702 | 0.0077 | 1.004 | 1.406 | 1.000 | 0.000 | 1.000 | 0.932 | 1.000 | 0.165 | 0.008 | 0.004 | 7.25 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0220 | 0.2644 | 0.0021 | 1.004 | 1.388 | 1.000 | 0.000 | 1.000 | 0.981 | 1.000 | 0.144 | 0.011 | 0.002 | 7.18 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2609 | 0.0019 | 1.004 | 1.374 | 1.000 | 0.000 | 1.000 | 0.984 | 1.000 | 0.110 | 0.004 | 0.002 | 7.13 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2597 | 0.0016 | 1.004 | 1.390 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.098 | 0.004 | 0.001 | 7.12 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0762 | 0.4913 | 0.4343 | 1.022 | 1.450 | 1.000 | 0.032 | 0.060 | 0.002 | 1.000 | 0.121 | 0.081 | 0.081 | 12.55 | 6 | 23 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0477 | 0.5417 | 0.4975 | 1.026 | 1.497 | 1.000 | 0.016 | 0.060 | 0.002 | 1.000 | 0.070 | 0.049 | 0.062 | 14.49 | 6 | 28 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0375 | 0.5760 | 0.5357 | 1.028 | 1.534 | 1.000 | 0.013 | 0.055 | 0.000 | 1.000 | 0.066 | 0.054 | 0.041 | 16.22 | 7 | 32 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9991 | 0.0148 | 0.1045 | 0.0915 | 1.012 | 1.504 | 0.996 | 0.711 | 0.004 | 0.001 | 1.000 | 0.019 | 0.013 | 0.014 | 6.47 | 5 | 15 | 33 | - | - | - | - |
| | 200 | 0.9993 | 0.0153 | 0.1850 | 0.1702 | 1.020 | 1.733 | 0.997 | 0.582 | 0.009 | 0.000 | 1.000 | 0.018 | 0.014 | 0.021 | 8.05 | 5 | 21 | 39 | - | - | - | - |
| | 300 | 0.9993 | 0.0146 | 0.2398 | 0.2243 | 1.027 | 1.894 | 0.997 | 0.514 | 0.011 | 0.000 | 1.000 | 0.019 | 0.015 | 0.017 | 9.38 | 5 | 24 | 48 | - | - | - | - |

Notes: See notes to Table 145.

## Table 444: MC findings for DGPII(a)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0278 | 0.3102 | 0.0122 | 1.003 | 1.413 | 1.000 | 0.000 | 1.000 | 0.890 | 1.000 | 0.579 | 0.045 | 0.007 | 7.75 | 7 | 9 | 11 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0135 | 0.3055 | 0.0135 | 1.003 | 1.419 | 1.000 | 0.000 | 1.000 | 0.882 | 1.000 | 0.520 | 0.037 | 0.003 | 7.69 | 7 | 9 | 12 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3013 | 0.0143 | 1.004 | 1.413 | 1.000 | 0.000 | 1.000 | 0.876 | 1.000 | 0.471 | 0.026 | 0.003 | 7.64 | 7 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0264 | 0.3002 | 0.0068 | 1.003 | 1.400 | 1.000 | 0.000 | 1.000 | 0.937 | 1.000 | 0.514 | 0.034 | 0.003 | 7.62 | 7 | 9 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0128 | 0.2945 | 0.0072 | 1.003 | 1.399 | 1.000 | 0.000 | 1.000 | 0.936 | 1.000 | 0.453 | 0.023 | 0.001 | 7.55 | 7 | 8 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2900 | 0.0076 | 1.003 | 1.393 | 1.000 | 0.000 | 1.000 | 0.934 | 1.000 | 0.400 | 0.017 | 0.003 | 7.49 | 7 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0242 | 0.2830 | 0.0016 | 1.002 | 1.382 | 1.000 | 0.000 | 1.000 | 0.986 | 1.000 | 0.371 | 0.014 | 0.001 | 7.40 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2785 | 0.0019 | 1.002 | 1.381 | 1.000 | 0.000 | 1.000 | 0.983 | 1.000 | 0.316 | 0.012 | 0.001 | 7.35 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2761 | 0.0021 | 1.003 | 1.373 | 1.000 | 0.000 | 1.000 | 0.981 | 1.000 | 0.288 | 0.008 | 0.001 | 7.32 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0276 | 0.3092 | 0.0108 | 1.003 | 1.401 | 1.000 | 0.000 | 1.000 | 0.903 | 1.000 | 0.579 | 0.045 | 0.007 | 7.74 | 7 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3042 | 0.0118 | 1.003 | 1.403 | 1.000 | 0.000 | 1.000 | 0.897 | 1.000 | 0.520 | 0.037 | 0.003 | 7.67 | 7 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3005 | 0.0132 | 1.004 | 1.402 | 1.000 | 0.000 | 1.000 | 0.886 | 1.000 | 0.471 | 0.026 | 0.003 | 7.63 | 7 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2994 | 0.0058 | 1.003 | 1.390 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 0.514 | 0.033 | 0.003 | 7.61 | 7 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0128 | 0.2939 | 0.0064 | 1.003 | 1.391 | 1.000 | 0.000 | 1.000 | 0.943 | 1.000 | 0.453 | 0.023 | 0.001 | 7.54 | 7 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2894 | 0.0067 | 1.003 | 1.384 | 1.000 | 0.000 | 1.000 | 0.941 | 1.000 | 0.400 | 0.017 | 0.003 | 7.48 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0242 | 0.2828 | 0.0012 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.371 | 0.014 | 0.001 | 7.40 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0118 | 0.2783 | 0.0016 | 1.002 | 1.378 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.316 | 0.012 | 0.001 | 7.34 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2759 | 0.0018 | 1.003 | 1.369 | 1.000 | 0.000 | 1.000 | 0.984 | 1.000 | 0.288 | 0.008 | 0.001 | 7.31 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0767 | 0.4903 | 0.4319 | 1.012 | 1.437 | 1.000 | 0.030 | 0.073 | 0.002 | 1.000 | 0.113 | 0.085 | 0.082 | 12.59 | 6 | 24.5 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0467 | 0.5365 | 0.4904 | 1.015 | 1.483 | 1.000 | 0.019 | 0.062 | 0.001 | 1.000 | 0.079 | 0.046 | 0.053 | 14.29 | 6 | 26 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0352 | 0.5537 | 0.5156 | 1.016 | 1.499 | 1.000 | 0.021 | 0.056 | 0.002 | 1.000 | 0.077 | 0.038 | 0.031 | 15.52 | 6 | 30 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0154 | 0.1042 | 0.0936 | 1.006 | 1.439 | 1.000 | 0.776 | 0.006 | 0.000 | 1.000 | 0.019 | 0.020 | 0.019 | 6.53 | 5 | 15 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0126 | 0.1562 | 0.1449 | 1.010 | 1.593 | 1.000 | 0.693 | 0.009 | 0.001 | 1.000 | 0.016 | 0.017 | 0.015 | 7.50 | 5 | 18 | 38 | - | - | - | - |
| | 300 | 1.0000 | 0.0120 | 0.2067 | 0.1953 | 1.013 | 1.737 | 1.000 | 0.620 | 0.011 | 0.000 | 1.000 | 0.023 | 0.014 | 0.012 | 8.58 | 5 | 21 | 44 | - | - | - | - |

Notes: See notes to Table 145.

## Table 445: MC findings for DGPII(a)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9737 | 0.0198 | 0.2423 | 0.0247 | 1.029 | 1.447 | 0.937 | 0.026 | 0.722 | 0.587 | 0.951 | 0.053 | 0.009 | 0.006 | 6.83 | 5 | 8 | 12 | 1.222 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9634 | 0.0095 | 0.2351 | 0.0311 | 1.036 | 1.484 | 0.914 | 0.041 | 0.654 | 0.508 | 0.931 | 0.041 | 0.006 | 0.003 | 6.72 | 5 | 8 | 11 | 1.256 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.9554 | 0.0062 | 0.2297 | 0.0326 | 1.042 | 1.519 | 0.904 | 0.042 | 0.612 | 0.469 | 0.911 | 0.034 | 0.005 | 0.005 | 6.62 | 4 | 8 | 11 | 1.314 | 0.30 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9642 | 0.0179 | 0.2249 | 0.0147 | 1.029 | 1.421 | 0.912 | 0.032 | 0.661 | 0.589 | 0.939 | 0.041 | 0.008 | 0.003 | 6.60 | 5 | 8 | 12 | 1.257 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9515 | 0.0085 | 0.2147 | 0.0192 | 1.035 | 1.455 | 0.887 | 0.051 | 0.587 | 0.504 | 0.916 | 0.029 | 0.005 | 0.003 | 6.44 | 4 | 8 | 11 | 1.281 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.9395 | 0.0054 | 0.2098 | 0.0216 | 1.044 | 1.485 | 0.869 | 0.058 | 0.545 | 0.466 | 0.884 | 0.023 | 0.003 | 0.002 | 6.33 | 4 | 8 | 10 | 1.330 | 0.32 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9336 | 0.0145 | 0.1889 | 0.0050 | 1.035 | 1.406 | 0.845 | 0.065 | 0.504 | 0.487 | 0.895 | 0.020 | 0.004 | 0.001 | 6.10 | 4 | 7 | 11 | 1.332 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9116 | 0.0067 | 0.1775 | 0.0069 | 1.046 | 1.455 | 0.807 | 0.084 | 0.442 | 0.413 | 0.857 | 0.014 | 0.004 | 0.001 | 5.89 | 3 | 7 | 10 | 1.336 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.8983 | 0.0043 | 0.1728 | 0.0074 | 1.052 | 1.469 | 0.788 | 0.094 | 0.412 | 0.392 | 0.826 | 0.010 | 0.001 | 0.001 | 5.77 | 3 | 7 | 9 | 1.362 | 0.36 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9665 | 0.0195 | 0.2405 | 0.0210 | 1.033 | 1.429 | 0.937 | 0.028 | 0.722 | 0.608 | 0.915 | 0.053 | 0.009 | 0.006 | 6.76 | 5 | 8 | 12 | 1.159 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9518 | 0.0093 | 0.2332 | 0.0267 | 1.044 | 1.470 | 0.914 | 0.041 | 0.654 | 0.528 | 0.873 | 0.040 | 0.006 | 0.003 | 6.61 | 4 | 8 | 11 | 1.163 | 0.16 | 0.00 | 0.00 |
| | 300 | 0.9419 | 0.0060 | 0.2269 | 0.0268 | 1.050 | 1.491 | 0.904 | 0.045 | 0.612 | 0.493 | 0.844 | 0.034 | 0.005 | 0.005 | 6.50 | 4 | 8 | 11 | 1.202 | 0.20 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9541 | 0.0177 | 0.2242 | 0.0119 | 1.036 | 1.409 | 0.912 | 0.033 | 0.661 | 0.602 | 0.889 | 0.041 | 0.008 | 0.003 | 6.52 | 4 | 8 | 12 | 1.188 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9378 | 0.0083 | 0.2145 | 0.0166 | 1.046 | 1.455 | 0.887 | 0.051 | 0.587 | 0.517 | 0.848 | 0.029 | 0.005 | 0.003 | 6.35 | 4 | 8 | 11 | 1.194 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.9255 | 0.0053 | 0.2085 | 0.0177 | 1.053 | 1.471 | 0.869 | 0.060 | 0.545 | 0.481 | 0.815 | 0.023 | 0.003 | 0.002 | 6.22 | 4 | 8 | 10 | 1.230 | 0.23 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9201 | 0.0144 | 0.1901 | 0.0042 | 1.047 | 1.414 | 0.844 | 0.064 | 0.504 | 0.490 | 0.829 | 0.020 | 0.004 | 0.001 | 6.03 | 3 | 7 | 10 | 1.261 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8942 | 0.0067 | 0.1787 | 0.0059 | 1.060 | 1.468 | 0.807 | 0.084 | 0.442 | 0.418 | 0.770 | 0.014 | 0.003 | 0.001 | 5.80 | 3 | 7 | 10 | 1.242 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.8766 | 0.0042 | 0.1739 | 0.0056 | 1.070 | 1.473 | 0.788 | 0.096 | 0.412 | 0.397 | 0.718 | 0.010 | 0.001 | 0.001 | 5.65 | 3 | 7 | 9 | 1.241 | 0.24 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9432 | 0.0714 | 0.4812 | 0.4223 | 1.075 | 1.399 | 0.749 | 0.031 | 0.035 | 0.002 | 0.997 | 0.080 | 0.076 | 0.096 | 11.79 | 5 | 22 | 41 | - | - | - | - |
| | 200 | 0.9407 | 0.0519 | 0.5637 | 0.5175 | 1.091 | 1.506 | 0.737 | 0.016 | 0.035 | 0.001 | 0.998 | 0.067 | 0.059 | 0.058 | 15.02 | 6 | 30 | 57 | - | - | - | - |
| | 300 | 0.9328 | 0.0420 | 0.6029 | 0.5660 | 1.102 | 1.542 | 0.706 | 0.011 | 0.033 | 0.001 | 0.993 | 0.071 | 0.051 | 0.038 | 17.21 | 6 | 36 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8007 | 0.0211 | 0.2091 | 0.1751 | 1.075 | 1.808 | 0.327 | 0.095 | 0.002 | 0.000 | 0.983 | 0.021 | 0.024 | 0.021 | 6.09 | 3 | 13 | 35 | - | - | - | - |
| | 200 | 0.8120 | 0.0194 | 0.2973 | 0.2672 | 1.093 | 1.996 | 0.358 | 0.056 | 0.002 | 0.000 | 0.978 | 0.022 | 0.022 | 0.020 | 7.92 | 3 | 19 | 47 | - | - | - | - |
| | 300 | 0.8069 | 0.0191 | 0.3582 | 0.3311 | 1.118 | 2.112 | 0.346 | 0.035 | 0.006 | 0.000 | 0.975 | 0.024 | 0.022 | 0.015 | 9.74 | 3 | 27.5 | 52 | - | - | - | - |

Notes: See notes to Table 145.

## Table 446: MC findings for DGPII(a)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0247 | 0.2854 | 0.0142 | 1.006 | 1.424 | 1.000 | 0.000 | 1.000 | 0.880 | 1.000 | 0.281 | 0.019 | 0.007 | 7.44 | 7 | 9 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0119 | 0.2802 | 0.0139 | 1.006 | 1.423 | 1.000 | 0.000 | 1.000 | 0.882 | 1.000 | 0.223 | 0.020 | 0.003 | 7.37 | 7 | 8 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0080 | 0.2812 | 0.0149 | 1.006 | 1.437 | 1.000 | 0.000 | 1.000 | 0.873 | 1.000 | 0.227 | 0.017 | 0.003 | 7.39 | 7 | 9 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0234 | 0.2756 | 0.0074 | 1.005 | 1.401 | 1.000 | 0.000 | 1.000 | 0.937 | 1.000 | 0.232 | 0.010 | 0.004 | 7.32 | 7 | 8 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0114 | 0.2723 | 0.0077 | 1.005 | 1.401 | 1.000 | 0.000 | 0.999 | 0.933 | 1.000 | 0.189 | 0.014 | 0.002 | 7.27 | 7 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0076 | 0.2715 | 0.0081 | 1.005 | 1.413 | 1.000 | 0.000 | 0.999 | 0.929 | 1.000 | 0.176 | 0.012 | 0.002 | 7.26 | 7 | 8 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0218 | 0.2631 | 0.0023 | 1.004 | 1.380 | 1.000 | 0.000 | 1.000 | 0.979 | 1.000 | 0.135 | 0.003 | 0.001 | 7.16 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2619 | 0.0023 | 1.004 | 1.380 | 1.000 | 0.000 | 0.997 | 0.977 | 1.000 | 0.122 | 0.005 | 0.001 | 7.15 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2606 | 0.0021 | 1.004 | 1.387 | 1.000 | 0.000 | 0.998 | 0.978 | 1.000 | 0.107 | 0.006 | 0.000 | 7.13 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0245 | 0.2843 | 0.0127 | 1.005 | 1.405 | 1.000 | 0.000 | 1.000 | 0.892 | 1.000 | 0.281 | 0.019 | 0.007 | 7.43 | 7 | 9 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0119 | 0.2792 | 0.0125 | 1.005 | 1.413 | 1.000 | 0.000 | 1.000 | 0.893 | 1.000 | 0.223 | 0.020 | 0.003 | 7.36 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.2800 | 0.0134 | 1.006 | 1.422 | 1.000 | 0.000 | 1.000 | 0.887 | 1.000 | 0.227 | 0.017 | 0.003 | 7.37 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0233 | 0.2748 | 0.0063 | 1.005 | 1.390 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 0.232 | 0.010 | 0.004 | 7.31 | 7 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0114 | 0.2718 | 0.0069 | 1.005 | 1.395 | 1.000 | 0.000 | 0.999 | 0.939 | 1.000 | 0.189 | 0.014 | 0.002 | 7.27 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2707 | 0.0070 | 1.005 | 1.402 | 1.000 | 0.000 | 0.999 | 0.939 | 1.000 | 0.176 | 0.012 | 0.002 | 7.25 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0218 | 0.2629 | 0.0021 | 1.004 | 1.378 | 1.000 | 0.000 | 1.000 | 0.982 | 1.000 | 0.135 | 0.003 | 0.001 | 7.16 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0108 | 0.2616 | 0.0019 | 1.004 | 1.376 | 1.000 | 0.000 | 0.997 | 0.980 | 1.000 | 0.122 | 0.005 | 0.001 | 7.14 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2602 | 0.0017 | 1.004 | 1.382 | 1.000 | 0.000 | 0.998 | 0.983 | 1.000 | 0.107 | 0.006 | 0.000 | 7.12 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9992 | 0.0778 | 0.5022 | 0.4440 | 1.022 | 1.424 | 0.996 | 0.021 | 0.068 | 0.002 | 1.000 | 0.097 | 0.090 | 0.082 | 12.69 | 6 | 23 | 36 | - | - | - | - |
| | 200 | 0.9991 | 0.0490 | 0.5536 | 0.5094 | 1.026 | 1.489 | 0.996 | 0.011 | 0.058 | 0.002 | 1.000 | 0.073 | 0.051 | 0.058 | 14.74 | 7 | 27 | 48 | - | - | - | - |
| | 300 | 0.9985 | 0.0371 | 0.5790 | 0.5408 | 1.029 | 1.530 | 0.993 | 0.015 | 0.062 | 0.002 | 1.000 | 0.064 | 0.046 | 0.043 | 16.10 | 7 | 31 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9835 | 0.0177 | 0.1527 | 0.1306 | 1.015 | 1.664 | 0.919 | 0.458 | 0.007 | 0.002 | 1.000 | 0.015 | 0.017 | 0.015 | 6.67 | 5 | 14 | 27 | - | - | - | - |
| | 200 | 0.9840 | 0.0164 | 0.2236 | 0.2035 | 1.024 | 1.888 | 0.921 | 0.369 | 0.008 | 0.000 | 1.000 | 0.017 | 0.015 | 0.019 | 8.19 | 5 | 20 | 39 | - | - | - | - |
| | 300 | 0.9846 | 0.0152 | 0.2751 | 0.2538 | 1.032 | 2.065 | 0.926 | 0.314 | 0.012 | 0.001 | 1.000 | 0.026 | 0.020 | 0.020 | 9.46 | 5 | 24 | 48 | - | - | - | - |

Notes: See notes to Table 145.

## Table 447: MC findings for DGPII(a)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3095 | 0.0120 | 1.004 | 1.425 | 1.000 | 0.000 | 1.000 | 0.892 | 1.000 | 0.568 | 0.048 | 0.011 | 7.74 | 7 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0134 | 0.3040 | 0.0132 | 1.004 | 1.412 | 1.000 | 0.000 | 1.000 | 0.886 | 1.000 | 0.504 | 0.034 | 0.008 | 7.67 | 7 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3001 | 0.0132 | 1.004 | 1.404 | 1.000 | 0.000 | 1.000 | 0.883 | 1.000 | 0.466 | 0.026 | 0.003 | 7.62 | 7 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2990 | 0.0065 | 1.003 | 1.405 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.501 | 0.034 | 0.008 | 7.61 | 7 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0128 | 0.2949 | 0.0075 | 1.003 | 1.393 | 1.000 | 0.000 | 1.000 | 0.934 | 1.000 | 0.453 | 0.023 | 0.005 | 7.55 | 7 | 9 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2900 | 0.0074 | 1.003 | 1.383 | 1.000 | 0.000 | 1.000 | 0.933 | 1.000 | 0.401 | 0.018 | 0.002 | 7.49 | 7 | 8 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0240 | 0.2813 | 0.0013 | 1.003 | 1.380 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.351 | 0.016 | 0.002 | 7.38 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2788 | 0.0015 | 1.002 | 1.365 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.324 | 0.010 | 0.002 | 7.35 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2754 | 0.0017 | 1.003 | 1.358 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.282 | 0.009 | 0.001 | 7.31 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0276 | 0.3084 | 0.0103 | 1.003 | 1.410 | 1.000 | 0.000 | 1.000 | 0.907 | 1.000 | 0.568 | 0.048 | 0.011 | 7.73 | 7 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3033 | 0.0122 | 1.003 | 1.401 | 1.000 | 0.000 | 1.000 | 0.895 | 1.000 | 0.504 | 0.034 | 0.008 | 7.66 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2995 | 0.0124 | 1.003 | 1.395 | 1.000 | 0.000 | 1.000 | 0.890 | 1.000 | 0.466 | 0.026 | 0.003 | 7.61 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0262 | 0.2982 | 0.0054 | 1.003 | 1.394 | 1.000 | 0.000 | 1.000 | 0.950 | 1.000 | 0.501 | 0.034 | 0.008 | 7.59 | 7 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0128 | 0.2943 | 0.0066 | 1.003 | 1.383 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 0.453 | 0.023 | 0.005 | 7.54 | 7 | 9 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2896 | 0.0068 | 1.003 | 1.376 | 1.000 | 0.000 | 1.000 | 0.938 | 1.000 | 0.401 | 0.018 | 0.002 | 7.49 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0240 | 0.2813 | 0.0012 | 1.003 | 1.380 | 1.000 | 0.000 | 1.000 | 0.989 | 1.000 | 0.351 | 0.016 | 0.002 | 7.38 | 7 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0118 | 0.2788 | 0.0015 | 1.002 | 1.365 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.324 | 0.010 | 0.002 | 7.35 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2753 | 0.0016 | 1.002 | 1.357 | 1.000 | 0.000 | 1.000 | 0.986 | 1.000 | 0.282 | 0.009 | 0.001 | 7.31 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0782 | 0.5017 | 0.4409 | 1.012 | 1.430 | 1.000 | 0.021 | 0.078 | 0.002 | 1.000 | 0.106 | 0.079 | 0.089 | 12.74 | 6 | 23 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0497 | 0.5526 | 0.5073 | 1.015 | 1.476 | 1.000 | 0.017 | 0.059 | 0.002 | 1.000 | 0.087 | 0.048 | 0.054 | 14.88 | 6 | 28 | 50 | - | - | - | - |
| | 300 | 0.9999 | 0.0355 | 0.5619 | 0.5245 | 1.017 | 1.483 | 1.000 | 0.021 | 0.045 | 0.001 | 1.000 | 0.077 | 0.042 | 0.039 | 15.61 | 6 | 31 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9982 | 0.0176 | 0.1296 | 0.1119 | 1.007 | 1.563 | 0.991 | 0.632 | 0.009 | 0.001 | 1.000 | 0.023 | 0.017 | 0.018 | 6.74 | 5 | 15 | 34 | - | - | - | - |
| | 200 | 0.9973 | 0.0164 | 0.2028 | 0.1862 | 1.013 | 1.803 | 0.987 | 0.521 | 0.013 | 0.000 | 1.000 | 0.022 | 0.012 | 0.015 | 8.26 | 5 | 21 | 41 | - | - | - | - |
| | 300 | 0.9989 | 0.0144 | 0.2415 | 0.2258 | 1.016 | 1.935 | 0.995 | 0.485 | 0.009 | 0.001 | 1.000 | 0.028 | 0.017 | 0.014 | 9.31 | 5 | 24 | 48 | - | - | - | - |

Notes: See notes to Table 145.

## Table 448: MC findings for DGPII(a)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | $\text{rRMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8112 | 0.0131 | 0.1793 | 0.0272 | 1.046 | 1.420 | 0.586 | 0.057 | 0.302 | 0.245 | 0.854 | 0.042 | 0.011 | 0.005 | 5.35 | 2 | 8 | 11 | 1.131 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7689 | 0.0060 | 0.1734 | 0.0353 | 1.055 | 1.461 | 0.515 | 0.050 | 0.236 | 0.184 | 0.811 | 0.040 | 0.007 | 0.005 | 5.05 | 1 | 8 | 11 | 1.132 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.7483 | 0.0038 | 0.1664 | 0.0391 | 1.060 | 1.465 | 0.484 | 0.059 | 0.206 | 0.166 | 0.784 | 0.031 | 0.004 | 0.002 | 4.87 | 1 | 7 | 10 | 1.142 | 0.14 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7690 | 0.0109 | 0.1555 | 0.0175 | 1.051 | 1.414 | 0.519 | 0.061 | 0.243 | 0.211 | 0.815 | 0.034 | 0.008 | 0.003 | 4.93 | 1 | 7 | 10 | 1.141 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7277 | 0.0049 | 0.1473 | 0.0228 | 1.059 | 1.447 | 0.453 | 0.059 | 0.192 | 0.167 | 0.779 | 0.031 | 0.005 | 0.004 | 4.62 | 1 | 7 | 10 | 1.148 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.7000 | 0.0030 | 0.1398 | 0.0256 | 1.067 | 1.455 | 0.416 | 0.065 | 0.162 | 0.143 | 0.737 | 0.022 | 0.002 | 0.002 | 4.40 | 1 | 7 | 9 | 1.143 | 0.14 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6599 | 0.0073 | 0.1144 | 0.0080 | 1.074 | 1.446 | 0.387 | 0.074 | 0.147 | 0.138 | 0.706 | 0.018 | 0.003 | 0.002 | 4.03 | 1 | 7 | 9 | 1.159 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6072 | 0.0032 | 0.1037 | 0.0092 | 1.084 | 1.479 | 0.318 | 0.064 | 0.107 | 0.102 | 0.655 | 0.016 | 0.001 | 0.002 | 3.67 | 0 | 7 | 8 | 1.151 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.5860 | 0.0019 | 0.0947 | 0.0097 | 1.090 | 1.481 | 0.283 | 0.068 | 0.090 | 0.087 | 0.619 | 0.012 | 0.001 | 0.000 | 3.50 | 0 | 7 | 8 | 1.150 | 0.15 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7991 | 0.0128 | 0.1782 | 0.0242 | 1.051 | 1.402 | 0.585 | 0.058 | 0.302 | 0.256 | 0.802 | 0.042 | 0.011 | 0.005 | 5.26 | 2 | 8 | 11 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7571 | 0.0059 | 0.1713 | 0.0319 | 1.060 | 1.439 | 0.515 | 0.051 | 0.236 | 0.191 | 0.758 | 0.039 | 0.007 | 0.005 | 4.96 | 1 | 8 | 11 | 1.047 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.7344 | 0.0037 | 0.1653 | 0.0364 | 1.068 | 1.450 | 0.484 | 0.061 | 0.206 | 0.169 | 0.721 | 0.031 | 0.004 | 0.002 | 4.77 | 1 | 7 | 10 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7551 | 0.0107 | 0.1548 | 0.0151 | 1.057 | 1.399 | 0.519 | 0.062 | 0.243 | 0.218 | 0.760 | 0.034 | 0.008 | 0.003 | 4.83 | 1 | 7 | 10 | 1.060 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7128 | 0.0049 | 0.1469 | 0.0206 | 1.067 | 1.432 | 0.453 | 0.060 | 0.192 | 0.172 | 0.713 | 0.031 | 0.005 | 0.004 | 4.53 | 1 | 7 | 10 | 1.059 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.6862 | 0.0030 | 0.1390 | 0.0234 | 1.075 | 1.443 | 0.416 | 0.067 | 0.162 | 0.145 | 0.678 | 0.022 | 0.002 | 0.002 | 4.32 | 1 | 7 | 9 | 1.062 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6444 | 0.0073 | 0.1145 | 0.0070 | 1.082 | 1.442 | 0.387 | 0.075 | 0.147 | 0.140 | 0.643 | 0.018 | 0.003 | 0.002 | 3.94 | 1 | 7 | 8 | 1.078 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5895 | 0.0032 | 0.1041 | 0.0088 | 1.095 | 1.479 | 0.318 | 0.065 | 0.107 | 0.102 | 0.585 | 0.016 | 0.001 | 0.002 | 3.57 | 0 | 7 | 8 | 1.064 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.5697 | 0.0019 | 0.0946 | 0.0084 | 1.098 | 1.470 | 0.283 | 0.070 | 0.090 | 0.088 | 0.552 | 0.012 | 0.001 | 0.000 | 3.41 | 0 | 7 | 8 | 1.065 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8076 | 0.0660 | 0.4877 | 0.4308 | 1.068 | 1.237 | 0.321 | 0.013 | 0.009 | 0.001 | 0.989 | 0.078 | 0.071 | 0.080 | 10.58 | 4 | 21 | 37 | - | - | - | - |
| | 200 | 0.7986 | 0.0490 | 0.5775 | 0.5324 | 1.078 | 1.320 | 0.312 | 0.006 | 0.009 | 0.000 | 0.977 | 0.068 | 0.050 | 0.064 | 13.74 | 5 | 29 | 67 | - | - | - | - |
| | 300 | 0.7888 | 0.0407 | 0.6216 | 0.5856 | 1.087 | 1.375 | 0.290 | 0.005 | 0.011 | 0.001 | 0.978 | 0.055 | 0.041 | 0.048 | 16.11 | 5 | 35.5 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6073 | 0.0209 | 0.2473 | 0.2066 | 1.066 | 1.599 | 0.053 | 0.011 | 0.000 | 0.000 | 0.955 | 0.020 | 0.018 | 0.024 | 5.11 | 2 | 11 | 26 | - | - | - | - |
| | 200 | 0.6235 | 0.0203 | 0.3546 | 0.3180 | 1.087 | 1.801 | 0.061 | 0.004 | 0.000 | 0.000 | 0.940 | 0.025 | 0.018 | 0.019 | 7.15 | 2 | 17 | 59 | - | - | - | - |
| | 300 | 0.6327 | 0.0193 | 0.4150 | 0.3860 | 1.105 | 1.954 | 0.074 | 0.004 | 0.001 | 0.000 | 0.947 | 0.024 | 0.021 | 0.019 | 8.93 | 2 | 25 | 57 | - | - | - | - |

Notes: See notes to Table 145.

## Table 449: MC findings for DGPII(a)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9999 | 0.0245 | 0.2837 | 0.0130 | 1.006 | 1.424 | 1.000 | 0.001 | 0.981 | 0.871 | 1.000 | 0.288 | 0.024 | 0.009 | 7.42 | 7 | 9 | 12 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2776 | 0.0141 | 1.006 | 1.415 | 1.000 | 0.002 | 0.956 | 0.842 | 1.000 | 0.242 | 0.020 | 0.005 | 7.35 | 7 | 9 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0078 | 0.2747 | 0.0164 | 1.006 | 1.453 | 1.000 | 0.001 | 0.948 | 0.815 | 1.000 | 0.205 | 0.014 | 0.003 | 7.32 | 7 | 8 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0231 | 0.2724 | 0.0069 | 1.005 | 1.401 | 0.999 | 0.001 | 0.964 | 0.904 | 1.000 | 0.235 | 0.019 | 0.006 | 7.28 | 7 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9997 | 0.0112 | 0.2669 | 0.0076 | 1.005 | 1.390 | 0.999 | 0.004 | 0.943 | 0.882 | 1.000 | 0.196 | 0.014 | 0.003 | 7.22 | 7 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0073 | 0.2641 | 0.0093 | 1.005 | 1.418 | 0.999 | 0.004 | 0.929 | 0.855 | 1.000 | 0.172 | 0.011 | 0.002 | 7.19 | 6 | 8 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0210 | 0.2548 | 0.0016 | 1.004 | 1.368 | 0.998 | 0.006 | 0.920 | 0.906 | 1.000 | 0.146 | 0.007 | 0.002 | 7.08 | 6 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0102 | 0.2491 | 0.0022 | 1.004 | 1.354 | 0.996 | 0.011 | 0.886 | 0.870 | 1.000 | 0.125 | 0.006 | 0.001 | 7.02 | 6 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0066 | 0.2449 | 0.0027 | 1.004 | 1.387 | 0.990 | 0.009 | 0.863 | 0.843 | 1.000 | 0.098 | 0.005 | 0.000 | 6.97 | 6 | 8 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9999 | 0.0244 | 0.2831 | 0.0121 | 1.006 | 1.416 | 1.000 | 0.001 | 0.981 | 0.879 | 1.000 | 0.288 | 0.024 | 0.009 | 7.41 | 7 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0118 | 0.2766 | 0.0128 | 1.005 | 1.404 | 1.000 | 0.002 | 0.956 | 0.853 | 1.000 | 0.242 | 0.020 | 0.005 | 7.34 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0077 | 0.2738 | 0.0151 | 1.006 | 1.442 | 1.000 | 0.001 | 0.948 | 0.825 | 1.000 | 0.205 | 0.014 | 0.003 | 7.31 | 7 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0230 | 0.2719 | 0.0062 | 1.005 | 1.393 | 0.999 | 0.001 | 0.964 | 0.911 | 1.000 | 0.235 | 0.019 | 0.006 | 7.28 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0111 | 0.2663 | 0.0069 | 1.005 | 1.383 | 0.999 | 0.004 | 0.943 | 0.889 | 1.000 | 0.196 | 0.014 | 0.003 | 7.21 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0073 | 0.2635 | 0.0085 | 1.005 | 1.411 | 0.999 | 0.004 | 0.929 | 0.861 | 1.000 | 0.172 | 0.011 | 0.002 | 7.19 | 6 | 8 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9994 | 0.0210 | 0.2546 | 0.0014 | 1.004 | 1.365 | 0.998 | 0.006 | 0.920 | 0.908 | 1.000 | 0.146 | 0.007 | 0.002 | 7.08 | 6 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9988 | 0.0102 | 0.2488 | 0.0018 | 1.004 | 1.350 | 0.996 | 0.011 | 0.886 | 0.872 | 0.999 | 0.125 | 0.006 | 0.001 | 7.02 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0066 | 0.2445 | 0.0023 | 1.004 | 1.383 | 0.990 | 0.009 | 0.863 | 0.846 | 1.000 | 0.098 | 0.005 | 0.000 | 6.96 | 6 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9802 | 0.0782 | 0.5096 | 0.4504 | 1.022 | 1.395 | 0.903 | 0.024 | 0.052 | 0.001 | 1.000 | 0.108 | 0.081 | 0.093 | 12.64 | 6 | 22 | 39 | - | - | - | - |
| | 200 | 0.9769 | 0.0485 | 0.5539 | 0.5099 | 1.026 | 1.435 | 0.887 | 0.013 | 0.035 | 0.001 | 1.000 | 0.092 | 0.059 | 0.063 | 14.54 | 6 | 28 | 45 | - | - | - | - |
| | 300 | 0.9751 | 0.0374 | 0.5842 | 0.5459 | 1.029 | 1.479 | 0.881 | 0.012 | 0.036 | 0.000 | 1.000 | 0.056 | 0.056 | 0.040 | 16.06 | 6.5 | 31 | 51 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8832 | 0.0192 | 0.1862 | 0.1553 | 1.020 | 1.803 | 0.525 | 0.171 | 0.003 | 0.000 | 1.000 | 0.027 | 0.021 | 0.026 | 6.32 | 3 | 13 | 27 | - | - | - | - |
| | 200 | 0.8908 | 0.0172 | 0.2594 | 0.2320 | 1.028 | 1.962 | 0.546 | 0.135 | 0.004 | 0.000 | 1.000 | 0.027 | 0.016 | 0.023 | 7.87 | 3 | 19 | 42 | - | - | - | - |
| | 300 | 0.8929 | 0.0163 | 0.3201 | 0.2933 | 1.035 | 2.147 | 0.563 | 0.103 | 0.008 | 0.000 | 1.000 | 0.022 | 0.020 | 0.017 | 9.34 | 4 | 24 | 45 | - | - | - | - |

Notes: See notes to Table 145.

## Table 450: MC findings for DGPII(a)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3094 | 0.0119 | 1.004 | 1.444 | 1.000 | 0.000 | 1.000 | 0.895 | 1.000 | 0.565 | 0.049 | 0.013 | 7.74 | 7 | 9 | 12 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0135 | 0.3046 | 0.0132 | 1.004 | 1.451 | 1.000 | 0.001 | 1.000 | 0.883 | 1.000 | 0.514 | 0.032 | 0.006 | 7.68 | 7 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3014 | 0.0132 | 1.004 | 1.461 | 1.000 | 0.000 | 0.999 | 0.885 | 1.000 | 0.477 | 0.032 | 0.006 | 7.64 | 7 | 9 | 12 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2993 | 0.0062 | 1.004 | 1.421 | 1.000 | 0.000 | 1.000 | 0.943 | 1.000 | 0.504 | 0.035 | 0.009 | 7.61 | 7 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0128 | 0.2940 | 0.0076 | 1.004 | 1.424 | 1.000 | 0.001 | 1.000 | 0.931 | 1.000 | 0.442 | 0.025 | 0.004 | 7.54 | 7 | 9 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2912 | 0.0069 | 1.003 | 1.434 | 1.000 | 0.000 | 0.999 | 0.937 | 1.000 | 0.413 | 0.026 | 0.004 | 7.51 | 7 | 8 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2833 | 0.0013 | 1.003 | 1.397 | 1.000 | 0.000 | 0.998 | 0.986 | 1.000 | 0.375 | 0.015 | 0.004 | 7.40 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0117 | 0.2774 | 0.0018 | 1.003 | 1.395 | 1.000 | 0.001 | 0.999 | 0.983 | 1.000 | 0.304 | 0.012 | 0.002 | 7.33 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2763 | 0.0021 | 1.003 | 1.408 | 1.000 | 0.000 | 0.996 | 0.977 | 1.000 | 0.292 | 0.012 | 0.002 | 7.32 | 7 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0276 | 0.3085 | 0.0107 | 1.004 | 1.435 | 1.000 | 0.000 | 1.000 | 0.905 | 1.000 | 0.565 | 0.049 | 0.013 | 7.73 | 7 | 9 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3041 | 0.0125 | 1.004 | 1.444 | 1.000 | 0.001 | 1.000 | 0.889 | 1.000 | 0.514 | 0.032 | 0.006 | 7.67 | 7 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3009 | 0.0124 | 1.004 | 1.452 | 1.000 | 0.000 | 0.999 | 0.891 | 1.000 | 0.477 | 0.032 | 0.006 | 7.63 | 7 | 9 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2990 | 0.0059 | 1.004 | 1.417 | 1.000 | 0.000 | 1.000 | 0.947 | 1.000 | 0.504 | 0.035 | 0.009 | 7.60 | 7 | 9 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0127 | 0.2936 | 0.0070 | 1.004 | 1.416 | 1.000 | 0.001 | 1.000 | 0.937 | 1.000 | 0.442 | 0.025 | 0.004 | 7.54 | 7 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2908 | 0.0064 | 1.003 | 1.427 | 1.000 | 0.000 | 0.999 | 0.941 | 1.000 | 0.413 | 0.026 | 0.004 | 7.50 | 7 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2832 | 0.0013 | 1.003 | 1.396 | 1.000 | 0.000 | 0.998 | 0.987 | 1.000 | 0.375 | 0.015 | 0.004 | 7.40 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0117 | 0.2772 | 0.0015 | 1.003 | 1.389 | 1.000 | 0.001 | 0.999 | 0.985 | 1.000 | 0.304 | 0.012 | 0.002 | 7.33 | 7 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2761 | 0.0018 | 1.003 | 1.403 | 1.000 | 0.000 | 0.996 | 0.980 | 1.000 | 0.292 | 0.012 | 0.002 | 7.32 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9960 | 0.0820 | 0.5187 | 0.4570 | 1.012 | 1.427 | 0.980 | 0.019 | 0.079 | 0.002 | 1.000 | 0.118 | 0.085 | 0.095 | 13.10 | 6 | 23 | 39 | - | - | - | - |
| | 200 | 0.9963 | 0.0495 | 0.5582 | 0.5150 | 1.014 | 1.461 | 0.982 | 0.014 | 0.064 | 0.000 | 1.000 | 0.085 | 0.057 | 0.054 | 14.84 | 7 | 27 | 56 | - | - | - | - |
| | 300 | 0.9959 | 0.0374 | 0.5774 | 0.5403 | 1.017 | 1.503 | 0.980 | 0.016 | 0.050 | 0.000 | 1.000 | 0.070 | 0.041 | 0.043 | 16.16 | 7 | 31 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9577 | 0.0231 | 0.1812 | 0.1533 | 1.012 | 1.817 | 0.804 | 0.364 | 0.011 | 0.001 | 1.000 | 0.029 | 0.021 | 0.019 | 7.08 | 4 | 17 | 33 | - | - | - | - |
| | 200 | 0.9628 | 0.0184 | 0.2412 | 0.2182 | 1.016 | 1.996 | 0.826 | 0.304 | 0.011 | 0.001 | 1.000 | 0.024 | 0.026 | 0.018 | 8.48 | 4 | 21.5 | 50 | - | - | - | - |
| | 300 | 0.9635 | 0.0172 | 0.2988 | 0.2775 | 1.023 | 2.215 | 0.829 | 0.248 | 0.010 | 0.000 | 1.000 | 0.034 | 0.014 | 0.020 | 9.97 | 4 | 25 | 59 | - | - | - | - |

Notes: See notes to Table 145.

## Table 451: MC findings for DGPII(b)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9949 | 0.0058 | 0.0768 | 0.0267 | 1.015 | 1.212 | 0.979 | 0.582 | 0.996 | 0.056 | 0.006 | 0.004 | 5.55 | 5 | 7 | 10 | 1.292 | 0.28 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9908 | 0.0029 | 0.0764 | 0.0340 | 1.020 | 1.263 | 0.962 | 0.562 | 0.994 | 0.039 | 0.005 | 0.004 | 5.52 | 5 | 7 | 9 | 1.362 | 0.34 | 0.02 | 0.00 |
| | 300 | 0.9880 | 0.0018 | 0.0709 | 0.0377 | 1.023 | 1.298 | 0.951 | 0.575 | 0.990 | 0.030 | 0.004 | 0.004 | 5.46 | 5 | 7 | 10 | 1.409 | 0.39 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9928 | 0.0041 | 0.0559 | 0.0179 | 1.013 | 1.188 | 0.969 | 0.667 | 0.996 | 0.038 | 0.005 | 0.002 | 5.37 | 5 | 7 | 8 | 1.342 | 0.33 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9861 | 0.0021 | 0.0560 | 0.0219 | 1.018 | 1.248 | 0.942 | 0.638 | 0.991 | 0.030 | 0.004 | 0.001 | 5.34 | 4 | 7 | 9 | 1.390 | 0.37 | 0.02 | 0.00 |
| | 300 | 0.9837 | 0.0012 | 0.0502 | 0.0241 | 1.021 | 1.276 | 0.933 | 0.667 | 0.987 | 0.023 | 0.003 | 0.004 | 5.28 | 4 | 7 | 9 | 1.449 | 0.43 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.9797 | 0.0021 | 0.0288 | 0.0061 | 1.016 | 1.231 | 0.911 | 0.751 | 0.988 | 0.021 | 0.003 | 0.001 | 5.10 | 4 | 6 | 8 | 1.432 | 0.42 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9740 | 0.0010 | 0.0269 | 0.0072 | 1.020 | 1.284 | 0.890 | 0.741 | 0.984 | 0.014 | 0.002 | 0.000 | 5.06 | 4 | 6 | 8 | 1.487 | 0.47 | 0.01 | 0.00 |
| | 300 | 0.9661 | 0.0006 | 0.0244 | 0.0090 | 1.025 | 1.349 | 0.861 | 0.731 | 0.976 | 0.012 | 0.002 | 0.001 | 5.00 | 4 | 6 | 8 | 1.537 | 0.52 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.9933 | 0.0052 | 0.0701 | 0.0200 | 1.013 | 1.167 | 0.977 | 0.608 | 0.991 | 0.055 | 0.006 | 0.004 | 5.48 | 5 | 7 | 10 | 1.244 | 0.24 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9885 | 0.0026 | 0.0689 | 0.0267 | 1.018 | 1.214 | 0.958 | 0.594 | 0.986 | 0.039 | 0.005 | 0.004 | 5.45 | 5 | 7 | 9 | 1.303 | 0.30 | 0.00 | 0.00 |
| | 300 | 0.9841 | 0.0015 | 0.0618 | 0.0284 | 1.022 | 1.248 | 0.947 | 0.614 | 0.975 | 0.029 | 0.004 | 0.004 | 5.37 | 5 | 7 | 10 | 1.337 | 0.33 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9907 | 0.0037 | 0.0505 | 0.0128 | 1.012 | 1.157 | 0.966 | 0.689 | 0.989 | 0.036 | 0.005 | 0.002 | 5.32 | 5 | 6 | 8 | 1.301 | 0.30 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9834 | 0.0018 | 0.0504 | 0.0166 | 1.018 | 1.217 | 0.938 | 0.662 | 0.981 | 0.029 | 0.004 | 0.001 | 5.28 | 4 | 6.5 | 8 | 1.345 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.9788 | 0.0010 | 0.0435 | 0.0170 | 1.022 | 1.240 | 0.928 | 0.693 | 0.968 | 0.023 | 0.003 | 0.004 | 5.21 | 4 | 6 | 9 | 1.384 | 0.38 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9761 | 0.0019 | 0.0265 | 0.0043 | 1.019 | 1.231 | 0.906 | 0.757 | 0.975 | 0.020 | 0.002 | 0.001 | 5.07 | 4 | 6 | 8 | 1.403 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9680 | 0.0008 | 0.0237 | 0.0043 | 1.026 | 1.280 | 0.884 | 0.750 | 0.960 | 0.013 | 0.002 | 0.000 | 5.01 | 4 | 6 | 8 | 1.440 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9579 | 0.0005 | 0.0209 | 0.0055 | 1.033 | 1.347 | 0.852 | 0.742 | 0.945 | 0.012 | 0.002 | 0.001 | 4.93 | 4 | 6 | 8 | 1.477 | 0.47 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9992 | 0.0848 | 0.5174 | 0.4550 | 1.080 | 1.537 | 0.996 | 0.027 | 1.000 | 0.106 | 0.098 | 0.113 | 13.39 | 6 | 24 | 40 | - | - | - | - |
| | 200 | 0.9980 | 0.0588 | 0.5908 | 0.5532 | 1.097 | 1.642 | 0.990 | 0.016 | 1.000 | 0.092 | 0.066 | 0.088 | 16.69 | 7 | 32 | 59 | - | - | - | - |
| | 300 | 0.9970 | 0.0493 | 0.6444 | 0.6156 | 1.111 | 1.732 | 0.986 | 0.006 | 1.000 | 0.081 | 0.065 | 0.057 | 19.71 | 8 | 39 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9697 | 0.0217 | 0.1758 | 0.1550 | 1.067 | 1.808 | 0.869 | 0.364 | 0.998 | 0.031 | 0.027 | 0.026 | 6.99 | 4 | 15 | 30 | - | - | - | - |
| | 200 | 0.9708 | 0.0212 | 0.2666 | 0.2491 | 1.090 | 2.011 | 0.877 | 0.263 | 0.997 | 0.031 | 0.021 | 0.028 | 9.08 | 4 | 24 | 44 | - | - | - | - |
| | 300 | 0.9746 | 0.0219 | 0.3517 | 0.3368 | 1.113 | 2.182 | 0.895 | 0.176 | 0.998 | 0.026 | 0.023 | 0.023 | 11.41 | 4 | 30 | 61 | - | - | - | - |

Notes: See notes to Table 100.

## Table 452: MC findings for DGPII(b)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0150 | 0.1887 | 0.0155 | 1.004 | 1.195 | 1.000 | 0.100 | 1.000 | 0.278 | 0.021 | 0.005 | 6.49 | 5 | 8 | 11 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0068 | 0.1753 | 0.0159 | 1.004 | 1.203 | 1.000 | 0.143 | 1.000 | 0.248 | 0.019 | 0.005 | 6.36 | 5 | 8 | 10 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0042 | 0.1639 | 0.0175 | 1.004 | 1.195 | 1.000 | 0.172 | 1.000 | 0.212 | 0.013 | 0.004 | 6.26 | 5 | 8 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0129 | 0.1664 | 0.0084 | 1.003 | 1.160 | 1.000 | 0.144 | 1.000 | 0.224 | 0.013 | 0.004 | 6.27 | 5 | 8 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0058 | 0.1523 | 0.0084 | 1.003 | 1.169 | 1.000 | 0.197 | 1.000 | 0.193 | 0.016 | 0.002 | 6.15 | 5 | 7 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0036 | 0.1436 | 0.0101 | 1.003 | 1.162 | 1.000 | 0.227 | 1.000 | 0.177 | 0.009 | 0.003 | 6.08 | 5 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0093 | 0.1254 | 0.0023 | 1.002 | 1.108 | 1.000 | 0.280 | 1.000 | 0.138 | 0.005 | 0.001 | 5.92 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0042 | 0.1136 | 0.0021 | 1.002 | 1.113 | 1.000 | 0.339 | 1.000 | 0.114 | 0.004 | 0.001 | 5.83 | 5 | 7 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1087 | 0.0034 | 1.002 | 1.115 | 1.000 | 0.363 | 1.000 | 0.108 | 0.005 | 0.001 | 5.79 | 5 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0148 | 0.1866 | 0.0132 | 1.003 | 1.169 | 1.000 | 0.102 | 1.000 | 0.278 | 0.021 | 0.005 | 6.46 | 5 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0067 | 0.1732 | 0.0135 | 1.003 | 1.177 | 1.000 | 0.147 | 1.000 | 0.248 | 0.019 | 0.005 | 6.34 | 5 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0042 | 0.1620 | 0.0152 | 1.003 | 1.173 | 1.000 | 0.174 | 1.000 | 0.212 | 0.013 | 0.004 | 6.24 | 5 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0127 | 0.1651 | 0.0071 | 1.003 | 1.145 | 1.000 | 0.145 | 1.000 | 0.224 | 0.013 | 0.004 | 6.26 | 5 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0057 | 0.1507 | 0.0067 | 1.003 | 1.150 | 1.000 | 0.201 | 1.000 | 0.193 | 0.016 | 0.002 | 6.14 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0036 | 0.1422 | 0.0085 | 1.003 | 1.145 | 1.000 | 0.229 | 1.000 | 0.177 | 0.009 | 0.003 | 6.07 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0093 | 0.1251 | 0.0020 | 1.002 | 1.104 | 1.000 | 0.281 | 1.000 | 0.138 | 0.005 | 0.001 | 5.92 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0042 | 0.1133 | 0.0018 | 1.002 | 1.110 | 1.000 | 0.340 | 1.000 | 0.114 | 0.004 | 0.001 | 5.83 | 5 | 7 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1080 | 0.0026 | 1.002 | 1.106 | 1.000 | 0.367 | 1.000 | 0.108 | 0.005 | 0.001 | 5.79 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0822 | 0.5180 | 0.4565 | 1.023 | 1.469 | 1.000 | 0.019 | 1.000 | 0.113 | 0.088 | 0.103 | 13.14 | 6 | 23 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.0518 | 0.5664 | 0.5283 | 1.028 | 1.564 | 1.000 | 0.013 | 1.000 | 0.086 | 0.062 | 0.058 | 15.31 | 7 | 29 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0391 | 0.5881 | 0.5586 | 1.032 | 1.615 | 1.000 | 0.011 | 1.000 | 0.073 | 0.035 | 0.036 | 16.70 | 7 | 33 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0170 | 0.1187 | 0.1055 | 1.012 | 1.477 | 1.000 | 0.694 | 1.000 | 0.021 | 0.016 | 0.021 | 6.68 | 5 | 16 | 33 | - | - | - | - |
| | 200 | 1.0000 | 0.0146 | 0.1787 | 0.1669 | 1.019 | 1.682 | 1.000 | 0.599 | 1.000 | 0.021 | 0.023 | 0.020 | 7.92 | 5 | 20 | 41 | - | - | - | - |
| | 300 | 1.0000 | 0.0137 | 0.2251 | 0.2152 | 1.026 | 1.849 | 1.000 | 0.534 | 1.000 | 0.023 | 0.011 | 0.013 | 9.10 | 5 | 24 | 55 | - | - | - | - |

Notes: See notes to Table 100.

## Table 453: MC findings for DGPII(b)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0209 | 0.2477 | 0.0120 | 1.003 | 1.236 | 1.000 | 0.004 | 1.000 | 0.557 | 0.045 | 0.008 | 7.07 | 6 | 9 | 11 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0099 | 0.2389 | 0.0144 | 1.003 | 1.234 | 1.000 | 0.007 | 1.000 | 0.509 | 0.031 | 0.006 | 6.97 | 6 | 8 | 11 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0063 | 0.2294 | 0.0145 | 1.003 | 1.236 | 1.000 | 0.010 | 1.000 | 0.473 | 0.025 | 0.004 | 6.87 | 6 | 8 | 11 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0188 | 0.2287 | 0.0071 | 1.003 | 1.212 | 1.000 | 0.010 | 1.000 | 0.489 | 0.031 | 0.007 | 6.86 | 6 | 8 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0089 | 0.2210 | 0.0086 | 1.002 | 1.209 | 1.000 | 0.013 | 1.000 | 0.446 | 0.022 | 0.004 | 6.78 | 6 | 8 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2103 | 0.0075 | 1.002 | 1.201 | 1.000 | 0.019 | 1.000 | 0.404 | 0.019 | 0.003 | 6.67 | 6 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0152 | 0.1947 | 0.0023 | 1.002 | 1.175 | 1.000 | 0.031 | 1.000 | 0.354 | 0.013 | 0.002 | 6.51 | 6 | 8 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0073 | 0.1880 | 0.0018 | 1.002 | 1.163 | 1.000 | 0.037 | 1.000 | 0.321 | 0.009 | 0.002 | 6.44 | 6 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0046 | 0.1791 | 0.0020 | 1.002 | 1.160 | 1.000 | 0.052 | 1.000 | 0.285 | 0.008 | 0.001 | 6.36 | 6 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0208 | 0.2466 | 0.0108 | 1.003 | 1.226 | 1.000 | 0.004 | 1.000 | 0.557 | 0.045 | 0.008 | 7.06 | 6 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0098 | 0.2377 | 0.0129 | 1.003 | 1.217 | 1.000 | 0.007 | 1.000 | 0.509 | 0.031 | 0.006 | 6.96 | 6 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0062 | 0.2283 | 0.0131 | 1.003 | 1.219 | 1.000 | 0.010 | 1.000 | 0.473 | 0.025 | 0.004 | 6.86 | 6 | 8 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0187 | 0.2277 | 0.0059 | 1.002 | 1.200 | 1.000 | 0.010 | 1.000 | 0.489 | 0.031 | 0.007 | 6.85 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0089 | 0.2202 | 0.0076 | 1.002 | 1.198 | 1.000 | 0.013 | 1.000 | 0.446 | 0.022 | 0.004 | 6.77 | 6 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2097 | 0.0067 | 1.002 | 1.190 | 1.000 | 0.019 | 1.000 | 0.404 | 0.019 | 0.003 | 6.66 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0152 | 0.1943 | 0.0017 | 1.002 | 1.168 | 1.000 | 0.031 | 1.000 | 0.354 | 0.013 | 0.002 | 6.50 | 6 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0072 | 0.1877 | 0.0014 | 1.002 | 1.158 | 1.000 | 0.037 | 1.000 | 0.321 | 0.009 | 0.002 | 6.44 | 6 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0045 | 0.1787 | 0.0014 | 1.002 | 1.152 | 1.000 | 0.052 | 1.000 | 0.285 | 0.008 | 0.001 | 6.36 | 6 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0839 | 0.5155 | 0.4535 | 1.013 | 1.464 | 1.000 | 0.023 | 1.000 | 0.140 | 0.092 | 0.100 | 13.30 | 6 | 26 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.0531 | 0.5644 | 0.5251 | 1.017 | 1.552 | 1.000 | 0.021 | 1.000 | 0.091 | 0.064 | 0.057 | 15.57 | 7 | 29 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.0395 | 0.5857 | 0.5588 | 1.019 | 1.615 | 1.000 | 0.014 | 1.000 | 0.085 | 0.049 | 0.054 | 16.82 | 6.5 | 31 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0154 | 0.1014 | 0.0901 | 1.006 | 1.411 | 1.000 | 0.789 | 1.000 | 0.022 | 0.021 | 0.021 | 6.53 | 5 | 16 | 28 | - | - | - | - |
| | 200 | 1.0000 | 0.0157 | 0.1842 | 0.1730 | 1.012 | 1.655 | 1.000 | 0.657 | 1.000 | 0.018 | 0.019 | 0.018 | 8.12 | 5 | 20 | 39 | - | - | - | - |
| | 300 | 1.0000 | 0.0130 | 0.2208 | 0.2115 | 1.014 | 1.810 | 1.000 | 0.602 | 1.000 | 0.025 | 0.016 | 0.019 | 8.90 | 5 | 22 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 454: MC findings for DGPII(b)**

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9415 | 0.0049 | 0.0674 | 0.0309 | 1.028 | 1.341 | 0.787 | 0.510 | 0.958 | 0.056 | 0.008 | 0.004 | 5.19 | 4 | 7 | 10 | 1.232 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9218 | 0.0024 | 0.0661 | 0.0401 | 1.041 | 1.420 | 0.736 | 0.476 | 0.928 | 0.035 | 0.002 | 0.003 | 5.08 | 3 | 7 | 10 | 1.280 | 0.27 | 0.01 | 0.00 |
| | 300 | 0.9081 | 0.0015 | 0.0635 | 0.0406 | 1.046 | 1.465 | 0.686 | 0.446 | 0.907 | 0.027 | 0.003 | 0.001 | 4.98 | 3 | 7 | 9 | 1.288 | 0.27 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9212 | 0.0033 | 0.0463 | 0.0191 | 1.031 | 1.352 | 0.727 | 0.540 | 0.941 | 0.041 | 0.005 | 0.003 | 4.93 | 3 | 6 | 8 | 1.252 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9010 | 0.0016 | 0.0465 | 0.0275 | 1.045 | 1.431 | 0.679 | 0.507 | 0.905 | 0.024 | 0.002 | 0.002 | 4.82 | 3 | 6 | 10 | 1.297 | 0.29 | 0.01 | 0.00 |
| | 300 | 0.8826 | 0.0010 | 0.0426 | 0.0256 | 1.051 | 1.484 | 0.625 | 0.469 | 0.874 | 0.020 | 0.002 | 0.001 | 4.70 | 3 | 6 | 8 | 1.300 | 0.29 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8628 | 0.0014 | 0.0204 | 0.0060 | 1.047 | 1.470 | 0.568 | 0.495 | 0.890 | 0.019 | 0.002 | 0.001 | 4.45 | 3 | 6 | 8 | 1.318 | 0.31 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8315 | 0.0006 | 0.0184 | 0.0086 | 1.062 | 1.542 | 0.495 | 0.442 | 0.838 | 0.011 | 0.002 | 0.000 | 4.27 | 2 | 6 | 7 | 1.340 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.8140 | 0.0003 | 0.0168 | 0.0086 | 1.070 | 1.616 | 0.470 | 0.423 | 0.812 | 0.009 | 0.000 | 0.001 | 4.17 | 2 | 5 | 7 | 1.346 | 0.34 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9330 | 0.0044 | 0.0612 | 0.0245 | 1.033 | 1.313 | 0.786 | 0.533 | 0.918 | 0.056 | 0.008 | 0.003 | 5.10 | 4 | 7 | 9 | 1.149 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9099 | 0.0020 | 0.0578 | 0.0318 | 1.047 | 1.376 | 0.735 | 0.511 | 0.872 | 0.035 | 0.002 | 0.002 | 4.95 | 3 | 6 | 9 | 1.167 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.8953 | 0.0013 | 0.0566 | 0.0338 | 1.054 | 1.434 | 0.686 | 0.475 | 0.845 | 0.027 | 0.003 | 0.001 | 4.86 | 3 | 6 | 9 | 1.177 | 0.18 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9115 | 0.0030 | 0.0430 | 0.0157 | 1.037 | 1.345 | 0.725 | 0.553 | 0.897 | 0.040 | 0.005 | 0.003 | 4.85 | 3 | 6 | 8 | 1.183 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8871 | 0.0014 | 0.0403 | 0.0214 | 1.053 | 1.403 | 0.679 | 0.532 | 0.839 | 0.023 | 0.002 | 0.002 | 4.71 | 3 | 6 | 9 | 1.190 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.8689 | 0.0008 | 0.0372 | 0.0202 | 1.060 | 1.457 | 0.625 | 0.492 | 0.807 | 0.020 | 0.002 | 0.001 | 4.59 | 3 | 6 | 8 | 1.196 | 0.20 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8473 | 0.0013 | 0.0191 | 0.0047 | 1.060 | 1.475 | 0.567 | 0.500 | 0.817 | 0.018 | 0.002 | 0.001 | 4.36 | 2 | 6 | 8 | 1.236 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8122 | 0.0005 | 0.0168 | 0.0072 | 1.078 | 1.544 | 0.495 | 0.448 | 0.745 | 0.011 | 0.002 | 0.000 | 4.16 | 2 | 5 | 7 | 1.234 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.7934 | 0.0003 | 0.0144 | 0.0061 | 1.086 | 1.614 | 0.469 | 0.431 | 0.713 | 0.009 | 0.000 | 0.001 | 4.05 | 2 | 5 | 7 | 1.230 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9693 | 0.0806 | 0.5096 | 0.4461 | 1.079 | 1.513 | 0.862 | 0.022 | 0.998 | 0.092 | 0.083 | 0.094 | 12.82 | 6 | 24 | 44 | - | - | - | - |
| | 200 | 0.9611 | 0.0562 | 0.5851 | 0.5464 | 1.097 | 1.606 | 0.830 | 0.010 | 0.999 | 0.081 | 0.069 | 0.072 | 15.98 | 6 | 32 | 53 | - | - | - | - |
| | 300 | 0.9583 | 0.0466 | 0.6288 | 0.6000 | 1.111 | 1.700 | 0.816 | 0.006 | 0.995 | 0.080 | 0.050 | 0.061 | 18.72 | 7 | 38 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8597 | 0.0238 | 0.2165 | 0.1894 | 1.075 | 1.880 | 0.493 | 0.129 | 0.982 | 0.026 | 0.022 | 0.023 | 6.65 | 3 | 14 | 29 | - | - | - | - |
| | 200 | 0.8608 | 0.0210 | 0.3092 | 0.2887 | 1.096 | 2.033 | 0.507 | 0.075 | 0.986 | 0.031 | 0.026 | 0.025 | 8.49 | 3 | 21 | 43 | - | - | - | - |
| | 300 | 0.8658 | 0.0209 | 0.3743 | 0.3568 | 1.120 | 2.230 | 0.531 | 0.055 | 0.979 | 0.031 | 0.024 | 0.029 | 10.59 | 3 | 29 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 455: MC findings for DGPII(b)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0122 | 0.1554 | 0.0156 | 1.004 | 1.180 | 1.000 | 0.289 | 1.000 | 0.276 | 0.028 | 0.011 | 6.21 | 5 | 8 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0054 | 0.1393 | 0.0195 | 1.004 | 1.189 | 1.000 | 0.357 | 1.000 | 0.238 | 0.017 | 0.007 | 6.07 | 5 | 8 | 9 | 1.025 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0033 | 0.1301 | 0.0204 | 1.004 | 1.197 | 1.000 | 0.364 | 1.000 | 0.192 | 0.013 | 0.004 | 5.99 | 5 | 7 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0100 | 0.1303 | 0.0095 | 1.003 | 1.145 | 1.000 | 0.362 | 1.000 | 0.217 | 0.020 | 0.006 | 5.99 | 5 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0042 | 0.1124 | 0.0102 | 1.003 | 1.140 | 1.000 | 0.449 | 1.000 | 0.190 | 0.012 | 0.006 | 5.85 | 5 | 7 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0027 | 0.1073 | 0.0120 | 1.003 | 1.154 | 1.000 | 0.452 | 1.000 | 0.155 | 0.009 | 0.003 | 5.80 | 5 | 7 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0064 | 0.0870 | 0.0022 | 1.002 | 1.084 | 1.000 | 0.543 | 1.000 | 0.137 | 0.006 | 0.003 | 5.64 | 5 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0026 | 0.0725 | 0.0026 | 1.002 | 1.084 | 1.000 | 0.622 | 1.000 | 0.121 | 0.006 | 0.003 | 5.53 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0710 | 0.0037 | 1.002 | 1.090 | 1.000 | 0.612 | 1.000 | 0.100 | 0.003 | 0.001 | 5.51 | 5 | 7 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0121 | 0.1538 | 0.0140 | 1.004 | 1.165 | 1.000 | 0.294 | 1.000 | 0.276 | 0.028 | 0.011 | 6.19 | 5 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0053 | 0.1373 | 0.0173 | 1.004 | 1.167 | 1.000 | 0.363 | 1.000 | 0.238 | 0.017 | 0.007 | 6.05 | 5 | 8 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0032 | 0.1277 | 0.0176 | 1.003 | 1.169 | 1.000 | 0.371 | 1.000 | 0.192 | 0.013 | 0.004 | 5.97 | 5 | 7 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0098 | 0.1287 | 0.0080 | 1.003 | 1.131 | 1.000 | 0.367 | 1.000 | 0.216 | 0.020 | 0.006 | 5.97 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0042 | 0.1111 | 0.0087 | 1.002 | 1.124 | 1.000 | 0.454 | 1.000 | 0.190 | 0.012 | 0.006 | 5.83 | 5 | 7 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0026 | 0.1054 | 0.0100 | 1.003 | 1.131 | 1.000 | 0.457 | 1.000 | 0.155 | 0.009 | 0.003 | 5.78 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0064 | 0.0865 | 0.0017 | 1.002 | 1.079 | 1.000 | 0.543 | 1.000 | 0.137 | 0.006 | 0.003 | 5.63 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0026 | 0.0716 | 0.0017 | 1.001 | 1.074 | 1.000 | 0.626 | 1.000 | 0.121 | 0.006 | 0.003 | 5.52 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0701 | 0.0028 | 1.001 | 1.079 | 1.000 | 0.617 | 1.000 | 0.100 | 0.003 | 0.001 | 5.51 | 5 | 7 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0867 | 0.5346 | 0.4703 | 1.022 | 1.464 | 1.000 | 0.014 | 1.000 | 0.118 | 0.102 | 0.095 | 13.58 | 7 | 24 | 37 | - | - | - | - |
| | 200 | 0.9999 | 0.0533 | 0.5744 | 0.5350 | 1.027 | 1.547 | 1.000 | 0.013 | 1.000 | 0.088 | 0.057 | 0.067 | 15.60 | 7 | 29 | 60 | - | - | - | - |
| | 300 | 1.0000 | 0.0404 | 0.6024 | 0.5724 | 1.031 | 1.600 | 1.000 | 0.008 | 1.000 | 0.079 | 0.046 | 0.048 | 17.07 | 7 | 33 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9956 | 0.0205 | 0.1649 | 0.1460 | 1.015 | 1.620 | 0.980 | 0.466 | 1.000 | 0.025 | 0.024 | 0.027 | 7.01 | 5 | 16 | 32 | - | - | - | - |
| | 200 | 0.9949 | 0.0187 | 0.2407 | 0.2243 | 1.024 | 1.867 | 0.977 | 0.359 | 1.000 | 0.022 | 0.020 | 0.021 | 8.69 | 5 | 23 | 48 | - | - | - | - |
| | 300 | 0.9952 | 0.0170 | 0.2999 | 0.2855 | 1.032 | 2.071 | 0.978 | 0.283 | 1.000 | 0.033 | 0.019 | 0.023 | 10.05 | 5 | 26 | 53 | - | - | - | - |

Notes: See notes to Table 100.

## Table 456: MC findings for DGPII(b)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0189 | 0.2290 | 0.0133 | 1.003 | 1.227 | 1.000 | 0.058 | 1.000 | 0.564 | 0.043 | 0.010 | 6.88 | 6 | 8 | 11 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0088 | 0.2162 | 0.0150 | 1.003 | 1.222 | 1.000 | 0.084 | 1.000 | 0.504 | 0.037 | 0.009 | 6.75 | 6 | 8 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2094 | 0.0156 | 1.003 | 1.205 | 1.000 | 0.096 | 1.000 | 0.492 | 0.030 | 0.005 | 6.68 | 6 | 8 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0168 | 0.2082 | 0.0073 | 1.002 | 1.191 | 1.000 | 0.085 | 1.000 | 0.498 | 0.031 | 0.007 | 6.66 | 6 | 8 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0077 | 0.1954 | 0.0082 | 1.002 | 1.186 | 1.000 | 0.110 | 1.000 | 0.441 | 0.027 | 0.007 | 6.54 | 5 | 8 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.1882 | 0.0088 | 1.002 | 1.163 | 1.000 | 0.142 | 1.000 | 0.435 | 0.025 | 0.003 | 6.47 | 5 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0130 | 0.1682 | 0.0019 | 1.002 | 1.140 | 1.000 | 0.170 | 1.000 | 0.357 | 0.015 | 0.003 | 6.29 | 5 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0060 | 0.1576 | 0.0020 | 1.001 | 1.131 | 1.000 | 0.211 | 1.000 | 0.317 | 0.014 | 0.002 | 6.19 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0038 | 0.1515 | 0.0022 | 1.001 | 1.114 | 1.000 | 0.235 | 1.000 | 0.310 | 0.013 | 0.001 | 6.14 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0188 | 0.2281 | 0.0122 | 1.003 | 1.215 | 1.000 | 0.058 | 1.000 | 0.564 | 0.043 | 0.010 | 6.87 | 6 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0087 | 0.2149 | 0.0134 | 1.003 | 1.205 | 1.000 | 0.085 | 1.000 | 0.504 | 0.037 | 0.009 | 6.73 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0056 | 0.2082 | 0.0142 | 1.003 | 1.189 | 1.000 | 0.098 | 1.000 | 0.492 | 0.030 | 0.005 | 6.67 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0167 | 0.2077 | 0.0067 | 1.002 | 1.184 | 1.000 | 0.085 | 1.000 | 0.498 | 0.031 | 0.007 | 6.66 | 6 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0077 | 0.1945 | 0.0072 | 1.002 | 1.175 | 1.000 | 0.111 | 1.000 | 0.441 | 0.027 | 0.007 | 6.53 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.1875 | 0.0080 | 1.002 | 1.153 | 1.000 | 0.143 | 1.000 | 0.435 | 0.024 | 0.003 | 6.47 | 5 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0130 | 0.1680 | 0.0016 | 1.001 | 1.136 | 1.000 | 0.170 | 1.000 | 0.357 | 0.015 | 0.003 | 6.28 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0060 | 0.1574 | 0.0018 | 1.001 | 1.127 | 1.000 | 0.211 | 1.000 | 0.317 | 0.014 | 0.002 | 6.19 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0038 | 0.1514 | 0.0021 | 1.001 | 1.112 | 1.000 | 0.235 | 1.000 | 0.310 | 0.013 | 0.001 | 6.14 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0848 | 0.5256 | 0.4624 | 1.013 | 1.471 | 1.000 | 0.016 | 1.000 | 0.118 | 0.097 | 0.108 | 13.40 | 6 | 24 | 47 | - | - | - | - |
| | 200 | 1.0000 | 0.0539 | 0.5803 | 0.5406 | 1.016 | 1.554 | 1.000 | 0.010 | 1.000 | 0.092 | 0.057 | 0.069 | 15.73 | 7 | 29 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0410 | 0.6073 | 0.5774 | 1.019 | 1.575 | 1.000 | 0.008 | 1.000 | 0.072 | 0.053 | 0.042 | 17.27 | 7 | 33 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0177 | 0.1277 | 0.1130 | 1.007 | 1.511 | 1.000 | 0.644 | 1.000 | 0.026 | 0.023 | 0.020 | 6.75 | 5 | 16 | 40 | - | - | - | - |
| | 200 | 0.9998 | 0.0186 | 0.2204 | 0.2062 | 1.013 | 1.821 | 0.999 | 0.511 | 1.000 | 0.028 | 0.018 | 0.026 | 8.70 | 5 | 22 | 38 | - | - | - | - |
| | 300 | 0.9999 | 0.0165 | 0.2676 | 0.2554 | 1.019 | 1.986 | 1.000 | 0.441 | 1.000 | 0.027 | 0.022 | 0.017 | 9.92 | 5 | 26 | 47 | - | - | - | - |

Notes: See notes to Table 100.

## Table 457: MC findings for DGPII(b)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7311 | 0.0036 | 0.0619 | 0.0354 | 1.053 | 1.434 | 0.317 | 0.230 | 0.856 | 0.048 | 0.014 | 0.007 | 4.02 | 1 | 6 | 8 | 1.135 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6672 | 0.0018 | 0.0651 | 0.0469 | 1.070 | 1.530 | 0.238 | 0.172 | 0.797 | 0.033 | 0.007 | 0.005 | 3.69 | 1 | 6 | 9 | 1.137 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.6374 | 0.0012 | 0.0681 | 0.0520 | 1.077 | 1.578 | 0.211 | 0.146 | 0.768 | 0.024 | 0.003 | 0.002 | 3.55 | 1 | 6 | 9 | 1.122 | 0.12 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.6807 | 0.0024 | 0.0420 | 0.0233 | 1.061 | 1.460 | 0.249 | 0.196 | 0.811 | 0.037 | 0.010 | 0.004 | 3.64 | 1 | 6 | 8 | 1.142 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6067 | 0.0012 | 0.0467 | 0.0320 | 1.081 | 1.565 | 0.169 | 0.134 | 0.746 | 0.026 | 0.005 | 0.004 | 3.27 | 1 | 5 | 8 | 1.141 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.5825 | 0.0007 | 0.0452 | 0.0324 | 1.087 | 1.594 | 0.156 | 0.124 | 0.709 | 0.017 | 0.003 | 0.001 | 3.14 | 1 | 5 | 9 | 1.123 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5487 | 0.0009 | 0.0174 | 0.0074 | 1.089 | 1.567 | 0.117 | 0.105 | 0.683 | 0.020 | 0.004 | 0.001 | 2.83 | 0 | 5 | 7 | 1.137 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4916 | 0.0005 | 0.0219 | 0.0141 | 1.107 | 1.638 | 0.082 | 0.075 | 0.621 | 0.013 | 0.003 | 0.002 | 2.55 | 0 | 5 | 7 | 1.143 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.4563 | 0.0003 | 0.0198 | 0.0141 | 1.116 | 1.679 | 0.080 | 0.073 | 0.575 | 0.006 | 0.001 | 0.000 | 2.37 | 0 | 5 | 8 | 1.116 | 0.11 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7178 | 0.0034 | 0.0580 | 0.0319 | 1.059 | 1.418 | 0.317 | 0.236 | 0.803 | 0.047 | 0.014 | 0.006 | 3.92 | 1 | 6 | 8 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6523 | 0.0017 | 0.0623 | 0.0440 | 1.077 | 1.515 | 0.238 | 0.174 | 0.740 | 0.033 | 0.007 | 0.005 | 3.60 | 1 | 6 | 8 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.6254 | 0.0011 | 0.0639 | 0.0477 | 1.082 | 1.558 | 0.211 | 0.153 | 0.722 | 0.024 | 0.003 | 0.002 | 3.46 | 1 | 6 | 9 | 1.038 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.6659 | 0.0022 | 0.0394 | 0.0207 | 1.068 | 1.449 | 0.249 | 0.201 | 0.753 | 0.036 | 0.010 | 0.004 | 3.55 | 1 | 6 | 8 | 1.055 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5911 | 0.0011 | 0.0444 | 0.0294 | 1.088 | 1.550 | 0.169 | 0.138 | 0.685 | 0.026 | 0.005 | 0.004 | 3.17 | 1 | 5 | 8 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.5681 | 0.0007 | 0.0427 | 0.0300 | 1.093 | 1.583 | 0.156 | 0.127 | 0.656 | 0.017 | 0.003 | 0.001 | 3.05 | 1 | 5 | 9 | 1.041 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5333 | 0.0008 | 0.0163 | 0.0062 | 1.097 | 1.558 | 0.117 | 0.106 | 0.623 | 0.020 | 0.004 | 0.001 | 2.74 | 0 | 5 | 7 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4757 | 0.0004 | 0.0199 | 0.0121 | 1.115 | 1.626 | 0.082 | 0.077 | 0.565 | 0.013 | 0.003 | 0.002 | 2.46 | 0 | 5 | 7 | 1.058 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.4423 | 0.0003 | 0.0186 | 0.0128 | 1.122 | 1.671 | 0.080 | 0.074 | 0.524 | 0.006 | 0.001 | 0.000 | 2.29 | 0 | 5 | 7 | 1.041 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8464 | 0.0717 | 0.5045 | 0.4434 | 1.070 | 1.326 | 0.421 | 0.011 | 0.992 | 0.099 | 0.092 | 0.083 | 11.33 | 5 | 22 | 45 | - | - | - | - |
| | 200 | 0.8254 | 0.0519 | 0.5864 | 0.5489 | 1.087 | 1.421 | 0.375 | 0.004 | 0.988 | 0.065 | 0.058 | 0.066 | 14.46 | 5 | 31 | 59 | - | - | - | - |
| | 300 | 0.8117 | 0.0423 | 0.6343 | 0.6056 | 1.094 | 1.481 | 0.351 | 0.002 | 0.983 | 0.055 | 0.045 | 0.054 | 16.70 | 5 | 35 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6685 | 0.0233 | 0.2458 | 0.2162 | 1.071 | 1.674 | 0.109 | 0.013 | 0.964 | 0.028 | 0.025 | 0.030 | 5.65 | 2 | 12 | 39 | - | - | - | - |
| | 200 | 0.6680 | 0.0214 | 0.3513 | 0.3280 | 1.095 | 1.872 | 0.119 | 0.009 | 0.959 | 0.027 | 0.025 | 0.024 | 7.60 | 2 | 19 | 54 | - | - | - | - |
| | 300 | 0.6711 | 0.0194 | 0.4130 | 0.3947 | 1.111 | 2.025 | 0.126 | 0.007 | 0.952 | 0.023 | 0.021 | 0.024 | 9.17 | 2 | 24 | 58 | - | - | - | - |

Notes: See notes to Table 100.

## Table 458: MC findings for DGPII(b)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9988 | 0.0082 | 0.1080 | 0.0153 | 1.004 | 1.156 | 0.994 | 0.562 | 1.000 | 0.271 | 0.016 | 0.008 | 5.81 | 5 | 7 | 10 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9959 | 0.0035 | 0.0938 | 0.0186 | 1.004 | 1.174 | 0.980 | 0.604 | 1.000 | 0.232 | 0.013 | 0.005 | 5.68 | 5 | 7 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9956 | 0.0023 | 0.0903 | 0.0228 | 1.005 | 1.209 | 0.979 | 0.602 | 1.000 | 0.195 | 0.014 | 0.004 | 5.66 | 5 | 7 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9974 | 0.0063 | 0.0837 | 0.0093 | 1.003 | 1.127 | 0.987 | 0.652 | 1.000 | 0.222 | 0.013 | 0.004 | 5.61 | 5 | 7 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9941 | 0.0026 | 0.0712 | 0.0095 | 1.003 | 1.134 | 0.972 | 0.695 | 1.000 | 0.195 | 0.008 | 0.004 | 5.49 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9939 | 0.0016 | 0.0666 | 0.0136 | 1.004 | 1.165 | 0.971 | 0.692 | 1.000 | 0.155 | 0.010 | 0.002 | 5.46 | 5 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9907 | 0.0036 | 0.0491 | 0.0028 | 1.002 | 1.112 | 0.955 | 0.761 | 1.000 | 0.135 | 0.006 | 0.000 | 5.31 | 5 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9871 | 0.0013 | 0.0369 | 0.0028 | 1.002 | 1.118 | 0.940 | 0.799 | 1.000 | 0.103 | 0.005 | 0.001 | 5.20 | 5 | 6 | 8 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9846 | 0.0008 | 0.0340 | 0.0040 | 1.003 | 1.137 | 0.927 | 0.793 | 1.000 | 0.086 | 0.004 | 0.001 | 5.16 | 4 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9988 | 0.0081 | 0.1068 | 0.0140 | 1.003 | 1.146 | 0.994 | 0.567 | 1.000 | 0.271 | 0.016 | 0.008 | 5.80 | 5 | 7 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9959 | 0.0035 | 0.0923 | 0.0170 | 1.004 | 1.160 | 0.980 | 0.611 | 1.000 | 0.232 | 0.013 | 0.005 | 5.67 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9956 | 0.0022 | 0.0887 | 0.0211 | 1.004 | 1.194 | 0.979 | 0.610 | 1.000 | 0.195 | 0.014 | 0.004 | 5.64 | 5 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9974 | 0.0062 | 0.0826 | 0.0082 | 1.003 | 1.117 | 0.987 | 0.656 | 1.000 | 0.222 | 0.013 | 0.004 | 5.60 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9941 | 0.0026 | 0.0703 | 0.0086 | 1.003 | 1.124 | 0.972 | 0.699 | 1.000 | 0.195 | 0.008 | 0.004 | 5.49 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9939 | 0.0016 | 0.0653 | 0.0122 | 1.003 | 1.152 | 0.971 | 0.700 | 1.000 | 0.155 | 0.010 | 0.002 | 5.45 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9907 | 0.0035 | 0.0484 | 0.0022 | 1.002 | 1.106 | 0.955 | 0.765 | 1.000 | 0.135 | 0.006 | 0.000 | 5.30 | 5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9871 | 0.0013 | 0.0364 | 0.0023 | 1.002 | 1.113 | 0.940 | 0.802 | 1.000 | 0.103 | 0.005 | 0.001 | 5.19 | 4.5 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9846 | 0.0008 | 0.0335 | 0.0035 | 1.002 | 1.132 | 0.927 | 0.795 | 1.000 | 0.086 | 0.004 | 0.001 | 5.16 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9921 | 0.0835 | 0.5261 | 0.4644 | 1.022 | 1.456 | 0.962 | 0.016 | 1.000 | 0.110 | 0.091 | 0.110 | 13.23 | 6 | 23 | 37 | - | - | - | - |
| | 200 | 0.9916 | 0.0519 | 0.5724 | 0.5338 | 1.028 | 1.538 | 0.959 | 0.013 | 1.000 | 0.082 | 0.055 | 0.068 | 15.29 | 7 | 28 | 50 | - | - | - | - |
| | 300 | 0.9900 | 0.0412 | 0.6104 | 0.5823 | 1.031 | 1.603 | 0.951 | 0.007 | 1.000 | 0.074 | 0.041 | 0.049 | 17.28 | 7 | 32 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9234 | 0.0216 | 0.1960 | 0.1719 | 1.019 | 1.822 | 0.678 | 0.200 | 1.000 | 0.029 | 0.028 | 0.028 | 6.75 | 4 | 14 | 27 | - | - | - | - |
| | 200 | 0.9293 | 0.0183 | 0.2657 | 0.2485 | 1.027 | 2.023 | 0.699 | 0.157 | 1.000 | 0.031 | 0.015 | 0.024 | 8.30 | 4 | 20 | 45 | - | - | - | - |
| | 300 | 0.9334 | 0.0177 | 0.3312 | 0.3153 | 1.037 | 2.242 | 0.731 | 0.110 | 1.000 | 0.025 | 0.020 | 0.023 | 9.96 | 4 | 25 | 60 | - | - | - | - |

Notes: See notes to Table 100.

## Table 459: MC findings for DGPII(b)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0145 | 0.1811 | 0.0130 | 1.002 | 1.175 | 1.000 | 0.326 | 1.000 | 0.554 | 0.049 | 0.011 | 6.43 | 5 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0067 | 0.1694 | 0.0160 | 1.003 | 1.194 | 1.000 | 0.364 | 1.000 | 0.508 | 0.037 | 0.012 | 6.34 | 5 | 8 | 11 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0042 | 0.1592 | 0.0175 | 1.003 | 1.194 | 1.000 | 0.387 | 1.000 | 0.462 | 0.034 | 0.005 | 6.24 | 5 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0123 | 0.1567 | 0.0077 | 1.002 | 1.137 | 1.000 | 0.410 | 1.000 | 0.493 | 0.037 | 0.008 | 6.21 | 5 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0056 | 0.1447 | 0.0081 | 1.002 | 1.142 | 1.000 | 0.448 | 1.000 | 0.446 | 0.027 | 0.007 | 6.12 | 5 | 8 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.1342 | 0.0086 | 1.002 | 1.144 | 1.000 | 0.484 | 1.000 | 0.411 | 0.025 | 0.003 | 6.02 | 5 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0085 | 0.1125 | 0.0029 | 1.001 | 1.093 | 1.000 | 0.570 | 1.000 | 0.359 | 0.017 | 0.004 | 5.84 | 5 | 7 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0038 | 0.1005 | 0.0018 | 1.001 | 1.085 | 1.000 | 0.617 | 1.000 | 0.325 | 0.013 | 0.003 | 5.75 | 5 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0023 | 0.0927 | 0.0022 | 1.001 | 1.086 | 1.000 | 0.641 | 1.000 | 0.292 | 0.011 | 0.002 | 5.68 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0144 | 0.1804 | 0.0122 | 1.002 | 1.168 | 1.000 | 0.328 | 1.000 | 0.554 | 0.049 | 0.011 | 6.43 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0067 | 0.1683 | 0.0147 | 1.002 | 1.181 | 1.000 | 0.367 | 1.000 | 0.508 | 0.037 | 0.012 | 6.33 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0041 | 0.1583 | 0.0165 | 1.003 | 1.181 | 1.000 | 0.391 | 1.000 | 0.462 | 0.034 | 0.005 | 6.24 | 5 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0122 | 0.1562 | 0.0071 | 1.002 | 1.131 | 1.000 | 0.413 | 1.000 | 0.493 | 0.037 | 0.008 | 6.21 | 5 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0056 | 0.1441 | 0.0074 | 1.002 | 1.135 | 1.000 | 0.451 | 1.000 | 0.446 | 0.026 | 0.007 | 6.11 | 5 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0034 | 0.1334 | 0.0077 | 1.002 | 1.132 | 1.000 | 0.487 | 1.000 | 0.411 | 0.025 | 0.003 | 6.02 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0085 | 0.1122 | 0.0025 | 1.001 | 1.088 | 1.000 | 0.572 | 1.000 | 0.359 | 0.017 | 0.004 | 5.84 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0037 | 0.1003 | 0.0016 | 1.001 | 1.081 | 1.000 | 0.617 | 1.000 | 0.325 | 0.013 | 0.003 | 5.74 | 5 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0023 | 0.0925 | 0.0021 | 1.001 | 1.085 | 1.000 | 0.642 | 1.000 | 0.292 | 0.011 | 0.002 | 5.68 | 5 | 7 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9993 | 0.0849 | 0.5248 | 0.4622 | 1.013 | 1.462 | 0.997 | 0.018 | 1.000 | 0.129 | 0.102 | 0.095 | 13.41 | 6 | 24 | 47 | - | - | - | - |
| | 200 | 0.9996 | 0.0531 | 0.5765 | 0.5376 | 1.016 | 1.532 | 0.998 | 0.009 | 1.000 | 0.092 | 0.055 | 0.064 | 15.57 | 7 | 29 | 53 | - | - | - | - |
| | 300 | 0.9991 | 0.0411 | 0.6066 | 0.5767 | 1.017 | 1.590 | 0.996 | 0.008 | 1.000 | 0.072 | 0.049 | 0.048 | 17.28 | 7 | 34 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9815 | 0.0214 | 0.1659 | 0.1461 | 1.010 | 1.755 | 0.917 | 0.426 | 1.000 | 0.035 | 0.023 | 0.025 | 7.02 | 4 | 16 | 38 | - | - | - | - |
| | 200 | 0.9854 | 0.0208 | 0.2570 | 0.2402 | 1.017 | 2.024 | 0.932 | 0.325 | 1.000 | 0.027 | 0.020 | 0.025 | 9.06 | 5 | 23 | 45 | - | - | - | - |
| | 300 | 0.9850 | 0.0183 | 0.3117 | 0.2974 | 1.022 | 2.225 | 0.927 | 0.255 | 1.000 | 0.031 | 0.018 | 0.026 | 10.39 | 4 | 26 | 53 | - | - | - | - |

Notes: See notes to Table 100.

### 4.2.3 Findings for designs featuring hidden signals

## Table 460: MC findings for DGPIII

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9955 | 0.0027 | 0.0364 | 0.0280 | 1.013 | 1.183 | 0.985 | 0.808 | 0.997 | 0.049 | 0.009 | 0.005 | 5.24 | 5 | 6 | 9 | 2.127 | 0.99 | 0.13 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9927 | 0.0015 | 0.0414 | 0.0356 | 1.019 | 1.268 | 0.977 | 0.765 | 0.992 | 0.032 | 0.006 | 0.005 | 5.26 | 5 | 6 | 9 | 2.167 | 0.99 | 0.17 | 0.01 |
| | 300 | 0.9865 | 0.0010 | 0.0430 | 0.0378 | 1.026 | 1.377 | 0.956 | 0.736 | 0.986 | 0.030 | 0.006 | 0.003 | 5.24 | 5 | 6 | 9 | 2.213 | 0.99 | 0.21 | 0.02 |
| $p = 0.05$, | 100 | 0.9922 | 0.0017 | 0.0227 | 0.0170 | 1.015 | 1.220 | 0.974 | 0.866 | 0.993 | 0.033 | 0.006 | 0.003 | 5.12 | 5 | 6 | 9 | 2.160 | 0.99 | 0.16 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9873 | 0.0010 | 0.0268 | 0.0227 | 1.022 | 1.322 | 0.959 | 0.827 | 0.989 | 0.023 | 0.004 | 0.004 | 5.13 | 5 | 6 | 8 | 2.196 | 0.99 | 0.19 | 0.01 |
| | 300 | 0.9794 | 0.0006 | 0.0268 | 0.0235 | 1.032 | 1.463 | 0.937 | 0.801 | 0.979 | 0.019 | 0.003 | 0.002 | 5.08 | 4 | 6 | 8 | 2.224 | 0.98 | 0.22 | 0.02 |
| $p = 0.01$, | 100 | 0.9743 | 0.0006 | 0.0092 | 0.0060 | 1.033 | 1.477 | 0.926 | 0.891 | 0.975 | 0.017 | 0.005 | 0.001 | 4.93 | 4 | 6 | 8 | 2.222 | 0.98 | 0.22 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9638 | 0.0003 | 0.0097 | 0.0078 | 1.042 | 1.661 | 0.897 | 0.854 | 0.969 | 0.012 | 0.001 | 0.001 | 4.89 | 4 | 6 | 7 | 2.258 | 0.97 | 0.27 | 0.02 |
| | 300 | 0.9455 | 0.0002 | 0.0092 | 0.0077 | 1.067 | 1.893 | 0.873 | 0.834 | 0.943 | 0.009 | 0.001 | 0.000 | 4.79 | 3 | 5 | 7 | 2.247 | 0.95 | 0.27 | 0.03 |
| $p = 0.1$, | 100 | 0.9905 | 0.0022 | 0.0303 | 0.0218 | 1.017 | 1.242 | 0.972 | 0.835 | 0.988 | 0.049 | 0.008 | 0.005 | 5.17 | 5 | 6 | 9 | 2.130 | 0.98 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9852 | 0.0012 | 0.0334 | 0.0278 | 1.024 | 1.355 | 0.957 | 0.790 | 0.978 | 0.031 | 0.006 | 0.005 | 5.17 | 5 | 6 | 9 | 2.172 | 0.98 | 0.19 | 0.01 |
| | 300 | 0.9712 | 0.0008 | 0.0345 | 0.0295 | 1.042 | 1.565 | 0.924 | 0.759 | 0.957 | 0.030 | 0.006 | 0.002 | 5.10 | 4 | 6 | 8 | 2.168 | 0.97 | 0.19 | 0.01 |
| $p = 0.05$, | 100 | 0.9836 | 0.0013 | 0.0180 | 0.0124 | 1.024 | 1.340 | 0.949 | 0.873 | 0.980 | 0.033 | 0.006 | 0.003 | 5.05 | 4 | 6 | 9 | 2.163 | 0.98 | 0.17 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9763 | 0.0007 | 0.0206 | 0.0166 | 1.033 | 1.474 | 0.931 | 0.834 | 0.970 | 0.022 | 0.004 | 0.004 | 5.03 | 4 | 6 | 8 | 2.206 | 0.98 | 0.22 | 0.01 |
| | 300 | 0.9606 | 0.0005 | 0.0208 | 0.0176 | 1.054 | 1.701 | 0.900 | 0.804 | 0.944 | 0.019 | 0.003 | 0.001 | 4.94 | 4 | 6 | 8 | 2.193 | 0.96 | 0.23 | 0.01 |
| $p = 0.01$, | 100 | 0.9597 | 0.0005 | 0.0067 | 0.0036 | 1.050 | 1.690 | 0.889 | 0.868 | 0.955 | 0.016 | 0.004 | 0.001 | 4.84 | 4 | 5 | 8 | 2.236 | 0.97 | 0.26 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9418 | 0.0002 | 0.0073 | 0.0054 | 1.071 | 1.934 | 0.850 | 0.822 | 0.930 | 0.012 | 0.001 | 0.001 | 4.76 | 3 | 5 | 7 | 2.257 | 0.94 | 0.30 | 0.02 |
| | 300 | 0.9166 | 0.0001 | 0.0064 | 0.0050 | 1.104 | 2.222 | 0.815 | 0.794 | 0.893 | 0.009 | 0.001 | 0.000 | 4.62 | 2 | 5 | 7 | 2.212 | 0.91 | 0.29 | 0.02 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9958 | 0.1486 | 0.6736 | 0.6508 | 1.154 | 2.777 | 0.982 | 0.002 | 1.000 | 0.145 | 0.156 | 0.194 | 19.69 | 9 | 32.5 | 49 | - | - | - | - |
| | 200 | 0.9896 | 0.1025 | 0.7350 | 0.7220 | 1.207 | 3.207 | 0.954 | 0.000 | 1.000 | 0.123 | 0.112 | 0.122 | 25.35 | 10 | 43 | 72 | - | - | - | - |
| | 300 | 0.9832 | 0.0815 | 0.7662 | 0.7571 | 1.252 | 3.530 | 0.926 | 0.000 | 0.999 | 0.099 | 0.079 | 0.103 | 29.29 | 11 | 50 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9860 | 0.0357 | 0.2563 | 0.2481 | 1.085 | 2.097 | 0.950 | 0.271 | 0.998 | 0.031 | 0.037 | 0.046 | 8.47 | 5 | 21 | 36 | - | - | - | - |
| | 200 | 0.9751 | 0.0360 | 0.3856 | 0.3788 | 1.137 | 2.530 | 0.916 | 0.137 | 0.997 | 0.046 | 0.035 | 0.040 | 12.04 | 5 | 32 | 52 | - | - | - | - |
| | 300 | 0.9671 | 0.0352 | 0.4742 | 0.4691 | 1.191 | 2.919 | 0.889 | 0.085 | 0.996 | 0.046 | 0.040 | 0.053 | 15.36 | 5 | 38 | 56 | - | - | - | - |

Notes: See notes to Table 100.

## Table 461: MC findings for DGPIII

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0046 | 0.0621 | 0.0184 | 1.002 | 1.075 | 1.000 | 0.877 | 1.000 | 0.291 | 0.023 | 0.003 | 5.45 | 5 | 7 | 8 | 1.999 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0021 | 0.0570 | 0.0209 | 1.002 | 1.073 | 1.000 | 0.860 | 1.000 | 0.240 | 0.017 | 0.006 | 5.42 | 5 | 7 | 8 | 1.996 | 0.98 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0531 | 0.0208 | 1.002 | 1.084 | 1.000 | 0.863 | 1.000 | 0.219 | 0.013 | 0.003 | 5.39 | 5 | 7 | 9 | 2.008 | 0.99 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0033 | 0.0449 | 0.0101 | 1.002 | 1.052 | 1.000 | 0.933 | 1.000 | 0.233 | 0.014 | 0.003 | 5.32 | 5 | 6 | 8 | 1.995 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0401 | 0.0108 | 1.001 | 1.044 | 1.000 | 0.928 | 1.000 | 0.194 | 0.012 | 0.005 | 5.29 | 5 | 6 | 8 | 1.994 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0009 | 0.0369 | 0.0115 | 1.001 | 1.052 | 1.000 | 0.923 | 1.000 | 0.171 | 0.011 | 0.001 | 5.27 | 5 | 6 | 8 | 2.006 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0224 | 0.0023 | 1.001 | 1.017 | 1.000 | 0.984 | 1.000 | 0.138 | 0.005 | 0.000 | 5.16 | 5 | 6 | 7 | 1.997 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0007 | 0.0195 | 0.0025 | 1.001 | 1.014 | 1.000 | 0.983 | 1.000 | 0.114 | 0.007 | 0.001 | 5.14 | 5 | 6 | 8 | 1.997 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0175 | 0.0034 | 1.001 | 1.020 | 1.000 | 0.977 | 1.000 | 0.096 | 0.004 | 0.000 | 5.12 | 5 | 6 | 7 | 2.001 | 1.00 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0581 | 0.0142 | 1.002 | 1.047 | 1.000 | 0.903 | 1.000 | 0.291 | 0.023 | 0.003 | 5.42 | 5 | 7 | 8 | 1.982 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0020 | 0.0540 | 0.0178 | 1.002 | 1.049 | 1.000 | 0.881 | 1.000 | 0.240 | 0.017 | 0.006 | 5.39 | 5 | 7 | 8 | 1.984 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0492 | 0.0167 | 1.002 | 1.052 | 1.000 | 0.888 | 1.000 | 0.219 | 0.013 | 0.003 | 5.36 | 5 | 6 | 9 | 1.991 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0031 | 0.0423 | 0.0074 | 1.001 | 1.032 | 1.000 | 0.950 | 1.000 | 0.233 | 0.014 | 0.003 | 5.30 | 5 | 6 | 8 | 1.984 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0014 | 0.0381 | 0.0088 | 1.001 | 1.027 | 1.000 | 0.940 | 1.000 | 0.194 | 0.012 | 0.005 | 5.27 | 5 | 6 | 8 | 1.987 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0008 | 0.0347 | 0.0092 | 1.001 | 1.032 | 1.000 | 0.938 | 1.000 | 0.171 | 0.011 | 0.001 | 5.25 | 5 | 6 | 8 | 1.996 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0016 | 0.0220 | 0.0018 | 1.001 | 1.013 | 1.000 | 0.987 | 1.000 | 0.138 | 0.005 | 0.000 | 5.16 | 5 | 6 | 7 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0007 | 0.0187 | 0.0017 | 1.000 | 1.007 | 1.000 | 0.989 | 1.000 | 0.114 | 0.007 | 0.001 | 5.13 | 5 | 6 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0004 | 0.0168 | 0.0027 | 1.000 | 1.010 | 1.000 | 0.981 | 1.000 | 0.096 | 0.004 | 0.000 | 5.12 | 5 | 6 | 7 | 1.997 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1586 | 0.6942 | 0.6691 | 1.038 | 2.405 | 1.000 | 0.001 | 1.000 | 0.195 | 0.177 | 0.207 | 20.70 | 11 | 33 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.1053 | 0.7498 | 0.7366 | 1.049 | 2.710 | 1.000 | 0.000 | 1.000 | 0.144 | 0.133 | 0.112 | 25.96 | 13 | 43 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0817 | 0.7775 | 0.7678 | 1.058 | 2.901 | 1.000 | 0.000 | 1.000 | 0.118 | 0.088 | 0.093 | 29.43 | 15 | 48.5 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0286 | 0.1601 | 0.1540 | 1.014 | 1.572 | 1.000 | 0.647 | 1.000 | 0.033 | 0.033 | 0.033 | 7.83 | 5 | 21 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0308 | 0.2768 | 0.2720 | 1.028 | 1.887 | 1.000 | 0.491 | 1.000 | 0.041 | 0.043 | 0.035 | 11.12 | 5 | 29 | 46 | - | - | - | - |
| | 300 | 1.0000 | 0.0286 | 0.3524 | 0.3480 | 1.042 | 2.151 | 1.000 | 0.388 | 1.000 | 0.044 | 0.038 | 0.038 | 13.55 | 5 | 34 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 462: MC findings for DGPIII

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1042 | 0.0175 | 1.001 | 1.068 | 1.000 | 0.876 | 1.000 | 0.581 | 0.040 | 0.009 | 5.77 | 5 | 7 | 9 | 1.992 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0035 | 0.0938 | 0.0186 | 1.001 | 1.073 | 1.000 | 0.868 | 1.000 | 0.508 | 0.033 | 0.007 | 5.69 | 5 | 7 | 9 | 2.002 | 0.99 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0871 | 0.0187 | 1.001 | 1.071 | 1.000 | 0.870 | 1.000 | 0.463 | 0.030 | 0.005 | 5.64 | 5 | 7 | 9 | 2.002 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0062 | 0.0848 | 0.0090 | 1.001 | 1.044 | 1.000 | 0.937 | 1.000 | 0.511 | 0.026 | 0.005 | 5.61 | 5 | 7 | 9 | 1.992 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0768 | 0.0098 | 1.001 | 1.046 | 1.000 | 0.929 | 1.000 | 0.452 | 0.023 | 0.005 | 5.55 | 5 | 7 | 9 | 1.999 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0700 | 0.0097 | 1.001 | 1.041 | 1.000 | 0.932 | 1.000 | 0.407 | 0.023 | 0.004 | 5.51 | 5 | 7 | 8 | 1.998 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0555 | 0.0021 | 1.001 | 1.018 | 1.000 | 0.986 | 1.000 | 0.364 | 0.013 | 0.003 | 5.39 | 5 | 6 | 8 | 1.998 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0017 | 0.0485 | 0.0023 | 1.000 | 1.015 | 1.000 | 0.984 | 1.000 | 0.316 | 0.011 | 0.001 | 5.34 | 5 | 6 | 8 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0435 | 0.0022 | 1.000 | 1.015 | 1.000 | 0.985 | 1.000 | 0.282 | 0.010 | 0.001 | 5.31 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0075 | 0.1013 | 0.0144 | 1.001 | 1.045 | 1.000 | 0.898 | 1.000 | 0.581 | 0.039 | 0.009 | 5.74 | 5 | 7 | 9 | 1.977 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0033 | 0.0910 | 0.0156 | 1.001 | 1.049 | 1.000 | 0.888 | 1.000 | 0.507 | 0.033 | 0.007 | 5.67 | 5 | 7 | 9 | 1.988 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0852 | 0.0167 | 1.001 | 1.053 | 1.000 | 0.884 | 1.000 | 0.463 | 0.030 | 0.005 | 5.62 | 5 | 7 | 9 | 1.992 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0060 | 0.0829 | 0.0072 | 1.001 | 1.028 | 1.000 | 0.949 | 1.000 | 0.511 | 0.025 | 0.005 | 5.60 | 5 | 7 | 8 | 1.983 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0027 | 0.0752 | 0.0081 | 1.001 | 1.030 | 1.000 | 0.942 | 1.000 | 0.452 | 0.023 | 0.005 | 5.54 | 5 | 6 | 9 | 1.990 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0691 | 0.0086 | 1.001 | 1.031 | 1.000 | 0.939 | 1.000 | 0.407 | 0.023 | 0.004 | 5.50 | 5 | 7 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0039 | 0.0550 | 0.0016 | 1.000 | 1.013 | 1.000 | 0.989 | 1.000 | 0.364 | 0.013 | 0.003 | 5.39 | 5 | 6 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0017 | 0.0482 | 0.0019 | 1.000 | 1.010 | 1.000 | 0.987 | 1.000 | 0.316 | 0.011 | 0.001 | 5.34 | 5 | 6 | 8 | 1.993 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0430 | 0.0016 | 1.000 | 1.010 | 1.000 | 0.989 | 1.000 | 0.282 | 0.010 | 0.001 | 5.30 | 5 | 6 | 8 | 1.998 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1594 | 0.6920 | 0.6674 | 1.021 | 2.379 | 1.000 | 0.000 | 1.000 | 0.202 | 0.182 | 0.186 | 20.78 | 11 | 34 | 57 | - | - | - | - |
| | 200 | 1.0000 | 0.1051 | 0.7435 | 0.7298 | 1.029 | 2.672 | 1.000 | 0.001 | 1.000 | 0.152 | 0.111 | 0.120 | 25.91 | 12 | 45.5 | 66 | - | - | - | - |
| | 300 | 1.0000 | 0.0788 | 0.7653 | 0.7545 | 1.032 | 2.867 | 1.000 | 0.000 | 1.000 | 0.121 | 0.093 | 0.088 | 28.56 | 13 | 47 | 83 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0286 | 0.1607 | 0.1550 | 1.008 | 1.546 | 1.000 | 0.720 | 1.000 | 0.037 | 0.031 | 0.033 | 7.83 | 5 | 20 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0297 | 0.2740 | 0.2697 | 1.016 | 1.853 | 1.000 | 0.578 | 1.000 | 0.044 | 0.036 | 0.035 | 10.92 | 5 | 28 | 41 | - | - | - | - |
| | 300 | 1.0000 | 0.0267 | 0.3498 | 0.3451 | 1.021 | 2.073 | 1.000 | 0.480 | 1.000 | 0.036 | 0.033 | 0.034 | 12.99 | 5 | 30 | 59 | - | - | - | - |

Notes: See notes to Table 100.

## Table 463: MC findings for DGPIII

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9031 | 0.0028 | 0.0409 | 0.0304 | 1.059 | 1.839 | 0.727 | 0.592 | 0.931 | 0.058 | 0.010 | 0.005 | 4.79 | 3 | 6 | 9 | 2.048 | 0.89 | 0.15 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8578 | 0.0014 | 0.0435 | 0.0365 | 1.086 | 2.128 | 0.638 | 0.517 | 0.893 | 0.037 | 0.006 | 0.003 | 4.56 | 2 | 6 | 9 | 1.979 | 0.83 | 0.14 | 0.01 |
| | 300 | 0.8247 | 0.0011 | 0.0501 | 0.0444 | 1.107 | 2.267 | 0.583 | 0.449 | 0.866 | 0.030 | 0.007 | 0.002 | 4.44 | 2 | 6 | 9 | 1.949 | 0.79 | 0.15 | 0.01 |
| $p = 0.05$, | 100 | 0.8656 | 0.0017 | 0.0254 | 0.0183 | 1.076 | 2.030 | 0.648 | 0.579 | 0.899 | 0.040 | 0.005 | 0.003 | 4.49 | 2 | 6 | 8 | 2.010 | 0.84 | 0.16 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8148 | 0.0008 | 0.0273 | 0.0217 | 1.103 | 2.324 | 0.569 | 0.502 | 0.861 | 0.029 | 0.004 | 0.002 | 4.24 | 1 | 6 | 8 | 1.931 | 0.77 | 0.15 | 0.01 |
| | 300 | 0.7752 | 0.0006 | 0.0319 | 0.0273 | 1.129 | 2.461 | 0.500 | 0.423 | 0.820 | 0.024 | 0.003 | 0.002 | 4.06 | 1 | 6 | 8 | 1.887 | 0.72 | 0.15 | 0.01 |
| $p = 0.01$, | 100 | 0.7494 | 0.0006 | 0.0109 | 0.0064 | 1.134 | 2.557 | 0.467 | 0.452 | 0.791 | 0.024 | 0.003 | 0.002 | 3.81 | 1 | 5 | 7 | 1.858 | 0.70 | 0.15 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6868 | 0.0002 | 0.0088 | 0.0057 | 1.165 | 2.853 | 0.389 | 0.376 | 0.749 | 0.015 | 0.001 | 0.001 | 3.48 | 1 | 5 | 6 | 1.764 | 0.61 | 0.15 | 0.01 |
| | 300 | 0.6432 | 0.0002 | 0.0120 | 0.0102 | 1.191 | 2.939 | 0.330 | 0.312 | 0.706 | 0.007 | 0.001 | 0.001 | 3.27 | 0 | 5 | 8 | 1.693 | 0.55 | 0.14 | 0.01 |
| $p = 0.1$, | 100 | 0.8643 | 0.0023 | 0.0361 | 0.0253 | 1.084 | 2.083 | 0.648 | 0.559 | 0.872 | 0.058 | 0.009 | 0.005 | 4.55 | 2 | 6 | 9 | 1.885 | 0.78 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8120 | 0.0012 | 0.0397 | 0.0325 | 1.115 | 2.402 | 0.549 | 0.464 | 0.826 | 0.037 | 0.005 | 0.003 | 4.30 | 2 | 6 | 8 | 1.789 | 0.70 | 0.09 | 0.00 |
| | 300 | 0.7746 | 0.0009 | 0.0437 | 0.0378 | 1.140 | 2.524 | 0.488 | 0.402 | 0.783 | 0.030 | 0.007 | 0.002 | 4.13 | 1 | 6 | 9 | 1.727 | 0.63 | 0.09 | 0.00 |
| $p = 0.05$, | 100 | 0.8221 | 0.0014 | 0.0219 | 0.0145 | 1.103 | 2.274 | 0.573 | 0.529 | 0.829 | 0.040 | 0.005 | 0.003 | 4.24 | 2 | 6 | 8 | 1.831 | 0.73 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7655 | 0.0007 | 0.0244 | 0.0188 | 1.135 | 2.580 | 0.475 | 0.430 | 0.780 | 0.029 | 0.004 | 0.002 | 3.97 | 1 | 6 | 8 | 1.737 | 0.64 | 0.10 | 0.00 |
| | 300 | 0.7231 | 0.0005 | 0.0283 | 0.0236 | 1.162 | 2.706 | 0.405 | 0.360 | 0.737 | 0.024 | 0.003 | 0.002 | 3.77 | 1 | 6 | 8 | 1.663 | 0.57 | 0.09 | 0.00 |
| $p = 0.01$, | 100 | 0.7015 | 0.0005 | 0.0095 | 0.0047 | 1.163 | 2.766 | 0.402 | 0.395 | 0.705 | 0.024 | 0.003 | 0.002 | 3.56 | 1 | 5 | 7 | 1.667 | 0.57 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6342 | 0.0002 | 0.0081 | 0.0049 | 1.199 | 3.070 | 0.309 | 0.301 | 0.656 | 0.015 | 0.001 | 0.001 | 3.21 | 1 | 5 | 6 | 1.555 | 0.47 | 0.09 | 0.00 |
| | 300 | 0.5896 | 0.0001 | 0.0101 | 0.0084 | 1.225 | 3.145 | 0.251 | 0.242 | 0.608 | 0.007 | 0.001 | 0.001 | 2.99 | 0 | 5 | 6 | 1.470 | 0.39 | 0.08 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9437 | 0.1218 | 0.6225 | 0.6014 | 1.154 | 2.802 | 0.780 | 0.003 | 0.996 | 0.136 | 0.134 | 0.135 | 16.78 | 6 | 30 | 57 | - | - | - | - |
| | 200 | 0.9082 | 0.0801 | 0.6796 | 0.6664 | 1.191 | 3.107 | 0.654 | 0.001 | 0.992 | 0.100 | 0.085 | 0.088 | 20.48 | 6 | 40 | 71 | - | - | - | - |
| | 300 | 0.8821 | 0.0613 | 0.7086 | 0.6999 | 1.218 | 3.217 | 0.574 | 0.000 | 0.987 | 0.088 | 0.069 | 0.078 | 22.73 | 7 | 46 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8714 | 0.0367 | 0.3001 | 0.2897 | 1.124 | 2.573 | 0.622 | 0.080 | 0.982 | 0.039 | 0.047 | 0.035 | 7.99 | 3 | 17 | 52 | - | - | - | - |
| | 200 | 0.8406 | 0.0332 | 0.4137 | 0.4051 | 1.173 | 2.952 | 0.542 | 0.035 | 0.979 | 0.039 | 0.038 | 0.038 | 10.80 | 3 | 28 | 59 | - | - | - | - |
| | 300 | 0.8129 | 0.0293 | 0.4692 | 0.4641 | 1.212 | 3.146 | 0.476 | 0.019 | 0.965 | 0.038 | 0.031 | 0.035 | 12.81 | 3 | 36 | 59 | - | - | - | - |

Notes: See notes to Table 100.

## Table 464: MC findings for DGPIII

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0045 | 0.0609 | 0.0178 | 1.003 | 1.086 | 1.000 | 0.882 | 1.000 | 0.286 | 0.023 | 0.005 | 5.45 | 5 | 7 | 9 | 2.005 | 0.99 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0019 | 0.0533 | 0.0207 | 1.003 | 1.096 | 1.000 | 0.861 | 1.000 | 0.219 | 0.014 | 0.002 | 5.39 | 5 | 6 | 9 | 2.007 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0013 | 0.0535 | 0.0233 | 1.003 | 1.114 | 1.000 | 0.847 | 1.000 | 0.203 | 0.013 | 0.004 | 5.39 | 5 | 7 | 8 | 2.010 | 0.99 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0034 | 0.0458 | 0.0101 | 1.002 | 1.057 | 1.000 | 0.933 | 1.000 | 0.235 | 0.018 | 0.004 | 5.33 | 5 | 6 | 9 | 2.004 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0014 | 0.0377 | 0.0121 | 1.002 | 1.065 | 1.000 | 0.919 | 1.000 | 0.173 | 0.010 | 0.001 | 5.27 | 5 | 6 | 8 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9998 | 0.0009 | 0.0380 | 0.0127 | 1.002 | 1.073 | 0.999 | 0.914 | 1.000 | 0.172 | 0.008 | 0.002 | 5.27 | 5 | 6 | 8 | 2.005 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0254 | 0.0033 | 1.001 | 1.024 | 1.000 | 0.977 | 1.000 | 0.149 | 0.006 | 0.002 | 5.18 | 5 | 6 | 7 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0006 | 0.0174 | 0.0032 | 1.001 | 1.018 | 1.000 | 0.979 | 1.000 | 0.098 | 0.003 | 0.000 | 5.12 | 5 | 6 | 7 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0004 | 0.0177 | 0.0031 | 1.001 | 1.025 | 0.999 | 0.978 | 1.000 | 0.101 | 0.002 | 0.000 | 5.12 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0043 | 0.0583 | 0.0150 | 1.002 | 1.064 | 1.000 | 0.901 | 1.000 | 0.286 | 0.023 | 0.005 | 5.43 | 5 | 7 | 9 | 1.991 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0508 | 0.0182 | 1.002 | 1.074 | 1.000 | 0.879 | 1.000 | 0.219 | 0.014 | 0.002 | 5.37 | 5 | 6 | 9 | 1.995 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0012 | 0.0501 | 0.0198 | 1.002 | 1.081 | 1.000 | 0.869 | 1.000 | 0.203 | 0.013 | 0.004 | 5.37 | 5 | 6 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0032 | 0.0441 | 0.0084 | 1.001 | 1.042 | 1.000 | 0.945 | 1.000 | 0.235 | 0.018 | 0.004 | 5.32 | 5 | 6 | 9 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0013 | 0.0358 | 0.0101 | 1.001 | 1.048 | 1.000 | 0.932 | 1.000 | 0.173 | 0.010 | 0.001 | 5.26 | 5 | 6 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0009 | 0.0357 | 0.0103 | 1.001 | 1.050 | 0.999 | 0.930 | 1.000 | 0.172 | 0.008 | 0.002 | 5.26 | 5 | 6 | 8 | 1.996 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0018 | 0.0245 | 0.0025 | 1.001 | 1.014 | 1.000 | 0.983 | 1.000 | 0.149 | 0.006 | 0.002 | 5.17 | 5 | 6 | 7 | 1.997 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0006 | 0.0169 | 0.0027 | 1.001 | 1.014 | 1.000 | 0.982 | 1.000 | 0.098 | 0.003 | 0.000 | 5.12 | 5 | 6 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0004 | 0.0170 | 0.0024 | 1.001 | 1.018 | 0.999 | 0.982 | 1.000 | 0.101 | 0.002 | 0.000 | 5.12 | 5 | 6 | 7 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1617 | 0.7013 | 0.6770 | 1.038 | 2.398 | 1.000 | 0.001 | 1.000 | 0.178 | 0.168 | 0.191 | 21.01 | 12 | 32 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.1050 | 0.7498 | 0.7360 | 1.051 | 2.723 | 1.000 | 0.001 | 1.000 | 0.141 | 0.115 | 0.114 | 25.90 | 13 | 42 | 59 | - | - | - | - |
| | 300 | 0.9997 | 0.0816 | 0.7754 | 0.7659 | 1.058 | 2.920 | 0.999 | 0.001 | 1.000 | 0.120 | 0.085 | 0.094 | 29.40 | 14 | 49 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0308 | 0.2208 | 0.2130 | 1.015 | 1.609 | 1.000 | 0.340 | 1.000 | 0.034 | 0.028 | 0.039 | 8.05 | 5 | 21 | 41 | - | - | - | - |
| | 200 | 0.9998 | 0.0333 | 0.3488 | 0.3428 | 1.032 | 1.991 | 0.999 | 0.209 | 1.000 | 0.039 | 0.032 | 0.039 | 11.63 | 5 | 31 | 52 | - | - | - | - |
| | 300 | 0.9995 | 0.0331 | 0.4343 | 0.4298 | 1.047 | 2.334 | 0.998 | 0.153 | 1.000 | 0.039 | 0.040 | 0.039 | 14.88 | 5 | 38 | 60 | - | - | - | - |

Notes: See notes to Table 100.

## Table 465: MC findings for DGPIII

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0079 | 0.1061 | 0.0164 | 1.001 | 1.077 | 1.000 | 0.884 | 1.000 | 0.596 | 0.049 | 0.009 | 5.78 | 5 | 7 | 9 | 1.991 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0035 | 0.0946 | 0.0159 | 1.001 | 1.080 | 1.000 | 0.889 | 1.000 | 0.528 | 0.036 | 0.006 | 5.69 | 5 | 7 | 9 | 1.999 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0021 | 0.0859 | 0.0185 | 1.002 | 1.093 | 1.000 | 0.871 | 1.000 | 0.456 | 0.028 | 0.005 | 5.63 | 5 | 7 | 9 | 2.004 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0064 | 0.0870 | 0.0083 | 1.001 | 1.045 | 1.000 | 0.941 | 1.000 | 0.523 | 0.038 | 0.006 | 5.63 | 5 | 7 | 8 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0772 | 0.0087 | 1.001 | 1.050 | 1.000 | 0.939 | 1.000 | 0.463 | 0.023 | 0.005 | 5.56 | 5 | 7 | 9 | 2.000 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0017 | 0.0695 | 0.0104 | 1.001 | 1.060 | 1.000 | 0.927 | 1.000 | 0.399 | 0.021 | 0.005 | 5.50 | 5 | 7 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0555 | 0.0019 | 1.001 | 1.016 | 1.000 | 0.986 | 1.000 | 0.361 | 0.019 | 0.001 | 5.39 | 5 | 6 | 8 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0018 | 0.0504 | 0.0020 | 1.000 | 1.019 | 1.000 | 0.985 | 1.000 | 0.333 | 0.009 | 0.001 | 5.36 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0414 | 0.0027 | 1.000 | 1.019 | 1.000 | 0.981 | 1.000 | 0.264 | 0.010 | 0.002 | 5.29 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0077 | 0.1044 | 0.0146 | 1.001 | 1.062 | 1.000 | 0.897 | 1.000 | 0.596 | 0.049 | 0.009 | 5.77 | 5 | 7 | 9 | 1.984 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0034 | 0.0930 | 0.0144 | 1.001 | 1.065 | 1.000 | 0.899 | 1.000 | 0.528 | 0.035 | 0.006 | 5.68 | 5 | 7 | 9 | 1.991 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0020 | 0.0838 | 0.0163 | 1.001 | 1.070 | 1.000 | 0.886 | 1.000 | 0.456 | 0.028 | 0.005 | 5.61 | 5 | 7 | 9 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0063 | 0.0861 | 0.0074 | 1.001 | 1.038 | 1.000 | 0.948 | 1.000 | 0.523 | 0.038 | 0.006 | 5.62 | 5 | 7 | 8 | 1.992 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0028 | 0.0764 | 0.0079 | 1.001 | 1.042 | 1.000 | 0.945 | 1.000 | 0.463 | 0.023 | 0.004 | 5.55 | 5 | 7 | 9 | 1.995 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0016 | 0.0681 | 0.0090 | 1.001 | 1.045 | 1.000 | 0.937 | 1.000 | 0.399 | 0.021 | 0.004 | 5.49 | 5 | 6 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0040 | 0.0552 | 0.0016 | 1.001 | 1.014 | 1.000 | 0.988 | 1.000 | 0.361 | 0.019 | 0.001 | 5.39 | 5 | 6 | 8 | 1.996 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0018 | 0.0500 | 0.0016 | 1.000 | 1.014 | 1.000 | 0.988 | 1.000 | 0.333 | 0.009 | 0.001 | 5.35 | 5 | 6 | 8 | 1.997 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0010 | 0.0408 | 0.0021 | 1.000 | 1.013 | 1.000 | 0.985 | 1.000 | 0.264 | 0.010 | 0.002 | 5.29 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1629 | 0.7024 | 0.6771 | 1.021 | 2.350 | 1.000 | 0.000 | 1.000 | 0.200 | 0.182 | 0.181 | 21.13 | 11 | 33 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.1060 | 0.7529 | 0.7388 | 1.029 | 2.663 | 1.000 | 0.000 | 1.000 | 0.142 | 0.123 | 0.129 | 26.10 | 13 | 42 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0808 | 0.7755 | 0.7659 | 1.033 | 2.899 | 1.000 | 0.000 | 1.000 | 0.120 | 0.096 | 0.090 | 29.17 | 14 | 47 | 95 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0279 | 0.1646 | 0.1590 | 1.008 | 1.546 | 1.000 | 0.560 | 1.000 | 0.034 | 0.031 | 0.034 | 7.76 | 5 | 22 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0307 | 0.2805 | 0.2753 | 1.017 | 1.917 | 1.000 | 0.411 | 1.000 | 0.036 | 0.035 | 0.042 | 11.12 | 5 | 30 | 49 | - | - | - | - |
| | 300 | 1.0000 | 0.0340 | 0.4041 | 0.3986 | 1.029 | 2.364 | 1.000 | 0.288 | 1.000 | 0.047 | 0.037 | 0.040 | 15.16 | 5 | 35 | 75 | - | - | - | - |

Notes: See notes to Table 100.

## Table 466: MC findings for DGPIII

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5658 | 0.0026 | 0.0536 | 0.0413 | 1.110 | 2.314 | 0.176 | 0.138 | 0.809 | 0.047 | 0.010 | 0.007 | 3.08 | 1 | 5 | 8 | 1.403 | 0.36 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5046 | 0.0014 | 0.0596 | 0.0484 | 1.128 | 2.486 | 0.133 | 0.109 | 0.757 | 0.041 | 0.007 | 0.006 | 2.80 | 0 | 5 | 8 | 1.305 | 0.28 | 0.02 | 0.00 |
| | 300 | 0.4560 | 0.0010 | 0.0682 | 0.0613 | 1.143 | 2.531 | 0.096 | 0.077 | 0.717 | 0.027 | 0.002 | 0.003 | 2.57 | 0 | 5 | 8 | 1.239 | 0.22 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.5018 | 0.0015 | 0.0343 | 0.0255 | 1.123 | 2.406 | 0.126 | 0.110 | 0.755 | 0.032 | 0.005 | 0.005 | 2.66 | 0 | 5 | 7 | 1.328 | 0.30 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4441 | 0.0008 | 0.0392 | 0.0319 | 1.139 | 2.559 | 0.090 | 0.080 | 0.704 | 0.026 | 0.005 | 0.004 | 2.39 | 0 | 5 | 8 | 1.246 | 0.22 | 0.02 | 0.00 |
| | 300 | 0.4002 | 0.0006 | 0.0427 | 0.0379 | 1.154 | 2.579 | 0.066 | 0.054 | 0.656 | 0.018 | 0.001 | 0.002 | 2.17 | 0 | 5 | 8 | 1.187 | 0.17 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.3707 | 0.0005 | 0.0130 | 0.0086 | 1.156 | 2.579 | 0.064 | 0.062 | 0.627 | 0.014 | 0.004 | 0.002 | 1.90 | 0 | 5 | 6 | 1.208 | 0.19 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3162 | 0.0003 | 0.0135 | 0.0089 | 1.171 | 2.706 | 0.034 | 0.031 | 0.564 | 0.015 | 0.003 | 0.002 | 1.63 | 0 | 4 | 8 | 1.137 | 0.13 | 0.01 | 0.00 |
| | 300 | 0.2907 | 0.0002 | 0.0147 | 0.0127 | 1.181 | 2.682 | 0.028 | 0.026 | 0.522 | 0.007 | 0.001 | 0.000 | 1.50 | 0 | 4 | 6 | 1.127 | 0.12 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.5317 | 0.0024 | 0.0518 | 0.0394 | 1.120 | 2.393 | 0.130 | 0.106 | 0.772 | 0.046 | 0.010 | 0.007 | 2.90 | 1 | 5 | 8 | 1.233 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4743 | 0.0013 | 0.0572 | 0.0457 | 1.136 | 2.549 | 0.090 | 0.075 | 0.729 | 0.041 | 0.007 | 0.006 | 2.63 | 0 | 5 | 8 | 1.152 | 0.15 | 0.01 | 0.00 |
| | 300 | 0.4302 | 0.0009 | 0.0676 | 0.0603 | 1.151 | 2.580 | 0.061 | 0.051 | 0.693 | 0.027 | 0.002 | 0.003 | 2.43 | 0 | 5 | 8 | 1.111 | 0.11 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.4724 | 0.0014 | 0.0329 | 0.0240 | 1.132 | 2.466 | 0.091 | 0.083 | 0.721 | 0.032 | 0.005 | 0.005 | 2.50 | 0 | 5 | 7 | 1.184 | 0.17 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4176 | 0.0008 | 0.0373 | 0.0300 | 1.147 | 2.609 | 0.057 | 0.053 | 0.671 | 0.026 | 0.005 | 0.003 | 2.24 | 0 | 5 | 8 | 1.114 | 0.11 | 0.01 | 0.00 |
| | 300 | 0.3797 | 0.0005 | 0.0422 | 0.0371 | 1.161 | 2.614 | 0.043 | 0.039 | 0.633 | 0.018 | 0.001 | 0.002 | 2.06 | 0 | 5 | 8 | 1.088 | 0.08 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.3466 | 0.0004 | 0.0122 | 0.0078 | 1.164 | 2.614 | 0.040 | 0.040 | 0.590 | 0.014 | 0.004 | 0.002 | 1.78 | 0 | 4 | 6 | 1.092 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2978 | 0.0002 | 0.0127 | 0.0082 | 1.178 | 2.732 | 0.019 | 0.018 | 0.536 | 0.015 | 0.003 | 0.002 | 1.54 | 0 | 4 | 7 | 1.051 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2724 | 0.0002 | 0.0143 | 0.0122 | 1.187 | 2.706 | 0.010 | 0.010 | 0.497 | 0.007 | 0.001 | 0.000 | 1.41 | 0 | 4 | 6 | 1.038 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7641 | 0.0865 | 0.5671 | 0.5466 | 1.121 | 2.374 | 0.288 | 0.001 | 0.989 | 0.099 | 0.098 | 0.098 | 12.38 | 4 | 25 | 46 | - | - | - | - |
| | 200 | 0.7195 | 0.0568 | 0.6355 | 0.6243 | 1.137 | 2.563 | 0.192 | 0.000 | 0.980 | 0.074 | 0.060 | 0.070 | 14.90 | 4 | 32 | 64 | - | - | - | - |
| | 300 | 0.6811 | 0.0458 | 0.6785 | 0.6694 | 1.150 | 2.590 | 0.129 | 0.000 | 0.974 | 0.056 | 0.051 | 0.050 | 17.10 | 5 | 38 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6253 | 0.0301 | 0.3079 | 0.2979 | 1.117 | 2.437 | 0.155 | 0.006 | 0.969 | 0.038 | 0.033 | 0.036 | 6.11 | 2 | 14 | 34 | - | - | - | - |
| | 200 | 0.6009 | 0.0243 | 0.4099 | 0.4026 | 1.143 | 2.702 | 0.110 | 0.002 | 0.952 | 0.033 | 0.028 | 0.034 | 7.85 | 2 | 20 | 58 | - | - | - | - |
| | 300 | 0.5743 | 0.0222 | 0.4749 | 0.4691 | 1.170 | 2.819 | 0.087 | 0.001 | 0.948 | 0.026 | 0.023 | 0.024 | 9.51 | 2 | 27 | 60 | - | - | - | - |

Notes: See notes to Table 100.

## Table 467: MC findings for DGPIII

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9938 | 0.0046 | 0.0625 | 0.0196 | 1.004 | 1.185 | 0.973 | 0.849 | 1.000 | 0.279 | 0.028 | 0.005 | 5.43 | 5 | 7 | 9 | 1.997 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9911 | 0.0020 | 0.0550 | 0.0198 | 1.005 | 1.240 | 0.960 | 0.830 | 1.000 | 0.238 | 0.013 | 0.003 | 5.36 | 5 | 7 | 10 | 2.003 | 0.98 | 0.02 | 0.00 |
| | 300 | 0.9863 | 0.0013 | 0.0535 | 0.0221 | 1.006 | 1.322 | 0.943 | 0.811 | 1.000 | 0.208 | 0.014 | 0.004 | 5.32 | 5 | 7 | 9 | 1.986 | 0.97 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9912 | 0.0034 | 0.0465 | 0.0110 | 1.004 | 1.191 | 0.961 | 0.892 | 1.000 | 0.232 | 0.018 | 0.004 | 5.29 | 5 | 6 | 9 | 1.994 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9855 | 0.0014 | 0.0391 | 0.0105 | 1.005 | 1.273 | 0.938 | 0.872 | 1.000 | 0.190 | 0.009 | 0.003 | 5.21 | 4.5 | 6 | 8 | 1.990 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9797 | 0.0009 | 0.0380 | 0.0127 | 1.006 | 1.370 | 0.918 | 0.841 | 1.000 | 0.166 | 0.011 | 0.003 | 5.17 | 4 | 6 | 9 | 1.973 | 0.96 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9782 | 0.0019 | 0.0274 | 0.0035 | 1.006 | 1.334 | 0.912 | 0.889 | 1.000 | 0.154 | 0.010 | 0.003 | 5.08 | 4 | 6 | 9 | 1.981 | 0.97 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9655 | 0.0007 | 0.0201 | 0.0025 | 1.008 | 1.490 | 0.873 | 0.862 | 1.000 | 0.115 | 0.006 | 0.002 | 4.97 | 4 | 6 | 8 | 1.961 | 0.95 | 0.01 | 0.00 |
| | 300 | 0.9564 | 0.0004 | 0.0188 | 0.0032 | 1.010 | 1.612 | 0.845 | 0.827 | 1.000 | 0.100 | 0.005 | 0.001 | 4.91 | 4 | 6 | 7 | 1.942 | 0.93 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9911 | 0.0045 | 0.0605 | 0.0174 | 1.005 | 1.235 | 0.961 | 0.852 | 1.000 | 0.279 | 0.028 | 0.005 | 5.40 | 5 | 7 | 9 | 1.975 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9849 | 0.0019 | 0.0527 | 0.0172 | 1.006 | 1.349 | 0.937 | 0.828 | 1.000 | 0.238 | 0.013 | 0.003 | 5.31 | 5 | 6 | 9 | 1.962 | 0.96 | 0.00 | 0.00 |
| | 300 | 0.9800 | 0.0012 | 0.0518 | 0.0202 | 1.008 | 1.447 | 0.915 | 0.799 | 1.000 | 0.208 | 0.014 | 0.004 | 5.27 | 4 | 6 | 9 | 1.945 | 0.94 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9876 | 0.0033 | 0.0452 | 0.0096 | 1.005 | 1.267 | 0.946 | 0.886 | 1.000 | 0.232 | 0.018 | 0.004 | 5.26 | 5 | 6 | 9 | 1.970 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9790 | 0.0014 | 0.0381 | 0.0094 | 1.007 | 1.397 | 0.915 | 0.858 | 1.000 | 0.190 | 0.009 | 0.003 | 5.16 | 4 | 6 | 8 | 1.954 | 0.95 | 0.00 | 0.00 |
| | 300 | 0.9711 | 0.0009 | 0.0372 | 0.0117 | 1.009 | 1.543 | 0.883 | 0.816 | 1.000 | 0.166 | 0.011 | 0.003 | 5.12 | 4 | 6 | 8 | 1.927 | 0.93 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9713 | 0.0019 | 0.0269 | 0.0028 | 1.008 | 1.465 | 0.885 | 0.867 | 1.000 | 0.154 | 0.010 | 0.003 | 5.04 | 4 | 6 | 9 | 1.944 | 0.94 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9555 | 0.0007 | 0.0202 | 0.0024 | 1.011 | 1.672 | 0.835 | 0.826 | 1.000 | 0.115 | 0.006 | 0.002 | 4.91 | 4 | 6 | 8 | 1.912 | 0.91 | 0.00 | 0.00 |
| | 300 | 0.9430 | 0.0004 | 0.0187 | 0.0029 | 1.015 | 1.835 | 0.798 | 0.784 | 0.998 | 0.100 | 0.005 | 0.001 | 4.84 | 4 | 6 | 7 | 1.878 | 0.87 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9944 | 0.1501 | 0.6756 | 0.6520 | 1.039 | 2.459 | 0.974 | 0.002 | 1.000 | 0.168 | 0.166 | 0.176 | 19.84 | 9 | 32 | 50 | - | - | - | - |
| | 200 | 0.9907 | 0.0926 | 0.7161 | 0.7026 | 1.051 | 2.836 | 0.957 | 0.001 | 1.000 | 0.118 | 0.119 | 0.112 | 23.38 | 10 | 40 | 65 | - | - | - | - |
| | 300 | 0.9822 | 0.0699 | 0.7354 | 0.7256 | 1.061 | 3.057 | 0.921 | 0.000 | 1.000 | 0.111 | 0.076 | 0.100 | 25.82 | 10 | 46 | 96 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9750 | 0.0389 | 0.2962 | 0.2862 | 1.026 | 2.043 | 0.909 | 0.171 | 1.000 | 0.037 | 0.045 | 0.044 | 8.73 | 4 | 19 | 44 | - | - | - | - |
| | 200 | 0.9692 | 0.0351 | 0.4055 | 0.3987 | 1.042 | 2.446 | 0.888 | 0.099 | 1.000 | 0.044 | 0.048 | 0.045 | 11.84 | 4 | 30 | 55 | - | - | - | - |
| | 300 | 0.9560 | 0.0328 | 0.4705 | 0.4651 | 1.060 | 2.777 | 0.849 | 0.068 | 1.000 | 0.055 | 0.040 | 0.049 | 14.58 | 4 | 37 | 77 | - | - | - | - |

Notes: See notes to Table 100.

## Table 468: MC findings for DGPIII

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0073 | 0.0990 | 0.0149 | 1.002 | 1.078 | 1.000 | 0.891 | 1.000 | 0.564 | 0.040 | 0.005 | 5.72 | 5 | 7 | 9 | 1.996 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0035 | 0.0934 | 0.0193 | 1.002 | 1.105 | 1.000 | 0.870 | 1.000 | 0.499 | 0.035 | 0.006 | 5.69 | 5 | 7 | 9 | 2.002 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0022 | 0.0875 | 0.0189 | 1.002 | 1.106 | 1.000 | 0.868 | 1.000 | 0.464 | 0.031 | 0.005 | 5.64 | 5 | 7 | 9 | 2.004 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0818 | 0.0088 | 1.001 | 1.052 | 1.000 | 0.937 | 1.000 | 0.492 | 0.028 | 0.003 | 5.59 | 5 | 7 | 8 | 1.997 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0028 | 0.0765 | 0.0101 | 1.001 | 1.064 | 1.000 | 0.931 | 1.000 | 0.447 | 0.027 | 0.003 | 5.55 | 5 | 7 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0017 | 0.0707 | 0.0108 | 1.001 | 1.074 | 0.999 | 0.922 | 1.000 | 0.405 | 0.023 | 0.003 | 5.51 | 5 | 7 | 8 | 2.004 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0039 | 0.0541 | 0.0017 | 1.001 | 1.017 | 1.000 | 0.987 | 1.000 | 0.356 | 0.015 | 0.001 | 5.38 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0018 | 0.0500 | 0.0032 | 1.001 | 1.037 | 0.998 | 0.976 | 1.000 | 0.318 | 0.013 | 0.002 | 5.35 | 5 | 6 | 8 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0011 | 0.0450 | 0.0023 | 1.001 | 1.028 | 0.998 | 0.982 | 1.000 | 0.292 | 0.009 | 0.001 | 5.32 | 5 | 6 | 8 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0072 | 0.0981 | 0.0139 | 1.001 | 1.071 | 1.000 | 0.898 | 1.000 | 0.564 | 0.040 | 0.005 | 5.72 | 5 | 7 | 9 | 1.993 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0034 | 0.0922 | 0.0179 | 1.002 | 1.097 | 1.000 | 0.879 | 1.000 | 0.499 | 0.035 | 0.006 | 5.68 | 5 | 7 | 9 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0021 | 0.0863 | 0.0175 | 1.002 | 1.098 | 1.000 | 0.877 | 1.000 | 0.464 | 0.031 | 0.005 | 5.63 | 5 | 7 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0059 | 0.0811 | 0.0081 | 1.001 | 1.045 | 1.000 | 0.942 | 1.000 | 0.492 | 0.028 | 0.003 | 5.58 | 5 | 7 | 8 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0027 | 0.0758 | 0.0093 | 1.001 | 1.062 | 1.000 | 0.936 | 1.000 | 0.447 | 0.027 | 0.003 | 5.55 | 5 | 7 | 8 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0017 | 0.0699 | 0.0100 | 1.001 | 1.070 | 0.999 | 0.928 | 1.000 | 0.405 | 0.023 | 0.003 | 5.50 | 5 | 7 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0038 | 0.0538 | 0.0014 | 1.001 | 1.018 | 0.999 | 0.989 | 1.000 | 0.356 | 0.015 | 0.001 | 5.38 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0018 | 0.0498 | 0.0029 | 1.001 | 1.035 | 0.998 | 0.977 | 1.000 | 0.318 | 0.013 | 0.002 | 5.35 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0011 | 0.0446 | 0.0018 | 1.001 | 1.028 | 0.998 | 0.984 | 1.000 | 0.292 | 0.009 | 0.001 | 5.31 | 5 | 6 | 8 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.1611 | 0.6995 | 0.6766 | 1.021 | 2.346 | 1.000 | 0.002 | 1.000 | 0.189 | 0.181 | 0.189 | 20.95 | 11 | 33 | 50 | - | - | - | - |
| | 200 | 0.9999 | 0.1048 | 0.7495 | 0.7362 | 1.028 | 2.693 | 1.000 | 0.001 | 1.000 | 0.138 | 0.125 | 0.118 | 25.85 | 13 | 41 | 88 | - | - | - | - |
| | 300 | 0.9999 | 0.0791 | 0.7678 | 0.7577 | 1.034 | 2.869 | 1.000 | 0.001 | 1.000 | 0.114 | 0.091 | 0.095 | 28.64 | 14 | 48 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9980 | 0.0374 | 0.2535 | 0.2453 | 1.011 | 1.765 | 0.993 | 0.285 | 1.000 | 0.044 | 0.043 | 0.047 | 8.69 | 5 | 23 | 37 | - | - | - | - |
| | 200 | 0.9992 | 0.0408 | 0.3937 | 0.3865 | 1.023 | 2.230 | 0.997 | 0.181 | 1.000 | 0.058 | 0.052 | 0.044 | 13.11 | 5 | 32 | 49 | - | - | - | - |
| | 300 | 0.9983 | 0.0375 | 0.4672 | 0.4607 | 1.035 | 2.563 | 0.994 | 0.139 | 1.000 | 0.057 | 0.046 | 0.047 | 16.20 | 5 | 38 | 59 | - | - | - | - |

Notes: See notes to Table 100.

### 4.2.4 Findings for designs featuring hidden signals and pseudo-signals

## Table 469: MC findings for DGPIV(a)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9913 | 0.0193 | 0.2341 | 0.0260 | 1.026 | 1.562 | 0.969 | 0.040 | 0.669 | 0.539 | 0.995 | 0.054 | 0.007 | 0.005 | 6.87 | 5 | 8 | 10 | 2.123 | 0.98 | 0.13 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9909 | 0.0092 | 0.2257 | 0.0278 | 1.028 | 1.529 | 0.969 | 0.048 | 0.603 | 0.483 | 0.992 | 0.046 | 0.007 | 0.003 | 6.79 | 5 | 8 | 11 | 2.160 | 0.99 | 0.16 | 0.01 |
| | 300 | 0.9858 | 0.0060 | 0.2213 | 0.0328 | 1.037 | 1.641 | 0.957 | 0.063 | 0.554 | 0.417 | 0.989 | 0.035 | 0.005 | 0.003 | 6.72 | 5 | 8 | 11 | 2.206 | 0.98 | 0.21 | 0.01 |
| $p = 0.05$, | 100 | 0.9870 | 0.0173 | 0.2153 | 0.0165 | 1.028 | 1.591 | 0.957 | 0.066 | 0.612 | 0.536 | 0.991 | 0.034 | 0.005 | 0.003 | 6.65 | 5 | 8 | 10 | 2.145 | 0.98 | 0.15 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9849 | 0.0082 | 0.2052 | 0.0178 | 1.032 | 1.581 | 0.955 | 0.079 | 0.535 | 0.464 | 0.987 | 0.033 | 0.004 | 0.003 | 6.55 | 5 | 8 | 10 | 2.193 | 0.98 | 0.19 | 0.02 |
| | 300 | 0.9798 | 0.0052 | 0.1964 | 0.0201 | 1.038 | 1.681 | 0.939 | 0.091 | 0.476 | 0.400 | 0.986 | 0.023 | 0.003 | 0.001 | 6.44 | 5 | 8 | 10 | 2.223 | 0.98 | 0.22 | 0.02 |
| $p = 0.01$, | 100 | 0.9685 | 0.0139 | 0.1800 | 0.0053 | 1.046 | 1.787 | 0.912 | 0.110 | 0.461 | 0.441 | 0.974 | 0.016 | 0.002 | 0.002 | 6.22 | 5 | 7 | 9 | 2.219 | 0.98 | 0.23 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9560 | 0.0063 | 0.1662 | 0.0049 | 1.055 | 1.902 | 0.890 | 0.141 | 0.389 | 0.375 | 0.964 | 0.018 | 0.002 | 0.001 | 6.04 | 4 | 7 | 10 | 2.232 | 0.96 | 0.25 | 0.02 |
| | 300 | 0.9450 | 0.0040 | 0.1585 | 0.0071 | 1.071 | 2.050 | 0.864 | 0.159 | 0.340 | 0.324 | 0.951 | 0.015 | 0.002 | 0.001 | 5.91 | 4 | 7 | 9 | 2.263 | 0.95 | 0.28 | 0.03 |
| $p = 0.1$, | 100 | 0.9853 | 0.0187 | 0.2292 | 0.0200 | 1.031 | 1.617 | 0.956 | 0.041 | 0.662 | 0.561 | 0.985 | 0.053 | 0.007 | 0.005 | 6.78 | 5 | 8 | 10 | 2.118 | 0.97 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9821 | 0.0088 | 0.2200 | 0.0206 | 1.034 | 1.617 | 0.950 | 0.053 | 0.596 | 0.505 | 0.980 | 0.046 | 0.006 | 0.003 | 6.67 | 5 | 8 | 11 | 2.149 | 0.97 | 0.17 | 0.00 |
| | 300 | 0.9726 | 0.0057 | 0.2158 | 0.0251 | 1.049 | 1.784 | 0.927 | 0.065 | 0.542 | 0.439 | 0.967 | 0.034 | 0.005 | 0.003 | 6.57 | 5 | 8 | 10 | 2.180 | 0.96 | 0.21 | 0.01 |
| $p = 0.05$, | 100 | 0.9783 | 0.0169 | 0.2122 | 0.0128 | 1.038 | 1.697 | 0.938 | 0.063 | 0.604 | 0.549 | 0.978 | 0.034 | 0.004 | 0.003 | 6.57 | 5 | 8 | 10 | 2.153 | 0.97 | 0.18 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9722 | 0.0079 | 0.2009 | 0.0121 | 1.043 | 1.737 | 0.925 | 0.079 | 0.525 | 0.477 | 0.972 | 0.033 | 0.004 | 0.003 | 6.43 | 5 | 8 | 10 | 2.179 | 0.97 | 0.21 | 0.01 |
| | 300 | 0.9642 | 0.0050 | 0.1927 | 0.0146 | 1.054 | 1.859 | 0.904 | 0.092 | 0.466 | 0.411 | 0.961 | 0.023 | 0.003 | 0.001 | 6.31 | 4 | 8 | 10 | 2.209 | 0.96 | 0.24 | 0.01 |
| $p = 0.01$, | 100 | 0.9542 | 0.0137 | 0.1785 | 0.0038 | 1.063 | 1.958 | 0.884 | 0.104 | 0.453 | 0.438 | 0.950 | 0.016 | 0.002 | 0.002 | 6.13 | 4 | 7 | 9 | 2.229 | 0.96 | 0.26 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9350 | 0.0062 | 0.1658 | 0.0030 | 1.081 | 2.136 | 0.841 | 0.129 | 0.379 | 0.373 | 0.931 | 0.018 | 0.002 | 0.001 | 5.91 | 3 | 7 | 10 | 2.225 | 0.93 | 0.28 | 0.02 |
| | 300 | 0.9178 | 0.0039 | 0.1574 | 0.0046 | 1.106 | 2.321 | 0.813 | 0.150 | 0.324 | 0.315 | 0.896 | 0.014 | 0.002 | 0.001 | 5.74 | 3 | 7 | 9 | 2.245 | 0.91 | 0.32 | 0.02 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9929 | 0.1493 | 0.6758 | 0.6206 | 1.160 | 2.930 | 0.968 | 0.002 | 0.091 | 0.001 | 1.000 | 0.162 | 0.159 | 0.169 | 19.75 | 9 | 32 | 47 | - | - | - | - |
| | 200 | 0.9848 | 0.1057 | 0.7395 | 0.7029 | 1.206 | 3.276 | 0.934 | 0.000 | 0.079 | 0.000 | 1.000 | 0.131 | 0.107 | 0.132 | 25.95 | 10 | 46 | 82 | - | - | - | - |
| | 300 | 0.9831 | 0.0841 | 0.7736 | 0.7444 | 1.242 | 3.511 | 0.927 | 0.000 | 0.074 | 0.000 | 1.000 | 0.114 | 0.108 | 0.097 | 30.06 | 12 | 52 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9750 | 0.0339 | 0.2608 | 0.2319 | 1.088 | 2.254 | 0.905 | 0.236 | 0.009 | 0.001 | 0.997 | 0.033 | 0.037 | 0.039 | 8.23 | 5 | 19 | 39 | - | - | - | - |
| | 200 | 0.9697 | 0.0389 | 0.4027 | 0.3792 | 1.144 | 2.632 | 0.894 | 0.123 | 0.016 | 0.001 | 0.996 | 0.048 | 0.037 | 0.052 | 12.58 | 5 | 34 | 57 | - | - | - | - |
| | 300 | 0.9662 | 0.0374 | 0.4903 | 0.4684 | 1.187 | 2.922 | 0.880 | 0.077 | 0.021 | 0.000 | 0.995 | 0.055 | 0.060 | 0.041 | 16.01 | 5 | 39 | 60 | - | - | - | - |

Notes: See notes to Table 145.

## Table 470: MC findings for DGPIV(a)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0249 | 0.2870 | 0.0150 | 1.006 | 1.405 | 1.000 | 0.000 | 1.000 | 0.873 | 1.000 | 0.286 | 0.027 | 0.008 | 7.46 | 7 | 9 | 11 | 1.994 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0121 | 0.2831 | 0.0180 | 1.005 | 1.424 | 1.000 | 0.000 | 1.000 | 0.849 | 1.000 | 0.227 | 0.012 | 0.004 | 7.41 | 7 | 9 | 12 | 2.003 | 0.99 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.2792 | 0.0154 | 1.006 | 1.441 | 1.000 | 0.000 | 1.000 | 0.871 | 1.000 | 0.201 | 0.013 | 0.004 | 7.36 | 7 | 8 | 10 | 2.012 | 0.99 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0236 | 0.2769 | 0.0086 | 1.005 | 1.388 | 1.000 | 0.000 | 0.999 | 0.925 | 1.000 | 0.229 | 0.019 | 0.005 | 7.33 | 7 | 8 | 11 | 1.996 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0115 | 0.2728 | 0.0095 | 1.005 | 1.400 | 1.000 | 0.000 | 0.999 | 0.916 | 1.000 | 0.184 | 0.007 | 0.002 | 7.28 | 7 | 8 | 10 | 1.998 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2704 | 0.0087 | 1.005 | 1.421 | 1.000 | 0.000 | 0.999 | 0.928 | 1.000 | 0.158 | 0.009 | 0.003 | 7.25 | 7 | 8 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0218 | 0.2629 | 0.0017 | 1.004 | 1.364 | 1.000 | 0.000 | 0.997 | 0.981 | 1.000 | 0.138 | 0.006 | 0.002 | 7.16 | 7 | 8 | 10 | 1.997 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0107 | 0.2601 | 0.0023 | 1.004 | 1.377 | 1.000 | 0.000 | 0.997 | 0.976 | 1.000 | 0.103 | 0.002 | 0.001 | 7.12 | 7 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2592 | 0.0023 | 1.004 | 1.398 | 1.000 | 0.000 | 0.996 | 0.976 | 1.000 | 0.090 | 0.006 | 0.002 | 7.11 | 7 | 8 | 10 | 2.002 | 1.00 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0246 | 0.2849 | 0.0123 | 1.005 | 1.388 | 1.000 | 0.000 | 1.000 | 0.894 | 1.000 | 0.286 | 0.026 | 0.008 | 7.44 | 7 | 9 | 11 | 1.981 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0120 | 0.2813 | 0.0156 | 1.005 | 1.405 | 1.000 | 0.000 | 1.000 | 0.867 | 1.000 | 0.227 | 0.012 | 0.004 | 7.39 | 7 | 9 | 12 | 1.989 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0078 | 0.2774 | 0.0131 | 1.005 | 1.423 | 1.000 | 0.000 | 1.000 | 0.890 | 1.000 | 0.201 | 0.013 | 0.004 | 7.34 | 7 | 8 | 10 | 1.997 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0234 | 0.2755 | 0.0069 | 1.005 | 1.376 | 1.000 | 0.000 | 0.999 | 0.939 | 1.000 | 0.229 | 0.019 | 0.005 | 7.32 | 7 | 8 | 11 | 1.985 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0114 | 0.2715 | 0.0078 | 1.004 | 1.386 | 1.000 | 0.000 | 0.999 | 0.931 | 1.000 | 0.184 | 0.007 | 0.002 | 7.26 | 7 | 8 | 10 | 1.989 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2694 | 0.0074 | 1.005 | 1.410 | 1.000 | 0.000 | 0.999 | 0.939 | 1.000 | 0.158 | 0.009 | 0.003 | 7.24 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0217 | 0.2625 | 0.0012 | 1.004 | 1.361 | 1.000 | 0.000 | 0.997 | 0.986 | 1.000 | 0.138 | 0.006 | 0.002 | 7.15 | 7 | 8 | 10 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0106 | 0.2597 | 0.0017 | 1.004 | 1.371 | 1.000 | 0.000 | 0.997 | 0.982 | 1.000 | 0.103 | 0.002 | 0.001 | 7.12 | 7 | 8 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0071 | 0.2588 | 0.0017 | 1.004 | 1.394 | 1.000 | 0.000 | 0.996 | 0.981 | 1.000 | 0.090 | 0.006 | 0.002 | 7.11 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1617 | 0.7014 | 0.6486 | 1.037 | 2.467 | 1.000 | 0.001 | 0.082 | 0.000 | 1.000 | 0.195 | 0.178 | 0.186 | 21.01 | 11 | 33 | 50 | - | - | - | - |
| | 200 | 1.0000 | 0.1064 | 0.7514 | 0.7166 | 1.050 | 2.868 | 1.000 | 0.001 | 0.081 | 0.000 | 1.000 | 0.136 | 0.126 | 0.122 | 26.18 | 13 | 43 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0839 | 0.7809 | 0.7523 | 1.058 | 3.077 | 1.000 | 0.000 | 0.079 | 0.000 | 1.000 | 0.113 | 0.090 | 0.092 | 30.09 | 15 | 49 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0276 | 0.1572 | 0.1447 | 1.013 | 1.553 | 1.000 | 0.625 | 0.006 | 0.000 | 1.000 | 0.029 | 0.025 | 0.032 | 7.74 | 5 | 21 | 38 | - | - | - | - |
| | 200 | 1.0000 | 0.0299 | 0.2702 | 0.2573 | 1.028 | 1.944 | 1.000 | 0.473 | 0.009 | 0.000 | 1.000 | 0.040 | 0.028 | 0.030 | 10.94 | 5 | 29 | 45 | - | - | - | - |
| | 300 | 1.0000 | 0.0305 | 0.3628 | 0.3482 | 1.043 | 2.275 | 1.000 | 0.375 | 0.019 | 0.000 | 1.000 | 0.041 | 0.036 | 0.034 | 14.12 | 5 | 35 | 53 | - | - | - | - |

Notes: See notes to Table 145.

## Table 471: MC findings for DGPIV(a)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0277 | 0.3094 | 0.0123 | 1.003 | 1.400 | 1.000 | 0.000 | 1.000 | 0.889 | 1.000 | 0.569 | 0.045 | 0.008 | 7.74 | 7 | 9 | 10 | 1.994 | 0.98 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0135 | 0.3055 | 0.0140 | 1.004 | 1.405 | 1.000 | 0.000 | 1.000 | 0.876 | 1.000 | 0.519 | 0.031 | 0.006 | 7.69 | 7 | 9 | 11 | 1.999 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2988 | 0.0125 | 1.004 | 1.383 | 1.000 | 0.000 | 1.000 | 0.887 | 1.000 | 0.457 | 0.023 | 0.005 | 7.60 | 7 | 9 | 11 | 1.996 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2986 | 0.0065 | 1.003 | 1.381 | 1.000 | 0.000 | 1.000 | 0.939 | 1.000 | 0.502 | 0.032 | 0.004 | 7.60 | 7 | 9 | 10 | 1.995 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0128 | 0.2945 | 0.0076 | 1.003 | 1.388 | 1.000 | 0.000 | 1.000 | 0.931 | 1.000 | 0.450 | 0.022 | 0.003 | 7.55 | 7 | 9 | 10 | 1.998 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2896 | 0.0068 | 1.003 | 1.365 | 1.000 | 0.000 | 1.000 | 0.938 | 1.000 | 0.401 | 0.016 | 0.004 | 7.48 | 7 | 8 | 10 | 1.996 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2831 | 0.0013 | 1.002 | 1.362 | 1.000 | 0.000 | 1.000 | 0.988 | 1.000 | 0.373 | 0.015 | 0.002 | 7.40 | 7 | 8 | 10 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2791 | 0.0015 | 1.003 | 1.363 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.327 | 0.011 | 0.001 | 7.35 | 7 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2748 | 0.0016 | 1.003 | 1.348 | 1.000 | 0.000 | 1.000 | 0.985 | 1.000 | 0.274 | 0.011 | 0.002 | 7.30 | 7 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0275 | 0.3080 | 0.0103 | 1.003 | 1.385 | 1.000 | 0.000 | 1.000 | 0.906 | 1.000 | 0.569 | 0.044 | 0.008 | 7.72 | 7 | 9 | 10 | 1.980 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3039 | 0.0117 | 1.003 | 1.386 | 1.000 | 0.000 | 1.000 | 0.896 | 1.000 | 0.519 | 0.030 | 0.006 | 7.67 | 7 | 9 | 11 | 1.985 | 0.98 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0087 | 0.2976 | 0.0108 | 1.003 | 1.371 | 1.000 | 0.000 | 1.000 | 0.902 | 1.000 | 0.457 | 0.022 | 0.005 | 7.59 | 7 | 9 | 10 | 1.987 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0261 | 0.2977 | 0.0052 | 1.002 | 1.368 | 1.000 | 0.000 | 1.000 | 0.951 | 1.000 | 0.502 | 0.031 | 0.004 | 7.59 | 7 | 9 | 10 | 1.986 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0127 | 0.2934 | 0.0060 | 1.003 | 1.374 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 0.450 | 0.022 | 0.003 | 7.53 | 7 | 8 | 10 | 1.990 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0083 | 0.2890 | 0.0061 | 1.003 | 1.359 | 1.000 | 0.000 | 1.000 | 0.944 | 1.000 | 0.401 | 0.015 | 0.004 | 7.48 | 7 | 8 | 10 | 1.992 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0242 | 0.2829 | 0.0011 | 1.002 | 1.357 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.373 | 0.015 | 0.002 | 7.40 | 7 | 8 | 10 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0118 | 0.2788 | 0.0011 | 1.003 | 1.359 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 0.327 | 0.011 | 0.001 | 7.35 | 7 | 8 | 10 | 1.995 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2747 | 0.0015 | 1.003 | 1.347 | 1.000 | 0.000 | 1.000 | 0.986 | 1.000 | 0.274 | 0.011 | 0.002 | 7.30 | 7 | 8 | 10 | 1.997 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1642 | 0.6975 | 0.6431 | 1.022 | 2.460 | 1.000 | 0.001 | 0.110 | 0.000 | 1.000 | 0.193 | 0.186 | 0.181 | 21.25 | 11 | 35 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.1068 | 0.7494 | 0.7119 | 1.029 | 2.789 | 1.000 | 0.000 | 0.089 | 0.000 | 1.000 | 0.152 | 0.106 | 0.116 | 26.25 | 13 | 45 | 69 | - | - | - | - |
| | 300 | 1.0000 | 0.0796 | 0.7685 | 0.7394 | 1.034 | 2.920 | 1.000 | 0.000 | 0.066 | 0.000 | 1.000 | 0.122 | 0.083 | 0.092 | 28.80 | 14 | 47 | 97 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0284 | 0.1578 | 0.1455 | 1.008 | 1.558 | 1.000 | 0.725 | 0.014 | 0.000 | 1.000 | 0.027 | 0.035 | 0.029 | 7.81 | 5 | 20 | 31 | - | - | - | - |
| | 200 | 1.0000 | 0.0298 | 0.2763 | 0.2634 | 1.016 | 1.896 | 1.000 | 0.569 | 0.013 | 0.000 | 1.000 | 0.037 | 0.028 | 0.028 | 10.93 | 5 | 28 | 42 | - | - | - | - |
| | 300 | 1.0000 | 0.0281 | 0.3600 | 0.3473 | 1.023 | 2.100 | 1.000 | 0.467 | 0.013 | 0.000 | 1.000 | 0.036 | 0.028 | 0.034 | 13.42 | 5 | 31 | 57 | - | - | - | - |

Notes: See notes to Table 145.

## Table 472: MC findings for DGPIV(a)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9044 | 0.0148 | 0.1929 | 0.0266 | 1.063 | 1.997 | 0.733 | 0.075 | 0.360 | 0.294 | 0.946 | 0.056 | 0.014 | 0.006 | 5.99 | 3 | 8 | 10 | 2.023 | 0.88 | 0.13 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8511 | 0.0067 | 0.1826 | 0.0343 | 1.095 | 2.263 | 0.630 | 0.076 | 0.270 | 0.222 | 0.898 | 0.037 | 0.006 | 0.006 | 5.59 | 2 | 8 | 10 | 1.984 | 0.81 | 0.16 | 0.01 |
| | 300 | 0.8356 | 0.0045 | 0.1860 | 0.0383 | 1.109 | 2.392 | 0.603 | 0.070 | 0.257 | 0.194 | 0.874 | 0.036 | 0.007 | 0.004 | 5.52 | 2 | 8 | 10 | 1.966 | 0.79 | 0.16 | 0.01 |
| $p = 0.05$, | 100 | 0.8679 | 0.0124 | 0.1683 | 0.0159 | 1.079 | 2.155 | 0.661 | 0.091 | 0.287 | 0.256 | 0.916 | 0.037 | 0.010 | 0.003 | 5.56 | 2 | 7 | 9 | 2.003 | 0.85 | 0.15 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8101 | 0.0056 | 0.1584 | 0.0217 | 1.111 | 2.413 | 0.559 | 0.084 | 0.218 | 0.196 | 0.859 | 0.027 | 0.006 | 0.003 | 5.16 | 1 | 7 | 10 | 1.928 | 0.77 | 0.15 | 0.01 |
| | 300 | 0.7914 | 0.0037 | 0.1580 | 0.0233 | 1.126 | 2.549 | 0.524 | 0.085 | 0.202 | 0.171 | 0.840 | 0.027 | 0.004 | 0.002 | 5.05 | 1 | 7 | 9 | 1.915 | 0.74 | 0.16 | 0.01 |
| $p = 0.01$, | 100 | 0.7488 | 0.0085 | 0.1266 | 0.0050 | 1.138 | 2.639 | 0.464 | 0.101 | 0.164 | 0.159 | 0.811 | 0.021 | 0.001 | 0.001 | 4.59 | 1 | 7 | 8 | 1.866 | 0.72 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6840 | 0.0038 | 0.1206 | 0.0085 | 1.171 | 2.879 | 0.384 | 0.090 | 0.119 | 0.113 | 0.743 | 0.013 | 0.002 | 0.002 | 4.17 | 1 | 7 | 9 | 1.754 | 0.61 | 0.14 | 0.01 |
| | 300 | 0.6618 | 0.0024 | 0.1175 | 0.0085 | 1.189 | 3.006 | 0.351 | 0.083 | 0.109 | 0.104 | 0.715 | 0.015 | 0.002 | 0.001 | 4.04 | 0 | 7 | 8 | 1.718 | 0.58 | 0.13 | 0.01 |
| $p = 0.1$, | 100 | 0.8729 | 0.0143 | 0.1924 | 0.0226 | 1.084 | 2.181 | 0.670 | 0.073 | 0.332 | 0.283 | 0.899 | 0.055 | 0.014 | 0.006 | 5.78 | 2 | 8 | 10 | 1.903 | 0.80 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8067 | 0.0064 | 0.1817 | 0.0288 | 1.123 | 2.500 | 0.543 | 0.060 | 0.248 | 0.216 | 0.828 | 0.037 | 0.006 | 0.006 | 5.31 | 2 | 8 | 9 | 1.791 | 0.69 | 0.10 | 0.00 |
| | 300 | 0.7885 | 0.0043 | 0.1860 | 0.0324 | 1.139 | 2.648 | 0.507 | 0.059 | 0.214 | 0.172 | 0.804 | 0.036 | 0.007 | 0.004 | 5.22 | 2 | 8 | 10 | 1.756 | 0.65 | 0.10 | 0.00 |
| $p = 0.05$, | 100 | 0.8275 | 0.0120 | 0.1692 | 0.0132 | 1.107 | 2.379 | 0.583 | 0.078 | 0.257 | 0.235 | 0.855 | 0.036 | 0.010 | 0.003 | 5.33 | 2 | 7 | 9 | 1.848 | 0.74 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7623 | 0.0054 | 0.1594 | 0.0181 | 1.141 | 2.662 | 0.471 | 0.069 | 0.192 | 0.179 | 0.788 | 0.027 | 0.005 | 0.003 | 4.88 | 1 | 7 | 9 | 1.738 | 0.63 | 0.11 | 0.00 |
| | 300 | 0.7386 | 0.0035 | 0.1593 | 0.0189 | 1.160 | 2.812 | 0.427 | 0.072 | 0.167 | 0.151 | 0.760 | 0.027 | 0.004 | 0.002 | 4.74 | 1 | 7 | 8 | 1.685 | 0.59 | 0.10 | 0.00 |
| $p = 0.01$, | 100 | 0.6967 | 0.0084 | 0.1299 | 0.0041 | 1.172 | 2.869 | 0.387 | 0.083 | 0.140 | 0.136 | 0.719 | 0.021 | 0.001 | 0.001 | 4.31 | 1 | 7 | 8 | 1.679 | 0.57 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6357 | 0.0037 | 0.1239 | 0.0076 | 1.200 | 3.079 | 0.314 | 0.073 | 0.101 | 0.098 | 0.659 | 0.013 | 0.002 | 0.002 | 3.91 | 1 | 7 | 8 | 1.567 | 0.47 | 0.10 | 0.00 |
| | 300 | 0.6118 | 0.0024 | 0.1213 | 0.0074 | 1.221 | 3.209 | 0.277 | 0.067 | 0.088 | 0.085 | 0.621 | 0.015 | 0.002 | 0.001 | 3.78 | 0 | 7 | 8 | 1.514 | 0.43 | 0.08 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9325 | 0.1207 | 0.6281 | 0.5704 | 1.153 | 2.850 | 0.734 | 0.001 | 0.059 | 0.001 | 0.997 | 0.139 | 0.129 | 0.152 | 16.61 | 7 | 29 | 52 | - | - | - | - |
| | 200 | 0.8880 | 0.0819 | 0.6942 | 0.6532 | 1.192 | 3.150 | 0.601 | 0.000 | 0.046 | 0.000 | 0.993 | 0.084 | 0.096 | 0.100 | 20.74 | 7 | 39 | 62 | - | - | - | - |
| | 300 | 0.8752 | 0.0645 | 0.7256 | 0.6911 | 1.218 | 3.327 | 0.557 | 0.001 | 0.036 | 0.000 | 0.990 | 0.075 | 0.077 | 0.067 | 23.67 | 7 | 46 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8549 | 0.0370 | 0.3124 | 0.2741 | 1.124 | 2.635 | 0.553 | 0.072 | 0.006 | 0.001 | 0.982 | 0.034 | 0.045 | 0.051 | 7.94 | 3 | 16 | 44 | - | - | - | - |
| | 200 | 0.8156 | 0.0338 | 0.4338 | 0.3996 | 1.176 | 3.003 | 0.475 | 0.023 | 0.011 | 0.000 | 0.975 | 0.036 | 0.045 | 0.040 | 10.81 | 3 | 27 | 47 | - | - | - | - |
| | 300 | 0.8032 | 0.0311 | 0.5091 | 0.4775 | 1.215 | 3.256 | 0.444 | 0.009 | 0.010 | 0.000 | 0.966 | 0.036 | 0.042 | 0.030 | 13.31 | 3 | 35 | 58 | - | - | - | - |

Notes: See notes to Table 145.

# Table 473: MC findings for DGPIV(a)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0248 | 0.2864 | 0.0150 | 1.006 | 1.446 | 1.000 | 0.000 | 0.988 | 0.862 | 1.000 | 0.293 | 0.024 | 0.011 | 7.46 | 7 | 9 | 11 | 2.005 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0118 | 0.2784 | 0.0143 | 1.006 | 1.412 | 1.000 | 0.001 | 0.981 | 0.859 | 1.000 | 0.225 | 0.014 | 0.005 | 7.36 | 7 | 8 | 10 | 2.002 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.2801 | 0.0158 | 1.006 | 1.422 | 1.000 | 0.001 | 0.981 | 0.851 | 1.000 | 0.229 | 0.014 | 0.008 | 7.38 | 7 | 8 | 11 | 2.005 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0234 | 0.2753 | 0.0079 | 1.005 | 1.425 | 1.000 | 0.000 | 0.982 | 0.917 | 1.000 | 0.238 | 0.015 | 0.008 | 7.32 | 7 | 8 | 10 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0113 | 0.2691 | 0.0082 | 1.005 | 1.390 | 1.000 | 0.003 | 0.973 | 0.902 | 1.000 | 0.184 | 0.009 | 0.004 | 7.24 | 7 | 8 | 10 | 2.000 | 0.99 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2693 | 0.0094 | 1.005 | 1.397 | 1.000 | 0.003 | 0.966 | 0.889 | 1.000 | 0.184 | 0.011 | 0.004 | 7.25 | 7 | 8 | 11 | 2.004 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0215 | 0.2591 | 0.0021 | 1.004 | 1.401 | 1.000 | 0.002 | 0.952 | 0.935 | 1.000 | 0.142 | 0.012 | 0.002 | 7.13 | 7 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0104 | 0.2537 | 0.0019 | 1.004 | 1.359 | 1.000 | 0.004 | 0.939 | 0.924 | 1.000 | 0.107 | 0.005 | 0.002 | 7.06 | 6 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0069 | 0.2525 | 0.0023 | 1.004 | 1.359 | 1.000 | 0.006 | 0.924 | 0.907 | 1.000 | 0.110 | 0.005 | 0.002 | 7.05 | 6 | 8 | 10 | 2.004 | 1.00 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0246 | 0.2850 | 0.0131 | 1.006 | 1.433 | 1.000 | 0.000 | 0.988 | 0.877 | 1.000 | 0.293 | 0.024 | 0.009 | 7.44 | 7 | 9 | 11 | 1.996 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0117 | 0.2769 | 0.0124 | 1.005 | 1.397 | 1.000 | 0.001 | 0.981 | 0.875 | 1.000 | 0.225 | 0.013 | 0.005 | 7.34 | 7 | 8 | 10 | 1.993 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0079 | 0.2785 | 0.0137 | 1.005 | 1.401 | 1.000 | 0.001 | 0.981 | 0.868 | 1.000 | 0.229 | 0.014 | 0.008 | 7.36 | 7 | 8 | 11 | 1.994 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0233 | 0.2744 | 0.0067 | 1.005 | 1.414 | 1.000 | 0.000 | 0.982 | 0.927 | 1.000 | 0.238 | 0.015 | 0.007 | 7.30 | 7 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0112 | 0.2682 | 0.0070 | 1.005 | 1.379 | 1.000 | 0.003 | 0.973 | 0.913 | 1.000 | 0.184 | 0.009 | 0.004 | 7.23 | 7 | 8 | 10 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0075 | 0.2682 | 0.0080 | 1.005 | 1.383 | 1.000 | 0.003 | 0.966 | 0.900 | 1.000 | 0.184 | 0.011 | 0.004 | 7.23 | 7 | 8 | 11 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0214 | 0.2588 | 0.0016 | 1.004 | 1.395 | 1.000 | 0.002 | 0.952 | 0.940 | 1.000 | 0.142 | 0.012 | 0.002 | 7.12 | 7 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0104 | 0.2536 | 0.0016 | 1.004 | 1.359 | 1.000 | 0.004 | 0.939 | 0.924 | 1.000 | 0.107 | 0.005 | 0.002 | 7.06 | 6 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0068 | 0.2520 | 0.0015 | 1.004 | 1.361 | 0.998 | 0.006 | 0.924 | 0.913 | 1.000 | 0.110 | 0.005 | 0.002 | 7.05 | 6 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.1623 | 0.7020 | 0.6471 | 1.039 | 2.531 | 1.000 | 0.001 | 0.105 | 0.000 | 1.000 | 0.186 | 0.184 | 0.205 | 21.06 | 11 | 32 | 53 | - | - | - | - |
| | 200 | 0.9998 | 0.1078 | 0.7556 | 0.7199 | 1.051 | 2.838 | 0.999 | 0.000 | 0.083 | 0.000 | 1.000 | 0.138 | 0.109 | 0.121 | 26.45 | 14 | 43 | 66 | - | - | - | - |
| | 300 | 0.9996 | 0.0825 | 0.7778 | 0.7484 | 1.059 | 2.991 | 0.998 | 0.001 | 0.076 | 0.000 | 1.000 | 0.121 | 0.084 | 0.092 | 29.67 | 15 | 49 | 86 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9986 | 0.0298 | 0.2205 | 0.1972 | 1.015 | 1.698 | 0.994 | 0.327 | 0.014 | 0.003 | 1.000 | 0.036 | 0.034 | 0.036 | 7.94 | 5 | 20 | 38 | - | - | - | - |
| | 200 | 0.9990 | 0.0351 | 0.3644 | 0.3446 | 1.032 | 2.084 | 0.996 | 0.187 | 0.022 | 0.000 | 1.000 | 0.041 | 0.037 | 0.042 | 11.99 | 5 | 32 | 50 | - | - | - | - |
| | 300 | 0.9988 | 0.0321 | 0.4286 | 0.4090 | 1.047 | 2.340 | 0.995 | 0.146 | 0.020 | 0.001 | 1.000 | 0.044 | 0.032 | 0.042 | 14.58 | 5 | 37 | 60 | - | - | - | - |

Notes: See notes to Table 145.

## Table 474: MC findings for DGPIV(a)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0279 | 0.3110 | 0.0121 | 1.004 | 1.414 | 1.000 | 0.000 | 1.000 | 0.893 | 1.000 | 0.582 | 0.048 | 0.013 | 7.76 | 7 | 9 | 11 | 2.006 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0135 | 0.3058 | 0.0146 | 1.003 | 1.436 | 1.000 | 0.000 | 1.000 | 0.871 | 1.000 | 0.515 | 0.034 | 0.005 | 7.70 | 7 | 9 | 11 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0089 | 0.3027 | 0.0147 | 1.004 | 1.440 | 1.000 | 0.000 | 1.000 | 0.872 | 1.000 | 0.482 | 0.027 | 0.006 | 7.66 | 7 | 9 | 11 | 2.004 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0264 | 0.3002 | 0.0061 | 1.003 | 1.392 | 1.000 | 0.000 | 1.000 | 0.944 | 1.000 | 0.516 | 0.036 | 0.008 | 7.62 | 7 | 9 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0129 | 0.2960 | 0.0082 | 1.003 | 1.410 | 1.000 | 0.000 | 1.000 | 0.925 | 1.000 | 0.459 | 0.027 | 0.004 | 7.57 | 7 | 9 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2922 | 0.0079 | 1.003 | 1.410 | 1.000 | 0.000 | 1.000 | 0.931 | 1.000 | 0.423 | 0.016 | 0.004 | 7.52 | 7 | 8 | 10 | 2.002 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0243 | 0.2831 | 0.0014 | 1.003 | 1.371 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.373 | 0.013 | 0.004 | 7.40 | 7 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0119 | 0.2798 | 0.0021 | 1.002 | 1.382 | 1.000 | 0.000 | 1.000 | 0.980 | 1.000 | 0.330 | 0.012 | 0.002 | 7.36 | 7 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2760 | 0.0014 | 1.003 | 1.380 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 0.294 | 0.007 | 0.001 | 7.31 | 7 | 8 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0276 | 0.3092 | 0.0098 | 1.003 | 1.396 | 1.000 | 0.000 | 1.000 | 0.913 | 1.000 | 0.581 | 0.048 | 0.013 | 7.74 | 7 | 9 | 11 | 1.992 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0134 | 0.3042 | 0.0124 | 1.003 | 1.417 | 1.000 | 0.000 | 1.000 | 0.891 | 1.000 | 0.515 | 0.034 | 0.005 | 7.67 | 7 | 9 | 11 | 1.997 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0088 | 0.3017 | 0.0132 | 1.004 | 1.423 | 1.000 | 0.000 | 1.000 | 0.886 | 1.000 | 0.482 | 0.027 | 0.006 | 7.64 | 7 | 9 | 11 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0263 | 0.2992 | 0.0050 | 1.003 | 1.383 | 1.000 | 0.000 | 1.000 | 0.954 | 1.000 | 0.514 | 0.036 | 0.008 | 7.61 | 7 | 9 | 10 | 1.995 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0128 | 0.2950 | 0.0068 | 1.003 | 1.398 | 1.000 | 0.000 | 1.000 | 0.938 | 1.000 | 0.459 | 0.026 | 0.004 | 7.55 | 7 | 9 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0084 | 0.2917 | 0.0072 | 1.003 | 1.401 | 1.000 | 0.000 | 1.000 | 0.937 | 1.000 | 0.423 | 0.016 | 0.004 | 7.51 | 7 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0242 | 0.2829 | 0.0011 | 1.003 | 1.369 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 0.373 | 0.013 | 0.004 | 7.40 | 7 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0119 | 0.2795 | 0.0017 | 1.002 | 1.377 | 1.000 | 0.000 | 1.000 | 0.984 | 1.000 | 0.330 | 0.012 | 0.002 | 7.36 | 7 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0077 | 0.2757 | 0.0010 | 1.003 | 1.375 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 0.294 | 0.007 | 0.001 | 7.31 | 7 | 8 | 9 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1674 | 0.7107 | 0.6552 | 1.022 | 2.417 | 1.000 | 0.000 | 0.104 | 0.000 | 1.000 | 0.202 | 0.184 | 0.199 | 21.58 | 12 | 34 | 61 | - | - | - | - |
| | 200 | 1.0000 | 0.1091 | 0.7583 | 0.7238 | 1.029 | 2.789 | 1.000 | 0.000 | 0.087 | 0.000 | 1.000 | 0.144 | 0.120 | 0.128 | 26.71 | 14 | 43 | 65 | - | - | - | - |
| | 300 | 1.0000 | 0.0810 | 0.7755 | 0.7457 | 1.034 | 2.961 | 1.000 | 0.000 | 0.070 | 0.000 | 1.000 | 0.113 | 0.089 | 0.086 | 29.21 | 14 | 48 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0285 | 0.1726 | 0.1572 | 1.008 | 1.559 | 1.000 | 0.534 | 0.005 | 0.001 | 1.000 | 0.036 | 0.036 | 0.039 | 7.82 | 5 | 22 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0334 | 0.3016 | 0.2873 | 1.019 | 2.034 | 1.000 | 0.374 | 0.017 | 0.001 | 1.000 | 0.048 | 0.030 | 0.043 | 11.65 | 5 | 31 | 50 | - | - | - | - |
| | 300 | 0.9999 | 0.0318 | 0.3864 | 0.3709 | 1.028 | 2.328 | 1.000 | 0.294 | 0.017 | 0.000 | 1.000 | 0.039 | 0.036 | 0.031 | 14.52 | 5 | 36 | 57 | - | - | - | - |

Notes: See notes to Table 145.

## Table 475: MC findings for DGPIV(a)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5652 | 0.0091 | 0.1548 | 0.0387 | 1.115 | 2.369 | 0.176 | 0.027 | 0.061 | 0.050 | 0.812 | 0.055 | 0.008 | 0.003 | 3.72 | 1 | 7 | 10 | 1.411 | 0.37 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5025 | 0.0040 | 0.1496 | 0.0475 | 1.129 | 2.498 | 0.124 | 0.019 | 0.044 | 0.038 | 0.759 | 0.036 | 0.010 | 0.001 | 3.31 | 0 | 7 | 9 | 1.307 | 0.28 | 0.02 | 0.00 |
| | 300 | 0.4737 | 0.0024 | 0.1356 | 0.0508 | 1.140 | 2.539 | 0.105 | 0.022 | 0.026 | 0.020 | 0.743 | 0.034 | 0.004 | 0.002 | 3.07 | 0 | 7 | 9 | 1.269 | 0.24 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.5013 | 0.0069 | 0.1273 | 0.0252 | 1.127 | 2.445 | 0.127 | 0.026 | 0.046 | 0.041 | 0.763 | 0.042 | 0.004 | 0.001 | 3.19 | 0 | 7 | 10 | 1.336 | 0.30 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4386 | 0.0031 | 0.1228 | 0.0323 | 1.142 | 2.560 | 0.091 | 0.016 | 0.028 | 0.025 | 0.691 | 0.029 | 0.008 | 0.001 | 2.81 | 0 | 6 | 9 | 1.250 | 0.22 | 0.03 | 0.00 |
| | 300 | 0.4142 | 0.0018 | 0.1098 | 0.0349 | 1.152 | 2.595 | 0.068 | 0.016 | 0.015 | 0.012 | 0.682 | 0.023 | 0.003 | 0.002 | 2.60 | 0 | 6 | 9 | 1.206 | 0.18 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.3727 | 0.0038 | 0.0782 | 0.0103 | 1.158 | 2.594 | 0.055 | 0.017 | 0.019 | 0.018 | 0.627 | 0.020 | 0.001 | 0.001 | 2.24 | 0 | 6 | 8 | 1.204 | 0.18 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3130 | 0.0017 | 0.0735 | 0.0107 | 1.171 | 2.685 | 0.035 | 0.009 | 0.008 | 0.007 | 0.554 | 0.015 | 0.004 | 0.001 | 1.90 | 0 | 5 | 8 | 1.140 | 0.13 | 0.01 | 0.00 |
| | 300 | 0.2955 | 0.0009 | 0.0635 | 0.0129 | 1.179 | 2.696 | 0.024 | 0.011 | 0.003 | 0.002 | 0.539 | 0.012 | 0.002 | 0.001 | 1.75 | 0 | 5 | 8 | 1.112 | 0.11 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.5297 | 0.0088 | 0.1552 | 0.0364 | 1.124 | 2.451 | 0.128 | 0.020 | 0.045 | 0.038 | 0.781 | 0.055 | 0.008 | 0.003 | 3.52 | 1 | 7 | 10 | 1.236 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4726 | 0.0039 | 0.1503 | 0.0452 | 1.138 | 2.562 | 0.080 | 0.013 | 0.030 | 0.029 | 0.725 | 0.036 | 0.010 | 0.001 | 3.14 | 0 | 7 | 9 | 1.156 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.4439 | 0.0023 | 0.1359 | 0.0482 | 1.148 | 2.601 | 0.057 | 0.013 | 0.013 | 0.011 | 0.709 | 0.034 | 0.004 | 0.002 | 2.90 | 0 | 6 | 9 | 1.113 | 0.11 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4685 | 0.0067 | 0.1283 | 0.0238 | 1.136 | 2.514 | 0.086 | 0.018 | 0.034 | 0.030 | 0.725 | 0.042 | 0.004 | 0.001 | 3.01 | 0 | 6 | 10 | 1.177 | 0.16 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4126 | 0.0030 | 0.1231 | 0.0305 | 1.149 | 2.607 | 0.056 | 0.010 | 0.016 | 0.015 | 0.653 | 0.029 | 0.008 | 0.001 | 2.66 | 0 | 6 | 9 | 1.117 | 0.11 | 0.01 | 0.00 |
| | 300 | 0.3891 | 0.0017 | 0.1105 | 0.0333 | 1.158 | 2.642 | 0.037 | 0.008 | 0.007 | 0.006 | 0.652 | 0.023 | 0.003 | 0.002 | 2.46 | 0 | 6 | 9 | 1.077 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3488 | 0.0037 | 0.0784 | 0.0099 | 1.165 | 2.631 | 0.035 | 0.009 | 0.013 | 0.012 | 0.594 | 0.020 | 0.001 | 0.001 | 2.11 | 0 | 5 | 8 | 1.093 | 0.09 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2951 | 0.0016 | 0.0737 | 0.0105 | 1.176 | 2.709 | 0.018 | 0.003 | 0.007 | 0.006 | 0.525 | 0.015 | 0.004 | 0.001 | 1.80 | 0 | 5 | 8 | 1.052 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2801 | 0.0009 | 0.0636 | 0.0125 | 1.185 | 2.716 | 0.012 | 0.005 | 0.002 | 0.001 | 0.512 | 0.012 | 0.002 | 0.001 | 1.67 | 0 | 5 | 8 | 1.037 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7403 | 0.0903 | 0.5881 | 0.5276 | 1.119 | 2.402 | 0.251 | 0.001 | 0.023 | 0.000 | 0.987 | 0.099 | 0.099 | 0.105 | 12.64 | 4 | 25 | 54 | - | - | - | - |
| | 200 | 0.6819 | 0.0579 | 0.6500 | 0.6037 | 1.135 | 2.552 | 0.155 | 0.000 | 0.008 | 0.000 | 0.977 | 0.071 | 0.070 | 0.068 | 14.93 | 4 | 32 | 59 | - | - | - | - |
| | 300 | 0.6475 | 0.0471 | 0.6936 | 0.6588 | 1.152 | 2.626 | 0.106 | 0.000 | 0.004 | 0.000 | 0.968 | 0.058 | 0.053 | 0.053 | 17.32 | 5 | 37 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5969 | 0.0319 | 0.3395 | 0.2900 | 1.117 | 2.468 | 0.126 | 0.007 | 0.002 | 0.000 | 0.963 | 0.033 | 0.032 | 0.034 | 6.14 | 2 | 14 | 31 | - | - | - | - |
| | 200 | 0.5602 | 0.0252 | 0.4261 | 0.3882 | 1.144 | 2.696 | 0.085 | 0.001 | 0.001 | 0.000 | 0.950 | 0.035 | 0.028 | 0.025 | 7.82 | 2 | 20 | 47 | - | - | - | - |
| | 300 | 0.5435 | 0.0234 | 0.4972 | 0.4665 | 1.175 | 2.871 | 0.065 | 0.001 | 0.001 | 0.000 | 0.940 | 0.026 | 0.022 | 0.031 | 9.72 | 2 | 26 | 62 | - | - | - | - |

Notes: See notes to Table 145.

## Table 476: MC findings for DGPIV(a)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9952 | 0.0226 | 0.2652 | 0.0141 | 1.007 | 1.463 | 0.977 | 0.017 | 0.800 | 0.704 | 1.000 | 0.301 | 0.021 | 0.007 | 7.21 | 6 | 9 | 11 | 1.994 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9905 | 0.0107 | 0.2554 | 0.0164 | 1.008 | 1.528 | 0.959 | 0.028 | 0.740 | 0.643 | 1.000 | 0.251 | 0.022 | 0.004 | 7.09 | 6 | 8 | 11 | 1.995 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9893 | 0.0069 | 0.2486 | 0.0185 | 1.009 | 1.550 | 0.953 | 0.031 | 0.706 | 0.604 | 1.000 | 0.210 | 0.015 | 0.001 | 7.01 | 6 | 8 | 10 | 1.992 | 0.98 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9918 | 0.0207 | 0.2485 | 0.0085 | 1.007 | 1.466 | 0.962 | 0.027 | 0.743 | 0.689 | 1.000 | 0.246 | 0.018 | 0.004 | 7.01 | 6 | 8 | 11 | 1.996 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9857 | 0.0097 | 0.2371 | 0.0085 | 1.007 | 1.530 | 0.938 | 0.042 | 0.683 | 0.634 | 1.000 | 0.202 | 0.019 | 0.003 | 6.86 | 5 | 8 | 10 | 1.990 | 0.98 | 0.01 | 0.00 |
| | 300 | 0.9843 | 0.0062 | 0.2299 | 0.0109 | 1.009 | 1.558 | 0.933 | 0.051 | 0.640 | 0.586 | 1.000 | 0.171 | 0.010 | 0.001 | 6.78 | 5 | 8 | 10 | 1.985 | 0.98 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9793 | 0.0172 | 0.2145 | 0.0018 | 1.008 | 1.543 | 0.911 | 0.053 | 0.592 | 0.583 | 1.000 | 0.156 | 0.007 | 0.004 | 6.60 | 5 | 8 | 9 | 1.986 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9651 | 0.0078 | 0.1980 | 0.0022 | 1.010 | 1.688 | 0.867 | 0.083 | 0.521 | 0.511 | 1.000 | 0.118 | 0.007 | 0.000 | 6.37 | 4 | 8 | 9 | 1.961 | 0.95 | 0.01 | 0.00 |
| | 300 | 0.9625 | 0.0050 | 0.1929 | 0.0038 | 1.012 | 1.719 | 0.857 | 0.085 | 0.491 | 0.479 | 1.000 | 0.097 | 0.003 | 0.000 | 6.31 | 4 | 8 | 9 | 1.956 | 0.95 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9935 | 0.0225 | 0.2644 | 0.0126 | 1.007 | 1.486 | 0.969 | 0.017 | 0.793 | 0.708 | 1.000 | 0.301 | 0.021 | 0.007 | 7.19 | 6 | 8 | 11 | 1.978 | 0.98 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9844 | 0.0106 | 0.2547 | 0.0145 | 1.009 | 1.621 | 0.934 | 0.027 | 0.720 | 0.636 | 1.000 | 0.251 | 0.022 | 0.004 | 7.04 | 6 | 8 | 11 | 1.957 | 0.96 | 0.00 | 0.00 |
| | 300 | 0.9823 | 0.0068 | 0.2485 | 0.0170 | 1.011 | 1.668 | 0.922 | 0.031 | 0.685 | 0.597 | 1.000 | 0.210 | 0.015 | 0.001 | 6.96 | 5 | 8 | 10 | 1.950 | 0.95 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9879 | 0.0206 | 0.2481 | 0.0070 | 1.008 | 1.533 | 0.946 | 0.026 | 0.732 | 0.688 | 1.000 | 0.246 | 0.018 | 0.004 | 6.98 | 6 | 8 | 11 | 1.970 | 0.97 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9773 | 0.0097 | 0.2375 | 0.0075 | 1.010 | 1.665 | 0.907 | 0.040 | 0.659 | 0.616 | 1.000 | 0.202 | 0.019 | 0.003 | 6.81 | 5 | 8 | 10 | 1.945 | 0.94 | 0.00 | 0.00 |
| | 300 | 0.9757 | 0.0062 | 0.2303 | 0.0097 | 1.011 | 1.706 | 0.896 | 0.048 | 0.620 | 0.575 | 1.000 | 0.171 | 0.010 | 0.001 | 6.73 | 5 | 8 | 10 | 1.940 | 0.94 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9714 | 0.0172 | 0.2153 | 0.0017 | 1.010 | 1.688 | 0.882 | 0.050 | 0.576 | 0.568 | 1.000 | 0.156 | 0.007 | 0.004 | 6.56 | 5 | 8 | 9 | 1.946 | 0.94 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9543 | 0.0078 | 0.1990 | 0.0020 | 1.014 | 1.862 | 0.828 | 0.078 | 0.500 | 0.491 | 1.000 | 0.118 | 0.007 | 0.000 | 6.32 | 4 | 8 | 9 | 1.909 | 0.91 | 0.00 | 0.00 |
| | 300 | 0.9480 | 0.0050 | 0.1946 | 0.0036 | 1.016 | 1.952 | 0.804 | 0.079 | 0.464 | 0.454 | 1.000 | 0.097 | 0.003 | 0.000 | 6.23 | 4 | 8 | 9 | 1.885 | 0.88 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9923 | 0.1502 | 0.6789 | 0.6245 | 1.040 | 2.558 | 0.965 | 0.001 | 0.088 | 0.000 | 1.000 | 0.169 | 0.160 | 0.178 | 19.83 | 9 | 32 | 53 | - | - | - | - |
| | 200 | 0.9835 | 0.0941 | 0.7193 | 0.6820 | 1.052 | 2.879 | 0.925 | 0.000 | 0.068 | 0.000 | 1.000 | 0.120 | 0.094 | 0.115 | 23.64 | 10 | 41 | 64 | - | - | - | - |
| | 300 | 0.9781 | 0.0731 | 0.7466 | 0.7147 | 1.060 | 3.061 | 0.900 | 0.000 | 0.057 | 0.000 | 1.000 | 0.097 | 0.092 | 0.085 | 26.76 | 10 | 48 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9621 | 0.0388 | 0.3040 | 0.2725 | 1.026 | 2.157 | 0.852 | 0.139 | 0.007 | 0.001 | 1.000 | 0.032 | 0.037 | 0.047 | 8.65 | 4 | 19 | 34 | - | - | - | - |
| | 200 | 0.9524 | 0.0366 | 0.4205 | 0.3932 | 1.044 | 2.540 | 0.824 | 0.071 | 0.017 | 0.000 | 1.000 | 0.047 | 0.039 | 0.050 | 12.04 | 4 | 30 | 59 | - | - | - | - |
| | 300 | 0.9479 | 0.0351 | 0.4963 | 0.4702 | 1.062 | 2.845 | 0.807 | 0.042 | 0.016 | 0.000 | 1.000 | 0.040 | 0.041 | 0.040 | 15.24 | 4 | 38 | 64 | - | - | - | - |

Notes: See notes to Table 145.

## Table 477: MC findings for DGPIV(a)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0275 | 0.3079 | 0.0121 | 1.004 | 1.443 | 1.000 | 0.001 | 0.988 | 0.882 | 1.000 | 0.566 | 0.047 | 0.007 | 7.72 | 7 | 9 | 11 | 2.003 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0133 | 0.3018 | 0.0136 | 1.004 | 1.434 | 1.000 | 0.000 | 0.980 | 0.864 | 1.000 | 0.504 | 0.028 | 0.004 | 7.65 | 7 | 9 | 11 | 2.004 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9999 | 0.0088 | 0.2992 | 0.0148 | 1.004 | 1.452 | 1.000 | 0.001 | 0.973 | 0.846 | 1.000 | 0.467 | 0.029 | 0.007 | 7.62 | 7 | 9 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0260 | 0.2967 | 0.0067 | 1.003 | 1.420 | 1.000 | 0.002 | 0.979 | 0.921 | 1.000 | 0.501 | 0.033 | 0.004 | 7.58 | 7 | 9 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0126 | 0.2903 | 0.0074 | 1.003 | 1.406 | 1.000 | 0.001 | 0.969 | 0.906 | 1.000 | 0.441 | 0.020 | 0.002 | 7.50 | 7 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0083 | 0.2876 | 0.0080 | 1.004 | 1.416 | 1.000 | 0.002 | 0.953 | 0.881 | 1.000 | 0.419 | 0.022 | 0.005 | 7.47 | 7 | 9 | 10 | 2.004 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0238 | 0.2786 | 0.0017 | 1.003 | 1.393 | 1.000 | 0.004 | 0.953 | 0.938 | 1.000 | 0.373 | 0.020 | 0.002 | 7.36 | 7 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9997 | 0.0114 | 0.2702 | 0.0018 | 1.003 | 1.381 | 0.999 | 0.006 | 0.932 | 0.916 | 1.000 | 0.310 | 0.009 | 0.001 | 7.26 | 6 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0074 | 0.2662 | 0.0021 | 1.003 | 1.382 | 0.999 | 0.009 | 0.902 | 0.883 | 1.000 | 0.297 | 0.012 | 0.001 | 7.22 | 6 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0274 | 0.3070 | 0.0108 | 1.004 | 1.434 | 1.000 | 0.001 | 0.988 | 0.893 | 1.000 | 0.566 | 0.047 | 0.007 | 7.71 | 7 | 9 | 11 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0132 | 0.3009 | 0.0123 | 1.004 | 1.423 | 1.000 | 0.000 | 0.980 | 0.874 | 1.000 | 0.504 | 0.028 | 0.004 | 7.64 | 7 | 9 | 11 | 1.996 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0087 | 0.2983 | 0.0135 | 1.004 | 1.439 | 1.000 | 0.001 | 0.973 | 0.857 | 1.000 | 0.467 | 0.029 | 0.007 | 7.60 | 7 | 9 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0260 | 0.2961 | 0.0059 | 1.003 | 1.414 | 1.000 | 0.002 | 0.979 | 0.928 | 1.000 | 0.501 | 0.033 | 0.004 | 7.57 | 7 | 9 | 10 | 1.997 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0125 | 0.2899 | 0.0067 | 1.003 | 1.403 | 1.000 | 0.001 | 0.969 | 0.911 | 1.000 | 0.441 | 0.020 | 0.002 | 7.50 | 7 | 8 | 11 | 1.997 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0082 | 0.2871 | 0.0072 | 1.004 | 1.412 | 0.999 | 0.002 | 0.952 | 0.888 | 1.000 | 0.419 | 0.022 | 0.005 | 7.46 | 7 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0238 | 0.2784 | 0.0014 | 1.003 | 1.390 | 1.000 | 0.004 | 0.953 | 0.940 | 1.000 | 0.373 | 0.020 | 0.002 | 7.36 | 7 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9995 | 0.0114 | 0.2701 | 0.0016 | 1.003 | 1.385 | 0.998 | 0.006 | 0.932 | 0.917 | 1.000 | 0.310 | 0.009 | 0.001 | 7.26 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0074 | 0.2661 | 0.0019 | 1.003 | 1.389 | 0.998 | 0.009 | 0.901 | 0.885 | 1.000 | 0.297 | 0.012 | 0.001 | 7.22 | 6 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9995 | 0.1638 | 0.7045 | 0.6505 | 1.022 | 2.494 | 0.998 | 0.001 | 0.097 | 0.000 | 1.000 | 0.187 | 0.196 | 0.180 | 21.21 | 12 | 33 | 55 | - | - | - | - |
| | 200 | 0.9997 | 0.1069 | 0.7530 | 0.7154 | 1.028 | 2.753 | 0.999 | 0.000 | 0.098 | 0.000 | 1.000 | 0.128 | 0.111 | 0.121 | 26.28 | 13 | 42 | 78 | - | - | - | - |
| | 300 | 0.9996 | 0.0816 | 0.7750 | 0.7455 | 1.033 | 2.962 | 0.998 | 0.001 | 0.076 | 0.000 | 1.000 | 0.118 | 0.081 | 0.093 | 29.39 | 14 | 48 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9959 | 0.0384 | 0.2612 | 0.2342 | 1.012 | 1.871 | 0.981 | 0.267 | 0.013 | 0.001 | 1.000 | 0.038 | 0.039 | 0.044 | 8.78 | 5 | 23 | 43 | - | - | - | - |
| | 200 | 0.9973 | 0.0411 | 0.3997 | 0.3765 | 1.024 | 2.278 | 0.987 | 0.169 | 0.022 | 0.001 | 1.000 | 0.049 | 0.046 | 0.046 | 13.16 | 5 | 33 | 62 | - | - | - | - |
| | 300 | 0.9964 | 0.0399 | 0.4880 | 0.4658 | 1.036 | 2.667 | 0.984 | 0.114 | 0.028 | 0.000 | 1.000 | 0.058 | 0.042 | 0.047 | 16.92 | 5 | 39 | 75 | - | - | - | - |

Notes: See notes to Table 145.

## Table 478: MC findings for DGPIV(b)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9576 | 0.0077 | 0.1041 | 0.0285 | 1.038 | 1.663 | 0.818 | 0.380 | 0.995 | 0.058 | 0.010 | 0.004 | 5.55 | 4 | 7 | 10 | 1.969 | 0.87 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9413 | 0.0034 | 0.0942 | 0.0348 | 1.052 | 1.805 | 0.757 | 0.379 | 0.988 | 0.039 | 0.002 | 0.002 | 5.38 | 4 | 7 | 10 | 1.976 | 0.83 | 0.13 | 0.01 |
| | 300 | 0.9319 | 0.0022 | 0.0933 | 0.0394 | 1.057 | 1.895 | 0.733 | 0.366 | 0.982 | 0.028 | 0.008 | 0.002 | 5.33 | 4 | 7 | 10 | 1.985 | 0.82 | 0.15 | 0.01 |
| $p = 0.05$, | 100 | 0.9431 | 0.0057 | 0.0795 | 0.0175 | 1.044 | 1.760 | 0.766 | 0.429 | 0.989 | 0.040 | 0.006 | 0.003 | 5.28 | 4 | 7 | 10 | 1.957 | 0.85 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9247 | 0.0026 | 0.0730 | 0.0229 | 1.058 | 1.912 | 0.703 | 0.413 | 0.985 | 0.032 | 0.001 | 0.001 | 5.13 | 3 | 7 | 9 | 1.959 | 0.81 | 0.14 | 0.01 |
| | 300 | 0.9170 | 0.0016 | 0.0685 | 0.0228 | 1.060 | 1.974 | 0.685 | 0.411 | 0.979 | 0.021 | 0.007 | 0.001 | 5.06 | 3 | 7 | 10 | 1.974 | 0.80 | 0.16 | 0.01 |
| $p = 0.01$, | 100 | 0.9048 | 0.0030 | 0.0448 | 0.0062 | 1.061 | 2.027 | 0.653 | 0.485 | 0.975 | 0.018 | 0.001 | 0.001 | 4.82 | 3 | 6 | 8 | 1.939 | 0.79 | 0.14 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8836 | 0.0013 | 0.0396 | 0.0088 | 1.076 | 2.155 | 0.586 | 0.446 | 0.965 | 0.016 | 0.000 | 0.001 | 4.68 | 3 | 6 | 8 | 1.943 | 0.76 | 0.18 | 0.01 |
| | 300 | 0.8707 | 0.0009 | 0.0389 | 0.0091 | 1.083 | 2.263 | 0.552 | 0.414 | 0.958 | 0.010 | 0.005 | 0.001 | 4.61 | 3 | 6 | 9 | 1.949 | 0.75 | 0.19 | 0.01 |
| $p = 0.1$, | 100 | 0.9303 | 0.0072 | 0.0997 | 0.0227 | 1.055 | 1.877 | 0.706 | 0.346 | 0.978 | 0.056 | 0.009 | 0.004 | 5.36 | 4 | 7 | 9 | 1.850 | 0.77 | 0.08 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9074 | 0.0031 | 0.0883 | 0.0275 | 1.072 | 2.040 | 0.619 | 0.330 | 0.969 | 0.038 | 0.002 | 0.002 | 5.15 | 4 | 7 | 9 | 1.835 | 0.72 | 0.12 | 0.00 |
| | 300 | 0.8902 | 0.0020 | 0.0881 | 0.0316 | 1.084 | 2.165 | 0.569 | 0.310 | 0.951 | 0.028 | 0.008 | 0.002 | 5.05 | 3 | 7 | 10 | 1.795 | 0.68 | 0.11 | 0.00 |
| $p = 0.05$, | 100 | 0.9156 | 0.0053 | 0.0770 | 0.0139 | 1.061 | 1.971 | 0.658 | 0.378 | 0.971 | 0.038 | 0.006 | 0.003 | 5.11 | 4 | 7 | 9 | 1.844 | 0.75 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8871 | 0.0023 | 0.0686 | 0.0170 | 1.083 | 2.148 | 0.562 | 0.345 | 0.950 | 0.031 | 0.001 | 0.001 | 4.90 | 3 | 6 | 9 | 1.814 | 0.68 | 0.13 | 0.01 |
| | 300 | 0.8727 | 0.0014 | 0.0653 | 0.0176 | 1.091 | 2.250 | 0.519 | 0.331 | 0.938 | 0.020 | 0.007 | 0.001 | 4.79 | 3 | 6 | 10 | 1.793 | 0.66 | 0.13 | 0.00 |
| $p = 0.01$, | 100 | 0.8765 | 0.0028 | 0.0431 | 0.0038 | 1.080 | 2.219 | 0.544 | 0.413 | 0.955 | 0.017 | 0.001 | 0.001 | 4.66 | 3 | 6 | 8 | 1.835 | 0.71 | 0.13 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8402 | 0.0012 | 0.0375 | 0.0058 | 1.109 | 2.382 | 0.442 | 0.344 | 0.908 | 0.016 | 0.000 | 0.001 | 4.44 | 3 | 6 | 8 | 1.774 | 0.63 | 0.14 | 0.00 |
| | 300 | 0.8242 | 0.0008 | 0.0374 | 0.0063 | 1.119 | 2.507 | 0.396 | 0.305 | 0.894 | 0.010 | 0.005 | 0.001 | 4.36 | 3 | 6 | 9 | 1.766 | 0.62 | 0.15 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9709 | 0.1097 | 0.5831 | 0.5158 | 1.132 | 2.477 | 0.861 | 0.010 | 1.000 | 0.140 | 0.119 | 0.136 | 15.72 | 6 | 29 | 55 | - | - | - | - |
| | 200 | 0.9560 | 0.0747 | 0.6560 | 0.6158 | 1.160 | 2.655 | 0.798 | 0.001 | 1.000 | 0.110 | 0.089 | 0.094 | 19.64 | 7 | 37 | 61 | - | - | - | - |
| | 300 | 0.9449 | 0.0590 | 0.6918 | 0.6627 | 1.181 | 2.843 | 0.749 | 0.001 | 1.000 | 0.086 | 0.065 | 0.061 | 22.37 | 7 | 44 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9153 | 0.0298 | 0.2214 | 0.1940 | 1.113 | 2.513 | 0.701 | 0.190 | 0.996 | 0.038 | 0.036 | 0.042 | 7.53 | 3 | 19 | 42 | - | - | - | - |
| | 200 | 0.9090 | 0.0304 | 0.3393 | 0.3182 | 1.149 | 2.705 | 0.671 | 0.102 | 0.997 | 0.044 | 0.035 | 0.034 | 10.60 | 3 | 28 | 49 | - | - | - | - |
| | 300 | 0.8987 | 0.0276 | 0.4081 | 0.3917 | 1.178 | 2.939 | 0.631 | 0.053 | 0.995 | 0.038 | 0.028 | 0.029 | 12.73 | 3 | 33 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 479: MC findings for DGPIV(b)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0172 | 0.2121 | 0.0149 | 1.005 | 1.237 | 1.000 | 0.021 | 1.000 | 0.304 | 0.030 | 0.008 | 6.70 | 6 | 8 | 10 | 2.017 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0079 | 0.1980 | 0.0165 | 1.005 | 1.228 | 1.000 | 0.047 | 1.000 | 0.238 | 0.019 | 0.006 | 6.56 | 6 | 8 | 11 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1913 | 0.0187 | 1.005 | 1.234 | 1.000 | 0.041 | 1.000 | 0.186 | 0.014 | 0.002 | 6.49 | 6 | 8 | 11 | 2.016 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0152 | 0.1930 | 0.0090 | 1.004 | 1.205 | 1.000 | 0.036 | 1.000 | 0.246 | 0.022 | 0.004 | 6.50 | 6 | 8 | 10 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0069 | 0.1793 | 0.0094 | 1.004 | 1.194 | 1.000 | 0.070 | 1.000 | 0.198 | 0.014 | 0.005 | 6.38 | 5 | 8 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.1749 | 0.0112 | 1.004 | 1.200 | 1.000 | 0.059 | 1.000 | 0.156 | 0.011 | 0.001 | 6.33 | 6 | 8 | 10 | 2.011 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0120 | 0.1594 | 0.0020 | 1.003 | 1.151 | 1.000 | 0.081 | 1.000 | 0.146 | 0.009 | 0.002 | 6.18 | 5 | 7 | 9 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0055 | 0.1480 | 0.0022 | 1.003 | 1.149 | 0.999 | 0.129 | 1.000 | 0.120 | 0.008 | 0.002 | 6.09 | 5 | 7 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0035 | 0.1439 | 0.0034 | 1.003 | 1.152 | 1.000 | 0.133 | 1.000 | 0.086 | 0.005 | 0.000 | 6.05 | 5 | 7 | 9 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0169 | 0.2096 | 0.0119 | 1.004 | 1.209 | 1.000 | 0.021 | 1.000 | 0.304 | 0.029 | 0.008 | 6.67 | 6 | 8 | 10 | 2.004 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0077 | 0.1953 | 0.0131 | 1.004 | 1.205 | 0.999 | 0.049 | 1.000 | 0.238 | 0.019 | 0.006 | 6.53 | 6 | 8 | 11 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0049 | 0.1889 | 0.0159 | 1.004 | 1.208 | 1.000 | 0.041 | 1.000 | 0.186 | 0.014 | 0.002 | 6.47 | 6 | 8 | 11 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0150 | 0.1911 | 0.0069 | 1.003 | 1.183 | 1.000 | 0.037 | 1.000 | 0.246 | 0.022 | 0.004 | 6.48 | 6 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0068 | 0.1777 | 0.0075 | 1.003 | 1.183 | 0.999 | 0.070 | 1.000 | 0.198 | 0.014 | 0.005 | 6.36 | 5 | 8 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0044 | 0.1732 | 0.0092 | 1.003 | 1.179 | 1.000 | 0.060 | 1.000 | 0.156 | 0.011 | 0.001 | 6.31 | 6 | 8 | 9 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0119 | 0.1588 | 0.0014 | 1.002 | 1.147 | 1.000 | 0.080 | 1.000 | 0.146 | 0.009 | 0.002 | 6.18 | 5 | 7 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9995 | 0.0055 | 0.1477 | 0.0019 | 1.003 | 1.157 | 0.998 | 0.129 | 1.000 | 0.120 | 0.008 | 0.002 | 6.09 | 5 | 7 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0035 | 0.1429 | 0.0021 | 1.002 | 1.152 | 0.998 | 0.134 | 1.000 | 0.086 | 0.005 | 0.000 | 6.04 | 5 | 7 | 9 | 1.998 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1290 | 0.6407 | 0.5666 | 1.034 | 2.202 | 1.000 | 0.005 | 1.000 | 0.174 | 0.146 | 0.159 | 17.77 | 9 | 30 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.0855 | 0.6986 | 0.6544 | 1.042 | 2.393 | 1.000 | 0.002 | 1.000 | 0.131 | 0.084 | 0.094 | 22.02 | 10 | 38 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0664 | 0.7281 | 0.6968 | 1.048 | 2.596 | 1.000 | 0.003 | 1.000 | 0.101 | 0.075 | 0.082 | 24.86 | 11 | 45 | 90 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9994 | 0.0346 | 0.2067 | 0.1833 | 1.020 | 1.816 | 0.998 | 0.580 | 1.000 | 0.046 | 0.035 | 0.043 | 8.42 | 5 | 21 | 35 | - | - | - | - |
| | 200 | 0.9992 | 0.0323 | 0.3210 | 0.3012 | 1.033 | 2.081 | 0.996 | 0.434 | 1.000 | 0.047 | 0.032 | 0.035 | 11.42 | 5 | 27 | 51 | - | - | - | - |
| | 300 | 0.9997 | 0.0290 | 0.3943 | 0.3778 | 1.044 | 2.337 | 0.999 | 0.345 | 1.000 | 0.052 | 0.029 | 0.035 | 13.68 | 5 | 31 | 61 | - | - | - | - |

Notes: See notes to Table 100.

## Table 480: MC findings for DGPIV(b)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0230 | 0.2667 | 0.0122 | 1.003 | 1.256 | 1.000 | 0.001 | 1.000 | 0.559 | 0.046 | 0.010 | 7.28 | 6 | 9 | 11 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0108 | 0.2546 | 0.0151 | 1.003 | 1.250 | 1.000 | 0.000 | 1.000 | 0.516 | 0.035 | 0.008 | 7.14 | 6 | 9 | 12 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0069 | 0.2470 | 0.0160 | 1.003 | 1.259 | 1.000 | 0.001 | 1.000 | 0.481 | 0.027 | 0.003 | 7.06 | 6 | 9 | 11 | 2.015 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0207 | 0.2465 | 0.0072 | 1.003 | 1.230 | 1.000 | 0.001 | 1.000 | 0.497 | 0.034 | 0.006 | 7.05 | 6 | 8 | 11 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0096 | 0.2333 | 0.0082 | 1.003 | 1.220 | 1.000 | 0.001 | 1.000 | 0.440 | 0.025 | 0.007 | 6.91 | 6 | 8 | 11 | 2.004 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0062 | 0.2273 | 0.0086 | 1.003 | 1.225 | 1.000 | 0.002 | 1.000 | 0.425 | 0.021 | 0.003 | 6.84 | 6 | 8 | 10 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0168 | 0.2108 | 0.0026 | 1.002 | 1.187 | 1.000 | 0.004 | 1.000 | 0.355 | 0.015 | 0.002 | 6.67 | 6 | 8 | 9 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0078 | 0.2007 | 0.0019 | 1.002 | 1.173 | 1.000 | 0.004 | 1.000 | 0.309 | 0.009 | 0.003 | 6.56 | 6 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1949 | 0.0021 | 1.002 | 1.181 | 1.000 | 0.007 | 1.000 | 0.290 | 0.010 | 0.001 | 6.51 | 6 | 8 | 10 | 2.003 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0229 | 0.2656 | 0.0107 | 1.003 | 1.242 | 1.000 | 0.001 | 1.000 | 0.559 | 0.046 | 0.010 | 7.27 | 6 | 9 | 11 | 2.004 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0107 | 0.2531 | 0.0133 | 1.003 | 1.230 | 1.000 | 0.000 | 1.000 | 0.516 | 0.035 | 0.008 | 7.13 | 6 | 9 | 12 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0068 | 0.2450 | 0.0133 | 1.003 | 1.233 | 1.000 | 0.001 | 1.000 | 0.481 | 0.027 | 0.003 | 7.04 | 6 | 8 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0206 | 0.2457 | 0.0061 | 1.002 | 1.219 | 1.000 | 0.001 | 1.000 | 0.497 | 0.034 | 0.006 | 7.04 | 6 | 8 | 11 | 2.004 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0095 | 0.2323 | 0.0071 | 1.002 | 1.206 | 1.000 | 0.001 | 1.000 | 0.440 | 0.025 | 0.006 | 6.90 | 6 | 8 | 11 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0061 | 0.2261 | 0.0071 | 1.002 | 1.208 | 1.000 | 0.002 | 1.000 | 0.425 | 0.021 | 0.003 | 6.83 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0168 | 0.2102 | 0.0018 | 1.002 | 1.180 | 1.000 | 0.004 | 1.000 | 0.355 | 0.015 | 0.002 | 6.66 | 6 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0078 | 0.2004 | 0.0017 | 1.002 | 1.170 | 1.000 | 0.004 | 1.000 | 0.309 | 0.009 | 0.002 | 6.56 | 6 | 8 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0050 | 0.1946 | 0.0016 | 1.002 | 1.176 | 1.000 | 0.007 | 1.000 | 0.290 | 0.010 | 0.001 | 6.50 | 6 | 8 | 10 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1350 | 0.6456 | 0.5721 | 1.019 | 2.154 | 1.000 | 0.003 | 1.000 | 0.163 | 0.155 | 0.154 | 18.37 | 9 | 29 | 60 | - | - | - | - |
| | 200 | 1.0000 | 0.0836 | 0.6913 | 0.6497 | 1.024 | 2.425 | 1.000 | 0.002 | 1.000 | 0.120 | 0.083 | 0.095 | 21.63 | 10 | 41 | 55 | - | - | - | - |
| | 300 | 1.0000 | 0.0644 | 0.7194 | 0.6879 | 1.028 | 2.576 | 1.000 | 0.001 | 1.000 | 0.102 | 0.072 | 0.066 | 24.27 | 11 | 46 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0360 | 0.2239 | 0.1987 | 1.011 | 1.713 | 1.000 | 0.594 | 1.000 | 0.045 | 0.038 | 0.050 | 8.57 | 5 | 19 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0295 | 0.3210 | 0.3027 | 1.016 | 1.978 | 1.000 | 0.457 | 1.000 | 0.037 | 0.033 | 0.032 | 10.86 | 5 | 25 | 39 | - | - | - | - |
| | 300 | 1.0000 | 0.0266 | 0.3998 | 0.3831 | 1.023 | 2.203 | 1.000 | 0.366 | 1.000 | 0.044 | 0.027 | 0.025 | 12.95 | 5 | 28 | 45 | - | - | - | - |

Notes: See notes to Table 100.

## Table 481: MC findings for DGPIV(b)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8105 | 0.0056 | 0.0845 | 0.0318 | 1.066 | 1.958 | 0.322 | 0.180 | 0.927 | 0.047 | 0.008 | 0.005 | 4.60 | 3 | 6 | 10 | 1.502 | 0.45 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7689 | 0.0025 | 0.0795 | 0.0382 | 1.077 | 2.078 | 0.216 | 0.140 | 0.907 | 0.037 | 0.006 | 0.004 | 4.34 | 3 | 6 | 9 | 1.451 | 0.41 | 0.04 | 0.00 |
| | 300 | 0.7592 | 0.0017 | 0.0807 | 0.0441 | 1.085 | 2.072 | 0.215 | 0.136 | 0.884 | 0.034 | 0.005 | 0.004 | 4.30 | 3 | 6 | 9 | 1.455 | 0.40 | 0.06 | 0.00 |
| $p = 0.05$, | 100 | 0.7798 | 0.0040 | 0.0637 | 0.0195 | 1.070 | 2.013 | 0.259 | 0.175 | 0.901 | 0.039 | 0.005 | 0.002 | 4.30 | 3 | 6 | 9 | 1.454 | 0.41 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7399 | 0.0018 | 0.0600 | 0.0262 | 1.083 | 2.125 | 0.177 | 0.132 | 0.878 | 0.028 | 0.004 | 0.003 | 4.06 | 2 | 6 | 8 | 1.428 | 0.39 | 0.04 | 0.00 |
| | 300 | 0.7271 | 0.0012 | 0.0589 | 0.0294 | 1.091 | 2.115 | 0.168 | 0.118 | 0.848 | 0.026 | 0.004 | 0.003 | 3.99 | 2 | 6 | 8 | 1.416 | 0.37 | 0.05 | 0.00 |
| $p = 0.01$, | 100 | 0.7067 | 0.0019 | 0.0323 | 0.0063 | 1.089 | 2.172 | 0.151 | 0.122 | 0.833 | 0.020 | 0.001 | 0.001 | 3.72 | 2 | 5 | 7 | 1.402 | 0.36 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6669 | 0.0008 | 0.0278 | 0.0098 | 1.104 | 2.257 | 0.093 | 0.079 | 0.786 | 0.011 | 0.002 | 0.002 | 3.49 | 2 | 5 | 8 | 1.373 | 0.34 | 0.03 | 0.00 |
| | 300 | 0.6554 | 0.0005 | 0.0266 | 0.0105 | 1.111 | 2.236 | 0.093 | 0.080 | 0.766 | 0.012 | 0.003 | 0.002 | 3.42 | 2 | 5 | 7 | 1.370 | 0.34 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.7750 | 0.0051 | 0.0799 | 0.0260 | 1.078 | 2.032 | 0.207 | 0.122 | 0.873 | 0.047 | 0.008 | 0.004 | 4.38 | 3 | 6 | 10 | 1.311 | 0.29 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7298 | 0.0023 | 0.0747 | 0.0324 | 1.093 | 2.136 | 0.114 | 0.073 | 0.826 | 0.037 | 0.006 | 0.004 | 4.10 | 2 | 6 | 9 | 1.247 | 0.23 | 0.02 | 0.00 |
| | 300 | 0.7169 | 0.0015 | 0.0759 | 0.0382 | 1.101 | 2.132 | 0.102 | 0.068 | 0.800 | 0.034 | 0.005 | 0.004 | 4.03 | 2 | 6 | 9 | 1.225 | 0.21 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.7463 | 0.0037 | 0.0611 | 0.0159 | 1.085 | 2.081 | 0.160 | 0.110 | 0.839 | 0.039 | 0.005 | 0.002 | 4.10 | 2 | 6 | 9 | 1.283 | 0.26 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7028 | 0.0016 | 0.0562 | 0.0217 | 1.100 | 2.176 | 0.090 | 0.066 | 0.793 | 0.028 | 0.004 | 0.003 | 3.84 | 2 | 6 | 8 | 1.238 | 0.22 | 0.01 | 0.00 |
| | 300 | 0.6905 | 0.0011 | 0.0559 | 0.0259 | 1.109 | 2.164 | 0.082 | 0.061 | 0.763 | 0.026 | 0.004 | 0.003 | 3.77 | 2 | 5 | 8 | 1.226 | 0.21 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.6742 | 0.0018 | 0.0321 | 0.0052 | 1.106 | 2.230 | 0.072 | 0.060 | 0.757 | 0.020 | 0.001 | 0.001 | 3.55 | 2 | 5 | 7 | 1.248 | 0.23 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6378 | 0.0007 | 0.0266 | 0.0081 | 1.123 | 2.290 | 0.050 | 0.042 | 0.695 | 0.010 | 0.002 | 0.002 | 3.33 | 2 | 5 | 7 | 1.228 | 0.22 | 0.01 | 0.00 |
| | 300 | 0.6233 | 0.0004 | 0.0253 | 0.0087 | 1.130 | 2.270 | 0.041 | 0.034 | 0.666 | 0.012 | 0.003 | 0.002 | 3.25 | 2 | 5 | 7 | 1.212 | 0.20 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8781 | 0.0877 | 0.5409 | 0.4757 | 1.112 | 2.225 | 0.497 | 0.003 | 0.997 | 0.100 | 0.098 | 0.114 | 13.07 | 5 | 25 | 53 | - | - | - | - |
| | 200 | 0.8435 | 0.0587 | 0.6144 | 0.5750 | 1.133 | 2.348 | 0.373 | 0.001 | 0.996 | 0.075 | 0.065 | 0.068 | 15.90 | 5 | 33 | 59 | - | - | - | - |
| | 300 | 0.8280 | 0.0485 | 0.6629 | 0.6353 | 1.145 | 2.370 | 0.326 | 0.000 | 0.997 | 0.064 | 0.061 | 0.066 | 18.63 | 6 | 39 | 68 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7661 | 0.0265 | 0.2332 | 0.2053 | 1.104 | 2.408 | 0.319 | 0.040 | 0.979 | 0.030 | 0.030 | 0.032 | 6.45 | 2 | 15 | 49 | - | - | - | - |
| | 200 | 0.7497 | 0.0233 | 0.3297 | 0.3081 | 1.129 | 2.571 | 0.250 | 0.011 | 0.974 | 0.030 | 0.025 | 0.031 | 8.38 | 2 | 22 | 46 | - | - | - | - |
| | 300 | 0.7473 | 0.0223 | 0.4009 | 0.3828 | 1.153 | 2.655 | 0.232 | 0.009 | 0.979 | 0.028 | 0.026 | 0.029 | 10.40 | 3 | 31 | 54 | - | - | - | - |

Notes: See notes to Table 100.

## Table 482: MC findings for DGPIV(b)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9920 | 0.0148 | 0.1873 | 0.0158 | 1.006 | 1.347 | 0.960 | 0.112 | 1.000 | 0.284 | 0.022 | 0.007 | 6.43 | 5 | 8 | 10 | 1.970 | 0.96 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9877 | 0.0066 | 0.1709 | 0.0164 | 1.008 | 1.398 | 0.939 | 0.152 | 1.000 | 0.231 | 0.014 | 0.006 | 6.25 | 5 | 8 | 10 | 1.947 | 0.94 | 0.01 | 0.00 |
| | 300 | 0.9845 | 0.0042 | 0.1659 | 0.0201 | 1.009 | 1.460 | 0.923 | 0.166 | 1.000 | 0.220 | 0.011 | 0.002 | 6.18 | 5 | 8 | 9 | 1.930 | 0.92 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9903 | 0.0126 | 0.1637 | 0.0080 | 1.006 | 1.336 | 0.952 | 0.161 | 1.000 | 0.238 | 0.015 | 0.006 | 6.19 | 5 | 8 | 10 | 1.955 | 0.95 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9845 | 0.0055 | 0.1477 | 0.0080 | 1.008 | 1.412 | 0.923 | 0.211 | 1.000 | 0.184 | 0.010 | 0.004 | 6.02 | 5 | 7 | 9 | 1.925 | 0.92 | 0.00 | 0.00 |
| | 300 | 0.9798 | 0.0036 | 0.1450 | 0.0111 | 1.009 | 1.492 | 0.900 | 0.219 | 1.000 | 0.182 | 0.007 | 0.001 | 5.97 | 5 | 7 | 8 | 1.905 | 0.90 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9832 | 0.0091 | 0.1244 | 0.0024 | 1.007 | 1.408 | 0.916 | 0.274 | 1.000 | 0.144 | 0.006 | 0.002 | 5.82 | 5 | 7 | 9 | 1.922 | 0.92 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9729 | 0.0040 | 0.1110 | 0.0022 | 1.010 | 1.555 | 0.866 | 0.324 | 1.000 | 0.111 | 0.004 | 0.003 | 5.66 | 5 | 7 | 9 | 1.869 | 0.87 | 0.00 | 0.00 |
| | 300 | 0.9699 | 0.0025 | 0.1037 | 0.0032 | 1.011 | 1.592 | 0.851 | 0.342 | 1.000 | 0.095 | 0.002 | 0.000 | 5.58 | 4 | 7 | 8 | 1.856 | 0.85 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9829 | 0.0146 | 0.1867 | 0.0136 | 1.009 | 1.473 | 0.915 | 0.108 | 1.000 | 0.284 | 0.022 | 0.007 | 6.36 | 5 | 8 | 10 | 1.919 | 0.91 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9707 | 0.0065 | 0.1711 | 0.0142 | 1.012 | 1.640 | 0.854 | 0.145 | 1.000 | 0.231 | 0.014 | 0.006 | 6.15 | 5 | 8 | 10 | 1.854 | 0.85 | 0.00 | 0.00 |
| | 300 | 0.9670 | 0.0042 | 0.1661 | 0.0182 | 1.014 | 1.695 | 0.836 | 0.156 | 1.000 | 0.220 | 0.011 | 0.002 | 6.08 | 5 | 8 | 9 | 1.835 | 0.83 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9786 | 0.0124 | 0.1641 | 0.0067 | 1.009 | 1.512 | 0.893 | 0.155 | 1.000 | 0.238 | 0.015 | 0.006 | 6.13 | 5 | 7 | 10 | 1.898 | 0.89 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9649 | 0.0055 | 0.1492 | 0.0071 | 1.013 | 1.697 | 0.825 | 0.194 | 1.000 | 0.184 | 0.010 | 0.004 | 5.92 | 5 | 7 | 9 | 1.824 | 0.82 | 0.00 | 0.00 |
| | 300 | 0.9606 | 0.0035 | 0.1457 | 0.0097 | 1.014 | 1.752 | 0.804 | 0.203 | 1.000 | 0.182 | 0.007 | 0.001 | 5.86 | 5 | 7 | 8 | 1.805 | 0.80 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9671 | 0.0090 | 0.1250 | 0.0016 | 1.011 | 1.650 | 0.836 | 0.251 | 1.000 | 0.144 | 0.006 | 0.002 | 5.73 | 5 | 7 | 9 | 1.837 | 0.84 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9506 | 0.0040 | 0.1126 | 0.0017 | 1.016 | 1.860 | 0.755 | 0.290 | 1.000 | 0.110 | 0.004 | 0.003 | 5.54 | 4 | 7 | 9 | 1.756 | 0.76 | 0.00 | 0.00 |
| | 300 | 0.9457 | 0.0024 | 0.1050 | 0.0024 | 1.018 | 1.903 | 0.731 | 0.298 | 1.000 | 0.095 | 0.002 | 0.000 | 5.46 | 4 | 7 | 8 | 1.732 | 0.73 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9971 | 0.1260 | 0.6345 | 0.5628 | 1.034 | 2.222 | 0.986 | 0.004 | 1.000 | 0.166 | 0.142 | 0.156 | 17.46 | 8 | 29 | 46 | - | - | - | - |
| | 200 | 0.9946 | 0.0798 | 0.6816 | 0.6404 | 1.045 | 2.485 | 0.974 | 0.001 | 1.000 | 0.115 | 0.100 | 0.091 | 20.85 | 9 | 36 | 54 | - | - | - | - |
| | 300 | 0.9893 | 0.0603 | 0.7011 | 0.6706 | 1.051 | 2.612 | 0.947 | 0.002 | 1.000 | 0.090 | 0.064 | 0.078 | 22.98 | 9 | 42 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9841 | 0.0321 | 0.2207 | 0.1962 | 1.023 | 2.038 | 0.934 | 0.331 | 1.000 | 0.043 | 0.038 | 0.042 | 8.10 | 4 | 20 | 38 | - | - | - | - |
| | 200 | 0.9780 | 0.0323 | 0.3459 | 0.3257 | 1.041 | 2.420 | 0.910 | 0.196 | 1.000 | 0.046 | 0.041 | 0.038 | 11.32 | 4 | 28 | 45 | - | - | - | - |
| | 300 | 0.9739 | 0.0281 | 0.4008 | 0.3839 | 1.053 | 2.627 | 0.892 | 0.153 | 1.000 | 0.042 | 0.035 | 0.037 | 13.27 | 4 | 33 | 57 | - | - | - | - |

Notes: See notes to Table 100.

## Table 483: MC findings for DGPIV(b)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9996 | 0.0209 | 0.2477 | 0.0141 | 1.003 | 1.249 | 0.998 | 0.007 | 1.000 | 0.570 | 0.042 | 0.009 | 7.07 | 6 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0097 | 0.2348 | 0.0155 | 1.003 | 1.245 | 1.000 | 0.013 | 1.000 | 0.508 | 0.043 | 0.007 | 6.93 | 6 | 8 | 13 | 2.007 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9997 | 0.0061 | 0.2242 | 0.0164 | 1.003 | 1.259 | 0.999 | 0.023 | 1.000 | 0.460 | 0.022 | 0.005 | 6.82 | 6 | 8 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9995 | 0.0186 | 0.2268 | 0.0072 | 1.003 | 1.220 | 0.998 | 0.012 | 1.000 | 0.498 | 0.026 | 0.006 | 6.83 | 6 | 8 | 10 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0086 | 0.2149 | 0.0083 | 1.003 | 1.203 | 1.000 | 0.020 | 1.000 | 0.445 | 0.031 | 0.005 | 6.72 | 6 | 8 | 12 | 2.004 | 1.00 | 0.01 | 0.00 |
| | 300 | 0.9994 | 0.0054 | 0.2051 | 0.0085 | 1.002 | 1.222 | 0.997 | 0.036 | 1.000 | 0.399 | 0.017 | 0.003 | 6.61 | 6 | 8 | 10 | 2.002 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9992 | 0.0150 | 0.1922 | 0.0019 | 1.002 | 1.183 | 0.996 | 0.043 | 1.000 | 0.366 | 0.012 | 0.000 | 6.48 | 6 | 8 | 10 | 1.997 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9988 | 0.0071 | 0.1841 | 0.0019 | 1.002 | 1.184 | 0.994 | 0.055 | 1.000 | 0.330 | 0.014 | 0.001 | 6.40 | 6 | 7 | 11 | 1.996 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9987 | 0.0044 | 0.1734 | 0.0019 | 1.002 | 1.193 | 0.994 | 0.077 | 1.000 | 0.280 | 0.006 | 0.001 | 6.31 | 5 | 7 | 9 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9992 | 0.0207 | 0.2461 | 0.0119 | 1.003 | 1.242 | 0.996 | 0.007 | 1.000 | 0.570 | 0.042 | 0.009 | 7.04 | 6 | 9 | 11 | 1.996 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9988 | 0.0096 | 0.2333 | 0.0136 | 1.003 | 1.254 | 0.994 | 0.013 | 1.000 | 0.508 | 0.043 | 0.007 | 6.91 | 6 | 8 | 13 | 1.994 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9984 | 0.0060 | 0.2225 | 0.0140 | 1.003 | 1.272 | 0.992 | 0.023 | 1.000 | 0.460 | 0.022 | 0.005 | 6.79 | 6 | 8 | 10 | 1.992 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9989 | 0.0184 | 0.2260 | 0.0060 | 1.003 | 1.227 | 0.995 | 0.012 | 1.000 | 0.498 | 0.026 | 0.006 | 6.82 | 6 | 8 | 10 | 1.994 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9982 | 0.0086 | 0.2143 | 0.0072 | 1.003 | 1.238 | 0.991 | 0.020 | 1.000 | 0.444 | 0.031 | 0.005 | 6.70 | 6 | 8 | 12 | 1.991 | 0.99 | 0.00 | 0.00 |
| | 300 | 0.9981 | 0.0054 | 0.2042 | 0.0072 | 1.002 | 1.247 | 0.991 | 0.036 | 1.000 | 0.399 | 0.017 | 0.003 | 6.60 | 6 | 8 | 10 | 1.991 | 0.99 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9976 | 0.0150 | 0.1919 | 0.0014 | 1.002 | 1.226 | 0.988 | 0.043 | 1.000 | 0.366 | 0.012 | 0.000 | 6.47 | 6 | 8 | 10 | 1.988 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9970 | 0.0071 | 0.1840 | 0.0016 | 1.002 | 1.230 | 0.985 | 0.054 | 1.000 | 0.330 | 0.014 | 0.001 | 6.39 | 6 | 7 | 11 | 1.985 | 0.98 | 0.00 | 0.00 |
| | 300 | 0.9961 | 0.0044 | 0.1736 | 0.0017 | 1.002 | 1.267 | 0.981 | 0.077 | 1.000 | 0.280 | 0.006 | 0.001 | 6.29 | 5 | 7 | 9 | 1.981 | 0.98 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1316 | 0.6469 | 0.5743 | 1.019 | 2.164 | 1.000 | 0.002 | 1.000 | 0.169 | 0.153 | 0.159 | 18.02 | 9 | 30 | 50 | - | - | - | - |
| | 200 | 0.9999 | 0.0841 | 0.6974 | 0.6551 | 1.024 | 2.373 | 1.000 | 0.001 | 1.000 | 0.131 | 0.090 | 0.104 | 21.74 | 10 | 37 | 61 | - | - | - | - |
| | 300 | 0.9996 | 0.0651 | 0.7243 | 0.6938 | 1.028 | 2.526 | 0.998 | 0.001 | 1.000 | 0.094 | 0.068 | 0.076 | 24.46 | 11 | 42 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9987 | 0.0330 | 0.2026 | 0.1798 | 1.011 | 1.816 | 0.994 | 0.519 | 1.000 | 0.044 | 0.043 | 0.050 | 8.27 | 5 | 21 | 40 | - | - | - | - |
| | 200 | 0.9987 | 0.0345 | 0.3372 | 0.3168 | 1.022 | 2.204 | 0.995 | 0.372 | 1.000 | 0.049 | 0.037 | 0.039 | 11.86 | 5 | 28 | 53 | - | - | - | - |
| | 300 | 0.9981 | 0.0304 | 0.4086 | 0.3921 | 1.029 | 2.466 | 0.992 | 0.277 | 1.000 | 0.040 | 0.033 | 0.030 | 14.09 | 5 | 32 | 67 | - | - | - | - |

Notes: See notes to Table 100.

## Table 484: MC findings for DGPIV(b)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6053 | 0.0040 | 0.0737 | 0.0378 | 1.066 | 1.775 | 0.036 | 0.027 | 0.837 | 0.050 | 0.008 | 0.003 | 3.42 | 1 | 5 | 8 | 1.149 | 0.14 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5649 | 0.0019 | 0.0758 | 0.0479 | 1.081 | 1.874 | 0.027 | 0.018 | 0.796 | 0.037 | 0.004 | 0.003 | 3.21 | 1 | 5 | 8 | 1.152 | 0.14 | 0.01 | 0.00 |
| | 300 | 0.5305 | 0.0014 | 0.0853 | 0.0594 | 1.094 | 1.904 | 0.016 | 0.009 | 0.743 | 0.031 | 0.003 | 0.004 | 3.07 | 1 | 5 | 7 | 1.138 | 0.13 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5599 | 0.0026 | 0.0509 | 0.0237 | 1.074 | 1.802 | 0.025 | 0.020 | 0.789 | 0.037 | 0.004 | 0.001 | 3.05 | 1 | 5 | 8 | 1.141 | 0.13 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5206 | 0.0013 | 0.0521 | 0.0297 | 1.088 | 1.895 | 0.017 | 0.012 | 0.751 | 0.029 | 0.004 | 0.000 | 2.85 | 1 | 5 | 7 | 1.147 | 0.14 | 0.01 | 0.00 |
| | 300 | 0.4867 | 0.0009 | 0.0595 | 0.0390 | 1.101 | 1.921 | 0.010 | 0.006 | 0.699 | 0.023 | 0.002 | 0.002 | 2.71 | 1 | 5 | 7 | 1.128 | 0.12 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4583 | 0.0010 | 0.0234 | 0.0099 | 1.099 | 1.903 | 0.006 | 0.006 | 0.664 | 0.016 | 0.002 | 0.001 | 2.39 | 0 | 4 | 7 | 1.135 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4231 | 0.0005 | 0.0235 | 0.0110 | 1.114 | 1.984 | 0.004 | 0.004 | 0.621 | 0.017 | 0.001 | 0.000 | 2.21 | 0 | 4 | 6 | 1.135 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.3929 | 0.0003 | 0.0243 | 0.0141 | 1.123 | 1.992 | 0.004 | 0.004 | 0.574 | 0.009 | 0.001 | 0.000 | 2.06 | 0 | 4 | 5 | 1.124 | 0.12 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5874 | 0.0037 | 0.0712 | 0.0350 | 1.072 | 1.771 | 0.012 | 0.010 | 0.791 | 0.050 | 0.008 | 0.003 | 3.31 | 1 | 5 | 8 | 1.044 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5491 | 0.0018 | 0.0721 | 0.0437 | 1.087 | 1.866 | 0.010 | 0.008 | 0.746 | 0.037 | 0.004 | 0.003 | 3.10 | 1 | 5 | 7 | 1.049 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.5155 | 0.0013 | 0.0812 | 0.0550 | 1.099 | 1.890 | 0.006 | 0.003 | 0.695 | 0.031 | 0.003 | 0.004 | 2.97 | 1 | 5 | 7 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5429 | 0.0024 | 0.0497 | 0.0219 | 1.080 | 1.801 | 0.007 | 0.007 | 0.739 | 0.037 | 0.004 | 0.001 | 2.96 | 1 | 5 | 7 | 1.047 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5031 | 0.0012 | 0.0495 | 0.0267 | 1.096 | 1.892 | 0.006 | 0.005 | 0.690 | 0.029 | 0.004 | 0.000 | 2.75 | 1 | 5 | 7 | 1.045 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.4723 | 0.0009 | 0.0570 | 0.0363 | 1.108 | 1.917 | 0.005 | 0.003 | 0.649 | 0.023 | 0.002 | 0.002 | 2.62 | 1 | 5 | 7 | 1.045 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4392 | 0.0010 | 0.0229 | 0.0092 | 1.109 | 1.907 | 0.001 | 0.001 | 0.605 | 0.016 | 0.002 | 0.001 | 2.30 | 0 | 4 | 6 | 1.043 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4056 | 0.0005 | 0.0225 | 0.0099 | 1.123 | 1.983 | 0.000 | 0.000 | 0.561 | 0.017 | 0.001 | 0.000 | 2.12 | 0 | 4 | 6 | 1.045 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.3772 | 0.0003 | 0.0238 | 0.0134 | 1.132 | 1.995 | 0.002 | 0.002 | 0.523 | 0.009 | 0.001 | 0.000 | 1.98 | 0 | 4 | 5 | 1.047 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7356 | 0.0727 | 0.5297 | 0.4651 | 1.083 | 1.764 | 0.146 | 0.000 | 0.991 | 0.083 | 0.090 | 0.097 | 10.87 | 4 | 22 | 48 | - | - | - | - |
| | 200 | 0.7094 | 0.0521 | 0.6131 | 0.5725 | 1.101 | 1.881 | 0.094 | 0.000 | 0.981 | 0.069 | 0.064 | 0.069 | 13.92 | 4 | 30 | 61 | - | - | - | - |
| | 300 | 0.6871 | 0.0421 | 0.6591 | 0.6280 | 1.111 | 1.908 | 0.062 | 0.000 | 0.975 | 0.056 | 0.047 | 0.057 | 16.03 | 4 | 35 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5962 | 0.0235 | 0.2590 | 0.2282 | 1.080 | 1.974 | 0.059 | 0.004 | 0.951 | 0.026 | 0.028 | 0.024 | 5.30 | 2 | 12 | 36 | - | - | - | - |
| | 200 | 0.5950 | 0.0212 | 0.3691 | 0.3443 | 1.107 | 2.190 | 0.048 | 0.001 | 0.944 | 0.027 | 0.026 | 0.024 | 7.20 | 2 | 19 | 47 | - | - | - | - |
| | 300 | 0.5828 | 0.0193 | 0.4312 | 0.4114 | 1.125 | 2.291 | 0.034 | 0.001 | 0.950 | 0.024 | 0.019 | 0.022 | 8.68 | 2 | 24 | 61 | - | - | - | - |

Notes: See notes to Table 100.

## Table 485: MC findings for DGPIV(b)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9032 | 0.0104 | 0.1432 | 0.0163 | 1.016 | 1.796 | 0.532 | 0.219 | 1.000 | 0.283 | 0.026 | 0.008 | 5.55 | 4 | 7 | 10 | 1.544 | 0.54 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8813 | 0.0045 | 0.1267 | 0.0193 | 1.017 | 1.897 | 0.436 | 0.194 | 1.000 | 0.233 | 0.018 | 0.006 | 5.30 | 4 | 7 | 9 | 1.453 | 0.45 | 0.00 | 0.00 |
| | 300 | 0.8719 | 0.0028 | 0.1204 | 0.0225 | 1.020 | 1.957 | 0.392 | 0.193 | 1.000 | 0.205 | 0.014 | 0.003 | 5.19 | 4 | 7 | 10 | 1.410 | 0.41 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8890 | 0.0082 | 0.1165 | 0.0099 | 1.016 | 1.847 | 0.471 | 0.235 | 1.000 | 0.223 | 0.018 | 0.005 | 5.26 | 4 | 7 | 9 | 1.481 | 0.48 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8683 | 0.0035 | 0.1014 | 0.0111 | 1.017 | 1.929 | 0.385 | 0.211 | 1.000 | 0.186 | 0.011 | 0.003 | 5.03 | 4 | 7 | 9 | 1.400 | 0.40 | 0.00 | 0.00 |
| | 300 | 0.8555 | 0.0022 | 0.0971 | 0.0142 | 1.020 | 1.996 | 0.334 | 0.197 | 1.000 | 0.172 | 0.010 | 0.002 | 4.93 | 4 | 6 | 9 | 1.345 | 0.34 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8519 | 0.0047 | 0.0715 | 0.0030 | 1.018 | 1.988 | 0.327 | 0.225 | 1.000 | 0.131 | 0.007 | 0.002 | 4.73 | 3.5 | 6 | 8 | 1.334 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8354 | 0.0020 | 0.0610 | 0.0035 | 1.019 | 2.035 | 0.265 | 0.193 | 1.000 | 0.104 | 0.005 | 0.001 | 4.57 | 3 | 6 | 8 | 1.273 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.8222 | 0.0013 | 0.0594 | 0.0043 | 1.022 | 2.094 | 0.224 | 0.167 | 1.000 | 0.107 | 0.004 | 0.001 | 4.49 | 3 | 6 | 8 | 1.232 | 0.23 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8673 | 0.0103 | 0.1452 | 0.0150 | 1.020 | 1.983 | 0.354 | 0.152 | 1.000 | 0.283 | 0.026 | 0.008 | 5.35 | 4 | 7 | 9 | 1.354 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8455 | 0.0044 | 0.1280 | 0.0177 | 1.022 | 2.062 | 0.260 | 0.115 | 1.000 | 0.233 | 0.018 | 0.006 | 5.10 | 4 | 7 | 9 | 1.262 | 0.26 | 0.00 | 0.00 |
| | 300 | 0.8357 | 0.0027 | 0.1211 | 0.0204 | 1.024 | 2.114 | 0.215 | 0.104 | 1.000 | 0.205 | 0.014 | 0.003 | 4.99 | 4 | 7 | 10 | 1.216 | 0.22 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8547 | 0.0081 | 0.1183 | 0.0088 | 1.020 | 2.017 | 0.303 | 0.156 | 1.000 | 0.223 | 0.018 | 0.005 | 5.07 | 4 | 7 | 9 | 1.303 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8328 | 0.0034 | 0.1023 | 0.0095 | 1.022 | 2.087 | 0.211 | 0.112 | 1.000 | 0.186 | 0.011 | 0.003 | 4.84 | 4 | 6 | 8 | 1.213 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.8237 | 0.0021 | 0.0979 | 0.0130 | 1.024 | 2.134 | 0.179 | 0.106 | 1.000 | 0.172 | 0.010 | 0.002 | 4.76 | 4 | 6 | 9 | 1.180 | 0.18 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8258 | 0.0047 | 0.0724 | 0.0026 | 1.021 | 2.106 | 0.200 | 0.137 | 1.000 | 0.131 | 0.007 | 0.002 | 4.59 | 3 | 6 | 8 | 1.201 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8082 | 0.0020 | 0.0616 | 0.0030 | 1.023 | 2.153 | 0.133 | 0.095 | 1.000 | 0.104 | 0.005 | 0.001 | 4.43 | 3 | 6 | 8 | 1.136 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.7970 | 0.0012 | 0.0601 | 0.0039 | 1.025 | 2.196 | 0.101 | 0.077 | 1.000 | 0.107 | 0.004 | 0.001 | 4.36 | 3 | 6 | 7 | 1.104 | 0.10 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9472 | 0.1019 | 0.5772 | 0.5094 | 1.034 | 2.169 | 0.760 | 0.005 | 1.000 | 0.136 | 0.108 | 0.122 | 14.83 | 6 | 27 | 45 | - | - | - | - |
| | 200 | 0.9210 | 0.0629 | 0.6235 | 0.5821 | 1.039 | 2.337 | 0.647 | 0.001 | 1.000 | 0.087 | 0.072 | 0.070 | 17.13 | 6 | 32 | 61 | - | - | - | - |
| | 300 | 0.9045 | 0.0474 | 0.6520 | 0.6218 | 1.048 | 2.430 | 0.574 | 0.001 | 1.000 | 0.087 | 0.057 | 0.060 | 18.71 | 6 | 38 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8713 | 0.0274 | 0.2282 | 0.2005 | 1.029 | 2.284 | 0.551 | 0.100 | 1.000 | 0.031 | 0.028 | 0.037 | 7.07 | 3 | 17 | 35 | - | - | - | - |
| | 200 | 0.8501 | 0.0244 | 0.3189 | 0.2974 | 1.040 | 2.549 | 0.494 | 0.045 | 1.000 | 0.027 | 0.021 | 0.026 | 9.10 | 3 | 25 | 51 | - | - | - | - |
| | 300 | 0.8372 | 0.0222 | 0.3735 | 0.3562 | 1.053 | 2.758 | 0.435 | 0.022 | 1.000 | 0.034 | 0.022 | 0.030 | 10.81 | 3 | 30 | 64 | - | - | - | - |

Notes: See notes to Table 100.

## Table 486: MC findings for DGPIV(b)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9714 | 0.0176 | 0.2189 | 0.0135 | 1.006 | 1.527 | 0.857 | 0.121 | 1.000 | 0.586 | 0.049 | 0.011 | 6.60 | 5 | 8 | 11 | 1.860 | 0.86 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9649 | 0.0079 | 0.2028 | 0.0152 | 1.007 | 1.627 | 0.825 | 0.138 | 1.000 | 0.494 | 0.032 | 0.004 | 6.41 | 5 | 8 | 10 | 1.833 | 0.83 | 0.01 | 0.00 |
| | 300 | 0.9562 | 0.0050 | 0.1941 | 0.0176 | 1.009 | 1.734 | 0.781 | 0.158 | 1.000 | 0.461 | 0.028 | 0.004 | 6.27 | 5 | 8 | 11 | 1.786 | 0.78 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9643 | 0.0151 | 0.1945 | 0.0070 | 1.007 | 1.569 | 0.822 | 0.170 | 1.000 | 0.519 | 0.028 | 0.008 | 6.32 | 5 | 8 | 11 | 1.823 | 0.82 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9577 | 0.0069 | 0.1805 | 0.0090 | 1.007 | 1.674 | 0.789 | 0.179 | 1.000 | 0.430 | 0.023 | 0.002 | 6.15 | 5 | 8 | 10 | 1.796 | 0.79 | 0.00 | 0.00 |
| | 300 | 0.9487 | 0.0042 | 0.1702 | 0.0099 | 1.009 | 1.773 | 0.744 | 0.197 | 1.000 | 0.402 | 0.017 | 0.002 | 6.01 | 5 | 7 | 10 | 1.748 | 0.74 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9471 | 0.0113 | 0.1531 | 0.0015 | 1.008 | 1.711 | 0.736 | 0.244 | 1.000 | 0.383 | 0.016 | 0.004 | 5.85 | 4 | 7 | 9 | 1.736 | 0.74 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9365 | 0.0050 | 0.1374 | 0.0025 | 1.009 | 1.841 | 0.685 | 0.251 | 1.000 | 0.304 | 0.012 | 0.001 | 5.67 | 4 | 7 | 9 | 1.688 | 0.69 | 0.00 | 0.00 |
| | 300 | 0.9266 | 0.0030 | 0.1284 | 0.0032 | 1.011 | 1.939 | 0.634 | 0.260 | 1.000 | 0.281 | 0.009 | 0.000 | 5.54 | 4 | 7 | 9 | 1.636 | 0.63 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9475 | 0.0175 | 0.2214 | 0.0122 | 1.009 | 1.767 | 0.738 | 0.104 | 1.000 | 0.586 | 0.049 | 0.011 | 6.47 | 5 | 8 | 10 | 1.735 | 0.73 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9307 | 0.0079 | 0.2064 | 0.0140 | 1.011 | 1.956 | 0.654 | 0.110 | 1.000 | 0.494 | 0.032 | 0.004 | 6.22 | 5 | 8 | 10 | 1.655 | 0.65 | 0.00 | 0.00 |
| | 300 | 0.9181 | 0.0049 | 0.1974 | 0.0157 | 1.013 | 2.076 | 0.591 | 0.117 | 1.000 | 0.461 | 0.028 | 0.004 | 6.06 | 5 | 8 | 11 | 1.589 | 0.59 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9372 | 0.0150 | 0.1977 | 0.0065 | 1.010 | 1.838 | 0.686 | 0.141 | 1.000 | 0.519 | 0.028 | 0.008 | 6.18 | 5 | 8 | 10 | 1.685 | 0.68 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9223 | 0.0068 | 0.1840 | 0.0079 | 1.011 | 2.008 | 0.612 | 0.137 | 1.000 | 0.430 | 0.023 | 0.002 | 5.97 | 4 | 8 | 10 | 1.613 | 0.61 | 0.00 | 0.00 |
| | 300 | 0.9087 | 0.0042 | 0.1738 | 0.0086 | 1.014 | 2.132 | 0.544 | 0.143 | 1.000 | 0.402 | 0.017 | 0.002 | 5.79 | 4 | 7 | 10 | 1.542 | 0.54 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9158 | 0.0113 | 0.1566 | 0.0013 | 1.012 | 2.000 | 0.579 | 0.194 | 1.000 | 0.383 | 0.016 | 0.004 | 5.70 | 4 | 7 | 9 | 1.579 | 0.58 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8966 | 0.0049 | 0.1412 | 0.0022 | 1.014 | 2.193 | 0.486 | 0.179 | 1.000 | 0.304 | 0.012 | 0.001 | 5.47 | 4 | 7 | 9 | 1.487 | 0.49 | 0.00 | 0.00 |
| | 300 | 0.8886 | 0.0030 | 0.1317 | 0.0029 | 1.016 | 2.263 | 0.444 | 0.177 | 1.000 | 0.281 | 0.009 | 0.000 | 5.35 | 4 | 7 | 9 | 1.444 | 0.44 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9911 | 0.1218 | 0.6220 | 0.5511 | 1.020 | 2.192 | 0.958 | 0.005 | 1.000 | 0.148 | 0.132 | 0.131 | 17.01 | 8 | 29 | 52 | - | - | - | - |
| | 200 | 0.9857 | 0.0762 | 0.6683 | 0.6270 | 1.024 | 2.438 | 0.932 | 0.002 | 1.000 | 0.104 | 0.092 | 0.090 | 20.08 | 8 | 35 | 63 | - | - | - | - |
| | 300 | 0.9767 | 0.0569 | 0.6901 | 0.6595 | 1.029 | 2.587 | 0.886 | 0.001 | 1.000 | 0.092 | 0.073 | 0.063 | 21.89 | 8 | 40 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9610 | 0.0379 | 0.2516 | 0.2238 | 1.017 | 2.214 | 0.841 | 0.242 | 1.000 | 0.050 | 0.043 | 0.043 | 8.56 | 4 | 22 | 35 | - | - | - | - |
| | 200 | 0.9525 | 0.0346 | 0.3614 | 0.3394 | 1.028 | 2.619 | 0.818 | 0.152 | 1.000 | 0.044 | 0.041 | 0.038 | 11.66 | 4 | 28 | 52 | - | - | - | - |
| | 300 | 0.9460 | 0.0302 | 0.4310 | 0.4124 | 1.037 | 2.882 | 0.784 | 0.088 | 1.000 | 0.042 | 0.035 | 0.043 | 13.76 | 4 | 33 | 63 | - | - | - | - |

Notes: See notes to Table 100.

### 4.2.5 Findings for designs featuring many signals

## Table 487: MC findings for DGPV

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3199 | 0.0031 | 0.0471 | 0.0368 | 0.981 | 0.672 | 0.000 | 0.997 | 0.051 | 0.008 | 0.005 | 4.12 | 3 | 6 | 9 | 1.314 | 0.30 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3104 | 0.0018 | 0.0570 | 0.0480 | 0.982 | 0.696 | 0.000 | 0.995 | 0.044 | 0.006 | 0.004 | 4.07 | 3 | 6 | 9 | 1.352 | 0.34 | 0.02 | 0.00 |
| | 300 | 0.3050 | 0.0011 | 0.0533 | 0.0477 | 0.982 | 0.694 | 0.000 | 0.994 | 0.027 | 0.002 | 0.005 | 3.97 | 3 | 6 | 9 | 1.391 | 0.37 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.3086 | 0.0020 | 0.0311 | 0.0228 | 0.979 | 0.654 | 0.000 | 0.996 | 0.040 | 0.006 | 0.005 | 3.89 | 3 | 5 | 9 | 1.350 | 0.34 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3009 | 0.0011 | 0.0367 | 0.0301 | 0.981 | 0.676 | 0.000 | 0.992 | 0.034 | 0.003 | 0.002 | 3.82 | 3 | 5 | 8 | 1.392 | 0.38 | 0.02 | 0.00 |
| | 300 | 0.2961 | 0.0007 | 0.0340 | 0.0297 | 0.980 | 0.670 | 0.000 | 0.992 | 0.020 | 0.002 | 0.003 | 3.75 | 3 | 5 | 8 | 1.436 | 0.42 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.2890 | 0.0007 | 0.0121 | 0.0083 | 0.979 | 0.639 | 0.000 | 0.989 | 0.018 | 0.003 | 0.002 | 3.54 | 3 | 5 | 7 | 1.441 | 0.43 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2800 | 0.0004 | 0.0152 | 0.0114 | 0.980 | 0.658 | 0.000 | 0.982 | 0.019 | 0.001 | 0.001 | 3.44 | 3 | 5 | 6 | 1.486 | 0.47 | 0.01 | 0.00 |
| | 300 | 0.2778 | 0.0002 | 0.0119 | 0.0097 | 0.981 | 0.651 | 0.000 | 0.984 | 0.009 | 0.001 | 0.002 | 3.40 | 3 | 5 | 7 | 1.524 | 0.51 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.3179 | 0.0026 | 0.0405 | 0.0304 | 0.980 | 0.654 | 0.000 | 0.988 | 0.051 | 0.008 | 0.005 | 4.06 | 3 | 6 | 9 | 1.258 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3081 | 0.0015 | 0.0480 | 0.0391 | 0.981 | 0.671 | 0.000 | 0.983 | 0.043 | 0.006 | 0.004 | 3.98 | 3 | 6 | 9 | 1.281 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.3028 | 0.0009 | 0.0459 | 0.0402 | 0.982 | 0.672 | 0.000 | 0.982 | 0.027 | 0.002 | 0.005 | 3.90 | 3 | 5 | 8 | 1.326 | 0.32 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.3066 | 0.0017 | 0.0261 | 0.0181 | 0.980 | 0.642 | 0.000 | 0.986 | 0.039 | 0.006 | 0.004 | 3.83 | 3 | 5 | 9 | 1.307 | 0.30 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2986 | 0.0009 | 0.0294 | 0.0229 | 0.981 | 0.661 | 0.000 | 0.976 | 0.033 | 0.003 | 0.002 | 3.75 | 3 | 5 | 8 | 1.331 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.2939 | 0.0005 | 0.0282 | 0.0238 | 0.982 | 0.656 | 0.000 | 0.977 | 0.020 | 0.002 | 0.003 | 3.68 | 3 | 5 | 8 | 1.383 | 0.38 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.2872 | 0.0006 | 0.0093 | 0.0057 | 0.982 | 0.642 | 0.000 | 0.973 | 0.017 | 0.002 | 0.002 | 3.50 | 3 | 5 | 7 | 1.406 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2772 | 0.0003 | 0.0118 | 0.0081 | 0.986 | 0.667 | 0.000 | 0.954 | 0.018 | 0.001 | 0.001 | 3.39 | 2 | 5 | 6 | 1.438 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.2744 | 0.0002 | 0.0085 | 0.0064 | 0.989 | 0.665 | 0.000 | 0.951 | 0.009 | 0.001 | 0.002 | 3.34 | 2 | 4 | 6 | 1.472 | 0.47 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3955 | 0.0681 | 0.4442 | 0.4266 | 1.033 | 0.808 | 0.000 | 1.000 | 0.088 | 0.067 | 0.079 | 11.01 | 4 | 22 | 44 | - | - | - | - |
| | 200 | 0.3725 | 0.0467 | 0.5305 | 0.5193 | 1.044 | 0.858 | 0.000 | 1.000 | 0.088 | 0.054 | 0.063 | 13.44 | 4 | 29 | 63 | - | - | - | - |
| | 300 | 0.3718 | 0.0400 | 0.5889 | 0.5795 | 1.051 | 0.895 | 0.000 | 1.000 | 0.063 | 0.053 | 0.054 | 16.14 | 5 | 35 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2612 | 0.0160 | 0.1256 | 0.1215 | 1.038 | 0.897 | 0.000 | 0.983 | 0.015 | 0.015 | 0.017 | 4.61 | 2 | 14 | 34 | - | - | - | - |
| | 200 | 0.2682 | 0.0157 | 0.2067 | 0.2035 | 1.055 | 1.001 | 0.000 | 0.987 | 0.019 | 0.017 | 0.017 | 6.23 | 2 | 20 | 39 | - | - | - | - |
| | 300 | 0.2740 | 0.0148 | 0.2595 | 0.2557 | 1.062 | 1.060 | 0.000 | 0.985 | 0.020 | 0.019 | 0.020 | 7.62 | 2 | 24 | 49 | - | - | - | - |

Notes: See notes to Table 190.

## Table 488: MC findings for DGPV

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4144 | 0.0050 | 0.0630 | 0.0191 | 0.996 | 0.760 | 0.000 | 1.000 | 0.285 | 0.026 | 0.009 | 5.44 | 4 | 7 | 11 | 1.046 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4040 | 0.0022 | 0.0590 | 0.0215 | 0.996 | 0.759 | 0.000 | 1.000 | 0.239 | 0.021 | 0.005 | 5.27 | 4 | 7 | 10 | 1.035 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.3966 | 0.0013 | 0.0547 | 0.0230 | 0.996 | 0.756 | 0.000 | 1.000 | 0.204 | 0.014 | 0.004 | 5.14 | 4 | 7 | 10 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4013 | 0.0038 | 0.0491 | 0.0122 | 0.996 | 0.742 | 0.000 | 1.000 | 0.233 | 0.022 | 0.007 | 5.16 | 4 | 7 | 10 | 1.035 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3931 | 0.0016 | 0.0437 | 0.0117 | 0.996 | 0.742 | 0.000 | 1.000 | 0.203 | 0.014 | 0.004 | 5.02 | 4 | 7 | 10 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3869 | 0.0009 | 0.0388 | 0.0125 | 0.996 | 0.738 | 0.000 | 1.000 | 0.165 | 0.011 | 0.003 | 4.91 | 4 | 6 | 9 | 1.025 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3788 | 0.0019 | 0.0266 | 0.0038 | 0.996 | 0.728 | 0.000 | 1.000 | 0.141 | 0.009 | 0.003 | 4.72 | 4 | 6 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3722 | 0.0008 | 0.0240 | 0.0031 | 0.996 | 0.724 | 0.000 | 1.000 | 0.131 | 0.005 | 0.001 | 4.62 | 4 | 6 | 7 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3679 | 0.0004 | 0.0199 | 0.0039 | 0.995 | 0.719 | 0.000 | 1.000 | 0.099 | 0.005 | 0.001 | 4.54 | 4 | 6 | 7 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4130 | 0.0048 | 0.0600 | 0.0158 | 0.995 | 0.740 | 0.000 | 1.000 | 0.285 | 0.026 | 0.009 | 5.40 | 4 | 7 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4030 | 0.0021 | 0.0561 | 0.0186 | 0.995 | 0.740 | 0.000 | 1.000 | 0.239 | 0.021 | 0.004 | 5.23 | 4 | 7 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3955 | 0.0012 | 0.0518 | 0.0199 | 0.995 | 0.736 | 0.000 | 1.000 | 0.204 | 0.014 | 0.004 | 5.11 | 4 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4002 | 0.0036 | 0.0472 | 0.0101 | 0.995 | 0.728 | 0.000 | 1.000 | 0.233 | 0.022 | 0.007 | 5.14 | 4 | 7 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3923 | 0.0015 | 0.0419 | 0.0099 | 0.995 | 0.728 | 0.000 | 1.000 | 0.203 | 0.014 | 0.004 | 5.00 | 4 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3860 | 0.0009 | 0.0370 | 0.0106 | 0.995 | 0.723 | 0.000 | 1.000 | 0.165 | 0.011 | 0.003 | 4.88 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3782 | 0.0019 | 0.0259 | 0.0031 | 0.996 | 0.721 | 0.000 | 1.000 | 0.141 | 0.009 | 0.003 | 4.71 | 4 | 6 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3717 | 0.0008 | 0.0236 | 0.0027 | 0.995 | 0.719 | 0.000 | 1.000 | 0.131 | 0.005 | 0.001 | 4.62 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3675 | 0.0004 | 0.0192 | 0.0032 | 0.995 | 0.712 | 0.000 | 1.000 | 0.099 | 0.005 | 0.001 | 4.53 | 4 | 6 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.5015 | 0.0760 | 0.4403 | 0.4210 | 1.012 | 0.871 | 0.000 | 1.000 | 0.124 | 0.093 | 0.082 | 13.01 | 6 | 24 | 38 | - | - | - | - |
| | 200 | 0.4766 | 0.0484 | 0.5107 | 0.4993 | 1.016 | 0.909 | 0.000 | 1.000 | 0.076 | 0.053 | 0.050 | 15.01 | 6 | 29 | 62 | - | - | - | - |
| | 300 | 0.4672 | 0.0375 | 0.5514 | 0.5426 | 1.020 | 0.941 | 0.000 | 1.000 | 0.076 | 0.045 | 0.038 | 16.55 | 6 | 32 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3733 | 0.0281 | 0.2121 | 0.2046 | 1.018 | 1.077 | 0.000 | 1.000 | 0.044 | 0.037 | 0.028 | 7.07 | 3 | 15 | 26 | - | - | - | - |
| | 200 | 0.3685 | 0.0192 | 0.2689 | 0.2638 | 1.023 | 1.149 | 0.000 | 1.000 | 0.028 | 0.024 | 0.021 | 8.10 | 3 | 18 | 36 | - | - | - | - |
| | 300 | 0.3687 | 0.0158 | 0.3159 | 0.3113 | 1.027 | 1.210 | 0.000 | 1.000 | 0.021 | 0.019 | 0.015 | 9.04 | 3 | 19 | 35 | - | - | - | - |

Notes: See notes to Table 190.

## Table 489: MC findings for DGPV

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4613 | 0.0082 | 0.0967 | 0.0166 | 0.999 | 0.817 | 0.000 | 1.000 | 0.561 | 0.055 | 0.007 | 6.29 | 5 | 8 | 10 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4495 | 0.0035 | 0.0891 | 0.0162 | 0.999 | 0.807 | 0.000 | 1.000 | 0.512 | 0.031 | 0.007 | 6.07 | 5 | 8 | 10 | 1.034 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.4430 | 0.0023 | 0.0871 | 0.0187 | 1.000 | 0.800 | 0.000 | 1.000 | 0.483 | 0.026 | 0.004 | 5.98 | 5 | 8 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4491 | 0.0066 | 0.0809 | 0.0093 | 0.999 | 0.802 | 0.000 | 1.000 | 0.496 | 0.039 | 0.003 | 6.00 | 5 | 8 | 10 | 1.038 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4385 | 0.0029 | 0.0740 | 0.0098 | 0.999 | 0.793 | 0.000 | 1.000 | 0.449 | 0.022 | 0.003 | 5.81 | 4 | 7 | 9 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.4325 | 0.0018 | 0.0711 | 0.0111 | 1.000 | 0.790 | 0.000 | 1.000 | 0.419 | 0.016 | 0.002 | 5.71 | 4 | 7 | 9 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4246 | 0.0044 | 0.0564 | 0.0025 | 0.999 | 0.785 | 0.000 | 1.000 | 0.365 | 0.019 | 0.001 | 5.50 | 4 | 7 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4160 | 0.0018 | 0.0499 | 0.0034 | 0.999 | 0.783 | 0.000 | 1.000 | 0.315 | 0.009 | 0.001 | 5.34 | 4 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4115 | 0.0011 | 0.0459 | 0.0033 | 1.000 | 0.779 | 0.000 | 1.000 | 0.288 | 0.009 | 0.001 | 5.26 | 4 | 7 | 9 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4598 | 0.0080 | 0.0942 | 0.0137 | 0.998 | 0.797 | 0.000 | 1.000 | 0.561 | 0.054 | 0.007 | 6.25 | 5 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4485 | 0.0034 | 0.0871 | 0.0140 | 0.999 | 0.791 | 0.000 | 1.000 | 0.512 | 0.031 | 0.007 | 6.04 | 5 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4422 | 0.0022 | 0.0853 | 0.0167 | 0.999 | 0.786 | 0.000 | 1.000 | 0.483 | 0.026 | 0.004 | 5.95 | 5 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4479 | 0.0065 | 0.0792 | 0.0074 | 0.998 | 0.787 | 0.000 | 1.000 | 0.496 | 0.039 | 0.003 | 5.97 | 5 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4378 | 0.0028 | 0.0728 | 0.0084 | 0.999 | 0.782 | 0.000 | 1.000 | 0.449 | 0.021 | 0.003 | 5.79 | 4 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4320 | 0.0017 | 0.0698 | 0.0096 | 0.999 | 0.780 | 0.000 | 1.000 | 0.419 | 0.016 | 0.002 | 5.69 | 4 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4237 | 0.0043 | 0.0559 | 0.0018 | 0.998 | 0.776 | 0.000 | 1.000 | 0.365 | 0.019 | 0.001 | 5.48 | 4 | 7 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4157 | 0.0018 | 0.0496 | 0.0030 | 0.999 | 0.779 | 0.000 | 1.000 | 0.315 | 0.009 | 0.001 | 5.33 | 4 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4113 | 0.0011 | 0.0453 | 0.0027 | 1.000 | 0.774 | 0.000 | 1.000 | 0.288 | 0.009 | 0.001 | 5.25 | 4 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.5566 | 0.0843 | 0.4376 | 0.4189 | 1.007 | 0.915 | 0.000 | 1.000 | 0.137 | 0.095 | 0.108 | 14.43 | 6 | 25 | 52 | - | - | - | - |
| | 200 | 0.5309 | 0.0519 | 0.4991 | 0.4884 | 1.012 | 0.959 | 0.000 | 1.000 | 0.087 | 0.054 | 0.063 | 16.33 | 7 | 34 | 79 | - | - | - | - |
| | 300 | 0.5175 | 0.0379 | 0.5299 | 0.5222 | 1.015 | 0.975 | 0.000 | 1.000 | 0.074 | 0.045 | 0.040 | 17.27 | 7 | 38 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4367 | 0.0289 | 0.2304 | 0.2210 | 1.008 | 1.073 | 0.000 | 1.000 | 0.048 | 0.034 | 0.034 | 7.90 | 3 | 14 | 31 | - | - | - | - |
| | 200 | 0.4293 | 0.0187 | 0.2817 | 0.2761 | 1.012 | 1.138 | 0.000 | 1.000 | 0.028 | 0.021 | 0.021 | 8.75 | 3 | 17 | 34 | - | - | - | - |
| | 300 | 0.4260 | 0.0139 | 0.3123 | 0.3082 | 1.013 | 1.162 | 0.000 | 1.000 | 0.026 | 0.015 | 0.016 | 9.17 | 3 | 18 | 37 | - | - | - | - |

Notes: See notes to Table 190.

## Table 490: MC findings for DGPV

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2864 | 0.0027 | 0.0446 | 0.0335 | 0.976 | 0.617 | 0.000 | 0.960 | 0.053 | 0.007 | 0.007 | 3.69 | 2 | 5 | 8 | 1.217 | 0.21 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2722 | 0.0016 | 0.0547 | 0.0471 | 0.984 | 0.655 | 0.000 | 0.930 | 0.036 | 0.004 | 0.002 | 3.57 | 2 | 5 | 8 | 1.269 | 0.26 | 0.01 | 0.00 |
| | 300 | 0.2649 | 0.0012 | 0.0659 | 0.0591 | 0.992 | 0.685 | 0.000 | 0.910 | 0.032 | 0.005 | 0.002 | 3.54 | 2 | 5 | 10 | 1.294 | 0.28 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.2737 | 0.0018 | 0.0307 | 0.0222 | 0.977 | 0.606 | 0.000 | 0.943 | 0.040 | 0.005 | 0.005 | 3.45 | 2 | 5 | 7 | 1.241 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2611 | 0.0010 | 0.0370 | 0.0315 | 0.986 | 0.643 | 0.000 | 0.905 | 0.025 | 0.003 | 0.002 | 3.33 | 2 | 5 | 7 | 1.293 | 0.29 | 0.01 | 0.00 |
| | 300 | 0.2528 | 0.0008 | 0.0425 | 0.0378 | 0.992 | 0.664 | 0.000 | 0.884 | 0.022 | 0.003 | 0.001 | 3.26 | 2 | 5 | 8 | 1.306 | 0.29 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.2484 | 0.0007 | 0.0128 | 0.0086 | 0.982 | 0.601 | 0.000 | 0.897 | 0.018 | 0.004 | 0.002 | 3.05 | 2 | 4 | 7 | 1.310 | 0.31 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2356 | 0.0004 | 0.0151 | 0.0129 | 0.994 | 0.642 | 0.000 | 0.837 | 0.010 | 0.001 | 0.001 | 2.90 | 2 | 4 | 6 | 1.328 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.2295 | 0.0003 | 0.0163 | 0.0137 | 0.998 | 0.651 | 0.000 | 0.822 | 0.011 | 0.002 | 0.001 | 2.83 | 1.5 | 4 | 8 | 1.349 | 0.34 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.2825 | 0.0024 | 0.0393 | 0.0281 | 0.980 | 0.614 | 0.000 | 0.920 | 0.053 | 0.007 | 0.007 | 3.61 | 2 | 5 | 7 | 1.143 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2667 | 0.0013 | 0.0470 | 0.0393 | 0.992 | 0.654 | 0.000 | 0.867 | 0.036 | 0.004 | 0.002 | 3.45 | 2 | 5 | 8 | 1.166 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.2588 | 0.0011 | 0.0575 | 0.0506 | 0.999 | 0.682 | 0.000 | 0.842 | 0.032 | 0.005 | 0.002 | 3.41 | 2 | 5 | 9 | 1.176 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2691 | 0.0016 | 0.0270 | 0.0184 | 0.984 | 0.613 | 0.000 | 0.892 | 0.040 | 0.005 | 0.005 | 3.38 | 2 | 5 | 7 | 1.169 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2556 | 0.0008 | 0.0307 | 0.0252 | 0.994 | 0.647 | 0.000 | 0.841 | 0.025 | 0.003 | 0.002 | 3.23 | 2 | 5 | 7 | 1.198 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.2467 | 0.0006 | 0.0354 | 0.0307 | 1.001 | 0.668 | 0.000 | 0.814 | 0.022 | 0.003 | 0.001 | 3.14 | 2 | 5 | 8 | 1.198 | 0.20 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2427 | 0.0006 | 0.0115 | 0.0074 | 0.993 | 0.622 | 0.000 | 0.833 | 0.018 | 0.004 | 0.002 | 2.97 | 2 | 4 | 7 | 1.235 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2288 | 0.0003 | 0.0128 | 0.0107 | 1.006 | 0.664 | 0.000 | 0.755 | 0.010 | 0.001 | 0.001 | 2.81 | 1 | 4 | 6 | 1.237 | 0.23 | 0.00 | 0.00 |
| | 300 | 0.2205 | 0.0002 | 0.0126 | 0.0101 | 1.015 | 0.678 | 0.000 | 0.714 | 0.011 | 0.002 | 0.001 | 2.71 | 1 | 4 | 8 | 1.226 | 0.23 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3381 | 0.0638 | 0.4555 | 0.4369 | 1.017 | 0.720 | 0.000 | 0.998 | 0.082 | 0.079 | 0.076 | 9.92 | 3 | 21 | 47 | - | - | - | - |
| | 200 | 0.3179 | 0.0451 | 0.5465 | 0.5350 | 1.031 | 0.781 | 0.000 | 0.997 | 0.071 | 0.056 | 0.057 | 12.48 | 3 | 28 | 51 | - | - | - | - |
| | 300 | 0.3127 | 0.0389 | 0.6141 | 0.6056 | 1.041 | 0.813 | 0.000 | 0.997 | 0.063 | 0.048 | 0.056 | 15.11 | 4 | 35 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2278 | 0.0140 | 0.1399 | 0.1348 | 1.009 | 0.733 | 0.000 | 0.963 | 0.016 | 0.017 | 0.017 | 4.03 | 2 | 11 | 34 | - | - | - | - |
| | 200 | 0.2300 | 0.0143 | 0.2237 | 0.2199 | 1.026 | 0.849 | 0.000 | 0.962 | 0.018 | 0.015 | 0.013 | 5.50 | 2 | 19 | 39 | - | - | - | - |
| | 300 | 0.2352 | 0.0144 | 0.2962 | 0.2930 | 1.039 | 0.925 | 0.000 | 0.963 | 0.020 | 0.013 | 0.019 | 7.03 | 2 | 24 | 51 | - | - | - | - |

Notes: See notes to Table 190.

## Table 491: MC findings for DGPV

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3819 | 0.0051 | 0.0679 | 0.0198 | 0.994 | 0.686 | 0.000 | 1.000 | 0.290 | 0.030 | 0.009 | 5.05 | 4 | 7 | 10 | 1.029 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3696 | 0.0021 | 0.0601 | 0.0217 | 0.993 | 0.679 | 0.000 | 1.000 | 0.232 | 0.018 | 0.005 | 4.83 | 4 | 7 | 10 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3655 | 0.0013 | 0.0593 | 0.0254 | 0.993 | 0.697 | 0.000 | 1.000 | 0.209 | 0.009 | 0.003 | 4.78 | 4 | 6 | 9 | 1.026 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3701 | 0.0037 | 0.0511 | 0.0125 | 0.993 | 0.666 | 0.000 | 1.000 | 0.229 | 0.021 | 0.007 | 4.78 | 4 | 6 | 9 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3596 | 0.0015 | 0.0439 | 0.0128 | 0.992 | 0.657 | 0.000 | 1.000 | 0.185 | 0.012 | 0.003 | 4.60 | 3 | 6 | 10 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3558 | 0.0009 | 0.0432 | 0.0149 | 0.992 | 0.671 | 0.000 | 1.000 | 0.172 | 0.007 | 0.002 | 4.55 | 3 | 6 | 9 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3479 | 0.0020 | 0.0288 | 0.0033 | 0.992 | 0.638 | 0.000 | 1.000 | 0.148 | 0.009 | 0.004 | 4.36 | 3 | 6 | 8 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3412 | 0.0007 | 0.0232 | 0.0038 | 0.992 | 0.630 | 0.000 | 1.000 | 0.111 | 0.005 | 0.002 | 4.24 | 3 | 5 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3360 | 0.0005 | 0.0220 | 0.0032 | 0.991 | 0.640 | 0.000 | 1.000 | 0.110 | 0.005 | 0.000 | 4.17 | 3 | 5 | 7 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3814 | 0.0048 | 0.0651 | 0.0169 | 0.993 | 0.673 | 0.000 | 1.000 | 0.290 | 0.029 | 0.009 | 5.02 | 4 | 7 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3694 | 0.0020 | 0.0578 | 0.0193 | 0.993 | 0.667 | 0.000 | 1.000 | 0.232 | 0.017 | 0.005 | 4.82 | 4 | 7 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3652 | 0.0013 | 0.0568 | 0.0228 | 0.993 | 0.682 | 0.000 | 1.000 | 0.209 | 0.009 | 0.003 | 4.76 | 4 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3697 | 0.0036 | 0.0495 | 0.0108 | 0.993 | 0.656 | 0.000 | 1.000 | 0.229 | 0.021 | 0.007 | 4.77 | 4 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3595 | 0.0014 | 0.0423 | 0.0112 | 0.992 | 0.648 | 0.000 | 1.000 | 0.185 | 0.012 | 0.003 | 4.59 | 3 | 6 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3556 | 0.0009 | 0.0414 | 0.0131 | 0.992 | 0.660 | 0.000 | 1.000 | 0.172 | 0.007 | 0.002 | 4.53 | 3 | 6 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3477 | 0.0019 | 0.0285 | 0.0029 | 0.992 | 0.634 | 0.000 | 1.000 | 0.148 | 0.008 | 0.004 | 4.35 | 3 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3412 | 0.0007 | 0.0227 | 0.0034 | 0.992 | 0.628 | 0.000 | 1.000 | 0.111 | 0.005 | 0.002 | 4.23 | 3 | 5 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3360 | 0.0004 | 0.0215 | 0.0027 | 0.991 | 0.636 | 0.000 | 1.000 | 0.110 | 0.005 | 0.000 | 4.16 | 3 | 5 | 7 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4271 | 0.0719 | 0.4531 | 0.4328 | 1.010 | 0.798 | 0.000 | 1.000 | 0.104 | 0.072 | 0.091 | 11.74 | 5 | 22 | 37 | - | - | - | - |
| | 200 | 0.3979 | 0.0446 | 0.5237 | 0.5112 | 1.015 | 0.839 | 0.000 | 1.000 | 0.078 | 0.054 | 0.057 | 13.34 | 5 | 27 | 51 | - | - | - | - |
| | 300 | 0.3905 | 0.0355 | 0.5732 | 0.5648 | 1.016 | 0.861 | 0.000 | 1.000 | 0.066 | 0.038 | 0.049 | 15.04 | 5 | 30 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2882 | 0.0193 | 0.1353 | 0.1298 | 1.012 | 0.956 | 0.000 | 1.000 | 0.028 | 0.025 | 0.022 | 5.24 | 2 | 15 | 31 | - | - | - | - |
| | 200 | 0.2926 | 0.0157 | 0.2000 | 0.1957 | 1.019 | 1.061 | 0.000 | 1.000 | 0.022 | 0.019 | 0.020 | 6.53 | 2 | 19 | 38 | - | - | - | - |
| | 300 | 0.2960 | 0.0136 | 0.2523 | 0.2489 | 1.023 | 1.139 | 0.000 | 1.000 | 0.021 | 0.012 | 0.018 | 7.53 | 2 | 21 | 42 | - | - | - | - |

Notes: See notes to Table 190.

## Table 492: MC findings for DGPV

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4275 | 0.0084 | 0.1040 | 0.0151 | 0.997 | 0.727 | 0.000 | 1.000 | 0.588 | 0.052 | 0.011 | 5.90 | 4 | 8 | 11 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4135 | 0.0035 | 0.0936 | 0.0178 | 0.997 | 0.736 | 0.000 | 1.000 | 0.498 | 0.037 | 0.005 | 5.64 | 4 | 7 | 10 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.4085 | 0.0022 | 0.0885 | 0.0179 | 0.997 | 0.726 | 0.000 | 1.000 | 0.464 | 0.032 | 0.006 | 5.54 | 4 | 7 | 9 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4145 | 0.0068 | 0.0875 | 0.0081 | 0.996 | 0.706 | 0.000 | 1.000 | 0.519 | 0.035 | 0.006 | 5.60 | 4 | 7 | 11 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4024 | 0.0028 | 0.0771 | 0.0101 | 0.997 | 0.715 | 0.000 | 1.000 | 0.435 | 0.025 | 0.004 | 5.36 | 4 | 7 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3983 | 0.0017 | 0.0708 | 0.0093 | 0.997 | 0.703 | 0.000 | 1.000 | 0.398 | 0.023 | 0.003 | 5.27 | 4 | 7 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3913 | 0.0044 | 0.0598 | 0.0022 | 0.996 | 0.683 | 0.000 | 1.000 | 0.372 | 0.013 | 0.002 | 5.10 | 4 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3828 | 0.0018 | 0.0511 | 0.0030 | 0.996 | 0.691 | 0.000 | 1.000 | 0.308 | 0.009 | 0.002 | 4.93 | 4 | 6 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3790 | 0.0010 | 0.0462 | 0.0027 | 0.996 | 0.677 | 0.000 | 1.000 | 0.276 | 0.011 | 0.002 | 4.85 | 4 | 6 | 8 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.4268 | 0.0082 | 0.1024 | 0.0133 | 0.997 | 0.714 | 0.000 | 1.000 | 0.588 | 0.052 | 0.011 | 5.88 | 4 | 8 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4133 | 0.0035 | 0.0923 | 0.0165 | 0.997 | 0.728 | 0.000 | 1.000 | 0.498 | 0.037 | 0.005 | 5.62 | 4 | 7 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.4079 | 0.0021 | 0.0867 | 0.0158 | 0.997 | 0.711 | 0.000 | 1.000 | 0.464 | 0.032 | 0.006 | 5.51 | 4 | 7 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4140 | 0.0067 | 0.0865 | 0.0070 | 0.996 | 0.697 | 0.000 | 1.000 | 0.519 | 0.035 | 0.006 | 5.58 | 4 | 7 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4023 | 0.0027 | 0.0761 | 0.0091 | 0.997 | 0.709 | 0.000 | 1.000 | 0.435 | 0.024 | 0.004 | 5.35 | 4 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3979 | 0.0016 | 0.0697 | 0.0081 | 0.997 | 0.693 | 0.000 | 1.000 | 0.398 | 0.023 | 0.003 | 5.26 | 4 | 7 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3913 | 0.0043 | 0.0595 | 0.0019 | 0.996 | 0.680 | 0.000 | 1.000 | 0.372 | 0.013 | 0.002 | 5.10 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3826 | 0.0017 | 0.0508 | 0.0027 | 0.996 | 0.687 | 0.000 | 1.000 | 0.308 | 0.009 | 0.002 | 4.93 | 4 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3790 | 0.0010 | 0.0458 | 0.0022 | 0.996 | 0.672 | 0.000 | 1.000 | 0.276 | 0.011 | 0.002 | 4.85 | 4 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4756 | 0.0768 | 0.4533 | 0.4322 | 1.006 | 0.829 | 0.000 | 1.000 | 0.112 | 0.080 | 0.091 | 12.77 | 6 | 23 | 45 | - | - | - | - |
| | 200 | 0.4507 | 0.0473 | 0.5132 | 0.5012 | 1.010 | 0.880 | 0.000 | 1.000 | 0.088 | 0.050 | 0.054 | 14.49 | 6 | 29 | 46 | - | - | - | - |
| | 300 | 0.4361 | 0.0351 | 0.5457 | 0.5374 | 1.011 | 0.892 | 0.000 | 1.000 | 0.078 | 0.044 | 0.040 | 15.49 | 6 | 31 | 83 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3399 | 0.0259 | 0.1795 | 0.1717 | 1.011 | 1.047 | 0.000 | 1.000 | 0.032 | 0.027 | 0.032 | 6.46 | 2 | 16 | 34 | - | - | - | - |
| | 200 | 0.3391 | 0.0190 | 0.2465 | 0.2413 | 1.014 | 1.157 | 0.000 | 1.000 | 0.033 | 0.022 | 0.023 | 7.73 | 2 | 20 | 31 | - | - | - | - |
| | 300 | 0.3409 | 0.0153 | 0.2860 | 0.2823 | 1.017 | 1.214 | 0.000 | 1.000 | 0.031 | 0.019 | 0.019 | 8.57 | 2 | 21 | 59 | - | - | - | - |

Notes: See notes to Table 190.

## Table 493: MC findings for DGPV

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2293 | 0.0027 | 0.0512 | 0.0390 | 0.986 | 0.614 | 0.000 | 0.859 | 0.050 | 0.009 | 0.005 | 3.00 | 1 | 5 | 8 | 1.119 | 0.11 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2134 | 0.0016 | 0.0636 | 0.0531 | 1.001 | 0.671 | 0.000 | 0.812 | 0.046 | 0.006 | 0.001 | 2.87 | 1 | 5 | 8 | 1.139 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.2057 | 0.0011 | 0.0675 | 0.0608 | 1.006 | 0.683 | 0.000 | 0.782 | 0.028 | 0.004 | 0.001 | 2.78 | 1 | 5 | 8 | 1.155 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2121 | 0.0017 | 0.0338 | 0.0251 | 0.991 | 0.611 | 0.000 | 0.813 | 0.036 | 0.006 | 0.003 | 2.70 | 1 | 4 | 8 | 1.129 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1978 | 0.0010 | 0.0434 | 0.0351 | 1.007 | 0.668 | 0.000 | 0.764 | 0.035 | 0.005 | 0.001 | 2.57 | 1 | 4 | 7 | 1.140 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.1903 | 0.0007 | 0.0450 | 0.0401 | 1.011 | 0.673 | 0.000 | 0.732 | 0.020 | 0.003 | 0.001 | 2.48 | 1 | 4 | 7 | 1.155 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1804 | 0.0007 | 0.0141 | 0.0097 | 1.005 | 0.641 | 0.000 | 0.718 | 0.017 | 0.003 | 0.001 | 2.23 | 1 | 4 | 6 | 1.164 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1671 | 0.0004 | 0.0188 | 0.0139 | 1.022 | 0.694 | 0.000 | 0.646 | 0.020 | 0.002 | 0.000 | 2.08 | 0 | 4 | 7 | 1.141 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.1578 | 0.0003 | 0.0188 | 0.0153 | 1.030 | 0.707 | 0.000 | 0.607 | 0.013 | 0.002 | 0.001 | 1.97 | 0 | 3 | 6 | 1.153 | 0.15 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2246 | 0.0025 | 0.0477 | 0.0355 | 0.991 | 0.613 | 0.000 | 0.810 | 0.049 | 0.009 | 0.005 | 2.92 | 1 | 5 | 8 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2080 | 0.0014 | 0.0577 | 0.0471 | 1.006 | 0.666 | 0.000 | 0.757 | 0.046 | 0.006 | 0.001 | 2.77 | 1 | 5 | 8 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.1986 | 0.0010 | 0.0618 | 0.0550 | 1.014 | 0.684 | 0.000 | 0.712 | 0.028 | 0.004 | 0.001 | 2.66 | 1 | 5 | 7 | 1.041 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2069 | 0.0016 | 0.0311 | 0.0225 | 0.996 | 0.616 | 0.000 | 0.762 | 0.036 | 0.006 | 0.003 | 2.63 | 1 | 4 | 8 | 1.055 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1917 | 0.0009 | 0.0395 | 0.0311 | 1.014 | 0.672 | 0.000 | 0.700 | 0.035 | 0.005 | 0.001 | 2.48 | 1 | 4 | 7 | 1.048 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.1830 | 0.0006 | 0.0414 | 0.0365 | 1.021 | 0.683 | 0.000 | 0.658 | 0.020 | 0.003 | 0.001 | 2.37 | 1 | 4 | 6 | 1.048 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1731 | 0.0006 | 0.0132 | 0.0089 | 1.016 | 0.661 | 0.000 | 0.647 | 0.017 | 0.003 | 0.001 | 2.13 | 1 | 4 | 6 | 1.073 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1610 | 0.0004 | 0.0178 | 0.0128 | 1.031 | 0.706 | 0.000 | 0.582 | 0.020 | 0.002 | 0.000 | 2.00 | 0 | 4 | 6 | 1.062 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.1508 | 0.0002 | 0.0172 | 0.0138 | 1.040 | 0.726 | 0.000 | 0.538 | 0.012 | 0.002 | 0.001 | 1.88 | 0 | 3 | 6 | 1.063 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2968 | 0.0636 | 0.4835 | 0.4649 | 1.011 | 0.664 | 0.000 | 0.993 | 0.089 | 0.070 | 0.078 | 9.41 | 3 | 19 | 40 | - | - | - | - |
| | 200 | 0.2781 | 0.0474 | 0.5896 | 0.5778 | 1.025 | 0.726 | 0.000 | 0.987 | 0.074 | 0.054 | 0.065 | 12.43 | 3 | 28 | 61 | - | - | - | - |
| | 300 | 0.2705 | 0.0388 | 0.6422 | 0.6340 | 1.033 | 0.756 | 0.000 | 0.987 | 0.063 | 0.040 | 0.056 | 14.58 | 4 | 33 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2107 | 0.0167 | 0.2002 | 0.1925 | 0.997 | 0.663 | 0.000 | 0.952 | 0.016 | 0.020 | 0.019 | 4.07 | 2 | 9 | 28 | - | - | - | - |
| | 200 | 0.2125 | 0.0163 | 0.3071 | 0.3013 | 1.018 | 0.805 | 0.000 | 0.947 | 0.020 | 0.020 | 0.023 | 5.67 | 2 | 15 | 47 | - | - | - | - |
| | 300 | 0.2144 | 0.0162 | 0.3811 | 0.3764 | 1.032 | 0.895 | 0.000 | 0.951 | 0.021 | 0.018 | 0.024 | 7.29 | 2 | 22 | 62 | - | - | - | - |

Notes: See notes to Table 190.

## Table 494: MC findings for DGPV

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3346 | 0.0049 | 0.0715 | 0.0206 | 0.991 | 0.622 | 0.000 | 1.000 | 0.286 | 0.021 | 0.010 | 4.46 | 3 | 6 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3215 | 0.0020 | 0.0642 | 0.0221 | 0.992 | 0.629 | 0.000 | 1.000 | 0.233 | 0.019 | 0.004 | 4.25 | 3 | 6 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3174 | 0.0013 | 0.0649 | 0.0275 | 0.991 | 0.641 | 0.000 | 1.000 | 0.210 | 0.010 | 0.002 | 4.20 | 3 | 6 | 10 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3226 | 0.0035 | 0.0539 | 0.0115 | 0.990 | 0.596 | 0.000 | 1.000 | 0.234 | 0.015 | 0.006 | 4.20 | 3 | 6 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3113 | 0.0014 | 0.0449 | 0.0121 | 0.991 | 0.600 | 0.000 | 1.000 | 0.178 | 0.012 | 0.003 | 4.00 | 3 | 6 | 8 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3074 | 0.0009 | 0.0467 | 0.0163 | 0.990 | 0.612 | 0.000 | 1.000 | 0.168 | 0.007 | 0.001 | 3.96 | 3 | 6 | 8 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2999 | 0.0018 | 0.0289 | 0.0034 | 0.989 | 0.564 | 0.000 | 1.000 | 0.136 | 0.006 | 0.001 | 3.76 | 3 | 5 | 7 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2910 | 0.0007 | 0.0247 | 0.0036 | 0.990 | 0.574 | 0.000 | 1.000 | 0.111 | 0.006 | 0.002 | 3.63 | 3 | 5 | 7 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2883 | 0.0004 | 0.0230 | 0.0039 | 0.989 | 0.570 | 0.000 | 1.000 | 0.103 | 0.002 | 0.000 | 3.59 | 3 | 5 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3343 | 0.0047 | 0.0691 | 0.0181 | 0.991 | 0.610 | 0.000 | 1.000 | 0.286 | 0.021 | 0.010 | 4.44 | 3 | 6 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3213 | 0.0020 | 0.0627 | 0.0205 | 0.991 | 0.619 | 0.000 | 1.000 | 0.233 | 0.019 | 0.004 | 4.24 | 3 | 6 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3174 | 0.0013 | 0.0625 | 0.0250 | 0.991 | 0.628 | 0.000 | 1.000 | 0.210 | 0.010 | 0.002 | 4.18 | 3 | 6 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3225 | 0.0035 | 0.0528 | 0.0103 | 0.990 | 0.590 | 0.000 | 1.000 | 0.234 | 0.015 | 0.006 | 4.19 | 3 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3111 | 0.0013 | 0.0440 | 0.0111 | 0.990 | 0.594 | 0.000 | 1.000 | 0.178 | 0.012 | 0.003 | 3.99 | 3 | 6 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3073 | 0.0009 | 0.0451 | 0.0147 | 0.990 | 0.604 | 0.000 | 1.000 | 0.168 | 0.007 | 0.001 | 3.95 | 3 | 5.5 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2999 | 0.0017 | 0.0287 | 0.0031 | 0.989 | 0.562 | 0.000 | 1.000 | 0.136 | 0.006 | 0.001 | 3.76 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2910 | 0.0007 | 0.0244 | 0.0033 | 0.990 | 0.571 | 0.000 | 1.000 | 0.111 | 0.006 | 0.002 | 3.63 | 3 | 5 | 7 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2883 | 0.0004 | 0.0228 | 0.0037 | 0.989 | 0.568 | 0.000 | 1.000 | 0.103 | 0.002 | 0.000 | 3.58 | 3 | 5 | 8 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3676 | 0.0679 | 0.4677 | 0.4485 | 1.006 | 0.708 | 0.000 | 1.000 | 0.096 | 0.074 | 0.097 | 10.65 | 4 | 21 | 37 | - | - | - | - |
| | 200 | 0.3391 | 0.0420 | 0.5368 | 0.5256 | 1.010 | 0.764 | 0.000 | 1.000 | 0.081 | 0.054 | 0.053 | 12.13 | 4 | 25 | 43 | - | - | - | - |
| | 300 | 0.3315 | 0.0332 | 0.5786 | 0.5693 | 1.011 | 0.787 | 0.000 | 1.000 | 0.065 | 0.029 | 0.038 | 13.67 | 4 | 29 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2439 | 0.0142 | 0.1300 | 0.1251 | 1.002 | 0.769 | 0.000 | 1.000 | 0.013 | 0.013 | 0.022 | 4.23 | 2 | 12 | 30 | - | - | - | - |
| | 200 | 0.2445 | 0.0116 | 0.1886 | 0.1852 | 1.007 | 0.878 | 0.000 | 1.000 | 0.017 | 0.014 | 0.018 | 5.16 | 2 | 17 | 36 | - | - | - | - |
| | 300 | 0.2451 | 0.0114 | 0.2487 | 0.2452 | 1.011 | 0.995 | 0.000 | 1.000 | 0.012 | 0.010 | 0.013 | 6.28 | 2 | 21 | 46 | - | - | - | - |

Notes: See notes to Table 190.

## Table 495: MC findings for DGPV

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.4$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3785 | 0.0083 | 0.1132 | 0.0169 | 0.996 | 0.657 | 0.000 | 1.000 | 0.588 | 0.049 | 0.010 | 5.31 | 4 | 7 | 9 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3690 | 0.0035 | 0.1000 | 0.0171 | 0.996 | 0.663 | 0.000 | 1.000 | 0.507 | 0.034 | 0.005 | 5.10 | 4 | 7 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3632 | 0.0022 | 0.0987 | 0.0219 | 0.996 | 0.672 | 0.000 | 1.000 | 0.468 | 0.027 | 0.007 | 5.01 | 4 | 7 | 9 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3672 | 0.0068 | 0.0962 | 0.0091 | 0.995 | 0.631 | 0.000 | 1.000 | 0.527 | 0.033 | 0.007 | 5.03 | 4 | 7 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3581 | 0.0028 | 0.0824 | 0.0092 | 0.995 | 0.633 | 0.000 | 1.000 | 0.441 | 0.022 | 0.004 | 4.83 | 4 | 6 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3542 | 0.0018 | 0.0807 | 0.0124 | 0.995 | 0.645 | 0.000 | 1.000 | 0.408 | 0.019 | 0.006 | 4.77 | 4 | 6 | 8 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3457 | 0.0046 | 0.0682 | 0.0030 | 0.994 | 0.602 | 0.000 | 1.000 | 0.389 | 0.010 | 0.002 | 4.57 | 3 | 6 | 8 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3395 | 0.0017 | 0.0549 | 0.0023 | 0.994 | 0.603 | 0.000 | 1.000 | 0.309 | 0.011 | 0.001 | 4.41 | 3 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3346 | 0.0011 | 0.0534 | 0.0032 | 0.995 | 0.609 | 0.000 | 1.000 | 0.292 | 0.009 | 0.002 | 4.34 | 3 | 6 | 8 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3783 | 0.0082 | 0.1121 | 0.0156 | 0.995 | 0.649 | 0.000 | 1.000 | 0.588 | 0.049 | 0.010 | 5.30 | 4 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3688 | 0.0034 | 0.0995 | 0.0165 | 0.996 | 0.657 | 0.000 | 1.000 | 0.507 | 0.034 | 0.005 | 5.09 | 4 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3631 | 0.0022 | 0.0978 | 0.0210 | 0.996 | 0.667 | 0.000 | 1.000 | 0.468 | 0.027 | 0.007 | 5.01 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3671 | 0.0068 | 0.0955 | 0.0082 | 0.995 | 0.626 | 0.000 | 1.000 | 0.527 | 0.033 | 0.007 | 5.03 | 4 | 7 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3580 | 0.0027 | 0.0820 | 0.0087 | 0.995 | 0.630 | 0.000 | 1.000 | 0.441 | 0.022 | 0.004 | 4.82 | 4 | 6 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3541 | 0.0017 | 0.0800 | 0.0116 | 0.995 | 0.640 | 0.000 | 1.000 | 0.408 | 0.019 | 0.006 | 4.76 | 4 | 6 | 8 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3456 | 0.0045 | 0.0678 | 0.0025 | 0.994 | 0.600 | 0.000 | 1.000 | 0.389 | 0.010 | 0.002 | 4.56 | 3 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3395 | 0.0017 | 0.0544 | 0.0017 | 0.994 | 0.600 | 0.000 | 1.000 | 0.309 | 0.011 | 0.001 | 4.41 | 3 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.3345 | 0.0011 | 0.0530 | 0.0028 | 0.995 | 0.606 | 0.000 | 1.000 | 0.292 | 0.009 | 0.002 | 4.34 | 3 | 6 | 8 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4057 | 0.0709 | 0.4639 | 0.4430 | 1.005 | 0.750 | 0.000 | 1.000 | 0.098 | 0.081 | 0.080 | 11.39 | 5 | 22 | 36 | - | - | - | - |
| | 200 | 0.3800 | 0.0455 | 0.5370 | 0.5238 | 1.007 | 0.791 | 0.000 | 1.000 | 0.072 | 0.039 | 0.056 | 13.30 | 5 | 26 | 52 | - | - | - | - |
| | 300 | 0.3697 | 0.0339 | 0.5674 | 0.5570 | 1.008 | 0.812 | 0.000 | 1.000 | 0.071 | 0.044 | 0.041 | 14.35 | 5 | 29 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2669 | 0.0152 | 0.1149 | 0.1101 | 1.005 | 0.876 | 0.000 | 1.000 | 0.020 | 0.019 | 0.017 | 4.60 | 2 | 15 | 29 | - | - | - | - |
| | 200 | 0.2760 | 0.0149 | 0.1927 | 0.1882 | 1.009 | 1.023 | 0.000 | 1.000 | 0.018 | 0.015 | 0.019 | 6.16 | 2 | 19 | 39 | - | - | - | - |
| | 300 | 0.2719 | 0.0122 | 0.2246 | 0.2215 | 1.011 | 1.093 | 0.000 | 1.000 | 0.018 | 0.012 | 0.015 | 6.82 | 2 | 22.5 | 50 | - | - | - | - |

Notes: See notes to Table 190.

### 4.3 Dynamic specifications with $\lambda_y = 0.8$

We ordered and numbered individual tables as follows:

**Summary table for experiments with Non-Gaussian innovations (NG), and dynamic specifications with $\lambda_y = 0.8$: List of experiments.**

| Table No. | DGP | $\omega$ | $R^2$ | T | Table No. | DGP | $R^2$ | T | Table No. | DGP | $R^2$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 496 | I(a) | - | 70% | 100 | 541 | II(a) | 70% | 100 | 586 | V | 70% | 100 |
| 497 | I(a) | - | 70% | 300 | 542 | II(a) | 70% | 300 | 587 | V | 70% | 300 |
| 498 | I(a) | - | 70% | 500 | 543 | II(a) | 70% | 500 | 588 | V | 70% | 500 |
| 499 | I(a) | - | 50% | 100 | 544 | II(a) | 50% | 100 | 589 | V | 50% | 100 |
| 500 | I(a) | - | 50% | 300 | 545 | II(a) | 50% | 300 | 590 | V | 50% | 300 |
| 501 | I(a) | - | 50% | 500 | 546 | II(a) | 50% | 500 | 591 | V | 50% | 500 |
| 502 | I(a) | - | 30% | 100 | 547 | II(a) | 30% | 100 | 592 | V | 30% | 100 |
| 503 | I(a) | - | 30% | 300 | 548 | II(a) | 30% | 300 | 593 | V | 30% | 300 |
| 504 | I(a) | - | 30% | 500 | 549 | II(a) | 30% | 500 | 594 | V | 30% | 500 |
| 505 | I(b) | - | 70% | 100 | 550 | II(b) | 70% | 100 | | | | |
| 506 | I(b) | - | 70% | 300 | 551 | II(b) | 70% | 300 | | | | |
| 507 | I(b) | - | 70% | 500 | 552 | II(b) | 70% | 500 | | | | |
| 508 | I(b) | - | 50% | 100 | 553 | II(b) | 50% | 100 | | | | |
| 509 | I(b) | - | 50% | 300 | 554 | II(b) | 50% | 300 | | | | |
| 510 | I(b) | - | 50% | 500 | 555 | II(b) | 50% | 500 | | | | |
| 511 | I(b) | - | 30% | 100 | 556 | II(b) | 30% | 100 | | | | |
| 512 | I(b) | - | 30% | 300 | 557 | II(b) | 30% | 300 | | | | |
| 513 | I(b) | - | 30% | 500 | 558 | II(b) | 30% | 500 | | | | |
| 514 | I(c) | - | 70% | 100 | 559 | III | 70% | 100 | | | | |
| 515 | I(c) | - | 70% | 300 | 560 | III | 70% | 300 | | | | |
| 516 | I(c) | - | 70% | 500 | 561 | III | 70% | 500 | | | | |
| 517 | I(c) | - | 50% | 100 | 562 | III | 50% | 100 | | | | |
| 518 | I(c) | - | 50% | 300 | 563 | III | 50% | 300 | | | | |
| 519 | I(c) | - | 50% | 500 | 564 | III | 50% | 500 | | | | |
| 520 | I(c) | - | 30% | 100 | 565 | III | 30% | 100 | | | | |
| 521 | I(c) | - | 30% | 300 | 566 | III | 30% | 300 | | | | |
| 522 | I(c) | - | 30% | 500 | 567 | III | 30% | 500 | | | | |
| 523 | I(d) | low | 70% | 100 | 568 | IV(a) | 70% | 100 | | | | |
| 524 | I(d) | low | 70% | 300 | 569 | IV(a) | 70% | 300 | | | | |
| 525 | I(d) | low | 70% | 500 | 570 | IV(a) | 70% | 500 | | | | |
| 526 | I(d) | low | 50% | 100 | 571 | IV(a) | 50% | 100 | | | | |
| 527 | I(d) | low | 50% | 300 | 572 | IV(a) | 50% | 300 | | | | |
| 528 | I(d) | low | 50% | 500 | 573 | IV(a) | 50% | 500 | | | | |
| 529 | I(d) | low | 30% | 100 | 574 | IV(a) | 30% | 100 | | | | |
| 530 | I(d) | low | 30% | 300 | 575 | IV(a) | 30% | 300 | | | | |
| 531 | I(d) | low | 30% | 500 | 576 | IV(a) | 30% | 500 | | | | |
| 532 | I(d) | high | 70% | 100 | 577 | IV(b) | 70% | 100 | | | | |
| 533 | I(d) | high | 70% | 300 | 578 | IV(b) | 70% | 300 | | | | |
| 534 | I(d) | high | 70% | 500 | 579 | IV(b) | 70% | 500 | | | | |
| 535 | I(d) | high | 50% | 100 | 580 | IV(b) | 50% | 100 | | | | |
| 536 | I(d) | high | 50% | 300 | 581 | IV(b) | 50% | 300 | | | | |
| 537 | I(d) | high | 50% | 500 | 582 | IV(b) | 50% | 500 | | | | |
| 538 | I(d) | high | 30% | 100 | 583 | IV(b) | 30% | 100 | | | | |
| 539 | I(d) | high | 30% | 300 | 584 | IV(b) | 30% | 300 | | | | |
| 540 | I(d) | high | 30% | 500 | 585 | IV(b) | 30% | 500 | | | | |

Notes: $\omega$ is the average pair-wise correlation of the signal variables. The low value is $\omega = 0.2$ and the high value is $\omega = 0.8$. See Section 5 of CKP for a full description of MC design.

#### 4.3.1 Findings for designs featuring no hidden signals and no pseudo-signals

## Table 496: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9411 | 0.0261 | 0.3031 | 0.0248 | 1.041 | 1.525 | 0.742 | 0.599 | 1.000 | 0.986 | 0.818 | 0.548 | 7.29 | 5 | 9 | 12 | 1.230 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9164 | 0.0127 | 0.3025 | 0.0254 | 1.053 | 1.692 | 0.656 | 0.530 | 1.000 | 0.979 | 0.798 | 0.518 | 7.11 | 5 | 9 | 11 | 1.259 | 0.25 | 0.01 | 0.00 |
| | 300 | 0.9083 | 0.0085 | 0.3049 | 0.0314 | 1.057 | 1.759 | 0.631 | 0.480 | 1.000 | 0.982 | 0.782 | 0.490 | 7.08 | 5 | 9 | 11 | 1.293 | 0.28 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9228 | 0.0244 | 0.2931 | 0.0155 | 1.045 | 1.613 | 0.673 | 0.591 | 1.000 | 0.981 | 0.791 | 0.510 | 7.03 | 5 | 8 | 10 | 1.256 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8979 | 0.0118 | 0.2901 | 0.0146 | 1.057 | 1.781 | 0.592 | 0.524 | 1.000 | 0.975 | 0.765 | 0.473 | 6.83 | 5 | 8 | 10 | 1.291 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.8901 | 0.0078 | 0.2916 | 0.0190 | 1.060 | 1.838 | 0.570 | 0.483 | 1.000 | 0.974 | 0.753 | 0.449 | 6.79 | 5 | 8 | 10 | 1.327 | 0.32 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8726 | 0.0217 | 0.2772 | 0.0046 | 1.061 | 1.883 | 0.507 | 0.488 | 1.000 | 0.967 | 0.716 | 0.430 | 6.51 | 4 | 8 | 9 | 1.337 | 0.33 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8538 | 0.0105 | 0.2743 | 0.0047 | 1.073 | 2.017 | 0.450 | 0.434 | 1.000 | 0.960 | 0.704 | 0.386 | 6.36 | 4 | 8 | 9 | 1.378 | 0.37 | 0.01 | 0.00 |
| | 300 | 0.8538 | 0.0069 | 0.2724 | 0.0067 | 1.072 | 2.023 | 0.460 | 0.435 | 1.000 | 0.956 | 0.686 | 0.376 | 6.34 | 4 | 8 | 10 | 1.413 | 0.41 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9229 | 0.0256 | 0.3031 | 0.0197 | 1.046 | 1.609 | 0.685 | 0.579 | 1.000 | 0.986 | 0.818 | 0.548 | 7.15 | 5 | 9 | 12 | 1.129 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8951 | 0.0124 | 0.3032 | 0.0200 | 1.060 | 1.793 | 0.595 | 0.503 | 1.000 | 0.979 | 0.798 | 0.518 | 6.95 | 5 | 9 | 10 | 1.150 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.8850 | 0.0083 | 0.3055 | 0.0253 | 1.063 | 1.863 | 0.563 | 0.455 | 1.000 | 0.982 | 0.782 | 0.490 | 6.90 | 5 | 9 | 10 | 1.171 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9015 | 0.0241 | 0.2945 | 0.0115 | 1.053 | 1.721 | 0.610 | 0.554 | 1.000 | 0.981 | 0.791 | 0.510 | 6.89 | 5 | 8 | 10 | 1.157 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8711 | 0.0116 | 0.2931 | 0.0108 | 1.068 | 1.924 | 0.520 | 0.478 | 1.000 | 0.975 | 0.765 | 0.473 | 6.66 | 5 | 8 | 10 | 1.189 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.8626 | 0.0077 | 0.2944 | 0.0149 | 1.071 | 1.979 | 0.501 | 0.439 | 1.000 | 0.974 | 0.752 | 0.449 | 6.61 | 4 | 8 | 10 | 1.216 | 0.21 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8456 | 0.0216 | 0.2819 | 0.0033 | 1.075 | 2.037 | 0.443 | 0.433 | 1.000 | 0.967 | 0.716 | 0.430 | 6.37 | 4 | 8 | 9 | 1.257 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8197 | 0.0104 | 0.2803 | 0.0032 | 1.089 | 2.200 | 0.373 | 0.365 | 1.000 | 0.960 | 0.704 | 0.386 | 6.17 | 4 | 8 | 9 | 1.283 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.8177 | 0.0069 | 0.2786 | 0.0050 | 1.088 | 2.218 | 0.379 | 0.367 | 1.000 | 0.956 | 0.686 | 0.376 | 6.15 | 4 | 8 | 9 | 1.316 | 0.31 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9970 | 0.0721 | 0.4665 | 0.4395 | 1.094 | 1.411 | 0.986 | 0.072 | 1.000 | 0.165 | 0.088 | 0.081 | 12.12 | 5 | 23 | 37 | - | - | - | - |
| | 200 | 0.9964 | 0.0495 | 0.5352 | 0.5143 | 1.114 | 1.502 | 0.982 | 0.056 | 1.000 | 0.169 | 0.088 | 0.069 | 14.82 | 6 | 29 | 59 | - | - | - | - |
| | 300 | 0.9967 | 0.0420 | 0.5876 | 0.5704 | 1.117 | 1.539 | 0.984 | 0.033 | 1.000 | 0.162 | 0.081 | 0.046 | 17.54 | 6 | 36.5 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9117 | 0.0283 | 0.2298 | 0.2193 | 1.122 | 1.992 | 0.721 | 0.185 | 1.000 | 0.045 | 0.029 | 0.028 | 7.36 | 3 | 15 | 25 | - | - | - | - |
| | 200 | 0.9207 | 0.0209 | 0.2970 | 0.2877 | 1.136 | 2.118 | 0.755 | 0.148 | 1.000 | 0.062 | 0.024 | 0.027 | 8.77 | 3 | 18.5 | 36 | - | - | - | - |
| | 300 | 0.9261 | 0.0184 | 0.3559 | 0.3473 | 1.144 | 2.170 | 0.772 | 0.099 | 1.000 | 0.061 | 0.031 | 0.020 | 10.13 | 3 | 22 | 42 | - | - | - | - |

Notes: See notes to Table 100.

## Table 497: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0316 | 0.3416 | 0.0144 | 1.006 | 1.087 | 1.000 | 0.872 | 1.000 | 1.000 | 1.000 | 0.984 | 8.13 | 8 | 9 | 11 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3413 | 0.0150 | 1.007 | 1.090 | 1.000 | 0.863 | 1.000 | 1.000 | 1.000 | 0.975 | 8.13 | 8 | 9 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3410 | 0.0149 | 1.007 | 1.094 | 1.000 | 0.864 | 1.000 | 1.000 | 1.000 | 0.972 | 8.12 | 8 | 9 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3363 | 0.0072 | 1.006 | 1.063 | 1.000 | 0.935 | 1.000 | 1.000 | 1.000 | 0.978 | 8.05 | 8 | 9 | 10 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3365 | 0.0088 | 1.006 | 1.072 | 1.000 | 0.917 | 1.000 | 1.000 | 1.000 | 0.968 | 8.06 | 8 | 9 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3363 | 0.0087 | 1.007 | 1.072 | 1.000 | 0.918 | 1.000 | 1.000 | 1.000 | 0.966 | 8.05 | 8 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3310 | 0.0011 | 1.005 | 1.037 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.964 | 7.98 | 8 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0150 | 0.3310 | 0.0024 | 1.006 | 1.051 | 0.999 | 0.976 | 1.000 | 1.000 | 1.000 | 0.953 | 7.98 | 8 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3301 | 0.0024 | 1.006 | 1.044 | 1.000 | 0.977 | 1.000 | 1.000 | 1.000 | 0.942 | 7.97 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3400 | 0.0121 | 1.006 | 1.058 | 1.000 | 0.893 | 1.000 | 1.000 | 1.000 | 0.984 | 8.11 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3397 | 0.0126 | 1.006 | 1.060 | 1.000 | 0.883 | 1.000 | 1.000 | 1.000 | 0.975 | 8.10 | 8 | 9 | 11 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3394 | 0.0125 | 1.006 | 1.062 | 1.000 | 0.886 | 1.000 | 1.000 | 1.000 | 0.972 | 8.10 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3354 | 0.0058 | 1.005 | 1.043 | 1.000 | 0.948 | 1.000 | 1.000 | 1.000 | 0.978 | 8.04 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3354 | 0.0071 | 1.006 | 1.049 | 1.000 | 0.932 | 1.000 | 1.000 | 1.000 | 0.968 | 8.04 | 8 | 9 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3353 | 0.0072 | 1.006 | 1.050 | 1.000 | 0.933 | 1.000 | 1.000 | 1.000 | 0.966 | 8.04 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3309 | 0.0009 | 1.005 | 1.033 | 1.000 | 0.992 | 1.000 | 1.000 | 1.000 | 0.964 | 7.97 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0149 | 0.3306 | 0.0019 | 1.006 | 1.044 | 0.999 | 0.981 | 1.000 | 1.000 | 1.000 | 0.953 | 7.97 | 8 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0099 | 0.3298 | 0.0020 | 1.006 | 1.041 | 1.000 | 0.980 | 1.000 | 1.000 | 1.000 | 0.942 | 7.96 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0671 | 0.4500 | 0.4189 | 1.024 | 1.339 | 1.000 | 0.075 | 1.000 | 0.214 | 0.103 | 0.090 | 11.64 | 5 | 22 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0435 | 0.5080 | 0.4837 | 1.029 | 1.396 | 1.000 | 0.049 | 1.000 | 0.186 | 0.096 | 0.069 | 13.66 | 6 | 25 | 51 | - | - | - | - |
| | 300 | 1.0000 | 0.0312 | 0.5155 | 0.4925 | 1.031 | 1.438 | 1.000 | 0.049 | 1.000 | 0.182 | 0.082 | 0.067 | 14.33 | 6 | 30 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9988 | 0.0147 | 0.1597 | 0.1501 | 1.007 | 1.285 | 0.997 | 0.399 | 1.000 | 0.042 | 0.020 | 0.015 | 6.45 | 5 | 10 | 18 | - | - | - | - |
| | 200 | 0.9997 | 0.0096 | 0.1966 | 0.1898 | 1.008 | 1.337 | 0.999 | 0.306 | 1.000 | 0.031 | 0.020 | 0.014 | 6.90 | 5 | 11 | 23 | - | - | - | - |
| | 300 | 0.9996 | 0.0068 | 0.2052 | 0.1984 | 1.010 | 1.365 | 0.998 | 0.309 | 1.000 | 0.038 | 0.016 | 0.016 | 7.04 | 5 | 12 | 23 | - | - | - | - |

Notes: See notes to Table 100.

## Table 498: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3412 | 0.0118 | 1.003 | 1.071 | 1.000 | 0.890 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3414 | 0.0124 | 1.003 | 1.069 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3432 | 0.0149 | 1.004 | 1.082 | 1.000 | 0.861 | 1.000 | 1.000 | 1.000 | 0.999 | 8.15 | 8 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3374 | 0.0062 | 1.003 | 1.055 | 1.000 | 0.943 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3371 | 0.0059 | 1.003 | 1.048 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3384 | 0.0078 | 1.004 | 1.063 | 1.000 | 0.925 | 1.000 | 1.000 | 1.000 | 0.999 | 8.08 | 8 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0012 | 1.003 | 1.034 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3339 | 0.0012 | 1.003 | 1.035 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0016 | 1.003 | 1.041 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3401 | 0.0102 | 1.003 | 1.052 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3407 | 0.0113 | 1.003 | 1.055 | 1.000 | 0.898 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3423 | 0.0135 | 1.004 | 1.062 | 1.000 | 0.871 | 1.000 | 1.000 | 1.000 | 0.999 | 8.14 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3367 | 0.0051 | 1.003 | 1.042 | 1.000 | 0.954 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3368 | 0.0054 | 1.003 | 1.042 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3379 | 0.0070 | 1.003 | 1.050 | 1.000 | 0.932 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3338 | 0.0009 | 1.003 | 1.030 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3339 | 0.0012 | 1.003 | 1.034 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3340 | 0.0012 | 1.003 | 1.035 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0682 | 0.4024 | 0.3703 | 1.015 | 1.360 | 1.000 | 0.116 | 1.000 | 0.201 | 0.112 | 0.093 | 11.76 | 5 | 27 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0372 | 0.4458 | 0.4192 | 1.016 | 1.392 | 1.000 | 0.060 | 1.000 | 0.182 | 0.094 | 0.073 | 12.40 | 6 | 35 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0285 | 0.4990 | 0.4732 | 1.018 | 1.393 | 1.000 | 0.039 | 1.000 | 0.191 | 0.088 | 0.060 | 13.53 | 6 | 25.5 | 67 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0063 | 0.0759 | 0.0715 | 1.001 | 1.118 | 1.000 | 0.654 | 1.000 | 0.022 | 0.011 | 0.012 | 5.62 | 5 | 8 | 13 | - | - | - | - |
| | 200 | 1.0000 | 0.0035 | 0.0833 | 0.0799 | 1.001 | 1.134 | 1.000 | 0.623 | 1.000 | 0.020 | 0.007 | 0.008 | 5.70 | 5 | 8 | 18 | - | - | - | - |
| | 300 | 1.0000 | 0.0027 | 0.0953 | 0.0911 | 1.002 | 1.146 | 1.000 | 0.577 | 1.000 | 0.019 | 0.010 | 0.005 | 5.81 | 5 | 8 | 25 | - | - | - | - |

Notes: See notes to Table 100.

**Table 499: Monte Carlo findings for DGPI(a)**

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7995 | 0.0259 | 0.3332 | 0.0269 | 1.058 | 1.710 | 0.370 | 0.297 | 1.000 | 0.988 | 0.813 | 0.536 | 6.56 | 4 | 9 | 11 | 1.282 | 0.27 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7828 | 0.0125 | 0.3287 | 0.0281 | 1.062 | 1.794 | 0.350 | 0.284 | 1.000 | 0.978 | 0.779 | 0.489 | 6.39 | 4 | 8 | 11 | 1.324 | 0.31 | 0.02 | 0.00 |
| | 300 | 0.7640 | 0.0083 | 0.3331 | 0.0315 | 1.069 | 1.854 | 0.320 | 0.245 | 1.000 | 0.976 | 0.767 | 0.484 | 6.30 | 4 | 8 | 11 | 1.344 | 0.32 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.7778 | 0.0243 | 0.3243 | 0.0167 | 1.060 | 1.757 | 0.335 | 0.297 | 1.000 | 0.983 | 0.790 | 0.499 | 6.30 | 4 | 8 | 10 | 1.314 | 0.31 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7578 | 0.0116 | 0.3182 | 0.0159 | 1.065 | 1.851 | 0.310 | 0.270 | 1.000 | 0.972 | 0.746 | 0.458 | 6.09 | 4 | 8 | 10 | 1.354 | 0.34 | 0.01 | 0.00 |
| | 300 | 0.7414 | 0.0078 | 0.3235 | 0.0198 | 1.072 | 1.904 | 0.295 | 0.249 | 1.000 | 0.972 | 0.742 | 0.457 | 6.03 | 4 | 8 | 11 | 1.381 | 0.36 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.7410 | 0.0216 | 0.3066 | 0.0051 | 1.067 | 1.864 | 0.290 | 0.282 | 1.000 | 0.967 | 0.721 | 0.413 | 5.84 | 3 | 8 | 10 | 1.428 | 0.42 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7274 | 0.0103 | 0.2991 | 0.0050 | 1.071 | 1.936 | 0.294 | 0.281 | 1.000 | 0.955 | 0.668 | 0.382 | 5.68 | 3 | 8 | 10 | 1.460 | 0.45 | 0.01 | 0.00 |
| | 300 | 0.7198 | 0.0068 | 0.2992 | 0.0053 | 1.075 | 1.960 | 0.296 | 0.284 | 1.000 | 0.950 | 0.665 | 0.385 | 5.64 | 3 | 8 | 10 | 1.484 | 0.48 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.7711 | 0.0254 | 0.3368 | 0.0218 | 1.064 | 1.767 | 0.331 | 0.283 | 1.000 | 0.988 | 0.813 | 0.536 | 6.37 | 4 | 8 | 10 | 1.185 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7427 | 0.0122 | 0.3347 | 0.0222 | 1.070 | 1.874 | 0.292 | 0.252 | 1.000 | 0.978 | 0.779 | 0.488 | 6.13 | 4 | 8 | 10 | 1.205 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.7227 | 0.0081 | 0.3395 | 0.0258 | 1.079 | 1.934 | 0.263 | 0.217 | 1.000 | 0.976 | 0.767 | 0.484 | 6.04 | 4 | 8 | 10 | 1.225 | 0.22 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7443 | 0.0240 | 0.3302 | 0.0134 | 1.068 | 1.836 | 0.288 | 0.262 | 1.000 | 0.983 | 0.790 | 0.499 | 6.10 | 4 | 8 | 10 | 1.234 | 0.23 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7143 | 0.0114 | 0.3266 | 0.0122 | 1.076 | 1.952 | 0.249 | 0.229 | 1.000 | 0.972 | 0.746 | 0.458 | 5.84 | 4 | 8 | 10 | 1.253 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.6986 | 0.0077 | 0.3315 | 0.0158 | 1.083 | 1.995 | 0.235 | 0.208 | 1.000 | 0.972 | 0.742 | 0.457 | 5.78 | 3 | 8 | 10 | 1.278 | 0.28 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6979 | 0.0215 | 0.3159 | 0.0034 | 1.080 | 1.971 | 0.230 | 0.226 | 1.000 | 0.967 | 0.721 | 0.413 | 5.62 | 3 | 8 | 9 | 1.346 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6776 | 0.0102 | 0.3101 | 0.0033 | 1.086 | 2.057 | 0.227 | 0.223 | 1.000 | 0.955 | 0.668 | 0.382 | 5.42 | 3 | 8 | 10 | 1.368 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.6686 | 0.0068 | 0.3101 | 0.0035 | 1.090 | 2.080 | 0.222 | 0.217 | 1.000 | 0.950 | 0.665 | 0.385 | 5.37 | 3 | 8 | 10 | 1.401 | 0.40 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9525 | 0.0627 | 0.4288 | 0.4025 | 1.103 | 1.362 | 0.790 | 0.076 | 1.000 | 0.184 | 0.083 | 0.070 | 10.97 | 5 | 22 | 40 | - | - | - | - |
| | 200 | 0.9510 | 0.0462 | 0.5102 | 0.4905 | 1.117 | 1.454 | 0.784 | 0.056 | 1.000 | 0.135 | 0.074 | 0.062 | 13.96 | 5 | 29 | 75 | - | - | - | - |
| | 300 | 0.9486 | 0.0388 | 0.5617 | 0.5444 | 1.124 | 1.495 | 0.769 | 0.036 | 1.000 | 0.152 | 0.070 | 0.064 | 16.33 | 5 | 36 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7119 | 0.0228 | 0.1767 | 0.1694 | 1.150 | 1.974 | 0.314 | 0.042 | 1.000 | 0.047 | 0.022 | 0.020 | 5.82 | 1 | 15 | 28 | - | - | - | - |
| | 200 | 0.7431 | 0.0207 | 0.2701 | 0.2638 | 1.155 | 2.109 | 0.359 | 0.029 | 1.000 | 0.042 | 0.015 | 0.027 | 7.83 | 1 | 20 | 43 | - | - | - | - |
| | 300 | 0.7485 | 0.0177 | 0.3137 | 0.3074 | 1.166 | 2.168 | 0.388 | 0.022 | 1.000 | 0.052 | 0.021 | 0.024 | 9.03 | 1 | 24 | 42 | - | - | - | - |

Notes: See notes to Table 100.

## Table 500: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9988 | 0.0314 | 0.3405 | 0.0133 | 1.007 | 1.096 | 0.995 | 0.876 | 1.000 | 1.000 | 1.000 | 0.978 | 8.11 | 8 | 9 | 12 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9982 | 0.0156 | 0.3401 | 0.0133 | 1.006 | 1.097 | 0.993 | 0.873 | 1.000 | 1.000 | 1.000 | 0.971 | 8.10 | 8 | 9 | 11 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9977 | 0.0104 | 0.3408 | 0.0140 | 1.007 | 1.113 | 0.989 | 0.857 | 1.000 | 1.000 | 1.000 | 0.971 | 8.10 | 8 | 9 | 11 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9975 | 0.0308 | 0.3368 | 0.0080 | 1.007 | 1.093 | 0.989 | 0.916 | 1.000 | 1.000 | 0.999 | 0.973 | 8.04 | 8 | 9 | 12 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9969 | 0.0153 | 0.3359 | 0.0075 | 1.006 | 1.090 | 0.986 | 0.917 | 1.000 | 1.000 | 1.000 | 0.964 | 8.02 | 8 | 9 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9954 | 0.0102 | 0.3364 | 0.0076 | 1.007 | 1.110 | 0.978 | 0.905 | 1.000 | 1.000 | 0.999 | 0.965 | 8.02 | 7 | 9 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9934 | 0.0301 | 0.3324 | 0.0024 | 1.007 | 1.111 | 0.970 | 0.948 | 1.000 | 1.000 | 0.999 | 0.954 | 7.94 | 7 | 8 | 10 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9896 | 0.0149 | 0.3320 | 0.0012 | 1.006 | 1.144 | 0.953 | 0.942 | 1.000 | 1.000 | 0.999 | 0.949 | 7.91 | 7 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9856 | 0.0099 | 0.3330 | 0.0017 | 1.007 | 1.190 | 0.935 | 0.919 | 1.000 | 1.000 | 0.999 | 0.947 | 7.89 | 7 | 8 | 9 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9987 | 0.0312 | 0.3393 | 0.0113 | 1.007 | 1.076 | 0.994 | 0.891 | 1.000 | 1.000 | 1.000 | 0.978 | 8.09 | 8 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9981 | 0.0155 | 0.3390 | 0.0116 | 1.006 | 1.079 | 0.993 | 0.885 | 1.000 | 1.000 | 1.000 | 0.971 | 8.08 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9972 | 0.0103 | 0.3393 | 0.0117 | 1.006 | 1.088 | 0.987 | 0.876 | 1.000 | 1.000 | 1.000 | 0.971 | 8.08 | 8 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9973 | 0.0307 | 0.3358 | 0.0064 | 1.006 | 1.076 | 0.988 | 0.928 | 1.000 | 1.000 | 0.999 | 0.973 | 8.02 | 8 | 9 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9964 | 0.0152 | 0.3353 | 0.0064 | 1.006 | 1.084 | 0.985 | 0.925 | 1.000 | 1.000 | 1.000 | 0.964 | 8.01 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9947 | 0.0101 | 0.3356 | 0.0063 | 1.006 | 1.100 | 0.976 | 0.915 | 1.000 | 1.000 | 0.999 | 0.965 | 8.00 | 7 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9926 | 0.0300 | 0.3322 | 0.0019 | 1.007 | 1.113 | 0.967 | 0.949 | 1.000 | 1.000 | 0.999 | 0.954 | 7.93 | 7 | 8 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9888 | 0.0149 | 0.3321 | 0.0011 | 1.006 | 1.153 | 0.951 | 0.942 | 1.000 | 1.000 | 0.999 | 0.949 | 7.90 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9844 | 0.0099 | 0.3331 | 0.0015 | 1.007 | 1.202 | 0.931 | 0.917 | 1.000 | 1.000 | 0.999 | 0.947 | 7.88 | 7 | 8 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9997 | 0.0711 | 0.4634 | 0.4328 | 1.024 | 1.342 | 0.999 | 0.061 | 1.000 | 0.204 | 0.106 | 0.089 | 12.04 | 6 | 22 | 35 | - | - | - | - |
| | 200 | 0.9999 | 0.0454 | 0.5175 | 0.4931 | 1.029 | 1.392 | 1.000 | 0.042 | 1.000 | 0.198 | 0.113 | 0.065 | 14.03 | 6 | 28 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0345 | 0.5427 | 0.5218 | 1.032 | 1.437 | 1.000 | 0.040 | 1.000 | 0.177 | 0.088 | 0.068 | 15.32 | 6 | 31 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9880 | 0.0254 | 0.2445 | 0.2311 | 1.015 | 1.542 | 0.958 | 0.212 | 1.000 | 0.069 | 0.038 | 0.031 | 7.46 | 5 | 13 | 20 | - | - | - | - |
| | 200 | 0.9847 | 0.0166 | 0.2927 | 0.2822 | 1.021 | 1.656 | 0.952 | 0.146 | 1.000 | 0.063 | 0.039 | 0.018 | 8.22 | 5 | 15 | 25 | - | - | - | - |
| | 300 | 0.9823 | 0.0127 | 0.3177 | 0.3080 | 1.025 | 1.754 | 0.949 | 0.131 | 1.000 | 0.054 | 0.028 | 0.019 | 8.70 | 5 | 16 | 32 | - | - | - | - |

Notes: See notes to Table 100.

## Table 501: Monte Carlo findings for DGPI(a)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3414 | 0.0121 | 1.004 | 1.072 | 1.000 | 0.886 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 12 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3420 | 0.0131 | 1.004 | 1.076 | 1.000 | 0.879 | 1.000 | 1.000 | 1.000 | 0.999 | 8.13 | 8 | 9 | 10 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3413 | 0.0122 | 1.004 | 1.070 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0310 | 0.3379 | 0.0069 | 1.004 | 1.055 | 1.000 | 0.935 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3380 | 0.0072 | 1.004 | 1.053 | 1.000 | 0.931 | 1.000 | 1.000 | 1.000 | 0.998 | 8.07 | 8 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3374 | 0.0063 | 1.004 | 1.051 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0013 | 1.003 | 1.031 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3341 | 0.0016 | 1.003 | 1.030 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.996 | 8.01 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0101 | 0.3343 | 0.0017 | 1.003 | 1.033 | 1.000 | 0.983 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3404 | 0.0106 | 1.004 | 1.055 | 1.000 | 0.898 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3408 | 0.0113 | 1.004 | 1.052 | 1.000 | 0.894 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3406 | 0.0110 | 1.004 | 1.054 | 1.000 | 0.897 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3372 | 0.0059 | 1.003 | 1.041 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3374 | 0.0064 | 1.004 | 1.041 | 1.000 | 0.939 | 1.000 | 1.000 | 1.000 | 0.998 | 8.06 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3368 | 0.0054 | 1.004 | 1.038 | 1.000 | 0.949 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0012 | 1.003 | 1.030 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3340 | 0.0015 | 1.003 | 1.027 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.996 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0101 | 0.3341 | 0.0014 | 1.003 | 1.028 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0681 | 0.4690 | 0.4384 | 1.013 | 1.316 | 1.000 | 0.050 | 1.000 | 0.208 | 0.106 | 0.088 | 11.74 | 6 | 20 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0457 | 0.5114 | 0.4846 | 1.017 | 1.386 | 1.000 | 0.071 | 1.000 | 0.192 | 0.106 | 0.076 | 14.09 | 5 | 26 | 56 | - | - | - | - |
| | 300 | 1.0000 | 0.0346 | 0.5233 | 0.4998 | 1.018 | 1.425 | 1.000 | 0.062 | 1.000 | 0.183 | 0.081 | 0.071 | 15.35 | 6 | 31.5 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9992 | 0.0142 | 0.1606 | 0.1502 | 1.004 | 1.268 | 0.998 | 0.363 | 1.000 | 0.038 | 0.019 | 0.016 | 6.41 | 5 | 9 | 17 | - | - | - | - |
| | 200 | 0.9993 | 0.0094 | 0.1953 | 0.1880 | 1.005 | 1.325 | 0.998 | 0.322 | 1.000 | 0.046 | 0.020 | 0.014 | 6.87 | 5 | 11 | 20 | - | - | - | - |
| | 300 | 1.0000 | 0.0073 | 0.2142 | 0.2067 | 1.005 | 1.367 | 1.000 | 0.314 | 1.000 | 0.035 | 0.016 | 0.015 | 7.19 | 5 | 12 | 23 | - | - | - | - |

Notes: See notes to Table 100.

## Table 502: Monte Carlo findings for DGPI(a)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6410 | 0.0258 | 0.3764 | 0.0273 | 1.054 | 1.567 | 0.190 | 0.156 | 1.000 | 0.988 | 0.818 | 0.542 | 5.76 | 3 | 8 | 11 | 1.427 | 0.41 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6097 | 0.0126 | 0.3777 | 0.0322 | 1.064 | 1.618 | 0.164 | 0.134 | 1.000 | 0.976 | 0.787 | 0.502 | 5.55 | 3 | 8 | 10 | 1.481 | 0.46 | 0.02 | 0.00 |
| | 300 | 0.6007 | 0.0083 | 0.3811 | 0.0378 | 1.066 | 1.655 | 0.171 | 0.131 | 1.000 | 0.979 | 0.766 | 0.480 | 5.50 | 3 | 8 | 11 | 1.509 | 0.49 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.6168 | 0.0243 | 0.3689 | 0.0176 | 1.054 | 1.583 | 0.173 | 0.150 | 1.000 | 0.985 | 0.786 | 0.507 | 5.49 | 3 | 8 | 10 | 1.470 | 0.46 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5879 | 0.0117 | 0.3679 | 0.0201 | 1.066 | 1.623 | 0.156 | 0.134 | 1.000 | 0.971 | 0.749 | 0.466 | 5.27 | 3 | 8 | 10 | 1.509 | 0.49 | 0.01 | 0.00 |
| | 300 | 0.5840 | 0.0077 | 0.3685 | 0.0245 | 1.067 | 1.637 | 0.156 | 0.129 | 1.000 | 0.973 | 0.734 | 0.439 | 5.23 | 3 | 8 | 10 | 1.546 | 0.53 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.5833 | 0.0216 | 0.3512 | 0.0061 | 1.060 | 1.586 | 0.173 | 0.166 | 1.000 | 0.970 | 0.712 | 0.418 | 5.06 | 3 | 8 | 9 | 1.549 | 0.54 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5497 | 0.0104 | 0.3519 | 0.0066 | 1.072 | 1.618 | 0.140 | 0.134 | 1.000 | 0.957 | 0.678 | 0.385 | 4.81 | 2 | 8 | 9 | 1.560 | 0.55 | 0.01 | 0.00 |
| | 300 | 0.5430 | 0.0069 | 0.3512 | 0.0094 | 1.073 | 1.630 | 0.138 | 0.128 | 1.000 | 0.957 | 0.663 | 0.371 | 4.76 | 2 | 8 | 9 | 1.575 | 0.56 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.5761 | 0.0254 | 0.3929 | 0.0231 | 1.065 | 1.616 | 0.132 | 0.112 | 1.000 | 0.988 | 0.818 | 0.542 | 5.39 | 3 | 8 | 10 | 1.306 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5337 | 0.0124 | 0.3984 | 0.0285 | 1.080 | 1.665 | 0.102 | 0.086 | 1.000 | 0.976 | 0.787 | 0.502 | 5.13 | 3 | 8 | 10 | 1.338 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.5126 | 0.0082 | 0.4035 | 0.0324 | 1.083 | 1.705 | 0.092 | 0.076 | 1.000 | 0.979 | 0.766 | 0.480 | 5.00 | 3 | 8 | 10 | 1.344 | 0.34 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5481 | 0.0241 | 0.3877 | 0.0149 | 1.069 | 1.639 | 0.111 | 0.099 | 1.000 | 0.985 | 0.786 | 0.506 | 5.12 | 3 | 8 | 10 | 1.352 | 0.35 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5064 | 0.0115 | 0.3907 | 0.0169 | 1.083 | 1.678 | 0.087 | 0.080 | 1.000 | 0.971 | 0.749 | 0.466 | 4.83 | 2 | 8 | 9 | 1.367 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.4919 | 0.0076 | 0.3931 | 0.0201 | 1.087 | 1.698 | 0.081 | 0.072 | 1.000 | 0.973 | 0.734 | 0.439 | 4.73 | 2 | 7 | 10 | 1.383 | 0.38 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.5034 | 0.0215 | 0.3743 | 0.0046 | 1.077 | 1.660 | 0.098 | 0.093 | 1.000 | 0.970 | 0.712 | 0.418 | 4.65 | 2 | 8 | 9 | 1.434 | 0.43 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4644 | 0.0103 | 0.3770 | 0.0050 | 1.093 | 1.685 | 0.079 | 0.078 | 1.000 | 0.957 | 0.678 | 0.385 | 4.37 | 2 | 7 | 8 | 1.421 | 0.42 | 0.00 | 0.00 |
| | 300 | 0.4454 | 0.0068 | 0.3798 | 0.0073 | 1.097 | 1.702 | 0.070 | 0.067 | 1.000 | 0.957 | 0.663 | 0.371 | 4.26 | 2 | 7 | 8 | 1.416 | 0.41 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8061 | 0.0529 | 0.4022 | 0.3744 | 1.099 | 1.213 | 0.346 | 0.031 | 1.000 | 0.145 | 0.088 | 0.065 | 9.27 | 3 | 19 | 40 | - | - | - | - |
| | 200 | 0.7915 | 0.0400 | 0.4897 | 0.4689 | 1.113 | 1.282 | 0.312 | 0.026 | 1.000 | 0.129 | 0.055 | 0.054 | 11.91 | 3 | 27 | 79 | - | - | - | - |
| | 300 | 0.7964 | 0.0331 | 0.5357 | 0.5187 | 1.116 | 1.313 | 0.327 | 0.013 | 1.000 | 0.128 | 0.060 | 0.042 | 13.88 | 3 | 32 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4820 | 0.0155 | 0.1273 | 0.1224 | 1.122 | 1.616 | 0.067 | 0.005 | 1.000 | 0.029 | 0.017 | 0.018 | 3.94 | 1 | 14 | 31 | - | - | - | - |
| | 200 | 0.5118 | 0.0157 | 0.2140 | 0.2092 | 1.132 | 1.776 | 0.082 | 0.002 | 1.000 | 0.031 | 0.011 | 0.021 | 5.69 | 1 | 19 | 52 | - | - | - | - |
| | 300 | 0.5361 | 0.0148 | 0.2682 | 0.2634 | 1.138 | 1.869 | 0.096 | 0.001 | 1.000 | 0.028 | 0.017 | 0.013 | 7.10 | 1 | 23 | 55 | - | - | - | - |

Notes: See notes to Table 100.

## Table 503: Monte Carlo findings for DGPI(a)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9437 | 0.0314 | 0.3525 | 0.0131 | 1.011 | 1.319 | 0.778 | 0.688 | 1.000 | 1.000 | 0.999 | 0.978 | 7.83 | 6 | 9 | 11 | 1.051 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9186 | 0.0156 | 0.3587 | 0.0139 | 1.012 | 1.426 | 0.705 | 0.621 | 1.000 | 1.000 | 0.999 | 0.977 | 7.70 | 6 | 9 | 11 | 1.064 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9068 | 0.0104 | 0.3617 | 0.0157 | 1.014 | 1.470 | 0.662 | 0.573 | 1.000 | 1.000 | 0.999 | 0.967 | 7.65 | 6 | 9 | 11 | 1.073 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9244 | 0.0307 | 0.3526 | 0.0079 | 1.012 | 1.393 | 0.718 | 0.667 | 1.000 | 1.000 | 0.998 | 0.969 | 7.66 | 6 | 9 | 10 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8968 | 0.0153 | 0.3595 | 0.0078 | 1.014 | 1.501 | 0.635 | 0.591 | 1.000 | 1.000 | 0.999 | 0.973 | 7.53 | 6 | 8 | 11 | 1.079 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8796 | 0.0102 | 0.3631 | 0.0092 | 1.016 | 1.567 | 0.586 | 0.538 | 1.000 | 1.000 | 0.999 | 0.957 | 7.44 | 6 | 8 | 10 | 1.088 | 0.09 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8716 | 0.0300 | 0.3597 | 0.0019 | 1.015 | 1.601 | 0.560 | 0.552 | 1.000 | 1.000 | 0.998 | 0.952 | 7.32 | 6 | 8 | 9 | 1.094 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8390 | 0.0149 | 0.3684 | 0.0016 | 1.018 | 1.734 | 0.486 | 0.476 | 1.000 | 1.000 | 0.999 | 0.957 | 7.17 | 5 | 8 | 10 | 1.143 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.8242 | 0.0099 | 0.3715 | 0.0030 | 1.020 | 1.786 | 0.457 | 0.445 | 1.000 | 1.000 | 0.999 | 0.939 | 7.09 | 5 | 8 | 10 | 1.152 | 0.15 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9390 | 0.0312 | 0.3528 | 0.0116 | 1.011 | 1.335 | 0.772 | 0.694 | 1.000 | 1.000 | 0.999 | 0.978 | 7.79 | 6 | 9 | 11 | 1.025 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9124 | 0.0156 | 0.3595 | 0.0124 | 1.013 | 1.444 | 0.696 | 0.624 | 1.000 | 1.000 | 0.999 | 0.977 | 7.66 | 6 | 9 | 11 | 1.033 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9010 | 0.0104 | 0.3621 | 0.0138 | 1.014 | 1.484 | 0.656 | 0.579 | 1.000 | 1.000 | 0.999 | 0.967 | 7.60 | 6 | 9 | 11 | 1.038 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9197 | 0.0306 | 0.3532 | 0.0069 | 1.012 | 1.410 | 0.713 | 0.669 | 1.000 | 1.000 | 0.998 | 0.969 | 7.63 | 6 | 8 | 10 | 1.029 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8884 | 0.0152 | 0.3610 | 0.0063 | 1.014 | 1.532 | 0.628 | 0.592 | 1.000 | 1.000 | 0.999 | 0.973 | 7.47 | 6 | 8 | 11 | 1.043 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8731 | 0.0101 | 0.3640 | 0.0077 | 1.016 | 1.585 | 0.581 | 0.542 | 1.000 | 1.000 | 0.999 | 0.957 | 7.39 | 6 | 8 | 10 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8622 | 0.0299 | 0.3622 | 0.0015 | 1.017 | 1.649 | 0.552 | 0.546 | 1.000 | 1.000 | 0.998 | 0.952 | 7.27 | 5 | 8 | 9 | 1.064 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8229 | 0.0149 | 0.3728 | 0.0012 | 1.020 | 1.805 | 0.470 | 0.463 | 1.000 | 1.000 | 0.999 | 0.957 | 7.08 | 5 | 8 | 9 | 1.099 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8090 | 0.0099 | 0.3757 | 0.0026 | 1.022 | 1.852 | 0.442 | 0.431 | 1.000 | 1.000 | 0.999 | 0.939 | 7.01 | 5 | 8 | 9 | 1.108 | 0.11 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9901 | 0.0701 | 0.4620 | 0.4323 | 1.024 | 1.328 | 0.952 | 0.067 | 1.000 | 0.197 | 0.107 | 0.094 | 11.89 | 5 | 23 | 41 | - | - | - | - |
| | 200 | 0.9847 | 0.0452 | 0.5182 | 0.4927 | 1.030 | 1.389 | 0.926 | 0.046 | 1.000 | 0.164 | 0.076 | 0.048 | 13.91 | 6 | 27 | 48 | - | - | - | - |
| | 300 | 0.9850 | 0.0336 | 0.5448 | 0.5238 | 1.033 | 1.406 | 0.927 | 0.032 | 1.000 | 0.175 | 0.076 | 0.070 | 14.98 | 6 | 31 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8669 | 0.0289 | 0.2579 | 0.2452 | 1.036 | 1.865 | 0.665 | 0.091 | 1.000 | 0.069 | 0.039 | 0.034 | 7.20 | 2 | 14 | 26 | - | - | - | - |
| | 200 | 0.8660 | 0.0196 | 0.3166 | 0.3047 | 1.043 | 1.980 | 0.663 | 0.050 | 1.000 | 0.057 | 0.033 | 0.016 | 8.22 | 2 | 16 | 31 | - | - | - | - |
| | 300 | 0.8727 | 0.0147 | 0.3420 | 0.3330 | 1.043 | 2.015 | 0.659 | 0.035 | 1.000 | 0.065 | 0.027 | 0.031 | 8.75 | 2 | 18 | 34 | - | - | - | - |

Notes: See notes to Table 100.

**Table 504: Monte Carlo findings for DGPI(a)**

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9971 | 0.0316 | 0.3425 | 0.0130 | 1.004 | 1.087 | 0.986 | 0.872 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9955 | 0.0157 | 0.3427 | 0.0128 | 1.004 | 1.101 | 0.979 | 0.865 | 1.000 | 1.000 | 1.000 | 0.998 | 8.11 | 8 | 9 | 11 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9949 | 0.0104 | 0.3420 | 0.0116 | 1.004 | 1.111 | 0.976 | 0.871 | 1.000 | 1.000 | 1.000 | 0.999 | 8.09 | 8 | 9 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9951 | 0.0310 | 0.3388 | 0.0069 | 1.003 | 1.084 | 0.976 | 0.916 | 1.000 | 1.000 | 1.000 | 0.999 | 8.04 | 8 | 9 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9922 | 0.0154 | 0.3392 | 0.0066 | 1.004 | 1.103 | 0.965 | 0.906 | 1.000 | 1.000 | 1.000 | 0.998 | 8.03 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9918 | 0.0102 | 0.3390 | 0.0062 | 1.004 | 1.114 | 0.963 | 0.906 | 1.000 | 1.000 | 1.000 | 0.998 | 8.02 | 8 | 9 | 10 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9854 | 0.0305 | 0.3375 | 0.0019 | 1.004 | 1.134 | 0.936 | 0.920 | 1.000 | 1.000 | 1.000 | 0.998 | 7.94 | 7 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9795 | 0.0151 | 0.3385 | 0.0015 | 1.004 | 1.184 | 0.915 | 0.902 | 1.000 | 1.000 | 1.000 | 0.997 | 7.91 | 7 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9785 | 0.0101 | 0.3388 | 0.0015 | 1.005 | 1.197 | 0.907 | 0.892 | 1.000 | 1.000 | 1.000 | 0.998 | 7.91 | 7 | 8 | 9 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9970 | 0.0315 | 0.3419 | 0.0119 | 1.004 | 1.076 | 0.986 | 0.880 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9949 | 0.0156 | 0.3418 | 0.0114 | 1.004 | 1.090 | 0.977 | 0.875 | 1.000 | 1.000 | 1.000 | 0.998 | 8.09 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9947 | 0.0104 | 0.3412 | 0.0103 | 1.004 | 1.094 | 0.976 | 0.882 | 1.000 | 1.000 | 1.000 | 0.999 | 8.08 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9950 | 0.0309 | 0.3382 | 0.0060 | 1.003 | 1.075 | 0.976 | 0.923 | 1.000 | 1.000 | 1.000 | 0.999 | 8.03 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9918 | 0.0154 | 0.3389 | 0.0060 | 1.004 | 1.099 | 0.963 | 0.911 | 1.000 | 1.000 | 1.000 | 0.998 | 8.02 | 8 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9907 | 0.0102 | 0.3387 | 0.0052 | 1.004 | 1.110 | 0.960 | 0.913 | 1.000 | 1.000 | 1.000 | 0.998 | 8.00 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9847 | 0.0304 | 0.3375 | 0.0016 | 1.004 | 1.137 | 0.935 | 0.922 | 1.000 | 1.000 | 1.000 | 0.998 | 7.94 | 7 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9787 | 0.0151 | 0.3386 | 0.0013 | 1.004 | 1.189 | 0.913 | 0.902 | 1.000 | 1.000 | 1.000 | 0.997 | 7.90 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9772 | 0.0101 | 0.3388 | 0.0011 | 1.005 | 1.204 | 0.905 | 0.894 | 1.000 | 1.000 | 1.000 | 0.998 | 7.89 | 7 | 8 | 9 | 1.007 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9990 | 0.0737 | 0.4709 | 0.4394 | 1.014 | 1.315 | 0.995 | 0.061 | 1.000 | 0.204 | 0.120 | 0.103 | 12.29 | 6 | 22 | 50 | - | - | - | - |
| | 200 | 0.9990 | 0.0452 | 0.5051 | 0.4783 | 1.017 | 1.383 | 0.995 | 0.044 | 1.000 | 0.193 | 0.098 | 0.074 | 13.99 | 6 | 30 | 59 | - | - | - | - |
| | 300 | 0.9991 | 0.0339 | 0.5351 | 0.5134 | 1.018 | 1.418 | 0.996 | 0.036 | 1.000 | 0.184 | 0.095 | 0.069 | 15.13 | 6 | 35 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9718 | 0.0221 | 0.2217 | 0.2085 | 1.011 | 1.549 | 0.919 | 0.244 | 1.000 | 0.060 | 0.028 | 0.033 | 7.05 | 4 | 11 | 25 | - | - | - | - |
| | 200 | 0.9731 | 0.0139 | 0.2549 | 0.2439 | 1.012 | 1.635 | 0.921 | 0.198 | 1.000 | 0.049 | 0.023 | 0.021 | 7.63 | 5 | 14 | 26 | - | - | - | - |
| | 300 | 0.9699 | 0.0105 | 0.2794 | 0.2704 | 1.014 | 1.712 | 0.917 | 0.152 | 1.000 | 0.049 | 0.025 | 0.019 | 7.99 | 4 | 15 | 33 | - | - | - | - |

Notes: See notes to Table 100.

## Table 505: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9167 | 0.0626 | 0.5060 | 0.2880 | 1.106 | 1.921 | 0.643 | 0.029 | 1.000 | 0.995 | 0.897 | 0.642 | 10.78 | 7 | 15 | 23 | 1.239 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8894 | 0.0396 | 0.5679 | 0.3803 | 1.158 | 2.197 | 0.524 | 0.004 | 1.000 | 0.993 | 0.867 | 0.604 | 12.33 | 7 | 18 | 25 | 1.249 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.8769 | 0.0322 | 0.6187 | 0.4512 | 1.204 | 2.393 | 0.506 | 0.003 | 1.000 | 0.994 | 0.865 | 0.610 | 14.01 | 8 | 20.5 | 27 | 1.272 | 0.26 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8952 | 0.0527 | 0.4676 | 0.2340 | 1.100 | 1.943 | 0.561 | 0.061 | 1.000 | 0.994 | 0.875 | 0.612 | 9.70 | 6 | 14 | 19 | 1.238 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8677 | 0.0325 | 0.5233 | 0.3166 | 1.145 | 2.176 | 0.455 | 0.020 | 1.000 | 0.991 | 0.846 | 0.580 | 10.81 | 6 | 16 | 23 | 1.243 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.8558 | 0.0261 | 0.5715 | 0.3847 | 1.185 | 2.351 | 0.446 | 0.010 | 1.000 | 0.992 | 0.840 | 0.578 | 12.08 | 7 | 18 | 25 | 1.265 | 0.26 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8499 | 0.0380 | 0.3993 | 0.1397 | 1.100 | 2.057 | 0.417 | 0.125 | 1.000 | 0.989 | 0.821 | 0.542 | 8.01 | 5 | 11 | 17 | 1.288 | 0.28 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8227 | 0.0220 | 0.4373 | 0.1979 | 1.131 | 2.235 | 0.326 | 0.066 | 1.000 | 0.986 | 0.793 | 0.500 | 8.49 | 5 | 12 | 19 | 1.299 | 0.30 | 0.00 | 0.00 |
| | 300 | 0.8085 | 0.0171 | 0.4775 | 0.2533 | 1.159 | 2.375 | 0.315 | 0.035 | 1.000 | 0.984 | 0.793 | 0.495 | 9.15 | 5 | 13 | 20 | 1.316 | 0.31 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9008 | 0.0621 | 0.5076 | 0.2870 | 1.111 | 1.969 | 0.589 | 0.026 | 1.000 | 0.995 | 0.897 | 0.641 | 10.65 | 7 | 15 | 23 | 1.135 | 0.13 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8680 | 0.0393 | 0.5708 | 0.3804 | 1.166 | 2.245 | 0.463 | 0.004 | 1.000 | 0.993 | 0.867 | 0.603 | 12.15 | 7 | 18 | 25 | 1.116 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.8547 | 0.0319 | 0.6217 | 0.4517 | 1.211 | 2.438 | 0.448 | 0.003 | 1.000 | 0.994 | 0.865 | 0.610 | 13.81 | 8 | 20 | 27 | 1.132 | 0.13 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8765 | 0.0524 | 0.4708 | 0.2342 | 1.110 | 2.018 | 0.504 | 0.054 | 1.000 | 0.994 | 0.875 | 0.611 | 9.58 | 6 | 14 | 19 | 1.153 | 0.15 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8440 | 0.0323 | 0.5275 | 0.3178 | 1.158 | 2.262 | 0.398 | 0.018 | 1.000 | 0.991 | 0.846 | 0.580 | 10.65 | 6 | 15 | 23 | 1.133 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.8302 | 0.0259 | 0.5762 | 0.3865 | 1.198 | 2.436 | 0.388 | 0.008 | 1.000 | 0.992 | 0.840 | 0.578 | 11.91 | 7 | 18 | 25 | 1.147 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8260 | 0.0379 | 0.4045 | 0.1409 | 1.113 | 2.172 | 0.353 | 0.111 | 1.000 | 0.989 | 0.821 | 0.542 | 7.89 | 5 | 11 | 17 | 1.214 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7932 | 0.0219 | 0.4438 | 0.1999 | 1.149 | 2.371 | 0.269 | 0.055 | 1.000 | 0.986 | 0.793 | 0.500 | 8.32 | 5 | 12 | 19 | 1.204 | 0.20 | 0.00 | 0.00 |
| | 300 | 0.7774 | 0.0170 | 0.4845 | 0.2562 | 1.177 | 2.505 | 0.255 | 0.030 | 1.000 | 0.984 | 0.793 | 0.495 | 8.98 | 5 | 13 | 20 | 1.208 | 0.21 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9927 | 0.0729 | 0.4768 | 0.4521 | 1.122 | 1.500 | 0.964 | 0.049 | 1.000 | 0.193 | 0.111 | 0.070 | 12.18 | 5 | 22 | 41 | - | - | - | - |
| | 200 | 0.9892 | 0.0530 | 0.5618 | 0.5424 | 1.160 | 1.608 | 0.948 | 0.031 | 1.000 | 0.198 | 0.094 | 0.060 | 15.50 | 6 | 30 | 54 | - | - | - | - |
| | 300 | 0.9888 | 0.0429 | 0.6074 | 0.5899 | 1.176 | 1.679 | 0.947 | 0.019 | 1.000 | 0.195 | 0.083 | 0.052 | 17.76 | 7 | 34 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8896 | 0.0275 | 0.2366 | 0.2249 | 1.156 | 2.058 | 0.681 | 0.122 | 1.000 | 0.061 | 0.040 | 0.030 | 7.17 | 2 | 14 | 28 | - | - | - | - |
| | 200 | 0.8949 | 0.0216 | 0.3119 | 0.3027 | 1.179 | 2.184 | 0.690 | 0.079 | 1.000 | 0.084 | 0.035 | 0.026 | 8.77 | 2 | 18 | 36 | - | - | - | - |
| | 300 | 0.9034 | 0.0180 | 0.3650 | 0.3561 | 1.193 | 2.236 | 0.726 | 0.068 | 1.000 | 0.075 | 0.036 | 0.020 | 9.90 | 2 | 20 | 36 | - | - | - | - |

Notes: See notes to Table 100.

## Table 506: Monte Carlo findings for DGPI(b)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0639 | 0.5010 | 0.2524 | 1.016 | 1.405 | 1.000 | 0.048 | 1.000 | 1.000 | 1.000 | 0.991 | 11.32 | 8.5 | 15 | 20 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0407 | 0.5615 | 0.3432 | 1.022 | 1.576 | 1.000 | 0.009 | 1.000 | 1.000 | 1.000 | 0.989 | 13.11 | 10 | 18 | 27 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0316 | 0.5981 | 0.3979 | 1.028 | 1.702 | 1.000 | 0.004 | 1.000 | 1.000 | 1.000 | 0.991 | 14.45 | 10 | 19 | 29 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0549 | 0.4639 | 0.1972 | 1.013 | 1.318 | 1.000 | 0.114 | 1.000 | 1.000 | 1.000 | 0.987 | 10.43 | 8 | 14 | 18 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0338 | 0.5157 | 0.2750 | 1.018 | 1.455 | 1.000 | 0.038 | 1.000 | 1.000 | 1.000 | 0.986 | 11.73 | 9 | 15 | 24 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0261 | 0.5511 | 0.3278 | 1.023 | 1.568 | 1.000 | 0.015 | 1.000 | 1.000 | 1.000 | 0.987 | 12.79 | 9 | 17 | 27 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0424 | 0.4040 | 0.1082 | 1.009 | 1.198 | 1.000 | 0.331 | 1.000 | 1.000 | 1.000 | 0.981 | 9.20 | 8 | 11 | 15 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0245 | 0.4383 | 0.1602 | 1.012 | 1.282 | 0.999 | 0.177 | 1.000 | 1.000 | 1.000 | 0.976 | 9.88 | 8 | 13 | 19 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0181 | 0.4632 | 0.1969 | 1.014 | 1.356 | 0.999 | 0.114 | 1.000 | 1.000 | 1.000 | 0.979 | 10.42 | 8 | 14 | 18 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0638 | 0.5005 | 0.2517 | 1.015 | 1.395 | 1.000 | 0.049 | 1.000 | 1.000 | 1.000 | 0.991 | 11.31 | 8 | 15 | 20 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0407 | 0.5611 | 0.3427 | 1.022 | 1.566 | 1.000 | 0.009 | 1.000 | 1.000 | 1.000 | 0.989 | 13.10 | 10 | 18 | 27 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0316 | 0.5977 | 0.3973 | 1.028 | 1.691 | 0.999 | 0.004 | 1.000 | 1.000 | 1.000 | 0.991 | 14.44 | 10 | 19 | 29 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0548 | 0.4637 | 0.1969 | 1.013 | 1.314 | 1.000 | 0.115 | 1.000 | 1.000 | 1.000 | 0.987 | 10.43 | 8 | 14 | 18 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0338 | 0.5154 | 0.2745 | 1.018 | 1.448 | 1.000 | 0.038 | 1.000 | 1.000 | 1.000 | 0.986 | 11.73 | 9 | 15 | 24 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0260 | 0.5509 | 0.3275 | 1.022 | 1.565 | 0.999 | 0.015 | 1.000 | 1.000 | 1.000 | 0.987 | 12.78 | 9 | 17 | 27 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0424 | 0.4039 | 0.1080 | 1.009 | 1.195 | 1.000 | 0.332 | 1.000 | 1.000 | 1.000 | 0.981 | 9.19 | 8 | 11 | 15 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9995 | 0.0245 | 0.4383 | 0.1601 | 1.012 | 1.287 | 0.998 | 0.177 | 1.000 | 1.000 | 1.000 | 0.976 | 9.88 | 8 | 13 | 19 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0181 | 0.4631 | 0.1968 | 1.014 | 1.353 | 0.999 | 0.114 | 1.000 | 1.000 | 1.000 | 0.979 | 10.41 | 8 | 14 | 18 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0624 | 0.4279 | 0.3970 | 1.026 | 1.370 | 1.000 | 0.070 | 1.000 | 0.202 | 0.093 | 0.077 | 11.18 | 6 | 25 | 39 | - | - | - | - |
| | 200 | 1.0000 | 0.0390 | 0.4864 | 0.4636 | 1.032 | 1.421 | 1.000 | 0.060 | 1.000 | 0.196 | 0.095 | 0.066 | 12.76 | 5 | 23 | 50 | - | - | - | - |
| | 300 | 1.0000 | 0.0300 | 0.5017 | 0.4804 | 1.037 | 1.460 | 1.000 | 0.047 | 1.000 | 0.173 | 0.094 | 0.058 | 13.96 | 6 | 32 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9990 | 0.0109 | 0.1232 | 0.1166 | 1.006 | 1.238 | 0.997 | 0.490 | 1.000 | 0.032 | 0.010 | 0.011 | 6.07 | 5 | 9 | 18 | - | - | - | - |
| | 200 | 0.9997 | 0.0069 | 0.1533 | 0.1478 | 1.007 | 1.265 | 0.999 | 0.408 | 1.000 | 0.033 | 0.015 | 0.013 | 6.38 | 5 | 10 | 19 | - | - | - | - |
| | 300 | 0.9990 | 0.0052 | 0.1655 | 0.1589 | 1.007 | 1.310 | 0.997 | 0.400 | 1.000 | 0.031 | 0.020 | 0.010 | 6.56 | 5 | 10 | 19 | - | - | - | - |

Notes: See notes to Table 100.

**Table 507: Monte Carlo findings for DGPI(b)**

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **OCMT method** | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0641 | 0.5012 | 0.2518 | 1.009 | 1.393 | 1.000 | 0.054 | 1.000 | 1.000 | 1.000 | 1.000 | 11.35 | 8 | 15 | 20 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0399 | 0.5554 | 0.3331 | 1.013 | 1.536 | 1.000 | 0.018 | 1.000 | 1.000 | 1.000 | 1.000 | 12.94 | 9 | 18 | 23 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0314 | 0.5960 | 0.3940 | 1.015 | 1.678 | 1.000 | 0.005 | 1.000 | 1.000 | 1.000 | 1.000 | 14.39 | 10 | 19.5 | 25 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0555 | 0.4663 | 0.1995 | 1.008 | 1.318 | 1.000 | 0.112 | 1.000 | 1.000 | 1.000 | 1.000 | 10.49 | 8 | 14 | 20 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0334 | 0.5124 | 0.2687 | 1.010 | 1.433 | 1.000 | 0.045 | 1.000 | 1.000 | 1.000 | 1.000 | 11.65 | 9 | 15 | 21 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0257 | 0.5473 | 0.3210 | 1.012 | 1.543 | 1.000 | 0.019 | 1.000 | 1.000 | 1.000 | 1.000 | 12.68 | 9 | 17 | 23 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0425 | 0.4047 | 0.1071 | 1.006 | 1.190 | 1.000 | 0.343 | 1.000 | 1.000 | 1.000 | 1.000 | 9.21 | 8 | 11 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0244 | 0.4368 | 0.1553 | 1.007 | 1.262 | 1.000 | 0.199 | 1.000 | 1.000 | 1.000 | 1.000 | 9.85 | 8 | 13 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0178 | 0.4591 | 0.1886 | 1.008 | 1.325 | 1.000 | 0.124 | 1.000 | 1.000 | 1.000 | 1.000 | 10.32 | 8 | 13 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0640 | 0.5007 | 0.2511 | 1.009 | 1.383 | 1.000 | 0.055 | 1.000 | 1.000 | 1.000 | 1.000 | 11.33 | 8 | 15 | 20 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0399 | 0.5552 | 0.3328 | 1.012 | 1.529 | 1.000 | 0.018 | 1.000 | 1.000 | 1.000 | 1.000 | 12.93 | 9 | 18 | 23 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0314 | 0.5957 | 0.3936 | 1.015 | 1.667 | 1.000 | 0.005 | 1.000 | 1.000 | 1.000 | 1.000 | 14.38 | 10 | 19.5 | 25 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0554 | 0.4660 | 0.1990 | 1.008 | 1.310 | 1.000 | 0.113 | 1.000 | 1.000 | 1.000 | 1.000 | 10.48 | 8 | 14 | 20 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0334 | 0.5123 | 0.2684 | 1.010 | 1.427 | 1.000 | 0.045 | 1.000 | 1.000 | 1.000 | 1.000 | 11.64 | 9 | 15 | 21 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0257 | 0.5472 | 0.3208 | 1.012 | 1.538 | 1.000 | 0.019 | 1.000 | 1.000 | 1.000 | 1.000 | 12.68 | 9 | 17 | 23 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0425 | 0.4046 | 0.1070 | 1.006 | 1.188 | 1.000 | 0.344 | 1.000 | 1.000 | 1.000 | 1.000 | 9.21 | 8 | 11 | 16 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0244 | 0.4368 | 0.1552 | 1.007 | 1.261 | 1.000 | 0.200 | 1.000 | 1.000 | 1.000 | 1.000 | 9.85 | 8 | 13 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0178 | 0.4591 | 0.1886 | 1.008 | 1.325 | 1.000 | 0.124 | 1.000 | 1.000 | 1.000 | 1.000 | 10.32 | 8 | 13 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| | | | | | | | **Penalised regression methods** | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0717 | 0.4122 | 0.3821 | 1.016 | 1.388 | 1.000 | 0.169 | 1.000 | 0.205 | 0.102 | 0.092 | 12.10 | 5 | 25 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0349 | 0.3959 | 0.3713 | 1.020 | 1.421 | 1.000 | 0.115 | 1.000 | 0.178 | 0.088 | 0.048 | 11.95 | 5 | 33 | 48 | - | - | - | - |
| | 300 | 1.0000 | 0.0247 | 0.4318 | 0.4090 | 1.020 | 1.441 | 1.000 | 0.064 | 1.000 | 0.174 | 0.081 | 0.055 | 12.39 | 5 | 36 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0042 | 0.0526 | 0.0498 | 1.001 | 1.117 | 1.000 | 0.742 | 1.000 | 0.014 | 0.007 | 0.005 | 5.42 | 5 | 7 | 11 | - | - | - | - |
| | 200 | 1.0000 | 0.0023 | 0.0560 | 0.0540 | 1.001 | 1.125 | 1.000 | 0.727 | 1.000 | 0.010 | 0.005 | 0.003 | 5.45 | 5 | 7 | 13 | - | - | - | - |
| | 300 | 1.0000 | 0.0017 | 0.0610 | 0.0590 | 1.001 | 1.135 | 1.000 | 0.708 | 1.000 | 0.010 | 0.005 | 0.002 | 5.50 | 5 | 7 | 21 | - | - | - | - |

Notes: See notes to Table 100.

## Table 508: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7831 | 0.0608 | 0.5298 | 0.3005 | 1.123 | 1.995 | 0.306 | 0.017 | 1.000 | 0.996 | 0.860 | 0.613 | 9.94 | 6 | 15 | 20 | 1.185 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7493 | 0.0391 | 0.5995 | 0.4027 | 1.182 | 2.231 | 0.234 | 0.004 | 1.000 | 0.992 | 0.845 | 0.578 | 11.52 | 7 | 17 | 25 | 1.203 | 0.20 | 0.01 | 0.00 |
| | 300 | 0.7217 | 0.0311 | 0.6464 | 0.4687 | 1.229 | 2.371 | 0.192 | 0.002 | 1.000 | 0.995 | 0.843 | 0.575 | 12.92 | 7 | 20 | 27 | 1.207 | 0.20 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7541 | 0.0510 | 0.4939 | 0.2464 | 1.116 | 1.985 | 0.247 | 0.027 | 1.000 | 0.992 | 0.836 | 0.577 | 8.82 | 5 | 13 | 18 | 1.191 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7190 | 0.0318 | 0.5571 | 0.3391 | 1.165 | 2.198 | 0.189 | 0.007 | 1.000 | 0.990 | 0.815 | 0.543 | 9.93 | 6 | 15 | 21 | 1.204 | 0.20 | 0.01 | 0.00 |
| | 300 | 0.6950 | 0.0253 | 0.6023 | 0.4023 | 1.204 | 2.308 | 0.156 | 0.003 | 1.000 | 0.991 | 0.821 | 0.542 | 11.03 | 6 | 17 | 24 | 1.209 | 0.20 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6980 | 0.0363 | 0.4257 | 0.1465 | 1.107 | 2.035 | 0.182 | 0.058 | 1.000 | 0.985 | 0.776 | 0.500 | 7.08 | 4 | 10 | 14 | 1.245 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6656 | 0.0216 | 0.4756 | 0.2180 | 1.142 | 2.194 | 0.138 | 0.025 | 1.000 | 0.982 | 0.760 | 0.475 | 7.63 | 4 | 11.5 | 18 | 1.254 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.6572 | 0.0164 | 0.5056 | 0.2637 | 1.162 | 2.223 | 0.133 | 0.015 | 1.000 | 0.979 | 0.759 | 0.469 | 8.20 | 4 | 13 | 23 | 1.275 | 0.27 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.7662 | 0.0604 | 0.5328 | 0.3006 | 1.127 | 2.011 | 0.284 | 0.017 | 1.000 | 0.996 | 0.860 | 0.612 | 9.81 | 6 | 14 | 20 | 1.096 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7265 | 0.0388 | 0.6039 | 0.4040 | 1.188 | 2.247 | 0.212 | 0.003 | 1.000 | 0.992 | 0.845 | 0.578 | 11.34 | 6 | 17 | 25 | 1.086 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.7012 | 0.0309 | 0.6500 | 0.4699 | 1.232 | 2.376 | 0.177 | 0.002 | 1.000 | 0.995 | 0.843 | 0.575 | 12.75 | 7 | 19 | 27 | 1.102 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7333 | 0.0507 | 0.4986 | 0.2473 | 1.122 | 2.023 | 0.228 | 0.022 | 1.000 | 0.992 | 0.836 | 0.577 | 8.69 | 5 | 13 | 18 | 1.113 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6934 | 0.0316 | 0.5628 | 0.3411 | 1.173 | 2.231 | 0.166 | 0.005 | 1.000 | 0.990 | 0.815 | 0.543 | 9.76 | 5 | 15 | 21 | 1.104 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.6724 | 0.0251 | 0.6074 | 0.4045 | 1.210 | 2.331 | 0.139 | 0.003 | 1.000 | 0.991 | 0.821 | 0.542 | 10.87 | 6 | 17 | 24 | 1.113 | 0.11 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6723 | 0.0362 | 0.4322 | 0.1477 | 1.115 | 2.090 | 0.154 | 0.050 | 1.000 | 0.985 | 0.776 | 0.500 | 6.94 | 4 | 10 | 14 | 1.180 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6327 | 0.0215 | 0.4845 | 0.2209 | 1.154 | 2.260 | 0.104 | 0.018 | 1.000 | 0.982 | 0.760 | 0.475 | 7.45 | 4 | 11 | 18 | 1.179 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.6212 | 0.0164 | 0.5153 | 0.2677 | 1.176 | 2.297 | 0.101 | 0.011 | 1.000 | 0.979 | 0.759 | 0.469 | 8.01 | 4 | 13 | 23 | 1.202 | 0.20 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9290 | 0.0698 | 0.4687 | 0.4425 | 1.131 | 1.456 | 0.691 | 0.041 | 1.000 | 0.186 | 0.089 | 0.070 | 11.56 | 5 | 22.5 | 40 | - | - | - | - |
| | 200 | 0.9234 | 0.0520 | 0.5624 | 0.5421 | 1.162 | 1.558 | 0.670 | 0.023 | 1.000 | 0.180 | 0.087 | 0.064 | 14.97 | 5 | 30 | 47 | - | - | - | - |
| | 300 | 0.9120 | 0.0425 | 0.6135 | 0.5970 | 1.185 | 1.597 | 0.628 | 0.012 | 1.000 | 0.180 | 0.089 | 0.052 | 17.27 | 6 | 34 | 63 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6920 | 0.0257 | 0.2008 | 0.1922 | 1.167 | 2.019 | 0.267 | 0.026 | 1.000 | 0.067 | 0.029 | 0.027 | 6.01 | 1 | 16 | 28 | - | - | - | - |
| | 200 | 0.7211 | 0.0232 | 0.3047 | 0.2955 | 1.191 | 2.159 | 0.301 | 0.011 | 1.000 | 0.061 | 0.040 | 0.026 | 8.22 | 1 | 21 | 36 | - | - | - | - |
| | 300 | 0.7199 | 0.0196 | 0.3510 | 0.3423 | 1.220 | 2.226 | 0.295 | 0.009 | 1.000 | 0.080 | 0.040 | 0.020 | 9.47 | 1 | 23 | 46 | - | - | - | - |

Notes: See notes to Table 100.

**Table 509: Monte Carlo findings for DGPI(b)**

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9969 | 0.0630 | 0.4973 | 0.2459 | 1.019 | 1.469 | 0.985 | 0.059 | 1.000 | 1.000 | 1.000 | 0.993 | 11.22 | 8 | 15 | 18 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9936 | 0.0405 | 0.5602 | 0.3399 | 1.030 | 1.720 | 0.968 | 0.014 | 1.000 | 1.000 | 1.000 | 0.991 | 13.02 | 9 | 18 | 24 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9938 | 0.0311 | 0.5960 | 0.3938 | 1.036 | 1.820 | 0.970 | 0.005 | 1.000 | 1.000 | 1.000 | 0.989 | 14.27 | 10 | 19 | 25 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9952 | 0.0541 | 0.4609 | 0.1912 | 1.016 | 1.396 | 0.976 | 0.125 | 1.000 | 1.000 | 1.000 | 0.989 | 10.33 | 8 | 14 | 17 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9915 | 0.0337 | 0.5160 | 0.2736 | 1.024 | 1.610 | 0.959 | 0.038 | 1.000 | 1.000 | 1.000 | 0.985 | 11.66 | 8 | 15 | 22 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9918 | 0.0256 | 0.5481 | 0.3218 | 1.029 | 1.690 | 0.961 | 0.017 | 1.000 | 1.000 | 1.000 | 0.987 | 12.60 | 9 | 17 | 23 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9867 | 0.0419 | 0.4039 | 0.1041 | 1.013 | 1.332 | 0.934 | 0.320 | 1.000 | 1.000 | 1.000 | 0.982 | 9.08 | 8 | 11 | 14 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9833 | 0.0242 | 0.4388 | 0.1567 | 1.018 | 1.470 | 0.919 | 0.179 | 1.000 | 1.000 | 1.000 | 0.974 | 9.74 | 8 | 13 | 18 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9803 | 0.0177 | 0.4620 | 0.1907 | 1.020 | 1.552 | 0.908 | 0.111 | 1.000 | 1.000 | 1.000 | 0.975 | 10.20 | 8 | 13 | 18 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9967 | 0.0629 | 0.4969 | 0.2453 | 1.019 | 1.460 | 0.984 | 0.059 | 1.000 | 1.000 | 1.000 | 0.993 | 11.21 | 8 | 15 | 18 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9933 | 0.0404 | 0.5597 | 0.3391 | 1.029 | 1.705 | 0.967 | 0.014 | 1.000 | 1.000 | 1.000 | 0.991 | 13.00 | 9 | 18 | 24 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9932 | 0.0311 | 0.5958 | 0.3934 | 1.035 | 1.812 | 0.967 | 0.005 | 1.000 | 1.000 | 1.000 | 0.989 | 14.26 | 10 | 19 | 25 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9950 | 0.0540 | 0.4605 | 0.1906 | 1.016 | 1.388 | 0.975 | 0.125 | 1.000 | 1.000 | 1.000 | 0.989 | 10.32 | 8 | 14 | 17 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9909 | 0.0336 | 0.5157 | 0.2731 | 1.024 | 1.605 | 0.956 | 0.038 | 1.000 | 1.000 | 1.000 | 0.985 | 11.65 | 8 | 15 | 22 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9907 | 0.0255 | 0.5482 | 0.3217 | 1.029 | 1.693 | 0.956 | 0.017 | 1.000 | 1.000 | 1.000 | 0.987 | 12.59 | 9 | 17 | 23 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9861 | 0.0418 | 0.4039 | 0.1039 | 1.013 | 1.335 | 0.931 | 0.321 | 1.000 | 1.000 | 1.000 | 0.982 | 9.07 | 8 | 11 | 14 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9823 | 0.0242 | 0.4387 | 0.1564 | 1.018 | 1.473 | 0.915 | 0.179 | 1.000 | 1.000 | 1.000 | 0.974 | 9.73 | 8 | 13 | 18 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9794 | 0.0177 | 0.4621 | 0.1906 | 1.020 | 1.557 | 0.905 | 0.111 | 1.000 | 1.000 | 1.000 | 0.975 | 10.19 | 8 | 13 | 18 | 1.005 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0675 | 0.4542 | 0.4251 | 1.027 | 1.378 | 0.998 | 0.064 | 1.000 | 0.206 | 0.118 | 0.085 | 11.68 | 6 | 21 | 42 | - | - | - | - |
| | 200 | 0.9997 | 0.0431 | 0.5071 | 0.4841 | 1.035 | 1.455 | 0.999 | 0.050 | 1.000 | 0.191 | 0.091 | 0.060 | 13.57 | 6 | 26 | 49 | - | - | - | - |
| | 300 | 0.9989 | 0.0329 | 0.5357 | 0.5139 | 1.039 | 1.480 | 0.995 | 0.037 | 1.000 | 0.185 | 0.083 | 0.054 | 14.83 | 6 | 29 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9813 | 0.0220 | 0.2215 | 0.2094 | 1.019 | 1.555 | 0.949 | 0.234 | 1.000 | 0.054 | 0.033 | 0.030 | 7.09 | 5 | 12 | 23 | - | - | - | - |
| | 200 | 0.9826 | 0.0145 | 0.2683 | 0.2588 | 1.023 | 1.669 | 0.951 | 0.184 | 1.000 | 0.056 | 0.029 | 0.020 | 7.81 | 5 | 13 | 22 | - | - | - | - |
| | 300 | 0.9821 | 0.0112 | 0.2912 | 0.2822 | 1.025 | 1.725 | 0.944 | 0.152 | 1.000 | 0.061 | 0.025 | 0.017 | 8.26 | 5 | 15 | 32 | - | - | - | - |

Notes: See notes to Table 100.

## Table 510: Monte Carlo findings for DGPI(b)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0635 | 0.4990 | 0.2484 | 1.011 | 1.432 | 1.000 | 0.058 | 1.000 | 1.000 | 1.000 | 1.000 | 11.28 | 8 | 15 | 19 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0395 | 0.5534 | 0.3301 | 1.015 | 1.631 | 1.000 | 0.012 | 1.000 | 1.000 | 1.000 | 1.000 | 12.86 | 9 | 17 | 22 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0306 | 0.5906 | 0.3859 | 1.018 | 1.749 | 1.000 | 0.005 | 1.000 | 1.000 | 1.000 | 1.000 | 14.14 | 10 | 19 | 26 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0547 | 0.4634 | 0.1952 | 1.009 | 1.349 | 1.000 | 0.115 | 1.000 | 1.000 | 1.000 | 1.000 | 10.42 | 8 | 14 | 17 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0330 | 0.5096 | 0.2643 | 1.012 | 1.509 | 1.000 | 0.042 | 1.000 | 1.000 | 1.000 | 1.000 | 11.57 | 9 | 15 | 20 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0251 | 0.5424 | 0.3135 | 1.015 | 1.608 | 1.000 | 0.020 | 1.000 | 1.000 | 1.000 | 1.000 | 12.50 | 9 | 17 | 22 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0422 | 0.4035 | 0.1053 | 1.006 | 1.209 | 1.000 | 0.335 | 1.000 | 1.000 | 1.000 | 1.000 | 9.18 | 8 | 11 | 14 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0238 | 0.4320 | 0.1480 | 1.008 | 1.311 | 1.000 | 0.209 | 1.000 | 1.000 | 1.000 | 1.000 | 9.74 | 8 | 12 | 17 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0176 | 0.4572 | 0.1858 | 1.009 | 1.381 | 0.998 | 0.121 | 1.000 | 1.000 | 1.000 | 1.000 | 10.27 | 8 | 13 | 17 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0634 | 0.4986 | 0.2478 | 1.011 | 1.422 | 1.000 | 0.059 | 1.000 | 1.000 | 1.000 | 1.000 | 11.27 | 8 | 15 | 19 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0394 | 0.5531 | 0.3297 | 1.015 | 1.623 | 1.000 | 0.012 | 1.000 | 1.000 | 1.000 | 1.000 | 12.85 | 9 | 17 | 22 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0305 | 0.5903 | 0.3854 | 1.018 | 1.740 | 1.000 | 0.005 | 1.000 | 1.000 | 1.000 | 1.000 | 14.13 | 10 | 19 | 25 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0547 | 0.4631 | 0.1947 | 1.009 | 1.342 | 1.000 | 0.116 | 1.000 | 1.000 | 1.000 | 1.000 | 10.41 | 8 | 14 | 17 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0330 | 0.5093 | 0.2639 | 1.012 | 1.501 | 1.000 | 0.043 | 1.000 | 1.000 | 1.000 | 1.000 | 11.56 | 9 | 15 | 20 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0251 | 0.5421 | 0.3131 | 1.015 | 1.600 | 1.000 | 0.021 | 1.000 | 1.000 | 1.000 | 1.000 | 12.49 | 9 | 17 | 22 | 1.000 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0422 | 0.4034 | 0.1052 | 1.006 | 1.208 | 1.000 | 0.335 | 1.000 | 1.000 | 1.000 | 1.000 | 9.18 | 8 | 11 | 14 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0238 | 0.4319 | 0.1479 | 1.008 | 1.307 | 1.000 | 0.209 | 1.000 | 1.000 | 1.000 | 1.000 | 9.74 | 8 | 12 | 17 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9994 | 0.0176 | 0.4571 | 0.1856 | 1.009 | 1.380 | 0.997 | 0.121 | 1.000 | 1.000 | 1.000 | 1.000 | 10.26 | 8 | 13 | 17 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0658 | 0.4534 | 0.4212 | 1.014 | 1.344 | 1.000 | 0.050 | 1.000 | 0.203 | 0.111 | 0.082 | 11.51 | 6 | 24 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0416 | 0.4985 | 0.4732 | 1.019 | 1.409 | 1.000 | 0.073 | 1.000 | 0.197 | 0.093 | 0.071 | 13.27 | 5 | 23 | 55 | - | - | - | - |
| | 300 | 1.0000 | 0.0318 | 0.5160 | 0.4956 | 1.021 | 1.440 | 1.000 | 0.062 | 1.000 | 0.184 | 0.087 | 0.062 | 14.50 | 5 | 27 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9990 | 0.0121 | 0.1360 | 0.1277 | 1.004 | 1.255 | 0.998 | 0.444 | 1.000 | 0.040 | 0.023 | 0.014 | 6.19 | 5 | 9 | 17 | - | - | - | - |
| | 200 | 0.9994 | 0.0076 | 0.1654 | 0.1584 | 1.004 | 1.311 | 0.999 | 0.370 | 1.000 | 0.033 | 0.017 | 0.015 | 6.50 | 5 | 10 | 17 | - | - | - | - |
| | 300 | 0.9992 | 0.0057 | 0.1789 | 0.1728 | 1.005 | 1.336 | 0.998 | 0.362 | 1.000 | 0.029 | 0.011 | 0.011 | 6.69 | 5 | 11 | 22 | - | - | - | - |

Notes: See notes to Table 100.

## Table 511: Monte Carlo findings for DGPI(b)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6186 | 0.0591 | 0.5692 | 0.3175 | 1.125 | 1.894 | 0.113 | 0.007 | 1.000 | 0.994 | 0.853 | 0.588 | 8.94 | 5 | 14 | 21 | 1.228 | 0.22 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5766 | 0.0377 | 0.6364 | 0.4215 | 1.179 | 2.070 | 0.091 | 0.002 | 1.000 | 0.986 | 0.834 | 0.560 | 10.38 | 5 | 16 | 23 | 1.244 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.5459 | 0.0305 | 0.6890 | 0.5006 | 1.244 | 2.263 | 0.065 | 0.000 | 1.000 | 0.990 | 0.826 | 0.544 | 11.84 | 6 | 18 | 33 | 1.257 | 0.25 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.5898 | 0.0493 | 0.5336 | 0.2598 | 1.113 | 1.845 | 0.090 | 0.012 | 1.000 | 0.992 | 0.828 | 0.548 | 7.83 | 4 | 12 | 18 | 1.253 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5524 | 0.0308 | 0.5946 | 0.3550 | 1.158 | 1.992 | 0.075 | 0.003 | 1.000 | 0.984 | 0.811 | 0.521 | 8.89 | 4 | 14 | 18 | 1.255 | 0.25 | 0.01 | 0.00 |
| | 300 | 0.5210 | 0.0245 | 0.6470 | 0.4318 | 1.215 | 2.167 | 0.058 | 0.001 | 1.000 | 0.988 | 0.804 | 0.511 | 9.94 | 5 | 16 | 28 | 1.265 | 0.26 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.5439 | 0.0352 | 0.4660 | 0.1562 | 1.099 | 1.778 | 0.083 | 0.031 | 1.000 | 0.982 | 0.766 | 0.473 | 6.21 | 3 | 10 | 13 | 1.303 | 0.30 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5109 | 0.0209 | 0.5134 | 0.2288 | 1.127 | 1.877 | 0.067 | 0.011 | 1.000 | 0.972 | 0.752 | 0.451 | 6.71 | 3 | 11 | 15 | 1.315 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.4826 | 0.0159 | 0.5563 | 0.2901 | 1.170 | 2.006 | 0.061 | 0.006 | 1.000 | 0.980 | 0.747 | 0.418 | 7.17 | 3 | 11 | 22 | 1.305 | 0.30 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5848 | 0.0587 | 0.5781 | 0.3207 | 1.130 | 1.900 | 0.084 | 0.005 | 1.000 | 0.994 | 0.853 | 0.588 | 8.73 | 5 | 13 | 21 | 1.138 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5397 | 0.0375 | 0.6464 | 0.4266 | 1.186 | 2.075 | 0.064 | 0.001 | 1.000 | 0.986 | 0.834 | 0.560 | 10.16 | 5 | 16 | 23 | 1.138 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.5063 | 0.0303 | 0.6992 | 0.5065 | 1.254 | 2.264 | 0.047 | 0.000 | 1.000 | 0.990 | 0.826 | 0.544 | 11.58 | 6 | 18 | 31 | 1.128 | 0.13 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5501 | 0.0491 | 0.5453 | 0.2638 | 1.122 | 1.866 | 0.064 | 0.007 | 1.000 | 0.992 | 0.828 | 0.548 | 7.61 | 4 | 12 | 18 | 1.160 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5094 | 0.0307 | 0.6078 | 0.3619 | 1.170 | 2.013 | 0.049 | 0.002 | 1.000 | 0.984 | 0.811 | 0.521 | 8.65 | 4 | 14 | 18 | 1.154 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.4797 | 0.0244 | 0.6588 | 0.4381 | 1.227 | 2.179 | 0.037 | 0.001 | 1.000 | 0.988 | 0.804 | 0.511 | 9.69 | 5 | 15 | 28 | 1.151 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4979 | 0.0352 | 0.4807 | 0.1602 | 1.111 | 1.813 | 0.053 | 0.019 | 1.000 | 0.982 | 0.766 | 0.473 | 5.97 | 3 | 9 | 13 | 1.217 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4612 | 0.0208 | 0.5293 | 0.2346 | 1.142 | 1.909 | 0.040 | 0.008 | 1.000 | 0.972 | 0.752 | 0.451 | 6.45 | 3 | 10.5 | 14 | 1.216 | 0.22 | 0.00 | 0.00 |
| | 300 | 0.4314 | 0.0159 | 0.5732 | 0.2977 | 1.185 | 2.031 | 0.034 | 0.005 | 1.000 | 0.980 | 0.747 | 0.418 | 6.91 | 3 | 11 | 22 | 1.196 | 0.20 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7773 | 0.0612 | 0.4645 | 0.4393 | 1.120 | 1.264 | 0.261 | 0.012 | 1.000 | 0.164 | 0.079 | 0.063 | 9.94 | 3 | 20 | 46 | - | - | - | - |
| | 200 | 0.7588 | 0.0453 | 0.5477 | 0.5273 | 1.147 | 1.335 | 0.237 | 0.005 | 1.000 | 0.169 | 0.068 | 0.056 | 12.81 | 3 | 28 | 54 | - | - | - | - |
| | 300 | 0.7507 | 0.0406 | 0.6210 | 0.6020 | 1.174 | 1.433 | 0.220 | 0.004 | 1.000 | 0.164 | 0.082 | 0.052 | 15.91 | 4 | 34 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4876 | 0.0183 | 0.1604 | 0.1543 | 1.127 | 1.620 | 0.054 | 0.004 | 1.000 | 0.033 | 0.021 | 0.016 | 4.25 | 1 | 13 | 36 | - | - | - | - |
| | 200 | 0.4951 | 0.0166 | 0.2321 | 0.2257 | 1.152 | 1.754 | 0.059 | 0.002 | 1.000 | 0.063 | 0.024 | 0.018 | 5.77 | 1 | 19 | 43 | - | - | - | - |
| | 300 | 0.5265 | 0.0184 | 0.3239 | 0.3157 | 1.191 | 1.970 | 0.063 | 0.000 | 1.000 | 0.061 | 0.040 | 0.023 | 8.13 | 1 | 24.5 | 54 | - | - | - | - |

Notes: See notes to Table 100.

**Table 512: Monte Carlo findings for DGPI(b)**

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9398 | 0.0625 | 0.5082 | 0.2490 | 1.025 | 1.651 | 0.748 | 0.045 | 1.000 | 1.000 | 1.000 | 0.987 | 10.88 | 8 | 15 | 21 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9228 | 0.0396 | 0.5718 | 0.3428 | 1.038 | 1.920 | 0.690 | 0.010 | 1.000 | 1.000 | 1.000 | 0.989 | 12.50 | 9 | 17 | 25 | 1.029 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9096 | 0.0302 | 0.6065 | 0.3943 | 1.047 | 2.065 | 0.648 | 0.007 | 1.000 | 1.000 | 1.000 | 0.976 | 13.57 | 9 | 18 | 26 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9215 | 0.0541 | 0.4786 | 0.1987 | 1.023 | 1.635 | 0.687 | 0.076 | 1.000 | 1.000 | 1.000 | 0.986 | 9.97 | 7 | 13 | 17 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9016 | 0.0333 | 0.5344 | 0.2804 | 1.033 | 1.873 | 0.616 | 0.029 | 1.000 | 1.000 | 1.000 | 0.985 | 11.14 | 8 | 15 | 23 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.8894 | 0.0249 | 0.5648 | 0.3255 | 1.041 | 1.995 | 0.586 | 0.016 | 1.000 | 1.000 | 1.000 | 0.972 | 11.88 | 8 | 16 | 25 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8777 | 0.0420 | 0.4302 | 0.1119 | 1.021 | 1.670 | 0.555 | 0.193 | 1.000 | 1.000 | 1.000 | 0.973 | 8.55 | 6 | 11 | 15 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8474 | 0.0239 | 0.4682 | 0.1628 | 1.029 | 1.875 | 0.471 | 0.103 | 1.000 | 1.000 | 1.000 | 0.968 | 8.99 | 6 | 12 | 16 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8378 | 0.0171 | 0.4885 | 0.1939 | 1.034 | 1.950 | 0.448 | 0.063 | 1.000 | 1.000 | 1.000 | 0.953 | 9.32 | 7 | 12 | 17 | 1.047 | 0.05 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9376 | 0.0624 | 0.5084 | 0.2487 | 1.025 | 1.654 | 0.747 | 0.046 | 1.000 | 1.000 | 1.000 | 0.987 | 10.86 | 8 | 15 | 21 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9201 | 0.0396 | 0.5722 | 0.3427 | 1.038 | 1.919 | 0.685 | 0.010 | 1.000 | 1.000 | 1.000 | 0.989 | 12.47 | 9 | 17 | 25 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9071 | 0.0302 | 0.6070 | 0.3944 | 1.048 | 2.068 | 0.645 | 0.007 | 1.000 | 1.000 | 1.000 | 0.976 | 13.55 | 9 | 18 | 26 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9187 | 0.0541 | 0.4791 | 0.1986 | 1.023 | 1.643 | 0.685 | 0.077 | 1.000 | 1.000 | 1.000 | 0.986 | 9.95 | 7 | 13 | 17 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8978 | 0.0333 | 0.5353 | 0.2807 | 1.034 | 1.885 | 0.612 | 0.029 | 1.000 | 1.000 | 1.000 | 0.985 | 11.11 | 8 | 15 | 23 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.8860 | 0.0248 | 0.5655 | 0.3258 | 1.042 | 2.002 | 0.583 | 0.016 | 1.000 | 1.000 | 1.000 | 0.972 | 11.86 | 8 | 16 | 25 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8737 | 0.0420 | 0.4313 | 0.1121 | 1.022 | 1.686 | 0.553 | 0.192 | 1.000 | 1.000 | 1.000 | 0.973 | 8.52 | 6 | 11 | 15 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8417 | 0.0239 | 0.4699 | 0.1633 | 1.030 | 1.898 | 0.465 | 0.103 | 1.000 | 1.000 | 1.000 | 0.968 | 8.96 | 6 | 12 | 16 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.8320 | 0.0171 | 0.4901 | 0.1944 | 1.035 | 1.970 | 0.444 | 0.062 | 1.000 | 1.000 | 1.000 | 0.953 | 9.28 | 6 | 12 | 17 | 1.028 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9800 | 0.0683 | 0.4613 | 0.4309 | 1.030 | 1.370 | 0.903 | 0.050 | 1.000 | 0.213 | 0.107 | 0.083 | 11.66 | 5 | 22 | 44 | - | - | - | - |
| | 200 | 0.9768 | 0.0413 | 0.4998 | 0.4767 | 1.036 | 1.435 | 0.887 | 0.043 | 1.000 | 0.192 | 0.095 | 0.060 | 13.10 | 5 | 25 | 48 | - | - | - | - |
| | 300 | 0.9738 | 0.0314 | 0.5307 | 0.5092 | 1.042 | 1.463 | 0.875 | 0.035 | 1.000 | 0.163 | 0.083 | 0.057 | 14.25 | 5.5 | 28 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8505 | 0.0276 | 0.2579 | 0.2437 | 1.040 | 1.849 | 0.603 | 0.074 | 1.000 | 0.073 | 0.044 | 0.034 | 6.98 | 2 | 13 | 25 | - | - | - | - |
| | 200 | 0.8502 | 0.0181 | 0.3040 | 0.2923 | 1.044 | 1.982 | 0.595 | 0.051 | 1.000 | 0.070 | 0.037 | 0.020 | 7.85 | 1 | 16 | 28 | - | - | - | - |
| | 300 | 0.8565 | 0.0137 | 0.3315 | 0.3198 | 1.048 | 2.035 | 0.600 | 0.048 | 1.000 | 0.061 | 0.033 | 0.025 | 8.39 | 2 | 17 | 31 | - | - | - | - |

Notes: See notes to Table 100.

**Table 513: Monte Carlo findings for DGPI(b)**

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9957 | 0.0627 | 0.4964 | 0.2437 | 1.012 | 1.510 | 0.979 | 0.059 | 1.000 | 1.000 | 1.000 | 1.000 | 11.18 | 8 | 15 | 20 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9934 | 0.0390 | 0.5509 | 0.3250 | 1.018 | 1.713 | 0.968 | 0.017 | 1.000 | 1.000 | 1.000 | 1.000 | 12.72 | 9 | 17 | 27 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9917 | 0.0297 | 0.5855 | 0.3767 | 1.021 | 1.870 | 0.959 | 0.006 | 1.000 | 1.000 | 1.000 | 0.999 | 13.85 | 10 | 19 | 24 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9941 | 0.0543 | 0.4626 | 0.1925 | 1.010 | 1.431 | 0.971 | 0.114 | 1.000 | 1.000 | 1.000 | 1.000 | 10.35 | 8 | 13 | 18 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9901 | 0.0326 | 0.5086 | 0.2607 | 1.014 | 1.610 | 0.952 | 0.045 | 1.000 | 1.000 | 1.000 | 1.000 | 11.44 | 8 | 15 | 24 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9883 | 0.0244 | 0.5382 | 0.3048 | 1.017 | 1.740 | 0.944 | 0.019 | 1.000 | 1.000 | 1.000 | 0.999 | 12.24 | 9 | 16 | 23 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9846 | 0.0420 | 0.4053 | 0.1038 | 1.008 | 1.336 | 0.928 | 0.322 | 1.000 | 1.000 | 1.000 | 0.999 | 9.08 | 8 | 11 | 16 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9808 | 0.0238 | 0.4357 | 0.1484 | 1.010 | 1.455 | 0.910 | 0.190 | 1.000 | 1.000 | 1.000 | 1.000 | 9.64 | 8 | 12 | 20 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9756 | 0.0170 | 0.4546 | 0.1758 | 1.012 | 1.558 | 0.889 | 0.133 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 8 | 13 | 19 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9954 | 0.0626 | 0.4962 | 0.2432 | 1.012 | 1.504 | 0.978 | 0.059 | 1.000 | 1.000 | 1.000 | 1.000 | 11.17 | 8 | 15 | 20 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9934 | 0.0389 | 0.5507 | 0.3247 | 1.017 | 1.707 | 0.968 | 0.017 | 1.000 | 1.000 | 1.000 | 1.000 | 12.71 | 9 | 17 | 27 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9916 | 0.0297 | 0.5852 | 0.3764 | 1.021 | 1.862 | 0.959 | 0.006 | 1.000 | 1.000 | 1.000 | 0.999 | 13.84 | 10 | 19 | 24 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9936 | 0.0542 | 0.4625 | 0.1921 | 1.010 | 1.428 | 0.969 | 0.114 | 1.000 | 1.000 | 1.000 | 1.000 | 10.34 | 8 | 13 | 18 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9901 | 0.0326 | 0.5085 | 0.2606 | 1.014 | 1.607 | 0.952 | 0.045 | 1.000 | 1.000 | 1.000 | 1.000 | 11.44 | 8 | 15 | 24 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9882 | 0.0244 | 0.5381 | 0.3047 | 1.017 | 1.737 | 0.943 | 0.019 | 1.000 | 1.000 | 1.000 | 0.999 | 12.23 | 9 | 16 | 23 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9843 | 0.0419 | 0.4053 | 0.1037 | 1.008 | 1.336 | 0.926 | 0.322 | 1.000 | 1.000 | 1.000 | 0.999 | 9.07 | 8 | 11 | 16 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9803 | 0.0238 | 0.4358 | 0.1484 | 1.010 | 1.458 | 0.908 | 0.189 | 1.000 | 1.000 | 1.000 | 1.000 | 9.63 | 8 | 12 | 20 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9754 | 0.0170 | 0.4546 | 0.1758 | 1.012 | 1.558 | 0.889 | 0.133 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 8 | 13 | 19 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9985 | 0.0718 | 0.4676 | 0.4368 | 1.016 | 1.368 | 0.993 | 0.061 | 1.000 | 0.191 | 0.131 | 0.075 | 12.10 | 5 | 21 | 48 | - | - | - | - |
| | 200 | 0.9977 | 0.0415 | 0.4900 | 0.4643 | 1.020 | 1.422 | 0.989 | 0.048 | 1.000 | 0.200 | 0.085 | 0.071 | 13.25 | 6 | 27 | 55 | - | - | - | - |
| | 300 | 0.9973 | 0.0302 | 0.5142 | 0.4920 | 1.021 | 1.447 | 0.987 | 0.040 | 1.000 | 0.197 | 0.098 | 0.063 | 14.02 | 6 | 30 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9689 | 0.0207 | 0.2130 | 0.2010 | 1.011 | 1.581 | 0.905 | 0.233 | 1.000 | 0.049 | 0.040 | 0.021 | 6.89 | 4 | 11 | 21 | - | - | - | - |
| | 200 | 0.9660 | 0.0123 | 0.2356 | 0.2259 | 1.013 | 1.658 | 0.893 | 0.204 | 1.000 | 0.057 | 0.028 | 0.021 | 7.27 | 4 | 13 | 25 | - | - | - | - |
| | 300 | 0.9622 | 0.0092 | 0.2565 | 0.2476 | 1.014 | 1.715 | 0.879 | 0.175 | 1.000 | 0.053 | 0.032 | 0.018 | 7.55 | 4 | 13 | 24 | - | - | - | - |

Notes: See notes to Table 100.

**Table 514: Monte Carlo findings for DGPI(c)**

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9382 | 0.1049 | 0.4333 | 0.2141 | 1.221 | 8.258 | 0.730 | 0.400 | 1.000 | 0.983 | 0.820 | 0.538 | 15.07 | 6 | 56 | 104 | 1.338 | 0.26 | 0.03 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9234 | 0.1107 | 0.4397 | 0.2263 | 1.557 | 7.906 | 0.694 | 0.370 | 1.000 | 0.983 | 0.785 | 0.526 | 26.65 | 5 | 187 | 204 | 1.987 | 0.32 | 0.11 | 0.09 |
| | 300 | 0.9198 | 0.1221 | 0.4509 | 0.2418 | 1.509 | 7.266 | 0.673 | 0.335 | 1.000 | 0.985 | 0.787 | 0.528 | 41.09 | 5 | 258 | 304 | 2.391 | 0.38 | 0.15 | 0.13 |
| $p = 0.05$, | 100 | 0.9213 | 0.0897 | 0.4080 | 0.1841 | 1.182 | 6.767 | 0.664 | 0.405 | 1.000 | 0.980 | 0.786 | 0.499 | 13.49 | 5 | 52 | 104 | 1.319 | 0.28 | 0.02 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9039 | 0.0909 | 0.4131 | 0.1929 | 1.463 | 7.106 | 0.624 | 0.373 | 1.000 | 0.978 | 0.757 | 0.487 | 22.62 | 5 | 185 | 204 | 1.848 | 0.33 | 0.09 | 0.08 |
| | 300 | 0.8989 | 0.1062 | 0.4236 | 0.2090 | 1.454 | 6.718 | 0.603 | 0.333 | 1.000 | 0.977 | 0.755 | 0.481 | 36.24 | 5 | 258 | 304 | 2.312 | 0.38 | 0.12 | 0.11 |
| $p = 0.01$, | 100 | 0.8778 | 0.0660 | 0.3624 | 0.1330 | 1.123 | 3.668 | 0.519 | 0.370 | 1.000 | 0.963 | 0.711 | 0.418 | 10.93 | 4 | 43 | 87 | 1.360 | 0.35 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8595 | 0.0624 | 0.3630 | 0.1339 | 1.327 | 5.599 | 0.485 | 0.342 | 1.000 | 0.957 | 0.687 | 0.414 | 16.71 | 4 | 60 | 204 | 1.734 | 0.43 | 0.06 | 0.04 |
| | 300 | 0.8538 | 0.0750 | 0.3751 | 0.1525 | 1.361 | 5.837 | 0.474 | 0.307 | 1.000 | 0.964 | 0.679 | 0.399 | 26.70 | 4 | 252 | 304 | 2.072 | 0.45 | 0.08 | 0.08 |
| $p = 0.1$, | 100 | 0.9208 | 0.1030 | 0.4347 | 0.2124 | 1.184 | 6.715 | 0.667 | 0.371 | 1.000 | 0.983 | 0.819 | 0.536 | 14.80 | 5 | 56 | 104 | 1.188 | 0.16 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9035 | 0.1041 | 0.4405 | 0.2231 | 1.508 | 7.515 | 0.630 | 0.345 | 1.000 | 0.983 | 0.784 | 0.522 | 25.23 | 5 | 186 | 204 | 1.775 | 0.22 | 0.09 | 0.08 |
| | 300 | 0.8963 | 0.1174 | 0.4530 | 0.2386 | 1.493 | 7.110 | 0.609 | 0.307 | 1.000 | 0.984 | 0.786 | 0.525 | 39.59 | 5 | 257 | 304 | 2.196 | 0.28 | 0.13 | 0.12 |
| $p = 0.05$, | 100 | 0.9013 | 0.0887 | 0.4105 | 0.1830 | 1.148 | 4.540 | 0.605 | 0.375 | 1.000 | 0.980 | 0.785 | 0.498 | 13.29 | 5 | 52 | 104 | 1.197 | 0.19 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8787 | 0.0856 | 0.4164 | 0.1910 | 1.428 | 6.752 | 0.555 | 0.333 | 1.000 | 0.978 | 0.757 | 0.485 | 21.43 | 5 | 183 | 204 | 1.665 | 0.24 | 0.07 | 0.06 |
| | 300 | 0.8715 | 0.1004 | 0.4272 | 0.2071 | 1.440 | 6.572 | 0.530 | 0.293 | 1.000 | 0.977 | 0.755 | 0.479 | 34.37 | 5 | 255 | 304 | 2.103 | 0.29 | 0.10 | 0.10 |
| $p = 0.01$, | 100 | 0.8506 | 0.0658 | 0.3673 | 0.1333 | 1.133 | 3.655 | 0.445 | 0.321 | 1.000 | 0.963 | 0.711 | 0.418 | 10.77 | 4 | 43 | 85 | 1.275 | 0.27 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8228 | 0.0589 | 0.3693 | 0.1333 | 1.337 | 5.621 | 0.403 | 0.279 | 1.000 | 0.957 | 0.687 | 0.413 | 15.84 | 4 | 59 | 204 | 1.576 | 0.32 | 0.04 | 0.04 |
| | 300 | 0.8146 | 0.0724 | 0.3823 | 0.1527 | 1.363 | 5.785 | 0.392 | 0.250 | 1.000 | 0.964 | 0.679 | 0.398 | 25.71 | 4 | 249 | 304 | 1.922 | 0.36 | 0.07 | 0.07 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9981 | 0.0599 | 0.4271 | 0.3972 | 1.092 | 1.558 | 0.991 | 0.074 | 1.000 | 0.180 | 0.096 | 0.095 | 10.92 | 5 | 20 | 40 | - | - | - | - |
| | 200 | 0.9976 | 0.0396 | 0.4876 | 0.4630 | 1.105 | 1.653 | 0.988 | 0.055 | 1.000 | 0.173 | 0.087 | 0.078 | 12.87 | 6 | 25 | 62 | - | - | - | - |
| | 300 | 0.9962 | 0.0330 | 0.5369 | 0.5163 | 1.116 | 1.750 | 0.982 | 0.044 | 1.000 | 0.175 | 0.089 | 0.079 | 14.83 | 6 | 30 | 71 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9143 | 0.0217 | 0.1899 | 0.1782 | 1.126 | 2.230 | 0.724 | 0.227 | 1.000 | 0.050 | 0.028 | 0.025 | 6.72 | 3 | 13 | 28 | - | - | - | - |
| | 200 | 0.9142 | 0.0153 | 0.2384 | 0.2289 | 1.134 | 2.422 | 0.730 | 0.182 | 1.000 | 0.054 | 0.030 | 0.027 | 7.62 | 3 | 16 | 33 | - | - | - | - |
| | 300 | 0.9142 | 0.0129 | 0.2822 | 0.2733 | 1.146 | 2.577 | 0.736 | 0.142 | 1.000 | 0.053 | 0.035 | 0.031 | 8.44 | 3 | 18 | 32 | - | - | - | - |

Notes: See notes to Table 100.

## Table 515: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.1201 | 0.4755 | 0.2151 | 1.026 | 3.187 | 1.000 | 0.578 | 1.000 | 1.000 | 1.000 | 0.983 | 16.89 | 8 | 61 | 88 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0915 | 0.4834 | 0.2290 | 1.047 | 4.782 | 1.000 | 0.582 | 1.000 | 1.000 | 1.000 | 0.964 | 23.21 | 8 | 112.5 | 170 | 1.030 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0830 | 0.4905 | 0.2389 | 1.100 | 8.101 | 1.000 | 0.574 | 1.000 | 1.000 | 1.000 | 0.970 | 29.80 | 8 | 164.5 | 263 | 1.098 | 0.06 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 1.0000 | 0.1051 | 0.4550 | 0.1848 | 1.023 | 2.914 | 1.000 | 0.632 | 1.000 | 1.000 | 1.000 | 0.979 | 15.41 | 8 | 58 | 86 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0791 | 0.4604 | 0.1953 | 1.039 | 4.286 | 1.000 | 0.641 | 1.000 | 1.000 | 1.000 | 0.957 | 20.74 | 8 | 103.5 | 168 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0717 | 0.4684 | 0.2067 | 1.082 | 7.022 | 1.000 | 0.639 | 1.000 | 1.000 | 1.000 | 0.962 | 26.44 | 8 | 152 | 252 | 1.072 | 0.04 | 0.01 | 0.01 |
| $p = 0.01$, | 100 | 1.0000 | 0.0799 | 0.4156 | 0.1278 | 1.017 | 2.419 | 1.000 | 0.744 | 1.000 | 1.000 | 0.999 | 0.964 | 12.91 | 8 | 47 | 85 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0586 | 0.4213 | 0.1397 | 1.029 | 3.447 | 1.000 | 0.742 | 1.000 | 1.000 | 0.999 | 0.936 | 16.66 | 7 | 80.5 | 162 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0526 | 0.4283 | 0.1493 | 1.052 | 5.051 | 1.000 | 0.736 | 1.000 | 1.000 | 0.999 | 0.940 | 20.72 | 7.5 | 121 | 231 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.1199 | 0.4751 | 0.2145 | 1.026 | 3.172 | 1.000 | 0.582 | 1.000 | 1.000 | 1.000 | 0.983 | 16.88 | 8 | 61 | 87 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0914 | 0.4830 | 0.2284 | 1.046 | 4.693 | 1.000 | 0.586 | 1.000 | 1.000 | 1.000 | 0.964 | 23.18 | 8 | 112.5 | 170 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0826 | 0.4902 | 0.2383 | 1.091 | 7.225 | 1.000 | 0.577 | 1.000 | 1.000 | 1.000 | 0.970 | 29.69 | 8 | 163.5 | 247 | 1.038 | 0.03 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1051 | 0.4548 | 0.1846 | 1.023 | 2.905 | 1.000 | 0.634 | 1.000 | 1.000 | 1.000 | 0.979 | 15.40 | 8 | 58 | 86 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0790 | 0.4602 | 0.1950 | 1.039 | 4.235 | 1.000 | 0.643 | 1.000 | 1.000 | 1.000 | 0.957 | 20.72 | 8 | 103 | 168 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0714 | 0.4682 | 0.2064 | 1.074 | 6.249 | 1.000 | 0.641 | 1.000 | 1.000 | 1.000 | 0.962 | 26.36 | 8 | 152 | 242 | 1.027 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0799 | 0.4156 | 0.1278 | 1.017 | 2.418 | 1.000 | 0.744 | 1.000 | 1.000 | 0.999 | 0.964 | 12.91 | 8 | 47 | 85 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0586 | 0.4212 | 0.1395 | 1.029 | 3.430 | 1.000 | 0.742 | 1.000 | 1.000 | 0.999 | 0.936 | 16.66 | 7 | 80 | 162 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0525 | 0.4282 | 0.1492 | 1.050 | 4.864 | 0.999 | 0.736 | 1.000 | 1.000 | 0.999 | 0.940 | 20.69 | 7 | 121 | 230 | 1.007 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0507 | 0.3851 | 0.3460 | 1.021 | 1.424 | 1.000 | 0.094 | 1.000 | 0.196 | 0.120 | 0.103 | 10.02 | 5 | 20 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0309 | 0.4370 | 0.4067 | 1.026 | 1.494 | 1.000 | 0.067 | 1.000 | 0.203 | 0.103 | 0.086 | 11.15 | 6 | 20 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0248 | 0.4595 | 0.4300 | 1.028 | 1.567 | 1.000 | 0.058 | 1.000 | 0.183 | 0.097 | 0.079 | 12.41 | 6 | 27 | 98 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9993 | 0.0105 | 0.1204 | 0.1102 | 1.005 | 1.347 | 0.997 | 0.498 | 1.000 | 0.039 | 0.018 | 0.024 | 6.04 | 5 | 9 | 17 | - | - | - | - |
| | 200 | 0.9992 | 0.0069 | 0.1519 | 0.1439 | 1.008 | 1.456 | 0.998 | 0.408 | 1.000 | 0.037 | 0.020 | 0.019 | 6.36 | 5 | 10 | 18 | - | - | - | - |
| | 300 | 0.9998 | 0.0055 | 0.1718 | 0.1626 | 1.008 | 1.545 | 0.999 | 0.374 | 1.000 | 0.030 | 0.019 | 0.018 | 6.64 | 5 | 11 | 21 | - | - | - | - |

Notes: See notes to Table 100.

## Table 516: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.1269 | 0.4757 | 0.2135 | 1.014 | 3.229 | 1.000 | 0.602 | 1.000 | 1.000 | 1.000 | 1.000 | 17.57 | 8 | 66 | 94 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.1018 | 0.4930 | 0.2397 | 1.025 | 4.377 | 1.000 | 0.580 | 1.000 | 1.000 | 1.000 | 0.999 | 25.26 | 8 | 117.5 | 171 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0801 | 0.4858 | 0.2289 | 1.035 | 5.222 | 1.000 | 0.603 | 1.000 | 1.000 | 1.000 | 0.999 | 28.96 | 8 | 156 | 242 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1126 | 0.4563 | 0.1844 | 1.013 | 2.975 | 1.000 | 0.655 | 1.000 | 1.000 | 1.000 | 1.000 | 16.15 | 8 | 61 | 93 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0887 | 0.4731 | 0.2099 | 1.022 | 3.980 | 1.000 | 0.631 | 1.000 | 1.000 | 1.000 | 0.999 | 22.65 | 8 | 109 | 170 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0693 | 0.4657 | 0.1988 | 1.030 | 4.715 | 1.000 | 0.649 | 1.000 | 1.000 | 1.000 | 0.999 | 25.71 | 8 | 141 | 239 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0883 | 0.4230 | 0.1347 | 1.010 | 2.532 | 1.000 | 0.748 | 1.000 | 1.000 | 1.000 | 0.999 | 13.74 | 8 | 52 | 89 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0657 | 0.4351 | 0.1531 | 1.016 | 3.244 | 1.000 | 0.732 | 1.000 | 1.000 | 1.000 | 0.997 | 18.07 | 8 | 90.5 | 167 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0505 | 0.4280 | 0.1423 | 1.021 | 3.824 | 1.000 | 0.747 | 1.000 | 1.000 | 1.000 | 0.998 | 20.10 | 8 | 108.5 | 234 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.1269 | 0.4755 | 0.2133 | 1.014 | 3.219 | 1.000 | 0.603 | 1.000 | 1.000 | 1.000 | 1.000 | 17.56 | 8 | 66 | 94 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.1018 | 0.4927 | 0.2392 | 1.025 | 4.366 | 1.000 | 0.583 | 1.000 | 1.000 | 1.000 | 0.999 | 25.25 | 8 | 117.5 | 171 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0801 | 0.4855 | 0.2285 | 1.034 | 5.168 | 1.000 | 0.603 | 1.000 | 1.000 | 1.000 | 0.999 | 28.94 | 8 | 156 | 242 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1126 | 0.4563 | 0.1844 | 1.013 | 2.971 | 1.000 | 0.655 | 1.000 | 1.000 | 1.000 | 1.000 | 16.15 | 8 | 61 | 93 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0887 | 0.4729 | 0.2096 | 1.022 | 3.974 | 1.000 | 0.633 | 1.000 | 1.000 | 1.000 | 0.999 | 22.64 | 8 | 109 | 170 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0692 | 0.4655 | 0.1984 | 1.029 | 4.677 | 1.000 | 0.650 | 1.000 | 1.000 | 1.000 | 0.999 | 25.70 | 8 | 141 | 239 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0883 | 0.4230 | 0.1346 | 1.010 | 2.526 | 1.000 | 0.748 | 1.000 | 1.000 | 1.000 | 0.999 | 13.74 | 8 | 52 | 89 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0657 | 0.4350 | 0.1530 | 1.016 | 3.242 | 1.000 | 0.733 | 1.000 | 1.000 | 1.000 | 0.997 | 18.07 | 8 | 90.5 | 167 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0505 | 0.4279 | 0.1422 | 1.021 | 3.803 | 1.000 | 0.748 | 1.000 | 1.000 | 1.000 | 0.998 | 20.09 | 8 | 108.5 | 234 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0551 | 0.3798 | 0.3454 | 1.014 | 1.476 | 1.000 | 0.166 | 1.000 | 0.222 | 0.124 | 0.098 | 10.46 | 5 | 20 | 30 | - | - | - | - |
| | 200 | 1.0000 | 0.0285 | 0.3684 | 0.3368 | 1.016 | 1.503 | 1.000 | 0.140 | 1.000 | 0.190 | 0.103 | 0.089 | 10.67 | 5 | 26 | 37 | - | - | - | - |
| | 300 | 1.0000 | 0.0208 | 0.3953 | 0.3640 | 1.015 | 1.550 | 1.000 | 0.085 | 1.000 | 0.192 | 0.087 | 0.070 | 11.21 | 5 | 29.5 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0052 | 0.0655 | 0.0617 | 1.001 | 1.159 | 1.000 | 0.679 | 1.000 | 0.013 | 0.012 | 0.007 | 5.52 | 5 | 7 | 11 | - | - | - | - |
| | 200 | 1.0000 | 0.0029 | 0.0697 | 0.0659 | 1.002 | 1.174 | 1.000 | 0.678 | 1.000 | 0.020 | 0.009 | 0.009 | 5.57 | 5 | 8 | 12 | - | - | - | - |
| | 300 | 1.0000 | 0.0020 | 0.0721 | 0.0672 | 1.001 | 1.202 | 1.000 | 0.673 | 1.000 | 0.013 | 0.010 | 0.004 | 5.60 | 5 | 8 | 15 | - | - | - | - |

Notes: See notes to Table 100.

## Table 517: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8069 | 0.1021 | 0.4589 | 0.2118 | 1.239 | 8.321 | 0.390 | 0.215 | 1.000 | 0.988 | 0.830 | 0.565 | 14.14 | 4 | 58 | 104 | 1.381 | 0.31 | 0.03 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7964 | 0.1195 | 0.4759 | 0.2446 | 1.537 | 7.953 | 0.389 | 0.181 | 1.000 | 0.978 | 0.795 | 0.523 | 27.76 | 4 | 187 | 204 | 2.081 | 0.39 | 0.12 | 0.10 |
| | 300 | 0.7876 | 0.1093 | 0.4716 | 0.2382 | 1.495 | 7.146 | 0.385 | 0.167 | 1.000 | 0.980 | 0.784 | 0.518 | 36.62 | 4 | 257 | 304 | 2.344 | 0.42 | 0.13 | 0.12 |
| $p = 0.05$, | 100 | 0.7803 | 0.0878 | 0.4371 | 0.1818 | 1.172 | 5.320 | 0.346 | 0.205 | 1.000 | 0.982 | 0.803 | 0.523 | 12.59 | 4 | 53 | 104 | 1.372 | 0.33 | 0.03 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7734 | 0.1032 | 0.4478 | 0.2106 | 1.462 | 7.145 | 0.341 | 0.182 | 1.000 | 0.972 | 0.757 | 0.478 | 24.40 | 4 | 186 | 204 | 1.941 | 0.41 | 0.10 | 0.08 |
| | 300 | 0.7652 | 0.0925 | 0.4455 | 0.2039 | 1.425 | 6.514 | 0.345 | 0.172 | 1.000 | 0.976 | 0.757 | 0.477 | 31.48 | 4 | 254 | 304 | 2.214 | 0.44 | 0.11 | 0.10 |
| $p = 0.01$, | 100 | 0.7392 | 0.0650 | 0.3935 | 0.1298 | 1.127 | 3.437 | 0.290 | 0.215 | 1.000 | 0.968 | 0.733 | 0.437 | 10.13 | 4 | 42 | 80 | 1.426 | 0.41 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7381 | 0.0720 | 0.3984 | 0.1527 | 1.367 | 6.248 | 0.321 | 0.214 | 1.000 | 0.956 | 0.693 | 0.392 | 18.01 | 3 | 180.5 | 204 | 1.849 | 0.49 | 0.06 | 0.05 |
| | 300 | 0.7467 | 0.0641 | 0.3907 | 0.1437 | 1.337 | 5.619 | 0.349 | 0.229 | 1.000 | 0.958 | 0.684 | 0.398 | 22.90 | 3 | 247.5 | 304 | 2.031 | 0.53 | 0.07 | 0.06 |
| $p = 0.1$, | 100 | 0.7789 | 0.1003 | 0.4634 | 0.2104 | 1.211 | 6.407 | 0.355 | 0.201 | 1.000 | 0.988 | 0.830 | 0.564 | 13.83 | 4 | 57 | 104 | 1.233 | 0.20 | 0.02 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7616 | 0.1131 | 0.4814 | 0.2426 | 1.522 | 7.746 | 0.341 | 0.158 | 1.000 | 0.978 | 0.794 | 0.520 | 26.32 | 4 | 186 | 204 | 1.849 | 0.30 | 0.10 | 0.09 |
| | 300 | 0.7496 | 0.1022 | 0.4774 | 0.2354 | 1.474 | 6.909 | 0.330 | 0.141 | 1.000 | 0.980 | 0.783 | 0.515 | 34.30 | 4 | 256 | 304 | 2.096 | 0.33 | 0.11 | 0.10 |
| $p = 0.05$, | 100 | 0.7480 | 0.0868 | 0.4433 | 0.1815 | 1.166 | 4.336 | 0.304 | 0.186 | 1.000 | 0.982 | 0.803 | 0.523 | 12.33 | 4 | 52 | 89 | 1.251 | 0.24 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7321 | 0.0981 | 0.4559 | 0.2098 | 1.462 | 7.099 | 0.293 | 0.154 | 1.000 | 0.972 | 0.758 | 0.477 | 23.18 | 4 | 185 | 204 | 1.774 | 0.32 | 0.08 | 0.07 |
| | 300 | 0.7244 | 0.0889 | 0.4532 | 0.2026 | 1.423 | 6.441 | 0.289 | 0.139 | 1.000 | 0.976 | 0.756 | 0.474 | 30.21 | 4 | 254.5 | 304 | 2.061 | 0.35 | 0.09 | 0.09 |
| $p = 0.01$, | 100 | 0.6986 | 0.0647 | 0.4026 | 0.1304 | 1.137 | 3.441 | 0.238 | 0.181 | 1.000 | 0.968 | 0.733 | 0.436 | 9.90 | 3 | 42 | 80 | 1.345 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6889 | 0.0683 | 0.4088 | 0.1527 | 1.371 | 6.127 | 0.252 | 0.164 | 1.000 | 0.956 | 0.691 | 0.390 | 17.05 | 3 | 70 | 204 | 1.713 | 0.42 | 0.06 | 0.05 |
| | 300 | 0.6910 | 0.0607 | 0.4029 | 0.1441 | 1.351 | 5.618 | 0.267 | 0.164 | 1.000 | 0.958 | 0.683 | 0.396 | 21.60 | 3 | 245 | 304 | 1.908 | 0.45 | 0.06 | 0.06 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9640 | 0.0533 | 0.4026 | 0.3700 | 1.097 | 1.474 | 0.834 | 0.090 | 1.000 | 0.173 | 0.084 | 0.092 | 10.10 | 5 | 18 | 37 | - | - | - | - |
| | 200 | 0.9578 | 0.0375 | 0.4758 | 0.4524 | 1.111 | 1.613 | 0.807 | 0.048 | 1.000 | 0.155 | 0.082 | 0.079 | 12.25 | 5 | 24 | 51 | - | - | - | - |
| | 300 | 0.9571 | 0.0299 | 0.5131 | 0.4913 | 1.118 | 1.701 | 0.809 | 0.038 | 1.000 | 0.143 | 0.072 | 0.054 | 13.72 | 5 | 29 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7172 | 0.0174 | 0.1488 | 0.1405 | 1.143 | 2.159 | 0.326 | 0.062 | 1.000 | 0.047 | 0.022 | 0.027 | 5.31 | 1 | 13 | 24 | - | - | - | - |
| | 200 | 0.7301 | 0.0143 | 0.2089 | 0.2025 | 1.151 | 2.421 | 0.345 | 0.038 | 1.000 | 0.041 | 0.026 | 0.022 | 6.50 | 1 | 17 | 31 | - | - | - | - |
| | 300 | 0.7396 | 0.0120 | 0.2417 | 0.2350 | 1.158 | 2.574 | 0.355 | 0.038 | 1.000 | 0.043 | 0.023 | 0.023 | 7.29 | 1 | 20 | 36 | - | - | - | - |

Notes: See notes to Table 100.

## Table 518: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9993 | 0.1226 | 0.4714 | 0.2092 | 1.027 | 3.368 | 0.997 | 0.593 | 1.000 | 1.000 | 1.000 | 0.981 | 17.14 | 8 | 66 | 92 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9979 | 0.0826 | 0.4698 | 0.2071 | 1.042 | 4.402 | 0.990 | 0.602 | 1.000 | 1.000 | 0.999 | 0.975 | 21.44 | 8 | 101 | 174 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9959 | 0.0809 | 0.4917 | 0.2409 | 1.095 | 8.678 | 0.981 | 0.561 | 1.000 | 1.000 | 1.000 | 0.963 | 29.18 | 8 | 151 | 302 | 1.098 | 0.07 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9985 | 0.1087 | 0.4512 | 0.1796 | 1.024 | 3.067 | 0.993 | 0.654 | 1.000 | 1.000 | 1.000 | 0.974 | 15.75 | 8 | 62 | 92 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9960 | 0.0715 | 0.4506 | 0.1787 | 1.036 | 3.997 | 0.981 | 0.651 | 1.000 | 1.000 | 0.998 | 0.968 | 19.22 | 8 | 90.5 | 174 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9934 | 0.0694 | 0.4705 | 0.2090 | 1.074 | 6.441 | 0.970 | 0.613 | 1.000 | 1.000 | 1.000 | 0.958 | 25.71 | 8 | 138.5 | 255 | 1.061 | 0.05 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9944 | 0.0848 | 0.4181 | 0.1308 | 1.018 | 2.515 | 0.974 | 0.730 | 1.000 | 1.000 | 1.000 | 0.959 | 13.37 | 7 | 53.5 | 88 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9897 | 0.0521 | 0.4154 | 0.1266 | 1.027 | 3.155 | 0.953 | 0.726 | 1.000 | 1.000 | 0.998 | 0.948 | 15.32 | 7 | 66.5 | 170 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9835 | 0.0494 | 0.4314 | 0.1507 | 1.048 | 4.701 | 0.926 | 0.676 | 1.000 | 1.000 | 0.997 | 0.936 | 19.69 | 7 | 106 | 230 | 1.032 | 0.03 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9990 | 0.1224 | 0.4708 | 0.2082 | 1.026 | 3.344 | 0.995 | 0.598 | 1.000 | 1.000 | 1.000 | 0.981 | 17.12 | 8 | 65.5 | 92 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9976 | 0.0825 | 0.4696 | 0.2066 | 1.041 | 4.321 | 0.989 | 0.603 | 1.000 | 1.000 | 0.999 | 0.975 | 21.41 | 8 | 101 | 173 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9955 | 0.0805 | 0.4912 | 0.2400 | 1.085 | 6.915 | 0.979 | 0.561 | 1.000 | 1.000 | 1.000 | 0.963 | 29.04 | 8 | 151 | 253 | 1.026 | 0.02 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9981 | 0.1086 | 0.4510 | 0.1791 | 1.023 | 3.048 | 0.991 | 0.657 | 1.000 | 1.000 | 1.000 | 0.974 | 15.74 | 8 | 62 | 92 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9953 | 0.0715 | 0.4507 | 0.1785 | 1.036 | 3.959 | 0.979 | 0.650 | 1.000 | 1.000 | 0.998 | 0.968 | 19.20 | 8 | 90 | 173 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9931 | 0.0692 | 0.4702 | 0.2086 | 1.071 | 6.281 | 0.968 | 0.614 | 1.000 | 1.000 | 1.000 | 0.958 | 25.64 | 7 | 138.5 | 252 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9941 | 0.0848 | 0.4181 | 0.1307 | 1.019 | 2.513 | 0.973 | 0.729 | 1.000 | 1.000 | 1.000 | 0.959 | 13.37 | 7 | 53.5 | 88 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9882 | 0.0521 | 0.4156 | 0.1265 | 1.027 | 3.158 | 0.950 | 0.724 | 1.000 | 1.000 | 0.998 | 0.948 | 15.31 | 7 | 66.5 | 170 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9821 | 0.0494 | 0.4316 | 0.1506 | 1.047 | 4.612 | 0.920 | 0.672 | 1.000 | 1.000 | 0.997 | 0.936 | 19.67 | 7 | 105.5 | 230 | 1.014 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.0546 | 0.4136 | 0.3761 | 1.020 | 1.434 | 1.000 | 0.071 | 1.000 | 0.220 | 0.106 | 0.107 | 10.40 | 5 | 18 | 34 | - | - | - | - |
| | 200 | 1.0000 | 0.0334 | 0.4500 | 0.4188 | 1.026 | 1.523 | 1.000 | 0.065 | 1.000 | 0.199 | 0.104 | 0.079 | 11.64 | 6 | 22 | 52 | - | - | - | - |
| | 300 | 1.0000 | 0.0260 | 0.4900 | 0.4636 | 1.028 | 1.586 | 1.000 | 0.046 | 1.000 | 0.187 | 0.101 | 0.077 | 12.78 | 6 | 24 | 107 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9847 | 0.0193 | 0.2018 | 0.1870 | 1.016 | 1.729 | 0.952 | 0.263 | 1.000 | 0.065 | 0.035 | 0.039 | 6.83 | 5 | 11 | 18 | - | - | - | - |
| | 200 | 0.9842 | 0.0118 | 0.2302 | 0.2182 | 1.019 | 1.919 | 0.949 | 0.230 | 1.000 | 0.058 | 0.031 | 0.025 | 7.27 | 5 | 12 | 29 | - | - | - | - |
| | 300 | 0.9828 | 0.0094 | 0.2626 | 0.2517 | 1.021 | 2.054 | 0.951 | 0.177 | 1.000 | 0.064 | 0.038 | 0.023 | 7.72 | 5 | 13 | 40 | - | - | - | - |

Notes: See notes to Table 100.

## Table 519: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.1206 | 0.4695 | 0.2043 | 1.015 | 3.085 | 1.000 | 0.609 | 1.000 | 1.000 | 1.000 | 1.000 | 16.94 | 8 | 65 | 92 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0911 | 0.4760 | 0.2141 | 1.023 | 4.135 | 1.000 | 0.621 | 1.000 | 1.000 | 1.000 | 1.000 | 23.14 | 8 | 114 | 167 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0859 | 0.4894 | 0.2342 | 1.037 | 5.553 | 1.000 | 0.604 | 1.000 | 1.000 | 1.000 | 0.999 | 30.69 | 8 | 168.5 | 250 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1069 | 0.4504 | 0.1757 | 1.013 | 2.835 | 1.000 | 0.662 | 1.000 | 1.000 | 1.000 | 1.000 | 15.59 | 8 | 62 | 91 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0795 | 0.4564 | 0.1847 | 1.020 | 3.739 | 1.000 | 0.684 | 1.000 | 1.000 | 1.000 | 0.999 | 20.83 | 8 | 105 | 165 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0746 | 0.4691 | 0.2037 | 1.032 | 5.064 | 1.000 | 0.660 | 1.000 | 1.000 | 1.000 | 0.999 | 27.30 | 8 | 158 | 250 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0845 | 0.4177 | 0.1266 | 1.010 | 2.444 | 1.000 | 0.762 | 1.000 | 1.000 | 1.000 | 0.999 | 13.37 | 8 | 52 | 88 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0596 | 0.4227 | 0.1343 | 1.015 | 3.092 | 1.000 | 0.765 | 1.000 | 1.000 | 1.000 | 0.998 | 16.86 | 8 | 85 | 159 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0550 | 0.4331 | 0.1498 | 1.023 | 4.077 | 1.000 | 0.749 | 1.000 | 1.000 | 1.000 | 0.999 | 21.45 | 8 | 129.5 | 242 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.1205 | 0.4690 | 0.2035 | 1.014 | 3.071 | 1.000 | 0.613 | 1.000 | 1.000 | 1.000 | 1.000 | 16.93 | 8 | 65 | 92 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0911 | 0.4756 | 0.2135 | 1.023 | 4.100 | 1.000 | 0.625 | 1.000 | 1.000 | 1.000 | 1.000 | 23.12 | 8 | 113.5 | 167 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0859 | 0.4891 | 0.2337 | 1.037 | 5.487 | 1.000 | 0.605 | 1.000 | 1.000 | 1.000 | 0.999 | 30.67 | 8 | 168 | 250 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.1069 | 0.4502 | 0.1752 | 1.013 | 2.827 | 1.000 | 0.665 | 1.000 | 1.000 | 1.000 | 1.000 | 15.58 | 8 | 62 | 91 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0795 | 0.4562 | 0.1845 | 1.020 | 3.723 | 1.000 | 0.686 | 1.000 | 1.000 | 1.000 | 0.999 | 20.82 | 8 | 105 | 165 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0745 | 0.4689 | 0.2034 | 1.031 | 5.002 | 1.000 | 0.661 | 1.000 | 1.000 | 1.000 | 0.999 | 27.28 | 8 | 158 | 250 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0845 | 0.4177 | 0.1266 | 1.010 | 2.443 | 1.000 | 0.762 | 1.000 | 1.000 | 1.000 | 0.999 | 13.37 | 8 | 52 | 88 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0596 | 0.4226 | 0.1342 | 1.015 | 3.090 | 1.000 | 0.765 | 1.000 | 1.000 | 1.000 | 0.998 | 16.86 | 8 | 85 | 159 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0550 | 0.4330 | 0.1496 | 1.022 | 4.049 | 1.000 | 0.749 | 1.000 | 1.000 | 1.000 | 0.999 | 21.45 | 8 | 129.5 | 242 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0500 | 0.3856 | 0.3467 | 1.012 | 1.419 | 1.000 | 0.071 | 1.000 | 0.225 | 0.122 | 0.105 | 9.95 | 6 | 21 | 32 | - | - | - | - |
| | 200 | 1.0000 | 0.0318 | 0.4466 | 0.4133 | 1.014 | 1.479 | 1.000 | 0.068 | 1.000 | 0.220 | 0.115 | 0.089 | 11.33 | 6 | 19 | 47 | - | - | - | - |
| | 300 | 1.0000 | 0.0241 | 0.4709 | 0.4428 | 1.015 | 1.535 | 1.000 | 0.078 | 1.000 | 0.197 | 0.101 | 0.081 | 12.22 | 5 | 21 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9996 | 0.0104 | 0.1204 | 0.1103 | 1.003 | 1.353 | 0.999 | 0.487 | 1.000 | 0.051 | 0.025 | 0.021 | 6.03 | 5 | 9 | 18 | - | - | - | - |
| | 200 | 0.9996 | 0.0068 | 0.1517 | 0.1427 | 1.003 | 1.434 | 0.998 | 0.385 | 1.000 | 0.038 | 0.019 | 0.017 | 6.35 | 5 | 9 | 22 | - | - | - | - |
| | 300 | 0.9998 | 0.0051 | 0.1685 | 0.1610 | 1.004 | 1.510 | 0.999 | 0.364 | 1.000 | 0.040 | 0.016 | 0.016 | 6.54 | 5 | 10 | 22 | - | - | - | - |

Notes: See notes to Table 100.

## Table 520: Monte Carlo findings for DGPI(c)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6401 | 0.1034 | 0.5027 | 0.2276 | 1.233 | 8.852 | 0.183 | 0.099 | 1.000 | 0.994 | 0.835 | 0.552 | 13.44 | 3 | 55 | 104 | 1.537 | 0.47 | 0.05 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6470 | 0.1172 | 0.5128 | 0.2437 | 1.522 | 7.778 | 0.243 | 0.100 | 1.000 | 0.986 | 0.810 | 0.550 | 26.56 | 3 | 189 | 204 | 2.183 | 0.52 | 0.12 | 0.10 |
| | 300 | 0.6481 | 0.1263 | 0.5269 | 0.2708 | 1.552 | 7.637 | 0.255 | 0.081 | 1.000 | 0.979 | 0.793 | 0.535 | 40.99 | 3 | 259 | 304 | 2.627 | 0.56 | 0.16 | 0.14 |
| $p = 0.05$, | 100 | 0.6174 | 0.0885 | 0.4819 | 0.1956 | 1.174 | 5.932 | 0.170 | 0.101 | 1.000 | 0.991 | 0.807 | 0.512 | 11.85 | 3 | 50 | 104 | 1.535 | 0.49 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6235 | 0.0965 | 0.4874 | 0.2088 | 1.477 | 7.306 | 0.222 | 0.103 | 1.000 | 0.981 | 0.774 | 0.502 | 22.32 | 3 | 185 | 204 | 2.071 | 0.54 | 0.10 | 0.08 |
| | 300 | 0.6228 | 0.1084 | 0.5017 | 0.2363 | 1.481 | 7.051 | 0.232 | 0.085 | 1.000 | 0.976 | 0.754 | 0.488 | 35.54 | 3 | 257 | 304 | 2.441 | 0.57 | 0.13 | 0.11 |
| $p = 0.01$, | 100 | 0.5715 | 0.0646 | 0.4401 | 0.1412 | 1.130 | 3.707 | 0.141 | 0.102 | 1.000 | 0.973 | 0.735 | 0.419 | 9.26 | 3 | 39 | 102 | 1.568 | 0.55 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5811 | 0.0677 | 0.4416 | 0.1502 | 1.347 | 5.800 | 0.183 | 0.108 | 1.000 | 0.966 | 0.700 | 0.410 | 16.37 | 3 | 66.5 | 204 | 1.922 | 0.60 | 0.06 | 0.05 |
| | 300 | 0.5633 | 0.0769 | 0.4568 | 0.1748 | 1.377 | 5.883 | 0.188 | 0.089 | 1.000 | 0.952 | 0.687 | 0.402 | 25.81 | 2 | 253 | 304 | 2.166 | 0.58 | 0.08 | 0.07 |
| $p = 0.1$, | 100 | 0.5745 | 0.1019 | 0.5189 | 0.2279 | 1.194 | 5.577 | 0.121 | 0.063 | 1.000 | 0.994 | 0.835 | 0.552 | 12.96 | 3 | 54.5 | 102 | 1.369 | 0.35 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5761 | 0.1102 | 0.5299 | 0.2438 | 1.528 | 7.700 | 0.177 | 0.062 | 1.000 | 0.986 | 0.810 | 0.548 | 24.81 | 3 | 187 | 204 | 1.979 | 0.41 | 0.10 | 0.09 |
| | 300 | 0.5688 | 0.1197 | 0.5470 | 0.2716 | 1.528 | 7.338 | 0.197 | 0.051 | 1.000 | 0.979 | 0.792 | 0.530 | 38.64 | 3 | 258 | 304 | 2.358 | 0.43 | 0.13 | 0.12 |
| $p = 0.05$, | 100 | 0.5425 | 0.0877 | 0.5013 | 0.1971 | 1.170 | 4.334 | 0.101 | 0.059 | 1.000 | 0.991 | 0.807 | 0.512 | 11.40 | 3 | 49 | 90 | 1.394 | 0.38 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5481 | 0.0914 | 0.5068 | 0.2105 | 1.461 | 7.028 | 0.151 | 0.062 | 1.000 | 0.981 | 0.773 | 0.498 | 20.93 | 3 | 184 | 204 | 1.866 | 0.42 | 0.08 | 0.07 |
| | 300 | 0.5422 | 0.1041 | 0.5238 | 0.2378 | 1.490 | 6.961 | 0.177 | 0.053 | 1.000 | 0.975 | 0.753 | 0.485 | 33.83 | 2 | 256 | 304 | 2.235 | 0.43 | 0.11 | 0.10 |
| $p = 0.01$, | 100 | 0.4902 | 0.0643 | 0.4628 | 0.1435 | 1.147 | 3.750 | 0.074 | 0.051 | 1.000 | 0.973 | 0.735 | 0.419 | 8.82 | 2 | 38 | 83 | 1.443 | 0.44 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4988 | 0.0663 | 0.4641 | 0.1517 | 1.361 | 5.830 | 0.120 | 0.059 | 1.000 | 0.966 | 0.700 | 0.410 | 15.69 | 2 | 66 | 204 | 1.771 | 0.47 | 0.05 | 0.05 |
| | 300 | 0.4799 | 0.0747 | 0.4804 | 0.1775 | 1.386 | 5.829 | 0.127 | 0.052 | 1.000 | 0.952 | 0.685 | 0.399 | 24.75 | 2 | 251 | 304 | 2.005 | 0.44 | 0.07 | 0.07 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8166 | 0.0453 | 0.3828 | 0.3526 | 1.099 | 1.327 | 0.378 | 0.032 | 1.000 | 0.156 | 0.074 | 0.079 | 8.57 | 3 | 17 | 35 | - | - | - | - |
| | 200 | 0.8084 | 0.0315 | 0.4426 | 0.4185 | 1.112 | 1.448 | 0.363 | 0.024 | 1.000 | 0.140 | 0.066 | 0.063 | 10.30 | 3 | 23 | 47 | - | - | - | - |
| | 300 | 0.8001 | 0.0270 | 0.4967 | 0.4737 | 1.121 | 1.556 | 0.345 | 0.014 | 1.000 | 0.130 | 0.064 | 0.060 | 12.07 | 3 | 28 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4784 | 0.0119 | 0.1068 | 0.1016 | 1.122 | 1.763 | 0.072 | 0.007 | 1.000 | 0.020 | 0.012 | 0.018 | 3.57 | 1 | 12 | 29 | - | - | - | - |
| | 200 | 0.4994 | 0.0109 | 0.1624 | 0.1580 | 1.131 | 2.039 | 0.081 | 0.003 | 1.000 | 0.026 | 0.016 | 0.020 | 4.67 | 1 | 17 | 35 | - | - | - | - |
| | 300 | 0.5059 | 0.0101 | 0.2046 | 0.1992 | 1.137 | 2.244 | 0.078 | 0.001 | 1.000 | 0.028 | 0.018 | 0.023 | 5.55 | 1 | 19 | 50 | - | - | - | - |

Notes: See notes to Table 100.

## Table 521: Monte Carlo findings for DGPI(c)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9454 | 0.1236 | 0.4873 | 0.2184 | 1.030 | 3.396 | 0.786 | 0.452 | 1.000 | 1.000 | 1.000 | 0.988 | 16.96 | 7 | 64.5 | 86 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9203 | 0.0915 | 0.4944 | 0.2238 | 1.054 | 4.726 | 0.707 | 0.415 | 1.000 | 1.000 | 1.000 | 0.973 | 22.81 | 6 | 113 | 171 | 1.072 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.9134 | 0.0798 | 0.4995 | 0.2301 | 1.108 | 12.458 | 0.684 | 0.416 | 1.000 | 1.000 | 0.999 | 0.969 | 28.44 | 6 | 154.5 | 304 | 1.158 | 0.12 | 0.02 | 0.01 |
| $p = 0.05$, | 100 | 0.9255 | 0.1089 | 0.4712 | 0.1891 | 1.028 | 3.147 | 0.722 | 0.459 | 1.000 | 1.000 | 1.000 | 0.981 | 15.41 | 6 | 60.5 | 85 | 1.058 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8992 | 0.0798 | 0.4792 | 0.1953 | 1.048 | 4.332 | 0.641 | 0.422 | 1.000 | 1.000 | 0.999 | 0.966 | 20.38 | 6 | 104 | 169 | 1.082 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8897 | 0.0688 | 0.4850 | 0.2017 | 1.092 | 10.402 | 0.613 | 0.406 | 1.000 | 1.000 | 0.999 | 0.961 | 25.02 | 6 | 140.5 | 303 | 1.141 | 0.12 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8739 | 0.0844 | 0.4469 | 0.1368 | 1.027 | 2.782 | 0.565 | 0.413 | 1.000 | 1.000 | 1.000 | 0.968 | 12.72 | 6 | 51 | 84 | 1.094 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8439 | 0.0598 | 0.4554 | 0.1429 | 1.042 | 3.664 | 0.496 | 0.378 | 1.000 | 1.000 | 0.997 | 0.949 | 16.12 | 6 | 82 | 162 | 1.124 | 0.12 | 0.00 | 0.00 |
| | 300 | 0.8393 | 0.0499 | 0.4593 | 0.1485 | 1.064 | 5.305 | 0.492 | 0.365 | 1.000 | 1.000 | 0.998 | 0.939 | 19.13 | 6 | 110.5 | 248 | 1.149 | 0.14 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9410 | 0.1234 | 0.4880 | 0.2179 | 1.031 | 3.388 | 0.782 | 0.453 | 1.000 | 1.000 | 1.000 | 0.988 | 16.92 | 7 | 64 | 86 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9154 | 0.0914 | 0.4952 | 0.2232 | 1.053 | 4.678 | 0.701 | 0.415 | 1.000 | 1.000 | 1.000 | 0.973 | 22.76 | 6 | 113 | 171 | 1.032 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9064 | 0.0794 | 0.5006 | 0.2296 | 1.094 | 7.191 | 0.675 | 0.412 | 1.000 | 1.000 | 0.999 | 0.969 | 28.26 | 6 | 154.5 | 259 | 1.076 | 0.07 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9191 | 0.1088 | 0.4724 | 0.1889 | 1.029 | 3.144 | 0.713 | 0.455 | 1.000 | 1.000 | 1.000 | 0.981 | 15.37 | 6 | 60 | 85 | 1.030 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8904 | 0.0797 | 0.4814 | 0.1951 | 1.049 | 4.310 | 0.634 | 0.416 | 1.000 | 1.000 | 0.999 | 0.966 | 20.32 | 6 | 104 | 169 | 1.042 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8802 | 0.0685 | 0.4869 | 0.2014 | 1.083 | 6.541 | 0.602 | 0.400 | 1.000 | 1.000 | 0.999 | 0.961 | 24.88 | 6 | 140.5 | 258 | 1.073 | 0.06 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8650 | 0.0843 | 0.4493 | 0.1369 | 1.028 | 2.802 | 0.556 | 0.405 | 1.000 | 1.000 | 1.000 | 0.968 | 12.67 | 6 | 51 | 84 | 1.068 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8327 | 0.0598 | 0.4582 | 0.1430 | 1.044 | 3.688 | 0.488 | 0.372 | 1.000 | 1.000 | 0.997 | 0.949 | 16.06 | 5 | 81.5 | 162 | 1.089 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.8270 | 0.0499 | 0.4623 | 0.1487 | 1.064 | 5.183 | 0.480 | 0.356 | 1.000 | 1.000 | 0.998 | 0.939 | 19.04 | 5 | 110 | 245 | 1.103 | 0.10 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9886 | 0.0537 | 0.4064 | 0.3677 | 1.022 | 1.430 | 0.944 | 0.082 | 1.000 | 0.213 | 0.112 | 0.097 | 10.26 | 5 | 19 | 35 | - | - | - | - |
| | 200 | 0.9874 | 0.0333 | 0.4523 | 0.4221 | 1.026 | 1.527 | 0.939 | 0.054 | 1.000 | 0.188 | 0.103 | 0.079 | 11.56 | 5 | 22 | 44 | - | - | - | - |
| | 300 | 0.9898 | 0.0254 | 0.4783 | 0.4511 | 1.028 | 1.571 | 0.950 | 0.051 | 1.000 | 0.183 | 0.089 | 0.072 | 12.54 | 6 | 25 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8579 | 0.0214 | 0.2135 | 0.1969 | 1.037 | 2.040 | 0.653 | 0.100 | 1.000 | 0.066 | 0.035 | 0.034 | 6.41 | 2 | 12 | 21 | - | - | - | - |
| | 200 | 0.8694 | 0.0140 | 0.2556 | 0.2428 | 1.039 | 2.251 | 0.681 | 0.078 | 1.000 | 0.056 | 0.029 | 0.026 | 7.13 | 2 | 14 | 27 | - | - | - | - |
| | 300 | 0.8685 | 0.0106 | 0.2762 | 0.2652 | 1.040 | 2.383 | 0.670 | 0.067 | 1.000 | 0.064 | 0.031 | 0.029 | 7.52 | 2 | 15 | 29 | - | - | - | - |

Notes: See notes to Table 100.

## Table 522: Monte Carlo findings for DGPI(c)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9973 | 0.1191 | 0.4736 | 0.2099 | 1.014 | 3.097 | 0.987 | 0.587 | 1.000 | 1.000 | 1.000 | 1.000 | 16.77 | 8 | 62 | 94 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9957 | 0.0961 | 0.4878 | 0.2307 | 1.025 | 4.273 | 0.979 | 0.574 | 1.000 | 1.000 | 1.000 | 1.000 | 24.09 | 8 | 115 | 175 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9940 | 0.0815 | 0.4827 | 0.2229 | 1.035 | 5.292 | 0.973 | 0.596 | 1.000 | 1.000 | 1.000 | 0.999 | 29.34 | 8 | 164 | 249 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9947 | 0.1043 | 0.4536 | 0.1792 | 1.012 | 2.858 | 0.978 | 0.636 | 1.000 | 1.000 | 1.000 | 0.999 | 15.30 | 8 | 58 | 92 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9926 | 0.0833 | 0.4675 | 0.1994 | 1.022 | 3.865 | 0.966 | 0.626 | 1.000 | 1.000 | 1.000 | 1.000 | 21.53 | 8 | 107.5 | 171 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9907 | 0.0709 | 0.4640 | 0.1939 | 1.031 | 4.771 | 0.957 | 0.642 | 1.000 | 1.000 | 1.000 | 0.999 | 26.15 | 8 | 150.5 | 248 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9879 | 0.0796 | 0.4184 | 0.1246 | 1.010 | 2.376 | 0.947 | 0.714 | 1.000 | 1.000 | 1.000 | 0.999 | 12.82 | 8 | 47 | 91 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9809 | 0.0613 | 0.4318 | 0.1427 | 1.016 | 3.170 | 0.917 | 0.684 | 1.000 | 1.000 | 1.000 | 0.999 | 17.11 | 7 | 87 | 168 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9749 | 0.0523 | 0.4332 | 0.1433 | 1.023 | 3.937 | 0.894 | 0.689 | 1.000 | 1.000 | 1.000 | 0.997 | 20.51 | 7 | 122 | 238 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9971 | 0.1189 | 0.4733 | 0.2094 | 1.014 | 3.069 | 0.987 | 0.589 | 1.000 | 1.000 | 1.000 | 1.000 | 16.76 | 8 | 62 | 94 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9952 | 0.0960 | 0.4878 | 0.2304 | 1.025 | 4.243 | 0.977 | 0.574 | 1.000 | 1.000 | 1.000 | 1.000 | 24.08 | 8 | 115 | 173 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9936 | 0.0814 | 0.4823 | 0.2222 | 1.035 | 5.258 | 0.972 | 0.598 | 1.000 | 1.000 | 1.000 | 0.999 | 29.32 | 8 | 164 | 249 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9944 | 0.1042 | 0.4535 | 0.1789 | 1.012 | 2.847 | 0.977 | 0.637 | 1.000 | 1.000 | 1.000 | 0.999 | 15.29 | 8 | 58 | 92 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9921 | 0.0832 | 0.4673 | 0.1991 | 1.021 | 3.844 | 0.964 | 0.627 | 1.000 | 1.000 | 1.000 | 1.000 | 21.52 | 8 | 107.5 | 170 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9898 | 0.0708 | 0.4640 | 0.1937 | 1.030 | 4.757 | 0.956 | 0.643 | 1.000 | 1.000 | 1.000 | 0.999 | 26.13 | 8 | 150.5 | 248 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9869 | 0.0796 | 0.4186 | 0.1245 | 1.010 | 2.380 | 0.945 | 0.713 | 1.000 | 1.000 | 1.000 | 0.999 | 12.81 | 8 | 47 | 91 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9800 | 0.0613 | 0.4319 | 0.1426 | 1.016 | 3.170 | 0.916 | 0.684 | 1.000 | 1.000 | 1.000 | 0.999 | 17.11 | 7 | 87 | 168 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9742 | 0.0523 | 0.4333 | 0.1433 | 1.023 | 3.929 | 0.892 | 0.688 | 1.000 | 1.000 | 1.000 | 0.997 | 20.51 | 7 | 122 | 238 | 1.008 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0528 | 0.4110 | 0.3715 | 1.011 | 1.404 | 0.998 | 0.073 | 1.000 | 0.226 | 0.120 | 0.105 | 10.22 | 6 | 16 | 36 | - | - | - | - |
| | 200 | 0.9989 | 0.0328 | 0.4455 | 0.4132 | 1.014 | 1.485 | 0.995 | 0.083 | 1.000 | 0.216 | 0.114 | 0.091 | 11.52 | 5 | 21 | 56 | - | - | - | - |
| | 300 | 0.9986 | 0.0259 | 0.4758 | 0.4500 | 1.015 | 1.560 | 0.993 | 0.053 | 1.000 | 0.183 | 0.096 | 0.080 | 12.74 | 6 | 25 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9700 | 0.0154 | 0.1713 | 0.1561 | 1.010 | 1.671 | 0.920 | 0.295 | 1.000 | 0.068 | 0.030 | 0.031 | 6.37 | 4 | 10 | 18 | - | - | - | - |
| | 200 | 0.9676 | 0.0098 | 0.2045 | 0.1926 | 1.012 | 1.811 | 0.917 | 0.252 | 1.000 | 0.048 | 0.025 | 0.024 | 6.78 | 4 | 11 | 22 | - | - | - | - |
| | 300 | 0.9721 | 0.0079 | 0.2302 | 0.2214 | 1.012 | 1.919 | 0.916 | 0.227 | 1.000 | 0.050 | 0.030 | 0.023 | 7.23 | 4 | 13 | 27 | - | - | - | - |

Notes: See notes to Table 100.

**Table 523: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9660 | 0.0262 | 0.2993 | 0.0242 | 1.047 | 1.626 | 0.849 | 0.686 | 1.000 | 0.984 | 0.829 | 0.555 | 7.42 | 6 | 9 | 11 | 1.995 | 0.88 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9535 | 0.0129 | 0.2991 | 0.0297 | 1.061 | 1.796 | 0.803 | 0.621 | 1.000 | 0.984 | 0.804 | 0.505 | 7.33 | 6 | 9 | 11 | 2.048 | 0.90 | 0.14 | 0.01 |
| | 300 | 0.9441 | 0.0086 | 0.3013 | 0.0336 | 1.069 | 1.904 | 0.771 | 0.578 | 1.000 | 0.976 | 0.786 | 0.510 | 7.30 | 5 | 9 | 11 | 2.094 | 0.93 | 0.16 | 0.01 |
| $p = 0.05$, | 100 | 0.9569 | 0.0244 | 0.2861 | 0.0139 | 1.052 | 1.694 | 0.815 | 0.721 | 1.000 | 0.980 | 0.801 | 0.511 | 7.20 | 5 | 9 | 10 | 2.031 | 0.91 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9441 | 0.0120 | 0.2863 | 0.0188 | 1.065 | 1.855 | 0.770 | 0.658 | 1.000 | 0.979 | 0.778 | 0.467 | 7.11 | 5 | 9 | 11 | 2.097 | 0.93 | 0.15 | 0.01 |
| | 300 | 0.9313 | 0.0079 | 0.2867 | 0.0199 | 1.075 | 1.992 | 0.728 | 0.611 | 1.000 | 0.970 | 0.762 | 0.469 | 7.03 | 5 | 9 | 11 | 2.112 | 0.95 | 0.16 | 0.01 |
| $p = 0.01$, | 100 | 0.9326 | 0.0218 | 0.2669 | 0.0044 | 1.069 | 1.922 | 0.735 | 0.711 | 1.000 | 0.966 | 0.723 | 0.434 | 6.82 | 5 | 8 | 10 | 2.110 | 0.96 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9191 | 0.0106 | 0.2638 | 0.0061 | 1.082 | 2.049 | 0.686 | 0.653 | 1.000 | 0.964 | 0.703 | 0.381 | 6.70 | 5 | 8 | 11 | 2.144 | 0.96 | 0.18 | 0.01 |
| | 300 | 0.9020 | 0.0070 | 0.2651 | 0.0066 | 1.096 | 2.211 | 0.636 | 0.601 | 1.000 | 0.949 | 0.694 | 0.393 | 6.60 | 4 | 8 | 10 | 2.168 | 0.97 | 0.19 | 0.01 |
| $p = 0.1$, | 100 | 0.9274 | 0.0255 | 0.3019 | 0.0173 | 1.077 | 1.991 | 0.707 | 0.613 | 1.000 | 0.984 | 0.829 | 0.555 | 7.16 | 5 | 9 | 11 | 1.927 | 0.82 | 0.11 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9057 | 0.0125 | 0.3024 | 0.0215 | 1.097 | 2.197 | 0.637 | 0.541 | 1.000 | 0.984 | 0.804 | 0.504 | 7.01 | 5 | 9 | 11 | 2.006 | 0.85 | 0.15 | 0.01 |
| | 300 | 0.8778 | 0.0083 | 0.3085 | 0.0258 | 1.121 | 2.443 | 0.563 | 0.470 | 1.000 | 0.976 | 0.786 | 0.510 | 6.88 | 5 | 9 | 11 | 2.011 | 0.86 | 0.15 | 0.01 |
| $p = 0.05$, | 100 | 0.9137 | 0.0241 | 0.2924 | 0.0105 | 1.087 | 2.109 | 0.663 | 0.611 | 1.000 | 0.980 | 0.801 | 0.511 | 6.95 | 5 | 8 | 10 | 2.006 | 0.86 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8857 | 0.0117 | 0.2935 | 0.0131 | 1.111 | 2.350 | 0.580 | 0.525 | 1.000 | 0.979 | 0.778 | 0.466 | 6.76 | 5 | 8 | 11 | 2.050 | 0.87 | 0.17 | 0.01 |
| | 300 | 0.8576 | 0.0077 | 0.2973 | 0.0142 | 1.137 | 2.585 | 0.513 | 0.463 | 1.000 | 0.970 | 0.762 | 0.469 | 6.60 | 4 | 8 | 10 | 2.049 | 0.88 | 0.16 | 0.01 |
| $p = 0.01$, | 100 | 0.8749 | 0.0217 | 0.2776 | 0.0034 | 1.118 | 2.432 | 0.551 | 0.539 | 1.000 | 0.966 | 0.723 | 0.434 | 6.52 | 4 | 8 | 9 | 2.101 | 0.91 | 0.17 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8452 | 0.0104 | 0.2770 | 0.0040 | 1.145 | 2.652 | 0.484 | 0.470 | 1.000 | 0.964 | 0.703 | 0.381 | 6.30 | 4 | 8 | 9 | 2.117 | 0.91 | 0.20 | 0.01 |
| | 300 | 0.8142 | 0.0069 | 0.2811 | 0.0040 | 1.172 | 2.882 | 0.416 | 0.403 | 1.000 | 0.949 | 0.694 | 0.393 | 6.14 | 4 | 8 | 9 | 2.137 | 0.91 | 0.20 | 0.02 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0904 | 0.5319 | 0.5052 | 1.108 | 1.835 | 0.998 | 0.048 | 1.000 | 0.190 | 0.101 | 0.094 | 13.95 | 6 | 25 | 44 | - | - | - | - |
| | 200 | 0.9995 | 0.0642 | 0.6141 | 0.5948 | 1.127 | 1.956 | 0.998 | 0.025 | 1.000 | 0.173 | 0.090 | 0.085 | 17.77 | 7 | 33 | 56 | - | - | - | - |
| | 300 | 0.9995 | 0.0530 | 0.6555 | 0.6398 | 1.149 | 2.092 | 0.998 | 0.021 | 1.000 | 0.175 | 0.090 | 0.079 | 20.85 | 7 | 41 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9540 | 0.0375 | 0.2896 | 0.2777 | 1.131 | 2.335 | 0.885 | 0.231 | 1.000 | 0.061 | 0.029 | 0.038 | 8.48 | 3 | 16 | 29 | - | - | - | - |
| | 200 | 0.9638 | 0.0284 | 0.3751 | 0.3656 | 1.141 | 2.428 | 0.912 | 0.170 | 1.000 | 0.053 | 0.035 | 0.043 | 10.47 | 3 | 20 | 41 | - | - | - | - |
| | 300 | 0.9586 | 0.0241 | 0.4336 | 0.4254 | 1.163 | 2.614 | 0.906 | 0.117 | 1.000 | 0.066 | 0.041 | 0.036 | 11.99 | 3 | 24 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 524: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3403 | 0.0131 | 1.006 | 1.129 | 1.000 | 0.880 | 1.000 | 1.000 | 1.000 | 0.979 | 8.11 | 8 | 9 | 11 | 1.032 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3399 | 0.0136 | 1.007 | 1.133 | 1.000 | 0.876 | 1.000 | 1.000 | 0.999 | 0.970 | 8.11 | 8 | 9 | 10 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3401 | 0.0143 | 1.006 | 1.140 | 1.000 | 0.870 | 1.000 | 1.000 | 0.999 | 0.968 | 8.11 | 8 | 9 | 11 | 1.059 | 0.06 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3360 | 0.0073 | 1.006 | 1.104 | 1.000 | 0.932 | 1.000 | 1.000 | 1.000 | 0.974 | 8.05 | 8 | 9 | 10 | 1.034 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3353 | 0.0073 | 1.006 | 1.107 | 1.000 | 0.932 | 1.000 | 1.000 | 0.999 | 0.966 | 8.04 | 8 | 9 | 10 | 1.053 | 0.05 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3349 | 0.0076 | 1.006 | 1.109 | 1.000 | 0.926 | 1.000 | 1.000 | 0.999 | 0.960 | 8.03 | 8 | 9 | 10 | 1.075 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3314 | 0.0021 | 1.005 | 1.076 | 1.000 | 0.980 | 1.000 | 1.000 | 0.999 | 0.961 | 7.98 | 8 | 8 | 10 | 1.081 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3301 | 0.0016 | 1.006 | 1.078 | 1.000 | 0.985 | 1.000 | 1.000 | 0.998 | 0.952 | 7.97 | 8 | 8 | 9 | 1.131 | 0.13 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3297 | 0.0020 | 1.005 | 1.075 | 1.000 | 0.981 | 1.000 | 1.000 | 0.998 | 0.943 | 7.96 | 7 | 8 | 10 | 1.161 | 0.16 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0312 | 0.3391 | 0.0114 | 1.006 | 1.102 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 0.979 | 8.09 | 8 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3388 | 0.0120 | 1.006 | 1.105 | 1.000 | 0.891 | 1.000 | 1.000 | 0.999 | 0.970 | 8.09 | 8 | 9 | 10 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3388 | 0.0123 | 1.006 | 1.103 | 1.000 | 0.887 | 1.000 | 1.000 | 0.999 | 0.968 | 8.09 | 8 | 9 | 11 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3354 | 0.0064 | 1.006 | 1.088 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.974 | 8.04 | 8 | 9 | 10 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0152 | 0.3345 | 0.0062 | 1.006 | 1.091 | 1.000 | 0.942 | 1.000 | 1.000 | 0.999 | 0.966 | 8.03 | 8 | 9 | 10 | 1.043 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3343 | 0.0068 | 1.006 | 1.091 | 1.000 | 0.934 | 1.000 | 1.000 | 0.999 | 0.960 | 8.03 | 8 | 9 | 10 | 1.066 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0301 | 0.3313 | 0.0019 | 1.005 | 1.077 | 1.000 | 0.982 | 1.000 | 1.000 | 0.999 | 0.961 | 7.98 | 8 | 8 | 10 | 1.079 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0149 | 0.3298 | 0.0011 | 1.006 | 1.073 | 1.000 | 0.989 | 1.000 | 1.000 | 0.998 | 0.952 | 7.96 | 8 | 8 | 9 | 1.127 | 0.13 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3296 | 0.0018 | 1.005 | 1.070 | 1.000 | 0.983 | 1.000 | 1.000 | 0.998 | 0.943 | 7.96 | 7 | 8 | 9 | 1.160 | 0.16 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0856 | 0.5213 | 0.4898 | 1.027 | 1.700 | 1.000 | 0.025 | 1.000 | 0.217 | 0.125 | 0.112 | 13.47 | 6 | 27 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0561 | 0.5839 | 0.5596 | 1.035 | 1.825 | 1.000 | 0.023 | 1.000 | 0.192 | 0.102 | 0.084 | 16.17 | 7 | 29 | 58 | - | - | - | - |
| | 300 | 1.0000 | 0.0440 | 0.6038 | 0.5826 | 1.038 | 1.937 | 1.000 | 0.020 | 1.000 | 0.193 | 0.099 | 0.073 | 18.17 | 7 | 41 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9999 | 0.0190 | 0.1976 | 0.1881 | 1.007 | 1.343 | 1.000 | 0.308 | 1.000 | 0.046 | 0.018 | 0.025 | 6.88 | 5 | 11 | 18 | - | - | - | - |
| | 200 | 1.0000 | 0.0124 | 0.2427 | 0.2330 | 1.009 | 1.441 | 1.000 | 0.231 | 1.000 | 0.041 | 0.020 | 0.023 | 7.47 | 5 | 12 | 20 | - | - | - | - |
| | 300 | 0.9998 | 0.0094 | 0.2606 | 0.2529 | 1.010 | 1.532 | 1.000 | 0.215 | 1.000 | 0.036 | 0.020 | 0.018 | 7.80 | 5 | 13.5 | 29 | - | - | - | - |

Notes: See notes to Table 100.

**Table 525: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3403 | 0.0106 | 1.003 | 1.117 | 1.000 | 0.903 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0158 | 0.3423 | 0.0134 | 1.004 | 1.133 | 1.000 | 0.874 | 1.000 | 1.000 | 1.000 | 1.000 | 8.14 | 8 | 9 | 11 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3410 | 0.0116 | 1.003 | 1.127 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3369 | 0.0055 | 1.003 | 1.093 | 1.000 | 0.950 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3380 | 0.0069 | 1.004 | 1.105 | 1.000 | 0.934 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3371 | 0.0059 | 1.003 | 1.103 | 1.000 | 0.944 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3339 | 0.0011 | 1.003 | 1.069 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3343 | 0.0017 | 1.003 | 1.076 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 8 | 8 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0014 | 1.003 | 1.077 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3396 | 0.0095 | 1.003 | 1.098 | 1.000 | 0.914 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0157 | 0.3411 | 0.0117 | 1.003 | 1.100 | 1.000 | 0.888 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3401 | 0.0103 | 1.003 | 1.101 | 1.000 | 0.903 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3365 | 0.0049 | 1.003 | 1.083 | 1.000 | 0.956 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 8 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3371 | 0.0057 | 1.003 | 1.078 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3366 | 0.0051 | 1.003 | 1.086 | 1.000 | 0.952 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3338 | 0.0010 | 1.003 | 1.068 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3340 | 0.0012 | 1.003 | 1.065 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3339 | 0.0011 | 1.003 | 1.070 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1004 | 0.5008 | 0.4677 | 1.018 | 1.798 | 1.000 | 0.076 | 1.000 | 0.203 | 0.124 | 0.118 | 14.94 | 6 | 30 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0476 | 0.4943 | 0.4668 | 1.022 | 1.870 | 1.000 | 0.034 | 1.000 | 0.188 | 0.097 | 0.072 | 14.46 | 6 | 40 | 66 | - | - | - | - |
| | 300 | 1.0000 | 0.0354 | 0.5377 | 0.5138 | 1.022 | 1.883 | 1.000 | 0.023 | 1.000 | 0.191 | 0.090 | 0.076 | 15.57 | 6 | 44 | 73 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0093 | 0.1083 | 0.1026 | 1.001 | 1.150 | 1.000 | 0.546 | 1.000 | 0.021 | 0.011 | 0.009 | 5.92 | 5 | 9 | 15 | - | - | - | - |
| | 200 | 1.0000 | 0.0043 | 0.0976 | 0.0941 | 1.002 | 1.163 | 1.000 | 0.582 | 1.000 | 0.016 | 0.007 | 0.007 | 5.85 | 5 | 9 | 20 | - | - | - | - |
| | 300 | 1.0000 | 0.0032 | 0.1086 | 0.1051 | 1.002 | 1.172 | 1.000 | 0.539 | 1.000 | 0.015 | 0.009 | 0.006 | 5.94 | 5 | 9 | 16 | - | - | - | - |

Notes: See notes to Table 100.

**Table 526: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7827 | 0.0260 | 0.3379 | 0.0269 | 1.101 | 2.249 | 0.314 | 0.247 | 1.000 | 0.985 | 0.815 | 0.548 | 6.48 | 4 | 8 | 11 | 1.874 | 0.80 | 0.07 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7376 | 0.0124 | 0.3385 | 0.0271 | 1.120 | 2.395 | 0.233 | 0.186 | 1.000 | 0.975 | 0.780 | 0.501 | 6.16 | 4 | 8 | 11 | 1.871 | 0.80 | 0.07 | 0.00 |
| | 300 | 0.7158 | 0.0083 | 0.3450 | 0.0320 | 1.130 | 2.468 | 0.198 | 0.155 | 1.000 | 0.971 | 0.780 | 0.485 | 6.07 | 4 | 8 | 11 | 1.885 | 0.80 | 0.08 | 0.01 |
| $p = 0.05$, | 100 | 0.7556 | 0.0244 | 0.3305 | 0.0166 | 1.109 | 2.329 | 0.266 | 0.232 | 1.000 | 0.984 | 0.787 | 0.512 | 6.19 | 4 | 8 | 11 | 1.888 | 0.81 | 0.07 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7098 | 0.0116 | 0.3314 | 0.0172 | 1.129 | 2.470 | 0.198 | 0.175 | 1.000 | 0.972 | 0.752 | 0.462 | 5.87 | 3 | 8 | 11 | 1.872 | 0.81 | 0.06 | 0.00 |
| | 300 | 0.6924 | 0.0077 | 0.3351 | 0.0201 | 1.138 | 2.526 | 0.167 | 0.146 | 1.000 | 0.966 | 0.750 | 0.448 | 5.78 | 3 | 8 | 10 | 1.878 | 0.81 | 0.07 | 0.00 |
| $p = 0.01$, | 100 | 0.6938 | 0.0217 | 0.3187 | 0.0052 | 1.133 | 2.528 | 0.188 | 0.180 | 1.000 | 0.968 | 0.721 | 0.424 | 5.62 | 3 | 8 | 11 | 1.878 | 0.83 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6510 | 0.0103 | 0.3190 | 0.0061 | 1.151 | 2.646 | 0.145 | 0.142 | 1.000 | 0.955 | 0.673 | 0.391 | 5.31 | 3 | 8 | 9 | 1.872 | 0.82 | 0.05 | 0.00 |
| | 300 | 0.6264 | 0.0068 | 0.3226 | 0.0055 | 1.164 | 2.708 | 0.128 | 0.125 | 1.000 | 0.946 | 0.677 | 0.369 | 5.16 | 3 | 8 | 9 | 1.863 | 0.82 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 0.6816 | 0.0253 | 0.3579 | 0.0203 | 1.141 | 2.593 | 0.148 | 0.129 | 1.000 | 0.985 | 0.815 | 0.547 | 5.91 | 4 | 8 | 11 | 1.680 | 0.64 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6234 | 0.0122 | 0.3646 | 0.0231 | 1.169 | 2.768 | 0.099 | 0.085 | 1.000 | 0.975 | 0.780 | 0.501 | 5.54 | 3 | 8 | 10 | 1.660 | 0.62 | 0.04 | 0.00 |
| | 300 | 0.5861 | 0.0081 | 0.3754 | 0.0273 | 1.188 | 2.871 | 0.063 | 0.053 | 1.000 | 0.971 | 0.780 | 0.485 | 5.36 | 3 | 8 | 9 | 1.642 | 0.61 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.6458 | 0.0240 | 0.3551 | 0.0124 | 1.155 | 2.708 | 0.121 | 0.109 | 1.000 | 0.984 | 0.787 | 0.511 | 5.60 | 3 | 8 | 11 | 1.700 | 0.66 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5915 | 0.0115 | 0.3598 | 0.0139 | 1.181 | 2.849 | 0.071 | 0.064 | 1.000 | 0.972 | 0.752 | 0.462 | 5.24 | 3 | 7 | 10 | 1.678 | 0.64 | 0.04 | 0.00 |
| | 300 | 0.5599 | 0.0076 | 0.3676 | 0.0161 | 1.199 | 2.934 | 0.053 | 0.049 | 1.000 | 0.966 | 0.750 | 0.448 | 5.07 | 3 | 7 | 9 | 1.655 | 0.62 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.5844 | 0.0216 | 0.3467 | 0.0042 | 1.184 | 2.896 | 0.081 | 0.080 | 1.000 | 0.968 | 0.721 | 0.424 | 5.06 | 3 | 7 | 10 | 1.739 | 0.70 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5343 | 0.0103 | 0.3493 | 0.0038 | 1.207 | 3.000 | 0.054 | 0.054 | 1.000 | 0.955 | 0.673 | 0.391 | 4.71 | 2 | 7 | 9 | 1.696 | 0.66 | 0.04 | 0.00 |
| | 300 | 0.4993 | 0.0068 | 0.3577 | 0.0043 | 1.227 | 3.083 | 0.042 | 0.041 | 1.000 | 0.946 | 0.677 | 0.369 | 4.52 | 2 | 7 | 9 | 1.667 | 0.64 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9817 | 0.0815 | 0.4967 | 0.4728 | 1.115 | 1.851 | 0.925 | 0.051 | 1.000 | 0.171 | 0.101 | 0.092 | 12.98 | 5 | 24 | 41 | - | - | - | - |
| | 200 | 0.9756 | 0.0573 | 0.5690 | 0.5498 | 1.140 | 1.986 | 0.900 | 0.028 | 1.000 | 0.167 | 0.086 | 0.075 | 16.28 | 5 | 32 | 58 | - | - | - | - |
| | 300 | 0.9724 | 0.0488 | 0.6223 | 0.6068 | 1.152 | 2.074 | 0.885 | 0.019 | 1.000 | 0.174 | 0.085 | 0.069 | 19.46 | 6 | 40 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8068 | 0.0344 | 0.2484 | 0.2400 | 1.161 | 2.515 | 0.584 | 0.106 | 1.000 | 0.051 | 0.033 | 0.035 | 7.44 | 1 | 17 | 31 | - | - | - | - |
| | 200 | 0.8129 | 0.0272 | 0.3312 | 0.3227 | 1.181 | 2.657 | 0.590 | 0.062 | 1.000 | 0.063 | 0.039 | 0.030 | 9.48 | 1 | 22 | 37 | - | - | - | - |
| | 300 | 0.8199 | 0.0242 | 0.3905 | 0.3841 | 1.192 | 2.780 | 0.611 | 0.031 | 1.000 | 0.066 | 0.032 | 0.032 | 11.35 | 1 | 27 | 43 | - | - | - | - |

Notes: See notes to Table 100.

**Table 527: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9984 | 0.0316 | 0.3415 | 0.0144 | 1.007 | 1.159 | 0.992 | 0.861 | 1.000 | 1.000 | 1.000 | 0.979 | 8.12 | 8 | 9 | 11 | 1.225 | 0.22 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9960 | 0.0157 | 0.3422 | 0.0144 | 1.008 | 1.220 | 0.981 | 0.851 | 1.000 | 1.000 | 1.000 | 0.981 | 8.11 | 8 | 9 | 11 | 1.294 | 0.29 | 0.00 | 0.00 |
| | 300 | 0.9947 | 0.0104 | 0.3417 | 0.0149 | 1.009 | 1.249 | 0.974 | 0.843 | 1.000 | 1.000 | 1.000 | 0.969 | 8.09 | 8 | 9 | 11 | 1.341 | 0.34 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9968 | 0.0308 | 0.3368 | 0.0074 | 1.007 | 1.160 | 0.984 | 0.916 | 1.000 | 1.000 | 1.000 | 0.974 | 8.03 | 8 | 9 | 11 | 1.291 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9934 | 0.0153 | 0.3374 | 0.0075 | 1.008 | 1.237 | 0.968 | 0.900 | 1.000 | 1.000 | 1.000 | 0.972 | 8.02 | 7 | 9 | 10 | 1.351 | 0.35 | 0.00 | 0.00 |
| | 300 | 0.9920 | 0.0102 | 0.3374 | 0.0085 | 1.009 | 1.269 | 0.961 | 0.884 | 1.000 | 1.000 | 1.000 | 0.961 | 8.01 | 7 | 9 | 10 | 1.404 | 0.40 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9906 | 0.0301 | 0.3331 | 0.0019 | 1.008 | 1.258 | 0.955 | 0.936 | 1.000 | 1.000 | 1.000 | 0.960 | 7.93 | 7 | 8 | 9 | 1.455 | 0.45 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9861 | 0.0149 | 0.3339 | 0.0018 | 1.010 | 1.347 | 0.932 | 0.916 | 1.000 | 1.000 | 1.000 | 0.958 | 7.91 | 7 | 8 | 9 | 1.545 | 0.54 | 0.00 | 0.00 |
| | 300 | 0.9832 | 0.0099 | 0.3336 | 0.0022 | 1.011 | 1.404 | 0.919 | 0.899 | 1.000 | 1.000 | 0.999 | 0.945 | 7.88 | 7 | 8 | 9 | 1.576 | 0.57 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9937 | 0.0314 | 0.3412 | 0.0124 | 1.008 | 1.227 | 0.970 | 0.858 | 1.000 | 1.000 | 1.000 | 0.979 | 8.07 | 8 | 9 | 11 | 1.188 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9894 | 0.0156 | 0.3419 | 0.0120 | 1.010 | 1.314 | 0.948 | 0.842 | 1.000 | 1.000 | 1.000 | 0.981 | 8.05 | 7 | 9 | 11 | 1.252 | 0.25 | 0.00 | 0.00 |
| | 300 | 0.9848 | 0.0103 | 0.3421 | 0.0124 | 1.011 | 1.401 | 0.926 | 0.820 | 1.000 | 1.000 | 1.000 | 0.969 | 8.02 | 7 | 9 | 11 | 1.285 | 0.28 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9898 | 0.0307 | 0.3374 | 0.0062 | 1.009 | 1.284 | 0.951 | 0.897 | 1.000 | 1.000 | 1.000 | 0.974 | 7.99 | 7 | 9 | 11 | 1.254 | 0.25 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9839 | 0.0152 | 0.3384 | 0.0061 | 1.011 | 1.400 | 0.922 | 0.868 | 1.000 | 1.000 | 1.000 | 0.972 | 7.95 | 7 | 9 | 10 | 1.307 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.9779 | 0.0101 | 0.3396 | 0.0073 | 1.013 | 1.509 | 0.894 | 0.834 | 1.000 | 1.000 | 1.000 | 0.961 | 7.92 | 7 | 9 | 10 | 1.347 | 0.35 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9798 | 0.0300 | 0.3350 | 0.0013 | 1.012 | 1.450 | 0.903 | 0.891 | 1.000 | 1.000 | 1.000 | 0.960 | 7.87 | 7 | 8 | 9 | 1.416 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9673 | 0.0149 | 0.3374 | 0.0013 | 1.016 | 1.662 | 0.843 | 0.833 | 1.000 | 1.000 | 1.000 | 0.958 | 7.81 | 7 | 8 | 9 | 1.484 | 0.48 | 0.00 | 0.00 |
| | 300 | 0.9623 | 0.0099 | 0.3377 | 0.0017 | 1.018 | 1.744 | 0.822 | 0.810 | 1.000 | 1.000 | 0.999 | 0.945 | 7.77 | 7 | 8 | 9 | 1.512 | 0.51 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0933 | 0.5458 | 0.5152 | 1.027 | 1.707 | 1.000 | 0.026 | 1.000 | 0.217 | 0.123 | 0.103 | 14.23 | 6 | 24 | 42 | - | - | - | - |
| | 200 | 1.0000 | 0.0608 | 0.6027 | 0.5793 | 1.033 | 1.836 | 1.000 | 0.009 | 1.000 | 0.218 | 0.110 | 0.083 | 17.09 | 7 | 33 | 64 | - | - | - | - |
| | 300 | 1.0000 | 0.0459 | 0.6250 | 0.6068 | 1.038 | 1.900 | 1.000 | 0.010 | 1.000 | 0.199 | 0.096 | 0.071 | 18.73 | 7 | 35 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9941 | 0.0329 | 0.2996 | 0.2854 | 1.018 | 1.728 | 0.987 | 0.154 | 1.000 | 0.070 | 0.027 | 0.032 | 8.22 | 5 | 14 | 27 | - | - | - | - |
| | 200 | 0.9949 | 0.0219 | 0.3588 | 0.3470 | 1.021 | 1.881 | 0.989 | 0.101 | 1.000 | 0.062 | 0.031 | 0.025 | 9.34 | 5 | 16 | 28 | - | - | - | - |
| | 300 | 0.9952 | 0.0168 | 0.3867 | 0.3771 | 1.023 | 1.975 | 0.990 | 0.083 | 1.000 | 0.065 | 0.027 | 0.029 | 9.99 | 5 | 18 | 30 | - | - | - | - |

Notes: See notes to Table 100.

**Table 528: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3406 | 0.0108 | 1.004 | 1.103 | 1.000 | 0.900 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3417 | 0.0127 | 1.004 | 1.122 | 1.000 | 0.879 | 1.000 | 1.000 | 1.000 | 0.999 | 8.13 | 8 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3411 | 0.0118 | 1.004 | 1.109 | 1.000 | 0.889 | 1.000 | 1.000 | 1.000 | 0.998 | 8.12 | 8 | 9 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3370 | 0.0056 | 1.003 | 1.077 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3381 | 0.0073 | 1.004 | 1.096 | 1.000 | 0.928 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3377 | 0.0068 | 1.004 | 1.082 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 0.998 | 8.07 | 8 | 9 | 11 | 1.030 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3337 | 0.0010 | 1.003 | 1.054 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 9 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3345 | 0.0020 | 1.003 | 1.068 | 1.000 | 0.980 | 1.000 | 1.000 | 1.000 | 0.998 | 8.02 | 8 | 8 | 9 | 1.044 | 0.04 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3340 | 0.0014 | 1.003 | 1.053 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 1.061 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3397 | 0.0096 | 1.003 | 1.082 | 1.000 | 0.909 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0157 | 0.3410 | 0.0116 | 1.004 | 1.100 | 1.000 | 0.890 | 1.000 | 1.000 | 1.000 | 0.999 | 8.12 | 8 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3403 | 0.0106 | 1.004 | 1.085 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 0.998 | 8.11 | 8 | 9 | 11 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3366 | 0.0049 | 1.003 | 1.065 | 1.000 | 0.953 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0154 | 0.3376 | 0.0065 | 1.004 | 1.081 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0102 | 0.3372 | 0.0061 | 1.004 | 1.072 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.998 | 8.06 | 8 | 9 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0303 | 0.3336 | 0.0008 | 1.003 | 1.057 | 0.999 | 0.992 | 1.000 | 1.000 | 1.000 | 0.997 | 8.00 | 8 | 8 | 9 | 1.036 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0151 | 0.3342 | 0.0015 | 1.003 | 1.059 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 1.039 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9993 | 0.0101 | 0.3341 | 0.0013 | 1.004 | 1.077 | 0.997 | 0.984 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 1.058 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0835 | 0.5220 | 0.4887 | 1.015 | 1.675 | 1.000 | 0.015 | 1.000 | 0.227 | 0.112 | 0.103 | 13.26 | 7 | 27 | 45 | - | - | - | - |
| | 200 | 1.0000 | 0.0583 | 0.5965 | 0.5694 | 1.019 | 1.816 | 1.000 | 0.025 | 1.000 | 0.228 | 0.110 | 0.091 | 16.61 | 7 | 28 | 73 | - | - | - | - |
| | 300 | 1.0000 | 0.0465 | 0.6183 | 0.5986 | 1.022 | 1.900 | 1.000 | 0.026 | 1.000 | 0.188 | 0.100 | 0.075 | 18.90 | 6 | 34 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9992 | 0.0166 | 0.1799 | 0.1695 | 1.004 | 1.320 | 0.999 | 0.324 | 1.000 | 0.042 | 0.024 | 0.014 | 6.64 | 5 | 10 | 18 | - | - | - | - |
| | 200 | 1.0000 | 0.0123 | 0.2448 | 0.2365 | 1.004 | 1.423 | 1.000 | 0.209 | 1.000 | 0.040 | 0.024 | 0.017 | 7.44 | 5 | 12 | 20 | - | - | - | - |
| | 300 | 1.0000 | 0.0095 | 0.2702 | 0.2627 | 1.006 | 1.492 | 1.000 | 0.199 | 1.000 | 0.031 | 0.015 | 0.021 | 7.84 | 5 | 13 | 24 | - | - | - | - |

Notes: See notes to Table 100.

**Table 529: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5069 | 0.0257 | 0.4142 | 0.0292 | 1.108 | 2.161 | 0.036 | 0.030 | 1.000 | 0.984 | 0.815 | 0.546 | 5.08 | 3 | 7 | 9 | 1.623 | 0.59 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4675 | 0.0125 | 0.4209 | 0.0298 | 1.122 | 2.279 | 0.025 | 0.020 | 1.000 | 0.985 | 0.789 | 0.513 | 4.82 | 3 | 7 | 10 | 1.586 | 0.57 | 0.02 | 0.00 |
| | 300 | 0.4383 | 0.0084 | 0.4318 | 0.0387 | 1.132 | 2.309 | 0.021 | 0.017 | 1.000 | 0.982 | 0.777 | 0.493 | 4.69 | 2 | 7 | 9 | 1.572 | 0.55 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.4816 | 0.0241 | 0.4071 | 0.0184 | 1.111 | 2.173 | 0.032 | 0.029 | 1.000 | 0.980 | 0.780 | 0.505 | 4.79 | 3 | 7 | 9 | 1.612 | 0.59 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4362 | 0.0117 | 0.4155 | 0.0179 | 1.126 | 2.297 | 0.022 | 0.019 | 1.000 | 0.980 | 0.758 | 0.476 | 4.51 | 2 | 7 | 10 | 1.567 | 0.55 | 0.02 | 0.00 |
| | 300 | 0.4108 | 0.0078 | 0.4234 | 0.0241 | 1.135 | 2.313 | 0.018 | 0.017 | 1.000 | 0.973 | 0.747 | 0.457 | 4.38 | 2 | 7 | 9 | 1.542 | 0.52 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.4060 | 0.0216 | 0.4049 | 0.0062 | 1.125 | 2.244 | 0.017 | 0.016 | 1.000 | 0.963 | 0.715 | 0.428 | 4.17 | 2 | 6 | 8 | 1.537 | 0.53 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3774 | 0.0105 | 0.4089 | 0.0049 | 1.138 | 2.333 | 0.015 | 0.015 | 1.000 | 0.965 | 0.691 | 0.405 | 3.98 | 2 | 6 | 8 | 1.497 | 0.49 | 0.01 | 0.00 |
| | 300 | 0.3549 | 0.0069 | 0.4109 | 0.0072 | 1.145 | 2.329 | 0.013 | 0.013 | 1.000 | 0.957 | 0.677 | 0.374 | 3.82 | 2 | 6 | 8 | 1.450 | 0.44 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.4153 | 0.0252 | 0.4424 | 0.0243 | 1.129 | 2.268 | 0.012 | 0.010 | 1.000 | 0.984 | 0.815 | 0.545 | 4.57 | 2 | 7 | 9 | 1.382 | 0.37 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3769 | 0.0122 | 0.4496 | 0.0243 | 1.143 | 2.370 | 0.007 | 0.006 | 1.000 | 0.985 | 0.789 | 0.513 | 4.32 | 2 | 6 | 10 | 1.332 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.3488 | 0.0082 | 0.4608 | 0.0341 | 1.154 | 2.387 | 0.004 | 0.004 | 1.000 | 0.982 | 0.777 | 0.493 | 4.20 | 2 | 6 | 9 | 1.307 | 0.30 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.3881 | 0.0237 | 0.4366 | 0.0145 | 1.133 | 2.285 | 0.010 | 0.009 | 1.000 | 0.980 | 0.780 | 0.505 | 4.29 | 2 | 6 | 9 | 1.379 | 0.37 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3502 | 0.0115 | 0.4443 | 0.0139 | 1.148 | 2.379 | 0.005 | 0.005 | 1.000 | 0.980 | 0.758 | 0.476 | 4.05 | 2 | 6 | 8 | 1.325 | 0.32 | 0.00 | 0.00 |
| | 300 | 0.3281 | 0.0077 | 0.4507 | 0.0196 | 1.156 | 2.381 | 0.004 | 0.003 | 1.000 | 0.973 | 0.747 | 0.457 | 3.93 | 2 | 6 | 9 | 1.297 | 0.29 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.3365 | 0.0215 | 0.4286 | 0.0049 | 1.145 | 2.322 | 0.003 | 0.003 | 1.000 | 0.963 | 0.715 | 0.428 | 3.81 | 2 | 6 | 8 | 1.359 | 0.36 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3043 | 0.0104 | 0.4352 | 0.0032 | 1.157 | 2.392 | 0.004 | 0.004 | 1.000 | 0.965 | 0.691 | 0.405 | 3.60 | 2 | 6 | 8 | 1.286 | 0.28 | 0.00 | 0.00 |
| | 300 | 0.2891 | 0.0068 | 0.4344 | 0.0054 | 1.161 | 2.377 | 0.001 | 0.001 | 1.000 | 0.957 | 0.677 | 0.374 | 3.48 | 2 | 5 | 8 | 1.256 | 0.25 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8363 | 0.0618 | 0.4297 | 0.4049 | 1.116 | 1.703 | 0.499 | 0.021 | 1.000 | 0.147 | 0.082 | 0.068 | 10.30 | 2 | 22 | 43 | - | - | - | - |
| | 200 | 0.8143 | 0.0442 | 0.5004 | 0.4776 | 1.136 | 1.849 | 0.437 | 0.012 | 1.000 | 0.135 | 0.068 | 0.057 | 12.87 | 2 | 30 | 64 | - | - | - | - |
| | 300 | 0.8014 | 0.0355 | 0.5525 | 0.5321 | 1.145 | 1.879 | 0.402 | 0.011 | 1.000 | 0.143 | 0.080 | 0.061 | 14.62 | 3 | 33.5 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5306 | 0.0215 | 0.1633 | 0.1582 | 1.137 | 2.167 | 0.173 | 0.010 | 1.000 | 0.031 | 0.020 | 0.025 | 4.78 | 1 | 16 | 31 | - | - | - | - |
| | 200 | 0.5482 | 0.0187 | 0.2320 | 0.2262 | 1.153 | 2.386 | 0.205 | 0.008 | 1.000 | 0.035 | 0.017 | 0.020 | 6.47 | 1 | 22 | 46 | - | - | - | - |
| | 300 | 0.5450 | 0.0162 | 0.2759 | 0.2710 | 1.165 | 2.453 | 0.191 | 0.003 | 1.000 | 0.040 | 0.023 | 0.027 | 7.57 | 1 | 24 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 530: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8961 | 0.0314 | 0.3627 | 0.0132 | 1.022 | 1.860 | 0.571 | 0.506 | 1.000 | 1.000 | 1.000 | 0.979 | 7.59 | 6 | 9 | 10 | 1.495 | 0.49 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8735 | 0.0157 | 0.3689 | 0.0159 | 1.026 | 2.025 | 0.486 | 0.420 | 1.000 | 1.000 | 1.000 | 0.972 | 7.49 | 6 | 9 | 11 | 1.577 | 0.57 | 0.01 | 0.00 |
| | 300 | 0.8581 | 0.0104 | 0.3724 | 0.0156 | 1.028 | 2.110 | 0.442 | 0.381 | 1.000 | 1.000 | 0.999 | 0.974 | 7.41 | 6 | 9 | 10 | 1.593 | 0.59 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8747 | 0.0306 | 0.3629 | 0.0066 | 1.025 | 1.972 | 0.503 | 0.472 | 1.000 | 1.000 | 1.000 | 0.972 | 7.41 | 6 | 8 | 10 | 1.547 | 0.54 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8544 | 0.0153 | 0.3685 | 0.0089 | 1.028 | 2.115 | 0.438 | 0.400 | 1.000 | 1.000 | 1.000 | 0.966 | 7.32 | 6 | 8 | 10 | 1.622 | 0.62 | 0.00 | 0.00 |
| | 300 | 0.8416 | 0.0102 | 0.3716 | 0.0091 | 1.030 | 2.187 | 0.399 | 0.365 | 1.000 | 1.000 | 0.999 | 0.966 | 7.26 | 6 | 8 | 10 | 1.655 | 0.65 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8416 | 0.0300 | 0.3666 | 0.0018 | 1.030 | 2.155 | 0.415 | 0.408 | 1.000 | 1.000 | 1.000 | 0.957 | 7.18 | 6 | 8 | 9 | 1.681 | 0.68 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8251 | 0.0149 | 0.3700 | 0.0028 | 1.032 | 2.268 | 0.373 | 0.364 | 1.000 | 1.000 | 1.000 | 0.946 | 7.10 | 6 | 8 | 9 | 1.734 | 0.73 | 0.00 | 0.00 |
| | 300 | 0.8146 | 0.0099 | 0.3727 | 0.0019 | 1.034 | 2.317 | 0.357 | 0.350 | 1.000 | 1.000 | 0.999 | 0.950 | 7.04 | 5.5 | 8 | 9 | 1.754 | 0.75 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8492 | 0.0312 | 0.3727 | 0.0115 | 1.029 | 2.125 | 0.432 | 0.387 | 1.000 | 1.000 | 1.000 | 0.979 | 7.33 | 6 | 8 | 10 | 1.361 | 0.36 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8027 | 0.0156 | 0.3846 | 0.0141 | 1.038 | 2.397 | 0.302 | 0.268 | 1.000 | 1.000 | 1.000 | 0.972 | 7.11 | 6 | 8 | 11 | 1.403 | 0.40 | 0.00 | 0.00 |
| | 300 | 0.7802 | 0.0104 | 0.3904 | 0.0138 | 1.040 | 2.505 | 0.259 | 0.227 | 1.000 | 1.000 | 0.999 | 0.974 | 7.00 | 5 | 8 | 10 | 1.421 | 0.42 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8226 | 0.0305 | 0.3746 | 0.0055 | 1.033 | 2.257 | 0.359 | 0.343 | 1.000 | 1.000 | 1.000 | 0.972 | 7.13 | 6 | 8 | 10 | 1.425 | 0.42 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7786 | 0.0153 | 0.3864 | 0.0079 | 1.041 | 2.511 | 0.257 | 0.239 | 1.000 | 1.000 | 1.000 | 0.966 | 6.93 | 5 | 8 | 10 | 1.462 | 0.46 | 0.00 | 0.00 |
| | 300 | 0.7589 | 0.0101 | 0.3917 | 0.0079 | 1.044 | 2.603 | 0.228 | 0.208 | 1.000 | 1.000 | 0.999 | 0.966 | 6.83 | 5 | 8 | 10 | 1.491 | 0.49 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7708 | 0.0300 | 0.3839 | 0.0013 | 1.042 | 2.522 | 0.260 | 0.257 | 1.000 | 1.000 | 1.000 | 0.957 | 6.82 | 5 | 8 | 9 | 1.555 | 0.55 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7345 | 0.0149 | 0.3931 | 0.0021 | 1.048 | 2.720 | 0.191 | 0.187 | 1.000 | 1.000 | 1.000 | 0.946 | 6.64 | 5 | 8 | 9 | 1.599 | 0.60 | 0.00 | 0.00 |
| | 300 | 0.7200 | 0.0099 | 0.3973 | 0.0016 | 1.051 | 2.781 | 0.186 | 0.184 | 1.000 | 1.000 | 0.999 | 0.950 | 6.56 | 5 | 8 | 9 | 1.618 | 0.62 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9987 | 0.0919 | 0.5338 | 0.5046 | 1.030 | 1.722 | 0.994 | 0.036 | 1.000 | 0.197 | 0.125 | 0.124 | 14.09 | 6 | 26 | 51 | - | - | - | - |
| | 200 | 0.9982 | 0.0558 | 0.5760 | 0.5539 | 1.037 | 1.854 | 0.992 | 0.027 | 1.000 | 0.197 | 0.093 | 0.077 | 16.10 | 6 | 30.5 | 57 | - | - | - | - |
| | 300 | 0.9976 | 0.0435 | 0.6061 | 0.5869 | 1.039 | 1.930 | 0.989 | 0.027 | 1.000 | 0.175 | 0.096 | 0.069 | 17.98 | 6 | 35 | 56 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9094 | 0.0384 | 0.3157 | 0.3013 | 1.041 | 2.263 | 0.832 | 0.069 | 1.000 | 0.076 | 0.044 | 0.043 | 8.35 | 1 | 16 | 27 | - | - | - | - |
| | 200 | 0.9170 | 0.0241 | 0.3624 | 0.3513 | 1.044 | 2.398 | 0.839 | 0.043 | 1.000 | 0.069 | 0.028 | 0.028 | 9.38 | 2 | 18 | 32 | - | - | - | - |
| | 300 | 0.9121 | 0.0190 | 0.3973 | 0.3884 | 1.049 | 2.532 | 0.838 | 0.034 | 1.000 | 0.066 | 0.034 | 0.029 | 10.25 | 1 | 20 | 34 | - | - | - | - |

Notes: See notes to Table 100.

**Table 531: Monte Carlo findings for DGPI(d) with low (0.2) pair-wise collinearity of signal variables**

$\omega = 0.2$, $T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9856 | 0.0314 | 0.3436 | 0.0109 | 1.006 | 1.294 | 0.930 | 0.833 | 1.000 | 1.000 | 1.000 | 1.000 | 8.04 | 7 | 9 | 10 | 1.194 | 0.19 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9808 | 0.0158 | 0.3465 | 0.0140 | 1.006 | 1.387 | 0.906 | 0.792 | 1.000 | 1.000 | 1.000 | 0.999 | 8.04 | 7 | 9 | 11 | 1.239 | 0.24 | 0.00 | 0.00 |
| | 300 | 0.9717 | 0.0105 | 0.3484 | 0.0140 | 1.008 | 1.500 | 0.864 | 0.752 | 1.000 | 1.000 | 1.000 | 0.998 | 8.00 | 7 | 9 | 11 | 1.272 | 0.27 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9803 | 0.0308 | 0.3411 | 0.0054 | 1.006 | 1.341 | 0.905 | 0.856 | 1.000 | 1.000 | 1.000 | 1.000 | 7.96 | 7 | 8 | 10 | 1.241 | 0.24 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9723 | 0.0154 | 0.3437 | 0.0071 | 1.007 | 1.472 | 0.865 | 0.810 | 1.000 | 1.000 | 1.000 | 0.999 | 7.93 | 7 | 9 | 10 | 1.294 | 0.29 | 0.00 | 0.00 |
| | 300 | 0.9614 | 0.0103 | 0.3466 | 0.0081 | 1.009 | 1.597 | 0.816 | 0.757 | 1.000 | 1.000 | 1.000 | 0.998 | 7.88 | 7 | 9 | 10 | 1.315 | 0.31 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9631 | 0.0304 | 0.3418 | 0.0012 | 1.009 | 1.544 | 0.824 | 0.814 | 1.000 | 1.000 | 1.000 | 0.999 | 7.83 | 7 | 8 | 9 | 1.400 | 0.40 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9494 | 0.0152 | 0.3450 | 0.0019 | 1.010 | 1.718 | 0.759 | 0.747 | 1.000 | 1.000 | 1.000 | 0.998 | 7.76 | 7 | 8 | 10 | 1.445 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.9398 | 0.0101 | 0.3474 | 0.0021 | 1.012 | 1.811 | 0.723 | 0.707 | 1.000 | 1.000 | 1.000 | 0.998 | 7.72 | 7 | 8 | 10 | 1.458 | 0.46 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9746 | 0.0313 | 0.3451 | 0.0097 | 1.007 | 1.425 | 0.878 | 0.797 | 1.000 | 1.000 | 1.000 | 1.000 | 7.97 | 7 | 9 | 10 | 1.137 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9642 | 0.0157 | 0.3496 | 0.0133 | 1.009 | 1.588 | 0.831 | 0.737 | 1.000 | 1.000 | 1.000 | 0.999 | 7.95 | 7 | 9 | 11 | 1.170 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.9513 | 0.0104 | 0.3518 | 0.0128 | 1.011 | 1.718 | 0.770 | 0.682 | 1.000 | 1.000 | 1.000 | 0.998 | 7.88 | 7 | 9 | 11 | 1.184 | 0.18 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9653 | 0.0308 | 0.3438 | 0.0047 | 1.008 | 1.527 | 0.837 | 0.799 | 1.000 | 1.000 | 1.000 | 1.000 | 7.87 | 7 | 8 | 10 | 1.175 | 0.18 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9507 | 0.0154 | 0.3480 | 0.0066 | 1.011 | 1.724 | 0.768 | 0.723 | 1.000 | 1.000 | 1.000 | 0.999 | 7.82 | 7 | 8 | 10 | 1.214 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.9371 | 0.0103 | 0.3513 | 0.0072 | 1.013 | 1.851 | 0.711 | 0.664 | 1.000 | 1.000 | 1.000 | 0.998 | 7.75 | 7 | 8 | 10 | 1.221 | 0.22 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9374 | 0.0304 | 0.3472 | 0.0010 | 1.013 | 1.831 | 0.713 | 0.705 | 1.000 | 1.000 | 1.000 | 0.999 | 7.70 | 7 | 8 | 9 | 1.320 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9138 | 0.0151 | 0.3526 | 0.0015 | 1.016 | 2.083 | 0.608 | 0.600 | 1.000 | 1.000 | 1.000 | 0.998 | 7.58 | 7 | 8 | 10 | 1.339 | 0.34 | 0.00 | 0.00 |
| | 300 | 0.9057 | 0.0101 | 0.3547 | 0.0017 | 1.017 | 2.140 | 0.588 | 0.576 | 1.000 | 1.000 | 1.000 | 0.998 | 7.54 | 6 | 8 | 9 | 1.362 | 0.36 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0958 | 0.5557 | 0.5252 | 1.015 | 1.673 | 1.000 | 0.023 | 1.000 | 0.229 | 0.121 | 0.109 | 14.49 | 7 | 24 | 49 | - | - | - | - |
| | 200 | 0.9999 | 0.0581 | 0.5755 | 0.5528 | 1.020 | 1.835 | 1.000 | 0.018 | 1.000 | 0.204 | 0.087 | 0.085 | 16.56 | 7 | 32 | 44 | - | - | - | - |
| | 300 | 1.0000 | 0.0426 | 0.5996 | 0.5771 | 1.022 | 1.865 | 1.000 | 0.014 | 1.000 | 0.202 | 0.093 | 0.079 | 17.73 | 7 | 37.5 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9874 | 0.0286 | 0.2765 | 0.2642 | 1.010 | 1.684 | 0.973 | 0.144 | 1.000 | 0.056 | 0.034 | 0.034 | 7.77 | 5 | 12 | 23 | - | - | - | - |
| | 200 | 0.9849 | 0.0177 | 0.3080 | 0.2980 | 1.013 | 1.872 | 0.969 | 0.131 | 1.000 | 0.059 | 0.024 | 0.022 | 8.45 | 5 | 15 | 24 | - | - | - | - |
| | 300 | 0.9853 | 0.0131 | 0.3264 | 0.3167 | 1.014 | 1.910 | 0.970 | 0.122 | 1.000 | 0.048 | 0.026 | 0.019 | 8.85 | 5 | 16 | 32 | - | - | - | - |

Notes: See notes to Table 100.

**Table 532: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9864 | 0.0261 | 0.2947 | 0.0223 | 1.022 | 1.095 | 0.946 | 0.778 | 1.000 | 0.983 | 0.827 | 0.562 | 7.52 | 6 | 9 | 11 | 1.061 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9745 | 0.0127 | 0.2915 | 0.0268 | 1.024 | 1.130 | 0.910 | 0.714 | 1.000 | 0.983 | 0.787 | 0.503 | 7.39 | 6 | 9 | 13 | 1.072 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.9780 | 0.0083 | 0.2872 | 0.0285 | 1.026 | 1.131 | 0.919 | 0.715 | 1.000 | 0.976 | 0.766 | 0.484 | 7.38 | 6 | 9 | 12 | 1.084 | 0.08 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9783 | 0.0244 | 0.2820 | 0.0137 | 1.020 | 1.102 | 0.918 | 0.817 | 1.000 | 0.976 | 0.798 | 0.512 | 7.30 | 6 | 9 | 11 | 1.048 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9645 | 0.0118 | 0.2785 | 0.0167 | 1.022 | 1.143 | 0.876 | 0.756 | 1.000 | 0.976 | 0.753 | 0.466 | 7.17 | 5 | 9 | 12 | 1.057 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9658 | 0.0078 | 0.2751 | 0.0175 | 1.023 | 1.144 | 0.875 | 0.753 | 1.000 | 0.971 | 0.736 | 0.456 | 7.15 | 5 | 9 | 11 | 1.063 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9503 | 0.0217 | 0.2634 | 0.0044 | 1.020 | 1.172 | 0.830 | 0.799 | 1.000 | 0.959 | 0.727 | 0.426 | 6.90 | 5 | 8 | 9 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9319 | 0.0104 | 0.2602 | 0.0052 | 1.023 | 1.236 | 0.785 | 0.750 | 1.000 | 0.961 | 0.681 | 0.391 | 6.74 | 5 | 8 | 10 | 1.052 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9281 | 0.0068 | 0.2564 | 0.0063 | 1.024 | 1.252 | 0.767 | 0.730 | 1.000 | 0.952 | 0.664 | 0.368 | 6.68 | 5 | 8 | 10 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9861 | 0.0256 | 0.2915 | 0.0176 | 1.019 | 1.077 | 0.946 | 0.809 | 1.000 | 0.983 | 0.827 | 0.562 | 7.47 | 6 | 9 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9741 | 0.0124 | 0.2877 | 0.0215 | 1.021 | 1.112 | 0.910 | 0.750 | 1.000 | 0.983 | 0.787 | 0.503 | 7.34 | 6 | 9 | 13 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9776 | 0.0081 | 0.2826 | 0.0220 | 1.021 | 1.103 | 0.918 | 0.754 | 1.000 | 0.976 | 0.766 | 0.484 | 7.32 | 6 | 9 | 11 | 1.024 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9776 | 0.0241 | 0.2798 | 0.0104 | 1.018 | 1.092 | 0.918 | 0.839 | 1.000 | 0.976 | 0.798 | 0.512 | 7.27 | 6 | 8 | 10 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9633 | 0.0116 | 0.2762 | 0.0132 | 1.020 | 1.136 | 0.875 | 0.781 | 1.000 | 0.976 | 0.753 | 0.466 | 7.13 | 5 | 8 | 12 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9648 | 0.0076 | 0.2724 | 0.0134 | 1.020 | 1.130 | 0.874 | 0.781 | 1.000 | 0.971 | 0.736 | 0.456 | 7.11 | 5 | 8 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9483 | 0.0216 | 0.2630 | 0.0032 | 1.020 | 1.178 | 0.828 | 0.805 | 1.000 | 0.959 | 0.727 | 0.426 | 6.88 | 5 | 8 | 9 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9298 | 0.0104 | 0.2597 | 0.0037 | 1.022 | 1.246 | 0.784 | 0.759 | 1.000 | 0.961 | 0.681 | 0.391 | 6.71 | 5 | 8 | 9 | 1.033 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9258 | 0.0068 | 0.2558 | 0.0046 | 1.023 | 1.257 | 0.766 | 0.739 | 1.000 | 0.952 | 0.664 | 0.368 | 6.65 | 5 | 8 | 10 | 1.030 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9602 | 0.0586 | 0.4164 | 0.3889 | 1.085 | 1.107 | 0.815 | 0.086 | 1.000 | 0.172 | 0.102 | 0.074 | 10.60 | 5 | 21 | 37 | - | - | - | - |
| | 200 | 0.9553 | 0.0422 | 0.4931 | 0.4709 | 1.101 | 1.137 | 0.790 | 0.054 | 1.000 | 0.165 | 0.080 | 0.060 | 13.18 | 5 | 27 | 48 | - | - | - | - |
| | 300 | 0.9553 | 0.0358 | 0.5465 | 0.5279 | 1.109 | 1.162 | 0.791 | 0.049 | 1.000 | 0.138 | 0.085 | 0.047 | 15.47 | 5 | 32 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7417 | 0.0181 | 0.1576 | 0.1507 | 1.108 | 1.783 | 0.277 | 0.044 | 1.000 | 0.041 | 0.026 | 0.017 | 5.50 | 2 | 13 | 24 | - | - | - | - |
| | 200 | 0.7595 | 0.0150 | 0.2281 | 0.2206 | 1.123 | 1.781 | 0.324 | 0.028 | 1.000 | 0.047 | 0.025 | 0.022 | 6.79 | 2 | 16 | 31 | - | - | - | - |
| | 300 | 0.7721 | 0.0139 | 0.2863 | 0.2799 | 1.125 | 1.808 | 0.330 | 0.022 | 1.000 | 0.041 | 0.028 | 0.019 | 8.01 | 2 | 20 | 35 | - | - | - | - |

Notes: See notes to Table 100.

**Table 533: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3409 | 0.0136 | 1.007 | 1.033 | 1.000 | 0.875 | 1.000 | 1.000 | 1.000 | 0.982 | 8.12 | 8 | 9 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0158 | 0.3417 | 0.0156 | 1.006 | 1.037 | 1.000 | 0.862 | 1.000 | 1.000 | 1.000 | 0.975 | 8.13 | 8 | 9 | 11 | 1.024 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3410 | 0.0153 | 1.007 | 1.038 | 1.000 | 0.862 | 1.000 | 1.000 | 0.999 | 0.971 | 8.13 | 8 | 9 | 11 | 1.025 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3363 | 0.0079 | 1.006 | 1.025 | 1.000 | 0.927 | 1.000 | 1.000 | 1.000 | 0.973 | 8.05 | 8 | 9 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3364 | 0.0089 | 1.005 | 1.029 | 1.000 | 0.917 | 1.000 | 1.000 | 1.000 | 0.965 | 8.05 | 8 | 9 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3354 | 0.0077 | 1.006 | 1.027 | 1.000 | 0.928 | 1.000 | 1.000 | 0.999 | 0.965 | 8.04 | 8 | 9 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3309 | 0.0025 | 1.006 | 1.017 | 1.000 | 0.976 | 1.000 | 1.000 | 1.000 | 0.951 | 7.98 | 8 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3302 | 0.0021 | 1.005 | 1.017 | 1.000 | 0.979 | 1.000 | 1.000 | 0.998 | 0.948 | 7.97 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3302 | 0.0022 | 1.006 | 1.019 | 1.000 | 0.979 | 1.000 | 1.000 | 0.998 | 0.948 | 7.97 | 7 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3396 | 0.0117 | 1.006 | 1.023 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 0.982 | 8.10 | 8 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3403 | 0.0136 | 1.005 | 1.026 | 1.000 | 0.879 | 1.000 | 1.000 | 1.000 | 0.975 | 8.11 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3397 | 0.0133 | 1.006 | 1.027 | 1.000 | 0.878 | 1.000 | 1.000 | 0.999 | 0.971 | 8.11 | 8 | 9 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3355 | 0.0067 | 1.006 | 1.019 | 1.000 | 0.938 | 1.000 | 1.000 | 1.000 | 0.973 | 8.04 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3355 | 0.0075 | 1.005 | 1.020 | 1.000 | 0.929 | 1.000 | 1.000 | 1.000 | 0.965 | 8.04 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3346 | 0.0065 | 1.006 | 1.020 | 1.000 | 0.939 | 1.000 | 1.000 | 0.999 | 0.965 | 8.03 | 8 | 9 | 10 | 1.005 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0300 | 0.3306 | 0.0021 | 1.005 | 1.014 | 1.000 | 0.979 | 1.000 | 1.000 | 1.000 | 0.951 | 7.97 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0149 | 0.3298 | 0.0016 | 1.004 | 1.014 | 1.000 | 0.985 | 1.000 | 1.000 | 0.998 | 0.948 | 7.96 | 7 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3297 | 0.0016 | 1.005 | 1.014 | 1.000 | 0.985 | 1.000 | 1.000 | 0.998 | 0.948 | 7.96 | 7 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0585 | 0.4092 | 0.3770 | 1.022 | 1.118 | 0.998 | 0.116 | 1.000 | 0.198 | 0.108 | 0.076 | 10.79 | 5 | 20 | 41 | - | - | - | - |
| | 200 | 0.9997 | 0.0363 | 0.4445 | 0.4191 | 1.027 | 1.142 | 0.999 | 0.107 | 1.000 | 0.176 | 0.094 | 0.067 | 12.21 | 5 | 24 | 53 | - | - | - | - |
| | 300 | 0.9996 | 0.0270 | 0.4701 | 0.4480 | 1.028 | 1.149 | 0.998 | 0.084 | 1.000 | 0.171 | 0.074 | 0.066 | 13.07 | 5 | 27.5 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9833 | 0.0129 | 0.1422 | 0.1327 | 1.011 | 1.404 | 0.936 | 0.408 | 1.000 | 0.043 | 0.020 | 0.018 | 6.20 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9807 | 0.0082 | 0.1689 | 0.1625 | 1.012 | 1.457 | 0.924 | 0.362 | 1.000 | 0.028 | 0.021 | 0.013 | 6.54 | 4 | 11 | 19 | - | - | - | - |
| | 300 | 0.9811 | 0.0060 | 0.1834 | 0.1764 | 1.013 | 1.461 | 0.922 | 0.322 | 1.000 | 0.032 | 0.011 | 0.011 | 6.69 | 5 | 11 | 24 | - | - | - | - |

Notes: See notes to Table 100.

**Table 534: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0316 | 0.3419 | 0.0129 | 1.004 | 1.030 | 1.000 | 0.882 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0158 | 0.3423 | 0.0134 | 1.004 | 1.030 | 1.000 | 0.879 | 1.000 | 1.000 | 1.000 | 1.000 | 8.14 | 8 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3417 | 0.0126 | 1.004 | 1.033 | 1.000 | 0.882 | 1.000 | 1.000 | 1.000 | 0.999 | 8.13 | 8 | 9 | 12 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3375 | 0.0064 | 1.004 | 1.022 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3380 | 0.0071 | 1.003 | 1.021 | 1.000 | 0.934 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3378 | 0.0068 | 1.004 | 1.024 | 1.000 | 0.933 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0011 | 1.003 | 1.014 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0152 | 0.3346 | 0.0021 | 1.003 | 1.015 | 1.000 | 0.980 | 1.000 | 1.000 | 1.000 | 0.998 | 8.02 | 8 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3343 | 0.0016 | 1.004 | 1.014 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3406 | 0.0110 | 1.004 | 1.020 | 1.000 | 0.898 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0157 | 0.3414 | 0.0121 | 1.004 | 1.023 | 1.000 | 0.891 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3406 | 0.0110 | 1.004 | 1.022 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3368 | 0.0052 | 1.003 | 1.016 | 1.000 | 0.951 | 1.000 | 1.000 | 1.000 | 1.000 | 8.05 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3375 | 0.0063 | 1.003 | 1.016 | 1.000 | 0.942 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3372 | 0.0059 | 1.004 | 1.018 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3339 | 0.0009 | 1.003 | 1.013 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3343 | 0.0017 | 1.003 | 1.012 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.998 | 8.02 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0014 | 1.004 | 1.013 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0573 | 0.3689 | 0.3345 | 1.013 | 1.118 | 1.000 | 0.143 | 1.000 | 0.210 | 0.106 | 0.075 | 10.67 | 5 | 26 | 36 | - | - | - | - |
| | 200 | 1.0000 | 0.0308 | 0.4158 | 0.3870 | 1.015 | 1.126 | 1.000 | 0.087 | 1.000 | 0.178 | 0.082 | 0.063 | 11.14 | 5 | 22 | 55 | - | - | - | - |
| | 300 | 1.0000 | 0.0252 | 0.4676 | 0.4422 | 1.016 | 1.138 | 1.000 | 0.076 | 1.000 | 0.176 | 0.082 | 0.053 | 12.53 | 5 | 22 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9988 | 0.0054 | 0.0654 | 0.0608 | 1.003 | 1.258 | 0.995 | 0.700 | 1.000 | 0.020 | 0.009 | 0.008 | 5.53 | 5 | 7 | 14 | - | - | - | - |
| | 200 | 0.9985 | 0.0031 | 0.0739 | 0.0703 | 1.003 | 1.267 | 0.993 | 0.649 | 1.000 | 0.009 | 0.007 | 0.006 | 5.60 | 5 | 8 | 15 | - | - | - | - |
| | 300 | 0.9990 | 0.0025 | 0.0909 | 0.0879 | 1.003 | 1.267 | 0.996 | 0.585 | 1.000 | 0.014 | 0.007 | 0.006 | 5.76 | 5 | 8 | 15 | - | - | - | - |

Notes: See notes to Table 100.

**Table 535: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9135 | 0.0256 | 0.3063 | 0.0225 | 1.025 | 1.144 | 0.746 | 0.625 | 1.000 | 0.982 | 0.811 | 0.536 | 7.10 | 5 | 9 | 11 | 1.106 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8924 | 0.0127 | 0.3110 | 0.0267 | 1.027 | 1.176 | 0.697 | 0.556 | 1.000 | 0.981 | 0.794 | 0.520 | 6.99 | 5 | 9 | 11 | 1.133 | 0.13 | 0.01 | 0.00 |
| | 300 | 0.8775 | 0.0084 | 0.3102 | 0.0306 | 1.030 | 1.206 | 0.657 | 0.513 | 1.000 | 0.977 | 0.760 | 0.495 | 6.89 | 4 | 9 | 11 | 1.160 | 0.15 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8917 | 0.0240 | 0.2976 | 0.0140 | 1.023 | 1.162 | 0.690 | 0.614 | 1.000 | 0.976 | 0.780 | 0.500 | 6.84 | 4 | 8 | 11 | 1.113 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8710 | 0.0119 | 0.3018 | 0.0170 | 1.026 | 1.205 | 0.652 | 0.566 | 1.000 | 0.974 | 0.769 | 0.482 | 6.73 | 4 | 8 | 10 | 1.151 | 0.14 | 0.01 | 0.00 |
| | 300 | 0.8558 | 0.0078 | 0.2997 | 0.0182 | 1.028 | 1.226 | 0.604 | 0.523 | 1.000 | 0.972 | 0.736 | 0.458 | 6.60 | 4 | 8 | 11 | 1.168 | 0.16 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8493 | 0.0215 | 0.2834 | 0.0048 | 1.022 | 1.209 | 0.587 | 0.565 | 1.000 | 0.963 | 0.713 | 0.418 | 6.38 | 4 | 8 | 10 | 1.172 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8357 | 0.0105 | 0.2821 | 0.0054 | 1.023 | 1.227 | 0.560 | 0.536 | 1.000 | 0.958 | 0.695 | 0.398 | 6.27 | 4 | 8 | 10 | 1.209 | 0.20 | 0.01 | 0.00 |
| | 300 | 0.8180 | 0.0069 | 0.2817 | 0.0071 | 1.026 | 1.280 | 0.535 | 0.507 | 1.000 | 0.958 | 0.664 | 0.374 | 6.14 | 3 | 8 | 9 | 1.245 | 0.24 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9114 | 0.0252 | 0.3036 | 0.0179 | 1.022 | 1.131 | 0.742 | 0.642 | 1.000 | 0.982 | 0.811 | 0.536 | 7.05 | 5 | 9 | 11 | 1.066 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8881 | 0.0124 | 0.3076 | 0.0206 | 1.024 | 1.154 | 0.687 | 0.578 | 1.000 | 0.981 | 0.794 | 0.520 | 6.91 | 5 | 9 | 10 | 1.079 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8725 | 0.0082 | 0.3073 | 0.0246 | 1.027 | 1.189 | 0.648 | 0.531 | 1.000 | 0.977 | 0.760 | 0.495 | 6.81 | 4 | 9 | 10 | 1.107 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8884 | 0.0237 | 0.2959 | 0.0106 | 1.021 | 1.154 | 0.683 | 0.622 | 1.000 | 0.976 | 0.780 | 0.500 | 6.79 | 4 | 8 | 10 | 1.083 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8651 | 0.0117 | 0.3000 | 0.0124 | 1.024 | 1.189 | 0.640 | 0.578 | 1.000 | 0.974 | 0.769 | 0.482 | 6.65 | 4 | 8 | 10 | 1.106 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8494 | 0.0076 | 0.2980 | 0.0138 | 1.026 | 1.212 | 0.590 | 0.529 | 1.000 | 0.972 | 0.736 | 0.457 | 6.53 | 4 | 8 | 10 | 1.129 | 0.13 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8443 | 0.0214 | 0.2836 | 0.0034 | 1.022 | 1.206 | 0.579 | 0.565 | 1.000 | 0.963 | 0.713 | 0.418 | 6.34 | 4 | 8 | 9 | 1.156 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8288 | 0.0105 | 0.2828 | 0.0040 | 1.023 | 1.227 | 0.549 | 0.533 | 1.000 | 0.958 | 0.695 | 0.398 | 6.22 | 4 | 8 | 9 | 1.193 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.8089 | 0.0068 | 0.2818 | 0.0044 | 1.026 | 1.273 | 0.513 | 0.495 | 1.000 | 0.958 | 0.664 | 0.374 | 6.07 | 3 | 8 | 9 | 1.221 | 0.22 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8556 | 0.0546 | 0.4134 | 0.3836 | 1.087 | 0.979 | 0.424 | 0.045 | 1.000 | 0.156 | 0.088 | 0.072 | 9.68 | 4 | 20 | 40 | - | - | - | - |
| | 200 | 0.8508 | 0.0400 | 0.4922 | 0.4693 | 1.096 | 1.004 | 0.424 | 0.029 | 1.000 | 0.140 | 0.078 | 0.054 | 12.22 | 4 | 27 | 55 | - | - | - | - |
| | 300 | 0.8506 | 0.0342 | 0.5458 | 0.5284 | 1.106 | 1.035 | 0.409 | 0.022 | 1.000 | 0.140 | 0.068 | 0.055 | 14.49 | 4 | 32 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5693 | 0.0156 | 0.1380 | 0.1315 | 1.108 | 1.452 | 0.061 | 0.003 | 1.000 | 0.022 | 0.021 | 0.017 | 4.39 | 2 | 13 | 26 | - | - | - | - |
| | 200 | 0.5963 | 0.0153 | 0.2144 | 0.2091 | 1.117 | 1.504 | 0.087 | 0.003 | 1.000 | 0.040 | 0.019 | 0.018 | 6.02 | 2 | 18 | 39 | - | - | - | - |
| | 300 | 0.6061 | 0.0145 | 0.2754 | 0.2694 | 1.130 | 1.561 | 0.083 | 0.003 | 1.000 | 0.039 | 0.023 | 0.016 | 7.36 | 2 | 22 | 45 | - | - | - | - |

Notes: See notes to Table 100.

**Table 536: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0316 | 0.3416 | 0.0142 | 1.007 | 1.040 | 1.000 | 0.872 | 1.000 | 1.000 | 1.000 | 0.985 | 8.13 | 8 | 9 | 11 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3408 | 0.0147 | 1.007 | 1.037 | 1.000 | 0.870 | 1.000 | 1.000 | 1.000 | 0.973 | 8.12 | 8 | 9 | 11 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0104 | 0.3404 | 0.0150 | 1.007 | 1.039 | 1.000 | 0.864 | 1.000 | 1.000 | 1.000 | 0.965 | 8.12 | 8 | 9 | 12 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3367 | 0.0075 | 1.006 | 1.029 | 1.000 | 0.930 | 1.000 | 1.000 | 1.000 | 0.980 | 8.06 | 8 | 9 | 11 | 1.015 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0153 | 0.3363 | 0.0085 | 1.006 | 1.028 | 1.000 | 0.922 | 1.000 | 1.000 | 1.000 | 0.968 | 8.05 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0102 | 0.3350 | 0.0080 | 1.006 | 1.028 | 1.000 | 0.924 | 1.000 | 1.000 | 1.000 | 0.957 | 8.04 | 8 | 9 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3316 | 0.0019 | 1.005 | 1.017 | 1.000 | 0.982 | 1.000 | 1.000 | 0.999 | 0.965 | 7.98 | 8 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0149 | 0.3306 | 0.0023 | 1.006 | 1.016 | 0.999 | 0.976 | 1.000 | 1.000 | 0.999 | 0.950 | 7.97 | 7 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0099 | 0.3293 | 0.0014 | 1.005 | 1.017 | 0.998 | 0.985 | 1.000 | 1.000 | 1.000 | 0.940 | 7.95 | 7 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3400 | 0.0119 | 1.006 | 1.029 | 1.000 | 0.891 | 1.000 | 1.000 | 1.000 | 0.985 | 8.11 | 8 | 9 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3396 | 0.0130 | 1.006 | 1.027 | 1.000 | 0.881 | 1.000 | 1.000 | 1.000 | 0.973 | 8.10 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0104 | 0.3391 | 0.0130 | 1.006 | 1.028 | 1.000 | 0.881 | 1.000 | 1.000 | 1.000 | 0.965 | 8.10 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0307 | 0.3358 | 0.0062 | 1.006 | 1.022 | 1.000 | 0.942 | 1.000 | 1.000 | 1.000 | 0.980 | 8.04 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0153 | 0.3356 | 0.0075 | 1.006 | 1.022 | 1.000 | 0.929 | 1.000 | 1.000 | 1.000 | 0.968 | 8.04 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0101 | 0.3342 | 0.0067 | 1.006 | 1.021 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 0.957 | 8.02 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3313 | 0.0014 | 1.005 | 1.014 | 1.000 | 0.986 | 1.000 | 1.000 | 0.999 | 0.965 | 7.98 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9996 | 0.0149 | 0.3305 | 0.0022 | 1.005 | 1.015 | 0.999 | 0.977 | 1.000 | 1.000 | 0.999 | 0.950 | 7.97 | 7 | 8 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9996 | 0.0099 | 0.3290 | 0.0010 | 1.005 | 1.014 | 0.998 | 0.989 | 1.000 | 1.000 | 1.000 | 0.940 | 7.95 | 7 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9846 | 0.0602 | 0.4207 | 0.3902 | 1.023 | 1.107 | 0.923 | 0.080 | 1.000 | 0.192 | 0.097 | 0.083 | 10.88 | 5 | 21 | 40 | - | - | - | - |
| | 200 | 0.9827 | 0.0372 | 0.4592 | 0.4341 | 1.027 | 1.118 | 0.915 | 0.074 | 1.000 | 0.164 | 0.084 | 0.063 | 12.31 | 5 | 26 | 62 | - | - | - | - |
| | 300 | 0.9804 | 0.0289 | 0.4885 | 0.4656 | 1.029 | 1.133 | 0.902 | 0.064 | 1.000 | 0.166 | 0.067 | 0.053 | 13.56 | 5 | 29 | 55 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8821 | 0.0206 | 0.2088 | 0.1960 | 1.023 | 1.602 | 0.600 | 0.153 | 1.000 | 0.051 | 0.027 | 0.024 | 6.45 | 3 | 12 | 25 | - | - | - | - |
| | 200 | 0.8881 | 0.0135 | 0.2499 | 0.2400 | 1.022 | 1.602 | 0.588 | 0.118 | 1.000 | 0.048 | 0.027 | 0.018 | 7.12 | 3 | 14 | 27 | - | - | - | - |
| | 300 | 0.8850 | 0.0104 | 0.2737 | 0.2644 | 1.025 | 1.635 | 0.586 | 0.106 | 1.000 | 0.049 | 0.020 | 0.013 | 7.54 | 3 | 15 | 27 | - | - | - | - |

Notes: See notes to Table 100.

**Table 537: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0316 | 0.3417 | 0.0126 | 1.004 | 1.031 | 1.000 | 0.886 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 11 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0157 | 0.3417 | 0.0126 | 1.004 | 1.034 | 1.000 | 0.883 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 11 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3423 | 0.0135 | 1.004 | 1.034 | 1.000 | 0.875 | 1.000 | 1.000 | 1.000 | 1.000 | 8.14 | 8 | 9 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0310 | 0.3378 | 0.0066 | 1.004 | 1.021 | 1.000 | 0.938 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3378 | 0.0068 | 1.003 | 1.024 | 1.000 | 0.937 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3378 | 0.0068 | 1.003 | 1.024 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 11 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0305 | 0.3346 | 0.0019 | 1.003 | 1.013 | 1.000 | 0.981 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 8 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3341 | 0.0013 | 1.003 | 1.013 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3342 | 0.0015 | 1.003 | 1.012 | 1.000 | 0.986 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3406 | 0.0110 | 1.004 | 1.022 | 1.000 | 0.899 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3405 | 0.0108 | 1.003 | 1.024 | 1.000 | 0.898 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3410 | 0.0115 | 1.004 | 1.022 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3374 | 0.0061 | 1.004 | 1.017 | 1.000 | 0.944 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3371 | 0.0057 | 1.003 | 1.018 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3371 | 0.0056 | 1.003 | 1.016 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0305 | 0.3345 | 0.0018 | 1.003 | 1.012 | 1.000 | 0.983 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3339 | 0.0011 | 1.003 | 1.011 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0013 | 1.003 | 1.011 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9980 | 0.0607 | 0.4289 | 0.3952 | 1.013 | 1.108 | 0.990 | 0.098 | 1.000 | 0.203 | 0.102 | 0.084 | 11.00 | 5 | 19 | 41 | - | - | - | - |
| | 200 | 0.9975 | 0.0382 | 0.4526 | 0.4253 | 1.015 | 1.135 | 0.988 | 0.098 | 1.000 | 0.184 | 0.085 | 0.068 | 12.58 | 5 | 25 | 60 | - | - | - | - |
| | 300 | 0.9969 | 0.0280 | 0.4587 | 0.4357 | 1.018 | 1.147 | 0.985 | 0.088 | 1.000 | 0.192 | 0.077 | 0.058 | 13.36 | 5 | 30 | 78 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9684 | 0.0125 | 0.1446 | 0.1357 | 1.006 | 1.430 | 0.861 | 0.352 | 1.000 | 0.044 | 0.017 | 0.014 | 6.08 | 4 | 9 | 18 | - | - | - | - |
| | 200 | 0.9676 | 0.0082 | 0.1742 | 0.1671 | 1.007 | 1.447 | 0.852 | 0.323 | 1.000 | 0.041 | 0.015 | 0.012 | 6.47 | 4 | 11 | 18 | - | - | - | - |
| | 300 | 0.9666 | 0.0061 | 0.1840 | 0.1779 | 1.007 | 1.471 | 0.852 | 0.318 | 1.000 | 0.030 | 0.018 | 0.010 | 6.64 | 4 | 11 | 21 | - | - | - | - |

Notes: See notes to Table 100.

**Table 538: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7890 | 0.0259 | 0.3407 | 0.0249 | 1.026 | 1.067 | 0.495 | 0.404 | 1.000 | 0.990 | 0.822 | 0.545 | 6.51 | 4 | 9 | 11 | 1.352 | 0.34 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7613 | 0.0127 | 0.3442 | 0.0298 | 1.031 | 1.091 | 0.456 | 0.357 | 1.000 | 0.982 | 0.797 | 0.509 | 6.34 | 3 | 9 | 12 | 1.426 | 0.41 | 0.02 | 0.00 |
| | 300 | 0.7531 | 0.0085 | 0.3473 | 0.0330 | 1.033 | 1.091 | 0.438 | 0.345 | 1.000 | 0.983 | 0.786 | 0.509 | 6.31 | 4 | 9 | 11 | 1.433 | 0.41 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.7741 | 0.0244 | 0.3318 | 0.0162 | 1.025 | 1.054 | 0.467 | 0.411 | 1.000 | 0.986 | 0.796 | 0.507 | 6.29 | 3 | 8 | 10 | 1.402 | 0.39 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7452 | 0.0119 | 0.3336 | 0.0183 | 1.030 | 1.067 | 0.435 | 0.376 | 1.000 | 0.978 | 0.768 | 0.473 | 6.09 | 3 | 8 | 10 | 1.455 | 0.44 | 0.01 | 0.00 |
| | 300 | 0.7444 | 0.0079 | 0.3324 | 0.0191 | 1.030 | 1.073 | 0.438 | 0.380 | 1.000 | 0.979 | 0.755 | 0.468 | 6.07 | 3 | 8 | 11 | 1.478 | 0.46 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.7409 | 0.0219 | 0.3158 | 0.0061 | 1.024 | 1.042 | 0.431 | 0.413 | 1.000 | 0.970 | 0.729 | 0.430 | 5.88 | 3 | 8 | 9 | 1.506 | 0.50 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7201 | 0.0105 | 0.3133 | 0.0075 | 1.032 | 1.046 | 0.417 | 0.395 | 1.000 | 0.962 | 0.693 | 0.386 | 5.69 | 3 | 8 | 9 | 1.550 | 0.54 | 0.01 | 0.00 |
| | 300 | 0.7156 | 0.0071 | 0.3164 | 0.0076 | 1.032 | 1.051 | 0.411 | 0.383 | 1.000 | 0.968 | 0.690 | 0.394 | 5.69 | 3 | 8 | 9 | 1.575 | 0.56 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.7511 | 0.0255 | 0.3476 | 0.0202 | 1.028 | 1.048 | 0.432 | 0.367 | 1.000 | 0.990 | 0.822 | 0.545 | 6.28 | 3 | 8 | 11 | 1.292 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7081 | 0.0124 | 0.3552 | 0.0240 | 1.037 | 1.060 | 0.371 | 0.311 | 1.000 | 0.982 | 0.797 | 0.509 | 6.01 | 3 | 8 | 11 | 1.331 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.6921 | 0.0083 | 0.3603 | 0.0270 | 1.039 | 1.063 | 0.350 | 0.287 | 1.000 | 0.983 | 0.786 | 0.509 | 5.95 | 3 | 8 | 11 | 1.331 | 0.32 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7288 | 0.0241 | 0.3414 | 0.0125 | 1.029 | 1.039 | 0.394 | 0.361 | 1.000 | 0.986 | 0.796 | 0.507 | 6.03 | 3 | 8 | 10 | 1.341 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6856 | 0.0117 | 0.3476 | 0.0144 | 1.037 | 1.051 | 0.347 | 0.313 | 1.000 | 0.978 | 0.768 | 0.473 | 5.75 | 3 | 8 | 10 | 1.376 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.6778 | 0.0077 | 0.3482 | 0.0153 | 1.038 | 1.054 | 0.340 | 0.303 | 1.000 | 0.979 | 0.755 | 0.468 | 5.70 | 3 | 8 | 10 | 1.392 | 0.39 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6805 | 0.0218 | 0.3315 | 0.0044 | 1.035 | 1.034 | 0.352 | 0.342 | 1.000 | 0.970 | 0.729 | 0.430 | 5.56 | 3 | 8 | 9 | 1.432 | 0.43 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6418 | 0.0104 | 0.3332 | 0.0058 | 1.045 | 1.044 | 0.312 | 0.301 | 1.000 | 0.962 | 0.693 | 0.386 | 5.29 | 2 | 8 | 9 | 1.462 | 0.46 | 0.00 | 0.00 |
| | 300 | 0.6367 | 0.0070 | 0.3363 | 0.0050 | 1.045 | 1.037 | 0.303 | 0.292 | 1.000 | 0.968 | 0.690 | 0.394 | 5.27 | 2 | 8 | 9 | 1.474 | 0.47 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7112 | 0.0515 | 0.4166 | 0.3855 | 1.080 | 0.800 | 0.148 | 0.015 | 1.000 | 0.146 | 0.074 | 0.071 | 8.65 | 3 | 20 | 38 | - | - | - | - |
| | 200 | 0.6870 | 0.0364 | 0.4978 | 0.4726 | 1.093 | 0.826 | 0.104 | 0.007 | 1.000 | 0.139 | 0.071 | 0.050 | 10.69 | 3 | 24 | 47 | - | - | - | - |
| | 300 | 0.6846 | 0.0316 | 0.5412 | 0.5189 | 1.099 | 0.852 | 0.112 | 0.005 | 1.000 | 0.140 | 0.068 | 0.043 | 12.86 | 3 | 32 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4360 | 0.0144 | 0.1277 | 0.1231 | 1.093 | 1.066 | 0.010 | 0.000 | 1.000 | 0.020 | 0.013 | 0.013 | 3.60 | 1 | 13 | 29 | - | - | - | - |
| | 200 | 0.4422 | 0.0126 | 0.1950 | 0.1904 | 1.104 | 1.143 | 0.008 | 0.000 | 1.000 | 0.033 | 0.021 | 0.016 | 4.71 | 1 | 17 | 36 | - | - | - | - |
| | 300 | 0.4611 | 0.0131 | 0.2520 | 0.2470 | 1.114 | 1.209 | 0.010 | 0.000 | 1.000 | 0.036 | 0.019 | 0.014 | 6.21 | 1 | 22 | 42 | - | - | - | - |

Notes: See notes to Table 100.

**Table 539: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9902 | 0.0314 | 0.3428 | 0.0129 | 1.007 | 1.045 | 0.969 | 0.855 | 1.000 | 1.000 | 1.000 | 0.983 | 8.06 | 8 | 9 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9842 | 0.0157 | 0.3447 | 0.0145 | 1.007 | 1.056 | 0.946 | 0.816 | 1.000 | 1.000 | 1.000 | 0.978 | 8.04 | 7 | 9 | 11 | 1.029 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9796 | 0.0105 | 0.3465 | 0.0159 | 1.008 | 1.069 | 0.936 | 0.800 | 1.000 | 1.000 | 0.999 | 0.974 | 8.03 | 7 | 9 | 11 | 1.033 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9863 | 0.0308 | 0.3393 | 0.0068 | 1.007 | 1.040 | 0.955 | 0.894 | 1.000 | 1.000 | 1.000 | 0.978 | 7.98 | 7 | 9 | 10 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9782 | 0.0153 | 0.3410 | 0.0073 | 1.006 | 1.055 | 0.928 | 0.864 | 1.000 | 1.000 | 1.000 | 0.972 | 7.94 | 7 | 9 | 11 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9717 | 0.0102 | 0.3430 | 0.0090 | 1.007 | 1.069 | 0.911 | 0.836 | 1.000 | 1.000 | 0.999 | 0.965 | 7.91 | 7 | 9 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9662 | 0.0301 | 0.3391 | 0.0018 | 1.006 | 1.063 | 0.894 | 0.880 | 1.000 | 1.000 | 1.000 | 0.958 | 7.81 | 7 | 8 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9572 | 0.0149 | 0.3400 | 0.0013 | 1.006 | 1.075 | 0.862 | 0.850 | 1.000 | 1.000 | 1.000 | 0.949 | 7.75 | 6 | 8 | 9 | 1.028 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9520 | 0.0099 | 0.3414 | 0.0026 | 1.007 | 1.091 | 0.853 | 0.833 | 1.000 | 1.000 | 0.999 | 0.941 | 7.72 | 6 | 8 | 10 | 1.035 | 0.03 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9901 | 0.0312 | 0.3415 | 0.0108 | 1.007 | 1.036 | 0.969 | 0.873 | 1.000 | 1.000 | 1.000 | 0.983 | 8.04 | 8 | 9 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9841 | 0.0156 | 0.3433 | 0.0122 | 1.006 | 1.045 | 0.946 | 0.834 | 1.000 | 1.000 | 1.000 | 0.978 | 8.02 | 7 | 9 | 10 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9794 | 0.0104 | 0.3451 | 0.0137 | 1.007 | 1.059 | 0.936 | 0.819 | 1.000 | 1.000 | 0.999 | 0.974 | 8.01 | 7 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9862 | 0.0306 | 0.3384 | 0.0054 | 1.006 | 1.034 | 0.955 | 0.908 | 1.000 | 1.000 | 1.000 | 0.978 | 7.96 | 7 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9781 | 0.0152 | 0.3399 | 0.0057 | 1.006 | 1.047 | 0.928 | 0.877 | 1.000 | 1.000 | 1.000 | 0.972 | 7.92 | 7 | 8.5 | 10 | 1.012 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9714 | 0.0102 | 0.3422 | 0.0076 | 1.006 | 1.063 | 0.911 | 0.848 | 1.000 | 1.000 | 0.999 | 0.965 | 7.90 | 7 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9659 | 0.0300 | 0.3389 | 0.0015 | 1.006 | 1.061 | 0.894 | 0.883 | 1.000 | 1.000 | 1.000 | 0.958 | 7.80 | 7 | 8 | 9 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9570 | 0.0149 | 0.3400 | 0.0011 | 1.006 | 1.075 | 0.861 | 0.851 | 1.000 | 1.000 | 1.000 | 0.949 | 7.74 | 6 | 8 | 9 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9516 | 0.0099 | 0.3411 | 0.0019 | 1.006 | 1.088 | 0.852 | 0.839 | 1.000 | 1.000 | 0.999 | 0.941 | 7.72 | 6 | 8 | 9 | 1.028 | 0.03 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9104 | 0.0577 | 0.4264 | 0.3929 | 1.021 | 1.003 | 0.611 | 0.056 | 1.000 | 0.194 | 0.097 | 0.075 | 10.26 | 5 | 20 | 32 | - | - | - | - |
| | 200 | 0.9090 | 0.0360 | 0.4720 | 0.4467 | 1.025 | 1.025 | 0.594 | 0.045 | 1.000 | 0.159 | 0.077 | 0.063 | 11.70 | 5 | 23 | 44 | - | - | - | - |
| | 300 | 0.8979 | 0.0276 | 0.5022 | 0.4794 | 1.028 | 1.029 | 0.553 | 0.033 | 1.000 | 0.165 | 0.073 | 0.053 | 12.75 | 5 | 28 | 52 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6898 | 0.0217 | 0.2214 | 0.2078 | 1.032 | 1.470 | 0.176 | 0.035 | 1.000 | 0.054 | 0.029 | 0.023 | 5.59 | 2 | 12 | 18 | - | - | - | - |
| | 200 | 0.7025 | 0.0142 | 0.2631 | 0.2539 | 1.034 | 1.536 | 0.182 | 0.018 | 1.000 | 0.048 | 0.028 | 0.021 | 6.33 | 2 | 14 | 27 | - | - | - | - |
| | 300 | 0.7033 | 0.0115 | 0.3031 | 0.2934 | 1.035 | 1.540 | 0.168 | 0.014 | 1.000 | 0.052 | 0.022 | 0.022 | 6.97 | 2 | 15 | 30 | - | - | - | - |

Notes: See notes to Table 100.

**Table 540: Monte Carlo findings for DGPI(d) with high (0.8) pair-wise collinearity of signal variables**

$\omega = 0.8$, $T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.0314 | 0.3407 | 0.0109 | 1.004 | 1.030 | 0.999 | 0.898 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0158 | 0.3426 | 0.0139 | 1.004 | 1.037 | 1.000 | 0.871 | 1.000 | 1.000 | 1.000 | 1.000 | 8.14 | 8 | 9 | 11 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0105 | 0.3416 | 0.0124 | 1.004 | 1.033 | 0.999 | 0.887 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 11 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0310 | 0.3377 | 0.0065 | 1.004 | 1.022 | 0.999 | 0.936 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0155 | 0.3385 | 0.0078 | 1.004 | 1.026 | 1.000 | 0.925 | 1.000 | 1.000 | 1.000 | 1.000 | 8.08 | 8 | 9 | 11 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0103 | 0.3379 | 0.0068 | 1.004 | 1.024 | 0.998 | 0.933 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9995 | 0.0305 | 0.3344 | 0.0017 | 1.004 | 1.012 | 0.999 | 0.982 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9985 | 0.0152 | 0.3348 | 0.0018 | 1.003 | 1.017 | 0.995 | 0.979 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9980 | 0.0101 | 0.3348 | 0.0017 | 1.003 | 1.020 | 0.994 | 0.978 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9997 | 0.0313 | 0.3397 | 0.0095 | 1.004 | 1.022 | 0.999 | 0.910 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0157 | 0.3415 | 0.0123 | 1.004 | 1.027 | 1.000 | 0.883 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0104 | 0.3406 | 0.0109 | 1.004 | 1.024 | 0.999 | 0.900 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9996 | 0.0309 | 0.3371 | 0.0057 | 1.004 | 1.018 | 0.999 | 0.944 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0154 | 0.3380 | 0.0070 | 1.003 | 1.020 | 1.000 | 0.932 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0102 | 0.3372 | 0.0057 | 1.003 | 1.016 | 0.998 | 0.944 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9995 | 0.0304 | 0.3342 | 0.0013 | 1.003 | 1.011 | 0.999 | 0.986 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9985 | 0.0151 | 0.3346 | 0.0015 | 1.003 | 1.015 | 0.995 | 0.982 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9978 | 0.0101 | 0.3345 | 0.0012 | 1.003 | 1.016 | 0.994 | 0.983 | 1.000 | 1.000 | 1.000 | 0.999 | 8.00 | 8 | 8 | 10 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9658 | 0.0639 | 0.4341 | 0.4019 | 1.013 | 1.076 | 0.835 | 0.078 | 1.000 | 0.187 | 0.120 | 0.089 | 11.16 | 5 | 21 | 44 | - | - | - | - |
| | 200 | 0.9614 | 0.0378 | 0.4661 | 0.4404 | 1.014 | 1.084 | 0.815 | 0.061 | 1.000 | 0.171 | 0.094 | 0.065 | 12.34 | 5 | 28 | 45 | - | - | - | - |
| | 300 | 0.9630 | 0.0274 | 0.4866 | 0.4638 | 1.017 | 1.099 | 0.819 | 0.065 | 1.000 | 0.170 | 0.077 | 0.061 | 13.00 | 5 | 30 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8476 | 0.0188 | 0.2062 | 0.1942 | 1.011 | 1.499 | 0.419 | 0.120 | 1.000 | 0.044 | 0.032 | 0.023 | 6.10 | 2 | 11 | 20 | - | - | - | - |
| | 200 | 0.8449 | 0.0116 | 0.2397 | 0.2303 | 1.012 | 1.516 | 0.404 | 0.097 | 1.000 | 0.043 | 0.021 | 0.024 | 6.53 | 3 | 12 | 20 | - | - | - | - |
| | 300 | 0.8389 | 0.0084 | 0.2536 | 0.2437 | 1.012 | 1.553 | 0.377 | 0.084 | 1.000 | 0.048 | 0.017 | 0.016 | 6.70 | 3 | 13 | 27 | - | - | - | - |

Notes: See notes to Table 100.

### 4.3.2 Findings for designs featuring pseudo-signals

## Table 541: MC findings for DGPII(a)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9383 | 0.0370 | 0.3824 | 0.0201 | 1.049 | 1.705 | 0.732 | 0.100 | 0.301 | 0.252 | 1.000 | 0.985 | 0.813 | 0.553 | 8.36 | 6 | 10 | 13 | 1.215 | 0.21 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9165 | 0.0176 | 0.3752 | 0.0247 | 1.058 | 1.824 | 0.651 | 0.105 | 0.222 | 0.174 | 1.000 | 0.984 | 0.791 | 0.509 | 8.08 | 6 | 10 | 12 | 1.260 | 0.25 | 0.01 | 0.00 |
| | 300 | 0.9043 | 0.0113 | 0.3689 | 0.0240 | 1.063 | 1.896 | 0.607 | 0.119 | 0.189 | 0.149 | 1.000 | 0.971 | 0.778 | 0.500 | 7.90 | 5 | 10 | 12 | 1.281 | 0.27 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9201 | 0.0340 | 0.3659 | 0.0123 | 1.051 | 1.771 | 0.662 | 0.129 | 0.228 | 0.207 | 1.000 | 0.981 | 0.786 | 0.506 | 7.97 | 6 | 10 | 12 | 1.243 | 0.24 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8958 | 0.0162 | 0.3598 | 0.0152 | 1.062 | 1.902 | 0.577 | 0.121 | 0.164 | 0.143 | 1.000 | 0.977 | 0.762 | 0.475 | 7.70 | 5 | 10 | 11 | 1.290 | 0.28 | 0.01 | 0.00 |
| | 300 | 0.8827 | 0.0104 | 0.3529 | 0.0157 | 1.068 | 1.973 | 0.541 | 0.134 | 0.137 | 0.121 | 1.000 | 0.966 | 0.744 | 0.456 | 7.51 | 5 | 10 | 12 | 1.310 | 0.30 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8757 | 0.0290 | 0.3360 | 0.0044 | 1.066 | 1.973 | 0.519 | 0.164 | 0.126 | 0.122 | 1.000 | 0.965 | 0.717 | 0.413 | 7.25 | 5 | 10 | 11 | 1.359 | 0.35 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8499 | 0.0139 | 0.3326 | 0.0045 | 1.079 | 2.105 | 0.451 | 0.144 | 0.102 | 0.096 | 1.000 | 0.962 | 0.687 | 0.398 | 7.01 | 4.5 | 9 | 11 | 1.396 | 0.39 | 0.01 | 0.00 |
| | 300 | 0.8350 | 0.0089 | 0.3273 | 0.0052 | 1.084 | 2.187 | 0.415 | 0.144 | 0.077 | 0.075 | 1.000 | 0.946 | 0.681 | 0.381 | 6.83 | 4 | 9 | 10 | 1.400 | 0.39 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.9241 | 0.0364 | 0.3814 | 0.0164 | 1.052 | 1.760 | 0.683 | 0.087 | 0.288 | 0.253 | 1.000 | 0.985 | 0.813 | 0.553 | 8.22 | 6 | 10 | 13 | 1.138 | 0.14 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8937 | 0.0172 | 0.3755 | 0.0194 | 1.065 | 1.922 | 0.590 | 0.095 | 0.215 | 0.177 | 1.000 | 0.984 | 0.791 | 0.509 | 7.89 | 5 | 10 | 12 | 1.138 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.8812 | 0.0110 | 0.3679 | 0.0181 | 1.069 | 1.980 | 0.552 | 0.109 | 0.176 | 0.150 | 1.000 | 0.971 | 0.778 | 0.500 | 7.69 | 5 | 10 | 12 | 1.153 | 0.15 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9014 | 0.0335 | 0.3663 | 0.0098 | 1.058 | 1.860 | 0.607 | 0.116 | 0.212 | 0.197 | 1.000 | 0.981 | 0.786 | 0.506 | 7.82 | 5 | 10 | 12 | 1.163 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8709 | 0.0158 | 0.3610 | 0.0117 | 1.073 | 2.019 | 0.520 | 0.108 | 0.154 | 0.140 | 1.000 | 0.977 | 0.762 | 0.475 | 7.51 | 5 | 10 | 11 | 1.185 | 0.18 | 0.00 | 0.00 |
| | 300 | 0.8533 | 0.0101 | 0.3542 | 0.0117 | 1.079 | 2.105 | 0.472 | 0.112 | 0.122 | 0.113 | 1.000 | 0.966 | 0.744 | 0.456 | 7.28 | 5 | 10 | 12 | 1.186 | 0.19 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8461 | 0.0283 | 0.3375 | 0.0030 | 1.080 | 2.125 | 0.446 | 0.141 | 0.109 | 0.106 | 1.000 | 0.965 | 0.717 | 0.413 | 7.03 | 4.5 | 9 | 11 | 1.267 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8163 | 0.0135 | 0.3347 | 0.0034 | 1.096 | 2.271 | 0.379 | 0.120 | 0.081 | 0.078 | 1.000 | 0.962 | 0.687 | 0.398 | 6.78 | 4 | 9 | 11 | 1.292 | 0.29 | 0.00 | 0.00 |
| | 300 | 0.7960 | 0.0086 | 0.3300 | 0.0034 | 1.104 | 2.375 | 0.339 | 0.121 | 0.059 | 0.058 | 1.000 | 0.946 | 0.681 | 0.381 | 6.56 | 4 | 9 | 10 | 1.294 | 0.29 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9937 | 0.0708 | 0.4701 | 0.4031 | 1.093 | 1.491 | 0.969 | 0.049 | 0.063 | 0.003 | 1.000 | 0.178 | 0.088 | 0.086 | 11.98 | 6 | 22 | 41 | - | - | - | - |
| | 200 | 0.9927 | 0.0519 | 0.5556 | 0.5030 | 1.112 | 1.572 | 0.964 | 0.030 | 0.056 | 0.002 | 1.000 | 0.149 | 0.094 | 0.070 | 15.29 | 6 | 30 | 53 | - | - | - | - |
| | 300 | 0.9920 | 0.0419 | 0.5929 | 0.5483 | 1.122 | 1.621 | 0.962 | 0.028 | 0.044 | 0.001 | 1.000 | 0.148 | 0.079 | 0.049 | 17.48 | 6 | 36 | 54 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9037 | 0.0271 | 0.2280 | 0.1961 | 1.122 | 2.064 | 0.683 | 0.170 | 0.013 | 0.001 | 1.000 | 0.052 | 0.029 | 0.031 | 7.20 | 3 | 15 | 28 | - | - | - | - |
| | 200 | 0.9088 | 0.0219 | 0.3152 | 0.2870 | 1.142 | 2.171 | 0.712 | 0.117 | 0.006 | 0.001 | 1.000 | 0.052 | 0.030 | 0.027 | 8.91 | 3 | 19 | 37 | - | - | - | - |
| | 300 | 0.9148 | 0.0184 | 0.3607 | 0.3365 | 1.148 | 2.237 | 0.737 | 0.101 | 0.005 | 0.000 | 1.000 | 0.050 | 0.027 | 0.019 | 10.08 | 3 | 22 | 34 | - | - | - | - |

Notes: See notes to Table 145.

## Table 542: MC findings for DGPII(a)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0514 | 0.4584 | 0.0104 | 1.010 | 1.448 | 1.000 | 0.000 | 0.985 | 0.873 | 1.000 | 1.000 | 1.000 | 0.981 | 10.09 | 10 | 11 | 13 | 1.021 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0256 | 0.4588 | 0.0123 | 1.010 | 1.411 | 1.000 | 0.001 | 0.980 | 0.852 | 1.000 | 1.000 | 1.000 | 0.976 | 10.10 | 10 | 11 | 13 | 1.023 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4584 | 0.0128 | 1.010 | 1.429 | 1.000 | 0.001 | 0.974 | 0.837 | 1.000 | 1.000 | 1.000 | 0.970 | 10.10 | 10 | 11 | 13 | 1.024 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0508 | 0.4556 | 0.0067 | 1.010 | 1.437 | 1.000 | 0.000 | 0.978 | 0.905 | 1.000 | 1.000 | 1.000 | 0.976 | 10.03 | 10 | 11 | 12 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0252 | 0.4545 | 0.0068 | 1.009 | 1.395 | 1.000 | 0.001 | 0.967 | 0.893 | 1.000 | 1.000 | 0.999 | 0.967 | 10.01 | 9 | 11 | 13 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4539 | 0.0069 | 1.010 | 1.408 | 1.000 | 0.001 | 0.959 | 0.885 | 1.000 | 1.000 | 1.000 | 0.961 | 10.00 | 9 | 11 | 12 | 1.014 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0497 | 0.4498 | 0.0014 | 1.009 | 1.412 | 1.000 | 0.001 | 0.944 | 0.928 | 1.000 | 1.000 | 0.999 | 0.958 | 9.92 | 9 | 10 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0245 | 0.4474 | 0.0016 | 1.009 | 1.371 | 1.000 | 0.005 | 0.918 | 0.900 | 1.000 | 1.000 | 0.999 | 0.942 | 9.87 | 9 | 10 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0162 | 0.4465 | 0.0016 | 1.009 | 1.387 | 0.999 | 0.005 | 0.904 | 0.888 | 1.000 | 1.000 | 0.999 | 0.942 | 9.86 | 9 | 10 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0513 | 0.4576 | 0.0091 | 1.009 | 1.431 | 1.000 | 0.000 | 0.985 | 0.888 | 1.000 | 1.000 | 1.000 | 0.981 | 10.08 | 10 | 11 | 13 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0256 | 0.4579 | 0.0107 | 1.009 | 1.393 | 1.000 | 0.001 | 0.980 | 0.868 | 1.000 | 1.000 | 1.000 | 0.976 | 10.08 | 10 | 11 | 13 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0170 | 0.4575 | 0.0111 | 1.010 | 1.407 | 1.000 | 0.001 | 0.974 | 0.855 | 1.000 | 1.000 | 1.000 | 0.970 | 10.08 | 10 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0507 | 0.4550 | 0.0056 | 1.009 | 1.422 | 1.000 | 0.000 | 0.978 | 0.917 | 1.000 | 1.000 | 1.000 | 0.976 | 10.02 | 10 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0251 | 0.4539 | 0.0058 | 1.009 | 1.381 | 1.000 | 0.001 | 0.967 | 0.904 | 1.000 | 1.000 | 0.999 | 0.967 | 10.00 | 9 | 11 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0167 | 0.4534 | 0.0060 | 1.009 | 1.397 | 1.000 | 0.001 | 0.959 | 0.894 | 1.000 | 1.000 | 1.000 | 0.961 | 9.99 | 9 | 11 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0496 | 0.4497 | 0.0011 | 1.009 | 1.405 | 1.000 | 0.001 | 0.944 | 0.932 | 1.000 | 1.000 | 0.999 | 0.958 | 9.91 | 9 | 10 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0245 | 0.4471 | 0.0011 | 1.008 | 1.364 | 1.000 | 0.005 | 0.918 | 0.905 | 1.000 | 1.000 | 0.999 | 0.942 | 9.87 | 9 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0162 | 0.4464 | 0.0013 | 1.009 | 1.382 | 0.999 | 0.005 | 0.904 | 0.891 | 1.000 | 1.000 | 0.999 | 0.942 | 9.85 | 9 | 10 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0699 | 0.4683 | 0.3940 | 1.024 | 1.439 | 1.000 | 0.044 | 0.075 | 0.006 | 1.000 | 0.192 | 0.105 | 0.080 | 11.93 | 6 | 21 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.0442 | 0.5087 | 0.4512 | 1.030 | 1.480 | 1.000 | 0.043 | 0.054 | 0.003 | 1.000 | 0.178 | 0.095 | 0.062 | 13.80 | 6 | 27 | 63 | - | - | - | - |
| | 300 | 1.0000 | 0.0340 | 0.5369 | 0.4857 | 1.034 | 1.520 | 1.000 | 0.030 | 0.054 | 0.001 | 1.000 | 0.186 | 0.094 | 0.068 | 15.17 | 6 | 32 | 61 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9991 | 0.0159 | 0.1733 | 0.1456 | 1.007 | 1.330 | 0.997 | 0.345 | 0.006 | 0.003 | 1.000 | 0.043 | 0.019 | 0.014 | 6.57 | 5 | 10 | 22 | - | - | - | - |
| | 200 | 0.9992 | 0.0101 | 0.2051 | 0.1836 | 1.009 | 1.392 | 0.997 | 0.291 | 0.005 | 0.002 | 1.000 | 0.036 | 0.017 | 0.009 | 7.01 | 5 | 12 | 24 | - | - | - | - |
| | 300 | 0.9994 | 0.0079 | 0.2269 | 0.2067 | 1.011 | 1.438 | 0.998 | 0.272 | 0.007 | 0.002 | 1.000 | 0.044 | 0.015 | 0.014 | 7.36 | 5 | 12 | 25 | - | - | - | - |

Notes: See notes to Table 145.

## Table 543: MC findings for DGPII(a)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0517 | 0.4597 | 0.0096 | 1.006 | 1.408 | 1.000 | 0.000 | 1.000 | 0.890 | 1.000 | 1.000 | 1.000 | 0.998 | 10.11 | 10 | 11 | 13 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0258 | 0.4604 | 0.0108 | 1.005 | 1.435 | 1.000 | 0.000 | 1.000 | 0.880 | 1.000 | 1.000 | 1.000 | 1.000 | 10.13 | 10 | 11 | 13 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4599 | 0.0099 | 1.006 | 1.440 | 1.000 | 0.000 | 1.000 | 0.889 | 1.000 | 1.000 | 1.000 | 0.999 | 10.12 | 10 | 11 | 13 | 1.015 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0512 | 0.4575 | 0.0055 | 1.006 | 1.398 | 1.000 | 0.000 | 1.000 | 0.936 | 1.000 | 1.000 | 1.000 | 0.998 | 10.07 | 10 | 11 | 13 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0254 | 0.4574 | 0.0053 | 1.005 | 1.419 | 1.000 | 0.000 | 1.000 | 0.938 | 1.000 | 1.000 | 1.000 | 1.000 | 10.06 | 10 | 11 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4572 | 0.0051 | 1.005 | 1.427 | 1.000 | 0.000 | 1.000 | 0.942 | 1.000 | 1.000 | 1.000 | 0.999 | 10.06 | 10 | 11 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0506 | 0.4550 | 0.0011 | 1.006 | 1.385 | 1.000 | 0.000 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.998 | 10.01 | 10 | 10 | 11 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0252 | 0.4549 | 0.0008 | 1.005 | 1.405 | 1.000 | 0.000 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.999 | 10.01 | 10 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4548 | 0.0008 | 1.005 | 1.412 | 1.000 | 0.000 | 0.999 | 0.990 | 1.000 | 1.000 | 1.000 | 0.998 | 10.01 | 10 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0515 | 0.4590 | 0.0083 | 1.006 | 1.395 | 1.000 | 0.000 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 0.998 | 10.10 | 10 | 11 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0257 | 0.4598 | 0.0096 | 1.005 | 1.421 | 1.000 | 0.000 | 1.000 | 0.892 | 1.000 | 1.000 | 1.000 | 1.000 | 10.12 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4593 | 0.0088 | 1.005 | 1.425 | 1.000 | 0.000 | 1.000 | 0.903 | 1.000 | 1.000 | 1.000 | 0.999 | 10.11 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0511 | 0.4570 | 0.0047 | 1.006 | 1.389 | 1.000 | 0.000 | 1.000 | 0.947 | 1.000 | 1.000 | 1.000 | 0.998 | 10.05 | 10 | 11 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0254 | 0.4571 | 0.0046 | 1.005 | 1.411 | 1.000 | 0.000 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 1.000 | 10.06 | 10 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4569 | 0.0044 | 1.005 | 1.418 | 1.000 | 0.000 | 1.000 | 0.949 | 1.000 | 1.000 | 1.000 | 0.999 | 10.05 | 10 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0506 | 0.4549 | 0.0009 | 1.005 | 1.382 | 1.000 | 0.000 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 0.998 | 10.01 | 10 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0252 | 0.4548 | 0.0007 | 1.005 | 1.404 | 1.000 | 0.000 | 1.000 | 0.992 | 1.000 | 1.000 | 1.000 | 0.999 | 10.01 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4547 | 0.0007 | 1.005 | 1.411 | 1.000 | 0.000 | 0.999 | 0.991 | 1.000 | 1.000 | 1.000 | 0.998 | 10.01 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0684 | 0.4150 | 0.3445 | 1.016 | 1.435 | 1.000 | 0.079 | 0.057 | 0.002 | 1.000 | 0.185 | 0.103 | 0.093 | 11.78 | 5 | 27 | 37 | - | - | - | - |
| | 200 | 1.0000 | 0.0388 | 0.4620 | 0.3991 | 1.018 | 1.476 | 1.000 | 0.036 | 0.047 | 0.003 | 1.000 | 0.187 | 0.087 | 0.055 | 12.72 | 6 | 35 | 54 | - | - | - | - |
| | 300 | 1.0000 | 0.0288 | 0.5048 | 0.4482 | 1.019 | 1.485 | 1.000 | 0.044 | 0.047 | 0.000 | 1.000 | 0.194 | 0.082 | 0.051 | 13.62 | 6 | 26 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0068 | 0.0811 | 0.0677 | 1.001 | 1.143 | 1.000 | 0.635 | 0.002 | 0.002 | 1.000 | 0.017 | 0.013 | 0.008 | 5.68 | 5 | 8 | 15 | - | - | - | - |
| | 200 | 1.0000 | 0.0039 | 0.0908 | 0.0779 | 1.002 | 1.165 | 1.000 | 0.590 | 0.001 | 0.000 | 1.000 | 0.014 | 0.009 | 0.007 | 5.77 | 5 | 8 | 17 | - | - | - | - |
| | 300 | 1.0000 | 0.0028 | 0.1011 | 0.0888 | 1.002 | 1.182 | 1.000 | 0.543 | 0.002 | 0.000 | 1.000 | 0.023 | 0.006 | 0.005 | 5.85 | 5 | 8 | 18 | - | - | - | - |

Notes: See notes to Table 145.

## Table 544: MC findings for DGPII(a)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8021 | 0.0338 | 0.3918 | 0.0227 | 1.061 | 1.775 | 0.373 | 0.060 | 0.135 | 0.110 | 1.000 | 0.986 | 0.814 | 0.552 | 7.35 | 5 | 10 | 12 | 1.272 | 0.26 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7747 | 0.0161 | 0.3872 | 0.0264 | 1.066 | 1.860 | 0.323 | 0.060 | 0.103 | 0.080 | 1.000 | 0.986 | 0.797 | 0.503 | 7.07 | 4 | 10 | 12 | 1.337 | 0.32 | 0.01 | 0.00 |
| | 300 | 0.7584 | 0.0105 | 0.3863 | 0.0287 | 1.071 | 1.919 | 0.317 | 0.067 | 0.094 | 0.073 | 1.000 | 0.978 | 0.775 | 0.491 | 6.93 | 4 | 10 | 12 | 1.354 | 0.34 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.7739 | 0.0311 | 0.3782 | 0.0134 | 1.063 | 1.826 | 0.314 | 0.066 | 0.099 | 0.089 | 1.000 | 0.981 | 0.787 | 0.517 | 6.95 | 4 | 10 | 12 | 1.297 | 0.29 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7457 | 0.0149 | 0.3770 | 0.0170 | 1.071 | 1.923 | 0.284 | 0.052 | 0.087 | 0.076 | 1.000 | 0.979 | 0.764 | 0.465 | 6.70 | 4 | 10 | 12 | 1.377 | 0.36 | 0.01 | 0.00 |
| | 300 | 0.7416 | 0.0097 | 0.3716 | 0.0177 | 1.072 | 1.940 | 0.294 | 0.068 | 0.087 | 0.072 | 1.000 | 0.971 | 0.737 | 0.455 | 6.62 | 4 | 10 | 12 | 1.398 | 0.38 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.7369 | 0.0271 | 0.3536 | 0.0041 | 1.070 | 1.926 | 0.284 | 0.077 | 0.080 | 0.076 | 1.000 | 0.963 | 0.719 | 0.425 | 6.37 | 4 | 9 | 11 | 1.407 | 0.40 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7201 | 0.0132 | 0.3531 | 0.0054 | 1.075 | 1.983 | 0.279 | 0.072 | 0.078 | 0.074 | 1.000 | 0.960 | 0.689 | 0.395 | 6.23 | 3 | 9 | 11 | 1.471 | 0.46 | 0.01 | 0.00 |
| | 300 | 0.7146 | 0.0084 | 0.3440 | 0.0057 | 1.077 | 2.002 | 0.291 | 0.091 | 0.068 | 0.064 | 1.000 | 0.956 | 0.664 | 0.373 | 6.10 | 3 | 9 | 12 | 1.494 | 0.49 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.7738 | 0.0329 | 0.3937 | 0.0180 | 1.067 | 1.828 | 0.341 | 0.059 | 0.122 | 0.106 | 1.000 | 0.986 | 0.814 | 0.552 | 7.12 | 4 | 10 | 12 | 1.171 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7382 | 0.0155 | 0.3890 | 0.0217 | 1.075 | 1.920 | 0.284 | 0.061 | 0.085 | 0.071 | 1.000 | 0.986 | 0.797 | 0.503 | 6.77 | 4 | 10 | 12 | 1.218 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.7177 | 0.0100 | 0.3875 | 0.0241 | 1.080 | 1.988 | 0.260 | 0.064 | 0.068 | 0.054 | 1.000 | 0.978 | 0.775 | 0.491 | 6.59 | 4 | 9 | 12 | 1.238 | 0.23 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.7453 | 0.0302 | 0.3796 | 0.0102 | 1.071 | 1.887 | 0.283 | 0.073 | 0.081 | 0.074 | 1.000 | 0.981 | 0.787 | 0.516 | 6.72 | 4 | 10 | 11 | 1.211 | 0.21 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7029 | 0.0143 | 0.3793 | 0.0131 | 1.081 | 2.002 | 0.231 | 0.053 | 0.063 | 0.057 | 1.000 | 0.979 | 0.764 | 0.465 | 6.36 | 4 | 9 | 11 | 1.269 | 0.27 | 0.00 | 0.00 |
| | 300 | 0.6927 | 0.0093 | 0.3741 | 0.0141 | 1.085 | 2.038 | 0.228 | 0.071 | 0.057 | 0.048 | 1.000 | 0.971 | 0.737 | 0.455 | 6.24 | 3 | 9 | 12 | 1.287 | 0.28 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.6945 | 0.0261 | 0.3562 | 0.0025 | 1.083 | 2.020 | 0.222 | 0.073 | 0.048 | 0.047 | 1.000 | 0.963 | 0.719 | 0.424 | 6.05 | 3 | 9 | 11 | 1.324 | 0.32 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6702 | 0.0126 | 0.3561 | 0.0040 | 1.090 | 2.087 | 0.207 | 0.066 | 0.044 | 0.043 | 1.000 | 0.960 | 0.689 | 0.395 | 5.86 | 3 | 9 | 11 | 1.392 | 0.39 | 0.00 | 0.00 |
| | 300 | 0.6559 | 0.0080 | 0.3488 | 0.0046 | 1.096 | 2.125 | 0.204 | 0.082 | 0.036 | 0.035 | 1.000 | 0.956 | 0.664 | 0.373 | 5.67 | 3 | 9 | 11 | 1.400 | 0.40 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9397 | 0.0663 | 0.4515 | 0.3855 | 1.100 | 1.405 | 0.734 | 0.050 | 0.042 | 0.001 | 1.000 | 0.173 | 0.077 | 0.078 | 11.27 | 5 | 22 | 36 | - | - | - | - |
| | 200 | 0.9353 | 0.0480 | 0.5327 | 0.4778 | 1.113 | 1.503 | 0.721 | 0.029 | 0.033 | 0.001 | 1.000 | 0.147 | 0.070 | 0.063 | 14.23 | 5 | 29 | 56 | - | - | - | - |
| | 300 | 0.9357 | 0.0399 | 0.5846 | 0.5402 | 1.123 | 1.542 | 0.719 | 0.023 | 0.030 | 0.001 | 1.000 | 0.161 | 0.076 | 0.052 | 16.61 | 5 | 34 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6976 | 0.0245 | 0.1983 | 0.1681 | 1.148 | 1.994 | 0.265 | 0.039 | 0.004 | 0.000 | 1.000 | 0.044 | 0.023 | 0.026 | 5.91 | 1 | 15 | 24 | - | - | - | - |
| | 200 | 0.7287 | 0.0215 | 0.2880 | 0.2596 | 1.156 | 2.134 | 0.339 | 0.020 | 0.003 | 0.000 | 1.000 | 0.048 | 0.026 | 0.024 | 7.92 | 1 | 20.5 | 43 | - | - | - | - |
| | 300 | 0.7398 | 0.0187 | 0.3389 | 0.3140 | 1.165 | 2.220 | 0.337 | 0.014 | 0.005 | 0.000 | 1.000 | 0.059 | 0.027 | 0.018 | 9.30 | 1 | 23 | 44 | - | - | - | - |

Notes: See notes to Table 145.

## Table 545: MC findings for DGPII(a)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9990 | 0.0502 | 0.4520 | 0.0112 | 1.010 | 1.425 | 0.995 | 0.008 | 0.866 | 0.760 | 1.000 | 1.000 | 1.000 | 0.982 | 9.97 | 9 | 11 | 13 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9975 | 0.0248 | 0.4505 | 0.0121 | 1.010 | 1.442 | 0.989 | 0.016 | 0.832 | 0.725 | 1.000 | 1.000 | 1.000 | 0.982 | 9.93 | 9 | 11 | 13 | 1.025 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9965 | 0.0163 | 0.4470 | 0.0124 | 1.010 | 1.441 | 0.983 | 0.027 | 0.779 | 0.674 | 1.000 | 1.000 | 1.000 | 0.976 | 9.86 | 9 | 11 | 13 | 1.025 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9978 | 0.0490 | 0.4460 | 0.0063 | 1.010 | 1.408 | 0.990 | 0.016 | 0.818 | 0.757 | 1.000 | 1.000 | 1.000 | 0.974 | 9.84 | 9 | 11 | 13 | 1.020 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9959 | 0.0241 | 0.4438 | 0.0063 | 1.009 | 1.425 | 0.981 | 0.022 | 0.780 | 0.725 | 1.000 | 1.000 | 1.000 | 0.974 | 9.78 | 9 | 11 | 13 | 1.018 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9951 | 0.0158 | 0.4400 | 0.0069 | 1.009 | 1.420 | 0.977 | 0.039 | 0.723 | 0.665 | 1.000 | 1.000 | 1.000 | 0.970 | 9.71 | 8 | 11 | 12 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9915 | 0.0466 | 0.4342 | 0.0015 | 1.010 | 1.421 | 0.959 | 0.045 | 0.680 | 0.667 | 1.000 | 1.000 | 1.000 | 0.961 | 9.57 | 8 | 10 | 12 | 1.012 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9878 | 0.0229 | 0.4317 | 0.0016 | 1.010 | 1.450 | 0.945 | 0.047 | 0.624 | 0.610 | 1.000 | 1.000 | 0.999 | 0.958 | 9.49 | 8 | 10 | 12 | 1.014 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9860 | 0.0149 | 0.4258 | 0.0018 | 1.010 | 1.447 | 0.938 | 0.072 | 0.567 | 0.554 | 1.000 | 1.000 | 0.999 | 0.949 | 9.38 | 8 | 10 | 12 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9990 | 0.0500 | 0.4509 | 0.0094 | 1.010 | 1.407 | 0.995 | 0.008 | 0.866 | 0.777 | 1.000 | 1.000 | 1.000 | 0.982 | 9.94 | 9 | 11 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9973 | 0.0247 | 0.4495 | 0.0103 | 1.010 | 1.424 | 0.988 | 0.016 | 0.831 | 0.737 | 1.000 | 1.000 | 1.000 | 0.982 | 9.91 | 9 | 11 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9963 | 0.0162 | 0.4461 | 0.0108 | 1.010 | 1.423 | 0.983 | 0.027 | 0.779 | 0.688 | 1.000 | 1.000 | 1.000 | 0.976 | 9.84 | 9 | 11 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9974 | 0.0488 | 0.4454 | 0.0052 | 1.009 | 1.401 | 0.988 | 0.016 | 0.817 | 0.768 | 1.000 | 1.000 | 1.000 | 0.974 | 9.82 | 9 | 10 | 13 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9953 | 0.0241 | 0.4433 | 0.0053 | 1.009 | 1.420 | 0.978 | 0.022 | 0.780 | 0.732 | 1.000 | 1.000 | 1.000 | 0.974 | 9.77 | 9 | 10 | 12 | 1.005 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9947 | 0.0158 | 0.4394 | 0.0059 | 1.009 | 1.410 | 0.976 | 0.038 | 0.723 | 0.675 | 1.000 | 1.000 | 1.000 | 0.970 | 9.70 | 8 | 10 | 12 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9906 | 0.0465 | 0.4342 | 0.0013 | 1.010 | 1.426 | 0.957 | 0.044 | 0.680 | 0.669 | 1.000 | 1.000 | 1.000 | 0.961 | 9.56 | 8 | 10 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9866 | 0.0228 | 0.4317 | 0.0013 | 1.010 | 1.457 | 0.942 | 0.046 | 0.624 | 0.613 | 1.000 | 1.000 | 0.999 | 0.958 | 9.48 | 8 | 10 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9847 | 0.0148 | 0.4257 | 0.0014 | 1.010 | 1.452 | 0.933 | 0.072 | 0.566 | 0.557 | 1.000 | 1.000 | 0.999 | 0.949 | 9.36 | 8 | 10 | 12 | 1.006 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9986 | 0.0749 | 0.4828 | 0.4123 | 1.025 | 1.434 | 0.993 | 0.038 | 0.059 | 0.003 | 1.000 | 0.203 | 0.104 | 0.089 | 12.41 | 6 | 23 | 42 | - | - | - | - |
| | 200 | 0.9984 | 0.0453 | 0.5208 | 0.4597 | 1.029 | 1.499 | 0.992 | 0.029 | 0.057 | 0.004 | 1.000 | 0.190 | 0.098 | 0.074 | 14.01 | 6 | 29 | 51 | - | - | - | - |
| | 300 | 0.9990 | 0.0348 | 0.5487 | 0.4978 | 1.033 | 1.524 | 0.995 | 0.027 | 0.048 | 0.002 | 1.000 | 0.174 | 0.085 | 0.062 | 15.40 | 6 | 32 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9788 | 0.0269 | 0.2564 | 0.2193 | 1.019 | 1.657 | 0.926 | 0.190 | 0.008 | 0.000 | 1.000 | 0.064 | 0.027 | 0.029 | 7.56 | 5 | 12.5 | 28 | - | - | - | - |
| | 200 | 0.9817 | 0.0165 | 0.2905 | 0.2583 | 1.022 | 1.744 | 0.935 | 0.169 | 0.010 | 0.002 | 1.000 | 0.060 | 0.033 | 0.020 | 8.19 | 5 | 15 | 30 | - | - | - | - |
| | 300 | 0.9832 | 0.0129 | 0.3226 | 0.2932 | 1.024 | 1.801 | 0.938 | 0.126 | 0.007 | 0.001 | 1.000 | 0.066 | 0.024 | 0.019 | 8.76 | 5 | 16 | 28 | - | - | - | - |

Notes: See notes to Table 145.

## Table 546: MC findings for DGPII(a)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0516 | 0.4593 | 0.0091 | 1.006 | 1.419 | 1.000 | 0.000 | 0.997 | 0.892 | 1.000 | 1.000 | 1.000 | 1.000 | 10.11 | 10 | 11 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0257 | 0.4599 | 0.0104 | 1.005 | 1.428 | 1.000 | 0.000 | 0.995 | 0.881 | 1.000 | 1.000 | 1.000 | 1.000 | 10.12 | 10 | 11 | 14 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4598 | 0.0106 | 1.006 | 1.421 | 1.000 | 0.000 | 0.990 | 0.872 | 1.000 | 1.000 | 1.000 | 1.000 | 10.12 | 10 | 11 | 13 | 1.017 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0510 | 0.4566 | 0.0049 | 1.005 | 1.404 | 1.000 | 0.000 | 0.990 | 0.933 | 1.000 | 1.000 | 1.000 | 0.999 | 10.05 | 10 | 11 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0254 | 0.4569 | 0.0054 | 1.005 | 1.407 | 1.000 | 0.001 | 0.992 | 0.932 | 1.000 | 1.000 | 1.000 | 0.999 | 10.06 | 10 | 11 | 13 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4564 | 0.0053 | 1.006 | 1.403 | 1.000 | 0.000 | 0.982 | 0.921 | 1.000 | 1.000 | 1.000 | 1.000 | 10.05 | 10 | 11 | 12 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0504 | 0.4536 | 0.0010 | 1.005 | 1.384 | 1.000 | 0.000 | 0.974 | 0.963 | 1.000 | 1.000 | 1.000 | 0.999 | 9.99 | 10 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0250 | 0.4534 | 0.0008 | 1.005 | 1.389 | 1.000 | 0.001 | 0.973 | 0.965 | 1.000 | 1.000 | 1.000 | 0.999 | 9.98 | 10 | 10 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4528 | 0.0011 | 1.006 | 1.382 | 1.000 | 0.001 | 0.960 | 0.947 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 10 | 10 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0514 | 0.4586 | 0.0079 | 1.006 | 1.402 | 1.000 | 0.000 | 0.997 | 0.906 | 1.000 | 1.000 | 1.000 | 1.000 | 10.09 | 10 | 11 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0256 | 0.4591 | 0.0090 | 1.005 | 1.411 | 1.000 | 0.000 | 0.995 | 0.897 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 13 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4591 | 0.0093 | 1.006 | 1.404 | 1.000 | 0.000 | 0.990 | 0.887 | 1.000 | 1.000 | 1.000 | 1.000 | 10.10 | 10 | 11 | 13 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0509 | 0.4563 | 0.0043 | 1.005 | 1.393 | 1.000 | 0.000 | 0.990 | 0.941 | 1.000 | 1.000 | 1.000 | 0.999 | 10.04 | 10 | 10 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0254 | 0.4566 | 0.0047 | 1.005 | 1.398 | 1.000 | 0.001 | 0.992 | 0.940 | 1.000 | 1.000 | 1.000 | 0.999 | 10.05 | 10 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0168 | 0.4560 | 0.0045 | 1.006 | 1.392 | 1.000 | 0.000 | 0.982 | 0.930 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 10 | 11 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0503 | 0.4535 | 0.0009 | 1.005 | 1.382 | 1.000 | 0.000 | 0.974 | 0.965 | 1.000 | 1.000 | 1.000 | 0.999 | 9.98 | 10 | 10 | 12 | 1.000 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0250 | 0.4532 | 0.0006 | 1.005 | 1.386 | 1.000 | 0.001 | 0.973 | 0.967 | 1.000 | 1.000 | 1.000 | 0.999 | 9.98 | 10 | 10 | 11 | 1.000 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4527 | 0.0010 | 1.006 | 1.381 | 1.000 | 0.001 | 0.960 | 0.948 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 10 | 10 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0739 | 0.4872 | 0.4141 | 1.014 | 1.427 | 1.000 | 0.042 | 0.059 | 0.003 | 1.000 | 0.207 | 0.124 | 0.102 | 12.32 | 6 | 21 | 50 | - | - | - | - |
| | 200 | 0.9998 | 0.0467 | 0.5215 | 0.4634 | 1.017 | 1.475 | 0.999 | 0.048 | 0.056 | 0.003 | 1.000 | 0.179 | 0.096 | 0.071 | 14.29 | 6 | 26 | 60 | - | - | - | - |
| | 300 | 1.0000 | 0.0350 | 0.5298 | 0.4764 | 1.019 | 1.502 | 1.000 | 0.044 | 0.043 | 0.001 | 1.000 | 0.182 | 0.083 | 0.057 | 15.45 | 6 | 31.5 | 70 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9982 | 0.0160 | 0.1769 | 0.1485 | 1.004 | 1.347 | 0.993 | 0.313 | 0.003 | 0.001 | 1.000 | 0.034 | 0.021 | 0.022 | 6.57 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9986 | 0.0098 | 0.2043 | 0.1819 | 1.005 | 1.399 | 0.994 | 0.300 | 0.005 | 0.001 | 1.000 | 0.040 | 0.017 | 0.013 | 6.95 | 5 | 11 | 23 | - | - | - | - |
| | 300 | 0.9984 | 0.0075 | 0.2219 | 0.1983 | 1.006 | 1.432 | 0.995 | 0.284 | 0.002 | 0.001 | 1.000 | 0.035 | 0.015 | 0.012 | 7.23 | 5 | 12 | 21 | - | - | - | - |

Notes: See notes to Table 145.

## Table 547: MC findings for DGPII(a)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6361 | 0.0308 | 0.4168 | 0.0241 | 1.057 | 1.621 | 0.176 | 0.042 | 0.048 | 0.037 | 1.000 | 0.988 | 0.824 | 0.554 | 6.23 | 3 | 9 | 12 | 1.425 | 0.41 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6071 | 0.0149 | 0.4176 | 0.0308 | 1.066 | 1.657 | 0.160 | 0.032 | 0.036 | 0.030 | 1.000 | 0.981 | 0.790 | 0.504 | 5.99 | 3 | 9 | 13 | 1.472 | 0.45 | 0.02 | 0.00 |
| | 300 | 0.5816 | 0.0097 | 0.4214 | 0.0336 | 1.072 | 1.700 | 0.152 | 0.036 | 0.038 | 0.032 | 1.000 | 0.981 | 0.782 | 0.498 | 5.82 | 3 | 9 | 12 | 1.487 | 0.47 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.6067 | 0.0288 | 0.4091 | 0.0157 | 1.060 | 1.631 | 0.157 | 0.041 | 0.036 | 0.030 | 1.000 | 0.984 | 0.799 | 0.517 | 5.89 | 3 | 9 | 11 | 1.451 | 0.44 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5968 | 0.0137 | 0.4007 | 0.0194 | 1.065 | 1.634 | 0.159 | 0.040 | 0.033 | 0.028 | 1.000 | 0.975 | 0.756 | 0.458 | 5.72 | 3 | 9 | 13 | 1.507 | 0.49 | 0.01 | 0.00 |
| | 300 | 0.5680 | 0.0090 | 0.4082 | 0.0215 | 1.072 | 1.682 | 0.146 | 0.043 | 0.033 | 0.030 | 1.000 | 0.976 | 0.752 | 0.459 | 5.54 | 3 | 9 | 12 | 1.512 | 0.50 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.5780 | 0.0256 | 0.3871 | 0.0054 | 1.064 | 1.624 | 0.164 | 0.049 | 0.036 | 0.035 | 1.000 | 0.966 | 0.724 | 0.441 | 5.42 | 2 | 9 | 11 | 1.553 | 0.54 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5600 | 0.0121 | 0.3805 | 0.0051 | 1.070 | 1.614 | 0.152 | 0.050 | 0.034 | 0.033 | 1.000 | 0.962 | 0.687 | 0.391 | 5.20 | 2 | 9 | 11 | 1.557 | 0.55 | 0.01 | 0.00 |
| | 300 | 0.5268 | 0.0078 | 0.3855 | 0.0065 | 1.078 | 1.663 | 0.121 | 0.043 | 0.024 | 0.024 | 1.000 | 0.961 | 0.687 | 0.372 | 4.98 | 2 | 8 | 11 | 1.546 | 0.54 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.5723 | 0.0293 | 0.4259 | 0.0203 | 1.066 | 1.651 | 0.122 | 0.036 | 0.027 | 0.022 | 1.000 | 0.988 | 0.824 | 0.554 | 5.77 | 3 | 9 | 12 | 1.311 | 0.31 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5359 | 0.0140 | 0.4272 | 0.0254 | 1.078 | 1.681 | 0.105 | 0.027 | 0.021 | 0.019 | 1.000 | 0.981 | 0.790 | 0.503 | 5.47 | 3 | 9 | 11 | 1.331 | 0.33 | 0.00 | 0.00 |
| | 300 | 0.5005 | 0.0092 | 0.4344 | 0.0294 | 1.087 | 1.730 | 0.078 | 0.027 | 0.017 | 0.014 | 1.000 | 0.981 | 0.782 | 0.498 | 5.24 | 3 | 8 | 11 | 1.324 | 0.32 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.5397 | 0.0274 | 0.4192 | 0.0130 | 1.072 | 1.673 | 0.099 | 0.030 | 0.016 | 0.013 | 1.000 | 0.984 | 0.799 | 0.517 | 5.42 | 3 | 9 | 11 | 1.345 | 0.34 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5133 | 0.0129 | 0.4138 | 0.0155 | 1.080 | 1.680 | 0.093 | 0.028 | 0.016 | 0.014 | 1.000 | 0.975 | 0.756 | 0.458 | 5.14 | 3 | 8 | 11 | 1.372 | 0.37 | 0.00 | 0.00 |
| | 300 | 0.4814 | 0.0085 | 0.4229 | 0.0185 | 1.090 | 1.721 | 0.074 | 0.033 | 0.014 | 0.013 | 1.000 | 0.976 | 0.752 | 0.459 | 4.95 | 2 | 8 | 11 | 1.358 | 0.36 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4967 | 0.0243 | 0.4014 | 0.0041 | 1.082 | 1.684 | 0.095 | 0.034 | 0.017 | 0.016 | 1.000 | 0.966 | 0.724 | 0.441 | 4.89 | 2 | 8 | 11 | 1.434 | 0.43 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4684 | 0.0114 | 0.3977 | 0.0044 | 1.091 | 1.684 | 0.082 | 0.036 | 0.014 | 0.013 | 1.000 | 0.962 | 0.687 | 0.391 | 4.62 | 2 | 8 | 11 | 1.419 | 0.42 | 0.00 | 0.00 |
| | 300 | 0.4344 | 0.0074 | 0.4037 | 0.0053 | 1.100 | 1.719 | 0.053 | 0.025 | 0.008 | 0.008 | 1.000 | 0.961 | 0.687 | 0.372 | 4.39 | 2 | 7 | 10 | 1.400 | 0.40 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.7865 | 0.0560 | 0.4268 | 0.3587 | 1.095 | 1.246 | 0.294 | 0.026 | 0.012 | 0.001 | 1.000 | 0.145 | 0.077 | 0.068 | 9.47 | 3 | 20 | 41 | - | - | - | - |
| | 200 | 0.7698 | 0.0398 | 0.5025 | 0.4463 | 1.109 | 1.303 | 0.271 | 0.011 | 0.011 | 0.000 | 1.000 | 0.118 | 0.072 | 0.054 | 11.78 | 3 | 26 | 55 | - | - | - | - |
| | 300 | 0.7610 | 0.0343 | 0.5510 | 0.5012 | 1.120 | 1.363 | 0.252 | 0.008 | 0.007 | 0.001 | 1.000 | 0.148 | 0.061 | 0.054 | 14.06 | 3 | 33 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4683 | 0.0173 | 0.1503 | 0.1277 | 1.119 | 1.634 | 0.058 | 0.002 | 0.001 | 0.000 | 1.000 | 0.031 | 0.015 | 0.017 | 4.05 | 1 | 14 | 29 | - | - | - | - |
| | 200 | 0.4951 | 0.0154 | 0.2214 | 0.1991 | 1.129 | 1.765 | 0.061 | 0.001 | 0.001 | 0.000 | 1.000 | 0.026 | 0.024 | 0.018 | 5.54 | 1 | 19 | 40 | - | - | - | - |
| | 300 | 0.5041 | 0.0153 | 0.2763 | 0.2541 | 1.146 | 1.894 | 0.069 | 0.002 | 0.000 | 0.000 | 1.000 | 0.046 | 0.017 | 0.018 | 7.09 | 1 | 23 | 42 | - | - | - | - |

Notes: See notes to Table 145.

## Table 548: MC findings for DGPII(a)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9381 | 0.0448 | 0.4358 | 0.0108 | 1.013 | 1.539 | 0.763 | 0.051 | 0.466 | 0.415 | 1.000 | 1.000 | 1.000 | 0.974 | 9.13 | 7 | 11 | 13 | 1.053 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9245 | 0.0216 | 0.4317 | 0.0129 | 1.014 | 1.582 | 0.721 | 0.071 | 0.363 | 0.328 | 1.000 | 1.000 | 1.000 | 0.981 | 8.93 | 7 | 10 | 12 | 1.069 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.9007 | 0.0141 | 0.4322 | 0.0142 | 1.016 | 1.654 | 0.650 | 0.076 | 0.308 | 0.267 | 1.000 | 1.000 | 1.000 | 0.977 | 8.72 | 6 | 10 | 12 | 1.073 | 0.07 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9181 | 0.0428 | 0.4292 | 0.0060 | 1.014 | 1.576 | 0.698 | 0.071 | 0.375 | 0.350 | 1.000 | 1.000 | 0.999 | 0.970 | 8.83 | 6 | 10 | 13 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9020 | 0.0207 | 0.4259 | 0.0072 | 1.015 | 1.627 | 0.651 | 0.085 | 0.295 | 0.279 | 1.000 | 1.000 | 1.000 | 0.973 | 8.63 | 6 | 10 | 12 | 1.074 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.8789 | 0.0134 | 0.4259 | 0.0080 | 1.017 | 1.697 | 0.586 | 0.086 | 0.248 | 0.231 | 1.000 | 1.000 | 1.000 | 0.970 | 8.41 | 6 | 10 | 12 | 1.084 | 0.08 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8703 | 0.0393 | 0.4201 | 0.0014 | 1.016 | 1.713 | 0.569 | 0.094 | 0.233 | 0.230 | 1.000 | 1.000 | 0.999 | 0.953 | 8.24 | 6 | 10 | 11 | 1.102 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8444 | 0.0190 | 0.4204 | 0.0021 | 1.019 | 1.810 | 0.505 | 0.105 | 0.176 | 0.173 | 1.000 | 1.000 | 1.000 | 0.957 | 8.01 | 6 | 10 | 11 | 1.129 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.8274 | 0.0125 | 0.4211 | 0.0021 | 1.020 | 1.856 | 0.462 | 0.099 | 0.162 | 0.159 | 1.000 | 1.000 | 1.000 | 0.951 | 7.87 | 6 | 10 | 11 | 1.148 | 0.15 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9335 | 0.0446 | 0.4359 | 0.0095 | 1.013 | 1.549 | 0.759 | 0.052 | 0.464 | 0.420 | 1.000 | 1.000 | 1.000 | 0.974 | 9.09 | 7 | 10 | 13 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9203 | 0.0215 | 0.4310 | 0.0107 | 1.014 | 1.580 | 0.714 | 0.070 | 0.360 | 0.331 | 1.000 | 1.000 | 1.000 | 0.981 | 8.88 | 6 | 10 | 12 | 1.036 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8940 | 0.0140 | 0.4324 | 0.0121 | 1.016 | 1.664 | 0.641 | 0.074 | 0.306 | 0.269 | 1.000 | 1.000 | 1.000 | 0.977 | 8.66 | 6 | 10 | 12 | 1.035 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9123 | 0.0427 | 0.4299 | 0.0053 | 1.014 | 1.595 | 0.691 | 0.069 | 0.371 | 0.349 | 1.000 | 1.000 | 0.999 | 0.970 | 8.78 | 6 | 10 | 13 | 1.033 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8955 | 0.0206 | 0.4264 | 0.0060 | 1.015 | 1.644 | 0.644 | 0.083 | 0.289 | 0.275 | 1.000 | 1.000 | 1.000 | 0.973 | 8.57 | 6 | 10 | 12 | 1.045 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.8694 | 0.0134 | 0.4271 | 0.0068 | 1.018 | 1.730 | 0.576 | 0.085 | 0.241 | 0.227 | 1.000 | 1.000 | 1.000 | 0.970 | 8.34 | 6 | 10 | 12 | 1.047 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8607 | 0.0391 | 0.4214 | 0.0012 | 1.018 | 1.751 | 0.559 | 0.096 | 0.224 | 0.221 | 1.000 | 1.000 | 0.999 | 0.953 | 8.17 | 6 | 10 | 11 | 1.073 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8321 | 0.0189 | 0.4223 | 0.0014 | 1.021 | 1.858 | 0.497 | 0.108 | 0.161 | 0.159 | 1.000 | 1.000 | 1.000 | 0.957 | 7.92 | 5 | 10 | 11 | 1.084 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.8136 | 0.0124 | 0.4226 | 0.0019 | 1.022 | 1.907 | 0.446 | 0.104 | 0.146 | 0.144 | 1.000 | 1.000 | 1.000 | 0.951 | 7.76 | 5 | 10 | 11 | 1.116 | 0.12 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9789 | 0.0714 | 0.4743 | 0.4036 | 1.025 | 1.402 | 0.897 | 0.045 | 0.053 | 0.001 | 1.000 | 0.219 | 0.107 | 0.085 | 11.97 | 6 | 23 | 39 | - | - | - | - |
| | 200 | 0.9765 | 0.0463 | 0.5284 | 0.4707 | 1.029 | 1.455 | 0.888 | 0.029 | 0.036 | 0.001 | 1.000 | 0.183 | 0.088 | 0.064 | 14.09 | 6 | 28 | 49 | - | - | - | - |
| | 300 | 0.9724 | 0.0355 | 0.5533 | 0.5015 | 1.033 | 1.495 | 0.868 | 0.026 | 0.039 | 0.002 | 1.000 | 0.170 | 0.094 | 0.053 | 15.46 | 6 | 33 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8413 | 0.0293 | 0.2670 | 0.2279 | 1.040 | 1.913 | 0.588 | 0.065 | 0.007 | 0.001 | 1.000 | 0.074 | 0.044 | 0.029 | 7.11 | 2 | 14 | 24 | - | - | - | - |
| | 200 | 0.8524 | 0.0202 | 0.3271 | 0.2937 | 1.042 | 2.020 | 0.596 | 0.047 | 0.003 | 0.000 | 1.000 | 0.068 | 0.025 | 0.025 | 8.28 | 2 | 16 | 28 | - | - | - | - |
| | 300 | 0.8593 | 0.0160 | 0.3589 | 0.3291 | 1.044 | 2.093 | 0.600 | 0.039 | 0.002 | 0.000 | 1.000 | 0.063 | 0.031 | 0.019 | 9.09 | 2 | 19 | 35 | - | - | - | - |

Notes: See notes to Table 145.

## Table 549: MC findings for DGPII(a)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9970 | 0.0503 | 0.4528 | 0.0105 | 1.006 | 1.407 | 0.987 | 0.011 | 0.865 | 0.766 | 1.000 | 1.000 | 1.000 | 1.000 | 9.96 | 9 | 11 | 13 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9944 | 0.0246 | 0.4494 | 0.0101 | 1.006 | 1.418 | 0.975 | 0.015 | 0.801 | 0.716 | 1.000 | 1.000 | 1.000 | 0.999 | 9.88 | 9 | 11 | 13 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9959 | 0.0163 | 0.4478 | 0.0100 | 1.006 | 1.414 | 0.981 | 0.020 | 0.785 | 0.699 | 1.000 | 1.000 | 1.000 | 0.999 | 9.86 | 9 | 11 | 12 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9950 | 0.0490 | 0.4467 | 0.0054 | 1.005 | 1.394 | 0.977 | 0.017 | 0.805 | 0.757 | 1.000 | 1.000 | 1.000 | 0.999 | 9.83 | 9 | 10 | 13 | 1.015 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9920 | 0.0239 | 0.4418 | 0.0053 | 1.006 | 1.402 | 0.963 | 0.032 | 0.728 | 0.684 | 1.000 | 1.000 | 1.000 | 0.998 | 9.71 | 8 | 10 | 12 | 1.016 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9916 | 0.0159 | 0.4416 | 0.0055 | 1.006 | 1.408 | 0.960 | 0.030 | 0.721 | 0.678 | 1.000 | 1.000 | 1.000 | 0.999 | 9.71 | 8 | 10 | 12 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9857 | 0.0466 | 0.4361 | 0.0017 | 1.005 | 1.408 | 0.939 | 0.040 | 0.652 | 0.641 | 1.000 | 1.000 | 1.000 | 0.999 | 9.55 | 8 | 10 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9803 | 0.0226 | 0.4306 | 0.0010 | 1.006 | 1.426 | 0.915 | 0.066 | 0.578 | 0.571 | 1.000 | 1.000 | 1.000 | 0.996 | 9.40 | 8 | 10 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9787 | 0.0150 | 0.4293 | 0.0015 | 1.006 | 1.432 | 0.907 | 0.069 | 0.556 | 0.548 | 1.000 | 1.000 | 1.000 | 0.999 | 9.37 | 8 | 10 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9968 | 0.0501 | 0.4521 | 0.0092 | 1.005 | 1.395 | 0.986 | 0.011 | 0.865 | 0.776 | 1.000 | 1.000 | 1.000 | 1.000 | 9.95 | 9 | 11 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9942 | 0.0246 | 0.4490 | 0.0091 | 1.006 | 1.406 | 0.974 | 0.015 | 0.801 | 0.723 | 1.000 | 1.000 | 1.000 | 0.999 | 9.86 | 9 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9955 | 0.0163 | 0.4473 | 0.0090 | 1.006 | 1.404 | 0.980 | 0.019 | 0.785 | 0.709 | 1.000 | 1.000 | 1.000 | 0.999 | 9.85 | 9 | 11 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9948 | 0.0489 | 0.4462 | 0.0044 | 1.005 | 1.386 | 0.976 | 0.017 | 0.805 | 0.764 | 1.000 | 1.000 | 1.000 | 0.999 | 9.81 | 9 | 10 | 13 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9916 | 0.0238 | 0.4414 | 0.0045 | 1.005 | 1.393 | 0.962 | 0.032 | 0.728 | 0.693 | 1.000 | 1.000 | 1.000 | 0.998 | 9.70 | 8 | 10 | 12 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9911 | 0.0158 | 0.4413 | 0.0048 | 1.005 | 1.403 | 0.959 | 0.030 | 0.721 | 0.682 | 1.000 | 1.000 | 1.000 | 0.999 | 9.69 | 8 | 10 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9852 | 0.0466 | 0.4361 | 0.0014 | 1.005 | 1.409 | 0.939 | 0.040 | 0.652 | 0.643 | 1.000 | 1.000 | 1.000 | 0.999 | 9.54 | 8 | 10 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9794 | 0.0226 | 0.4307 | 0.0008 | 1.006 | 1.430 | 0.913 | 0.065 | 0.577 | 0.570 | 1.000 | 1.000 | 1.000 | 0.996 | 9.40 | 8 | 10 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9775 | 0.0150 | 0.4295 | 0.0014 | 1.006 | 1.439 | 0.905 | 0.069 | 0.556 | 0.548 | 1.000 | 1.000 | 1.000 | 0.999 | 9.36 | 8 | 10 | 12 | 1.005 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9967 | 0.0767 | 0.4899 | 0.4192 | 1.014 | 1.411 | 0.984 | 0.040 | 0.062 | 0.004 | 1.000 | 0.221 | 0.117 | 0.096 | 12.58 | 6 | 22 | 45 | - | - | - | - |
| | 200 | 0.9967 | 0.0458 | 0.5192 | 0.4607 | 1.018 | 1.466 | 0.984 | 0.029 | 0.051 | 0.002 | 1.000 | 0.199 | 0.089 | 0.061 | 14.09 | 6 | 30 | 47 | - | - | - | - |
| | 300 | 0.9958 | 0.0343 | 0.5393 | 0.4864 | 1.019 | 1.491 | 0.979 | 0.036 | 0.059 | 0.002 | 1.000 | 0.191 | 0.088 | 0.063 | 15.23 | 6 | 34 | 59 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9594 | 0.0231 | 0.2349 | 0.2000 | 1.011 | 1.649 | 0.865 | 0.203 | 0.003 | 0.000 | 1.000 | 0.063 | 0.027 | 0.019 | 7.08 | 4 | 11 | 20 | - | - | - | - |
| | 200 | 0.9626 | 0.0144 | 0.2687 | 0.2375 | 1.013 | 1.718 | 0.869 | 0.162 | 0.005 | 0.001 | 1.000 | 0.058 | 0.021 | 0.018 | 7.69 | 5 | 14 | 26 | - | - | - | - |
| | 300 | 0.9585 | 0.0107 | 0.2875 | 0.2591 | 1.015 | 1.786 | 0.863 | 0.146 | 0.005 | 0.001 | 1.000 | 0.064 | 0.025 | 0.022 | 8.00 | 4 | 14.5 | 26 | - | - | - | - |

Notes: See notes to Table 145.

## Table 550: MC findings for DGPII(b)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9252 | 0.0266 | 0.3095 | 0.0220 | 1.058 | 1.763 | 0.681 | 0.505 | 1.000 | 0.983 | 0.812 | 0.533 | 7.26 | 5 | 9 | 12 | 1.592 | 0.53 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9044 | 0.0130 | 0.3099 | 0.0285 | 1.070 | 1.941 | 0.606 | 0.437 | 1.000 | 0.978 | 0.789 | 0.502 | 7.12 | 5 | 9 | 13 | 1.631 | 0.56 | 0.07 | 0.00 |
| | 300 | 0.8852 | 0.0086 | 0.3122 | 0.0304 | 1.079 | 2.052 | 0.560 | 0.408 | 1.000 | 0.974 | 0.779 | 0.486 | 7.00 | 5 | 9 | 11 | 1.657 | 0.58 | 0.07 | 0.00 |
| $p = 0.05$, | 100 | 0.9098 | 0.0247 | 0.2968 | 0.0134 | 1.063 | 1.849 | 0.624 | 0.514 | 1.000 | 0.979 | 0.782 | 0.494 | 7.00 | 5 | 9 | 11 | 1.636 | 0.57 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8844 | 0.0121 | 0.2981 | 0.0176 | 1.075 | 2.048 | 0.542 | 0.433 | 1.000 | 0.975 | 0.759 | 0.469 | 6.83 | 5 | 9 | 11 | 1.658 | 0.59 | 0.07 | 0.00 |
| | 300 | 0.8677 | 0.0079 | 0.2963 | 0.0182 | 1.083 | 2.137 | 0.503 | 0.417 | 1.000 | 0.966 | 0.740 | 0.447 | 6.69 | 5 | 8 | 10 | 1.694 | 0.61 | 0.08 | 0.00 |
| $p = 0.01$, | 100 | 0.8701 | 0.0219 | 0.2788 | 0.0045 | 1.076 | 2.088 | 0.502 | 0.462 | 1.000 | 0.965 | 0.713 | 0.413 | 6.52 | 4 | 8 | 11 | 1.740 | 0.66 | 0.08 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8471 | 0.0106 | 0.2780 | 0.0057 | 1.089 | 2.260 | 0.455 | 0.415 | 1.000 | 0.958 | 0.693 | 0.386 | 6.35 | 4 | 8 | 10 | 1.760 | 0.68 | 0.08 | 0.00 |
| | 300 | 0.8358 | 0.0069 | 0.2760 | 0.0069 | 1.094 | 2.314 | 0.435 | 0.395 | 1.000 | 0.951 | 0.668 | 0.375 | 6.26 | 4 | 8 | 10 | 1.789 | 0.70 | 0.09 | 0.00 |
| $p = 0.1$, | 100 | 0.8909 | 0.0258 | 0.3109 | 0.0159 | 1.071 | 1.957 | 0.556 | 0.442 | 1.000 | 0.983 | 0.812 | 0.533 | 7.01 | 5 | 9 | 12 | 1.426 | 0.40 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8631 | 0.0126 | 0.3115 | 0.0208 | 1.086 | 2.161 | 0.465 | 0.369 | 1.000 | 0.978 | 0.789 | 0.502 | 6.82 | 5 | 9 | 13 | 1.441 | 0.41 | 0.03 | 0.00 |
| | 300 | 0.8395 | 0.0083 | 0.3151 | 0.0231 | 1.097 | 2.280 | 0.418 | 0.331 | 1.000 | 0.974 | 0.779 | 0.486 | 6.68 | 5 | 8.5 | 11 | 1.457 | 0.43 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.8711 | 0.0242 | 0.3004 | 0.0090 | 1.080 | 2.074 | 0.498 | 0.435 | 1.000 | 0.979 | 0.782 | 0.494 | 6.75 | 5 | 8 | 11 | 1.483 | 0.45 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8395 | 0.0118 | 0.3025 | 0.0121 | 1.096 | 2.291 | 0.400 | 0.345 | 1.000 | 0.975 | 0.759 | 0.469 | 6.54 | 4 | 8 | 11 | 1.477 | 0.45 | 0.03 | 0.00 |
| | 300 | 0.8189 | 0.0077 | 0.3013 | 0.0126 | 1.104 | 2.385 | 0.366 | 0.322 | 1.000 | 0.966 | 0.740 | 0.447 | 6.38 | 4 | 8 | 10 | 1.515 | 0.48 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.8237 | 0.0216 | 0.2860 | 0.0029 | 1.100 | 2.349 | 0.372 | 0.353 | 1.000 | 0.965 | 0.713 | 0.413 | 6.26 | 4 | 8 | 11 | 1.607 | 0.56 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7923 | 0.0105 | 0.2863 | 0.0033 | 1.117 | 2.557 | 0.312 | 0.293 | 1.000 | 0.958 | 0.693 | 0.386 | 6.04 | 4 | 8 | 10 | 1.605 | 0.56 | 0.05 | 0.00 |
| | 300 | 0.7763 | 0.0068 | 0.2852 | 0.0042 | 1.125 | 2.627 | 0.289 | 0.276 | 1.000 | 0.951 | 0.668 | 0.375 | 5.92 | 4 | 8 | 10 | 1.632 | 0.58 | 0.05 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9977 | 0.0787 | 0.4985 | 0.4320 | 1.098 | 1.536 | 0.989 | 0.043 | 1.000 | 0.194 | 0.091 | 0.099 | 12.78 | 6 | 23 | 45 | - | - | - | - |
| | 200 | 0.9983 | 0.0573 | 0.5817 | 0.5350 | 1.118 | 1.641 | 0.992 | 0.024 | 1.000 | 0.166 | 0.080 | 0.070 | 16.39 | 6 | 31 | 72 | - | - | - | - |
| | 300 | 0.9964 | 0.0463 | 0.6249 | 0.5895 | 1.131 | 1.725 | 0.983 | 0.021 | 1.000 | 0.157 | 0.076 | 0.061 | 18.84 | 7 | 37 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9312 | 0.0316 | 0.2571 | 0.2246 | 1.120 | 2.073 | 0.788 | 0.177 | 1.000 | 0.058 | 0.033 | 0.036 | 7.79 | 3 | 15 | 30 | - | - | - | - |
| | 200 | 0.9374 | 0.0241 | 0.3374 | 0.3130 | 1.136 | 2.196 | 0.814 | 0.118 | 1.000 | 0.055 | 0.034 | 0.028 | 9.49 | 3 | 19 | 34 | - | - | - | - |
| | 300 | 0.9397 | 0.0206 | 0.3942 | 0.3735 | 1.150 | 2.275 | 0.828 | 0.091 | 1.000 | 0.066 | 0.027 | 0.023 | 10.87 | 3 | 22 | 39 | - | - | - | - |

Notes: See notes to Table 100.

## Table 551: MC findings for DGPII(b)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0352 | 0.3641 | 0.0119 | 1.007 | 1.135 | 1.000 | 0.576 | 1.000 | 1.000 | 1.000 | 0.975 | 8.48 | 8 | 10 | 13 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0173 | 0.3614 | 0.0138 | 1.008 | 1.160 | 1.000 | 0.608 | 1.000 | 1.000 | 1.000 | 0.976 | 8.44 | 8 | 10 | 12 | 1.036 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0113 | 0.3580 | 0.0152 | 1.007 | 1.157 | 0.999 | 0.648 | 1.000 | 1.000 | 0.999 | 0.969 | 8.39 | 8 | 10 | 12 | 1.042 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0338 | 0.3555 | 0.0068 | 1.007 | 1.112 | 1.000 | 0.668 | 1.000 | 1.000 | 1.000 | 0.970 | 8.35 | 8 | 9 | 12 | 1.019 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0166 | 0.3526 | 0.0073 | 1.007 | 1.119 | 1.000 | 0.704 | 1.000 | 1.000 | 1.000 | 0.970 | 8.30 | 8 | 9 | 11 | 1.026 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0109 | 0.3497 | 0.0091 | 1.007 | 1.131 | 0.999 | 0.736 | 1.000 | 1.000 | 0.999 | 0.963 | 8.26 | 8 | 9 | 11 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0316 | 0.3413 | 0.0015 | 1.006 | 1.076 | 1.000 | 0.828 | 1.000 | 1.000 | 0.999 | 0.952 | 8.13 | 8 | 9 | 10 | 1.026 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9996 | 0.0156 | 0.3398 | 0.0016 | 1.006 | 1.088 | 0.998 | 0.855 | 1.000 | 1.000 | 1.000 | 0.957 | 8.10 | 8 | 9 | 10 | 1.037 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9992 | 0.0103 | 0.3377 | 0.0025 | 1.006 | 1.097 | 0.996 | 0.866 | 1.000 | 1.000 | 0.998 | 0.945 | 8.07 | 7 | 9 | 10 | 1.050 | 0.05 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0350 | 0.3632 | 0.0103 | 1.007 | 1.116 | 1.000 | 0.585 | 1.000 | 1.000 | 1.000 | 0.975 | 8.47 | 8 | 10 | 13 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0171 | 0.3595 | 0.0109 | 1.007 | 1.124 | 0.999 | 0.626 | 1.000 | 1.000 | 1.000 | 0.976 | 8.41 | 8 | 10 | 12 | 1.007 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0112 | 0.3561 | 0.0123 | 1.007 | 1.115 | 0.999 | 0.666 | 1.000 | 1.000 | 0.999 | 0.969 | 8.36 | 8 | 10 | 12 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0337 | 0.3548 | 0.0057 | 1.006 | 1.097 | 1.000 | 0.676 | 1.000 | 1.000 | 1.000 | 0.970 | 8.34 | 8 | 9 | 12 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0165 | 0.3516 | 0.0060 | 1.006 | 1.105 | 0.999 | 0.714 | 1.000 | 1.000 | 1.000 | 0.970 | 8.28 | 8 | 9 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9995 | 0.0108 | 0.3484 | 0.0070 | 1.006 | 1.107 | 0.998 | 0.748 | 1.000 | 1.000 | 0.999 | 0.963 | 8.24 | 8 | 9 | 11 | 1.018 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9998 | 0.0316 | 0.3411 | 0.0011 | 1.006 | 1.075 | 0.999 | 0.830 | 1.000 | 1.000 | 0.999 | 0.952 | 8.13 | 8 | 9 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9989 | 0.0156 | 0.3398 | 0.0014 | 1.006 | 1.108 | 0.995 | 0.854 | 1.000 | 1.000 | 1.000 | 0.957 | 8.10 | 8 | 9 | 10 | 1.031 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9990 | 0.0103 | 0.3374 | 0.0020 | 1.006 | 1.096 | 0.996 | 0.870 | 1.000 | 1.000 | 0.998 | 0.945 | 8.07 | 7 | 9 | 10 | 1.044 | 0.04 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0735 | 0.4814 | 0.4110 | 1.026 | 1.458 | 1.000 | 0.044 | 1.000 | 0.226 | 0.117 | 0.100 | 12.28 | 6 | 22.5 | 44 | - | - | - | - |
| | 200 | 1.0000 | 0.0493 | 0.5470 | 0.4974 | 1.030 | 1.566 | 1.000 | 0.030 | 1.000 | 0.196 | 0.099 | 0.073 | 14.81 | 6 | 27 | 59 | - | - | - | - |
| | 300 | 1.0000 | 0.0381 | 0.5687 | 0.5297 | 1.034 | 1.625 | 1.000 | 0.025 | 1.000 | 0.170 | 0.079 | 0.063 | 16.39 | 7 | 37.5 | 76 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0160 | 0.1722 | 0.1484 | 1.007 | 1.278 | 0.999 | 0.350 | 1.000 | 0.035 | 0.027 | 0.021 | 6.58 | 5 | 10 | 22 | - | - | - | - |
| | 200 | 0.9996 | 0.0111 | 0.2224 | 0.2043 | 1.009 | 1.401 | 0.999 | 0.260 | 1.000 | 0.041 | 0.020 | 0.012 | 7.21 | 5 | 12 | 22 | - | - | - | - |
| | 300 | 0.9997 | 0.0086 | 0.2457 | 0.2303 | 1.011 | 1.436 | 1.000 | 0.216 | 1.000 | 0.034 | 0.017 | 0.011 | 7.57 | 5 | 13 | 43 | - | - | - | - |

Notes: See notes to Table 100.

## Table 552: MC findings for DGPII(b)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0393 | 0.3904 | 0.0105 | 1.005 | 1.191 | 1.000 | 0.280 | 1.000 | 1.000 | 1.000 | 1.000 | 8.89 | 8 | 10 | 13 | 1.025 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0190 | 0.3839 | 0.0130 | 1.005 | 1.176 | 1.000 | 0.357 | 1.000 | 1.000 | 1.000 | 1.000 | 8.79 | 8 | 10 | 15 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0125 | 0.3804 | 0.0115 | 1.004 | 1.172 | 1.000 | 0.379 | 1.000 | 1.000 | 1.000 | 1.000 | 8.73 | 8 | 10 | 12 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0379 | 0.3819 | 0.0062 | 1.004 | 1.163 | 1.000 | 0.355 | 1.000 | 1.000 | 1.000 | 1.000 | 8.75 | 8 | 10 | 13 | 1.017 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0183 | 0.3748 | 0.0076 | 1.004 | 1.145 | 1.000 | 0.442 | 1.000 | 1.000 | 1.000 | 1.000 | 8.64 | 8 | 10 | 13 | 1.013 | 0.01 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0120 | 0.3712 | 0.0059 | 1.004 | 1.142 | 1.000 | 0.470 | 1.000 | 1.000 | 1.000 | 0.999 | 8.58 | 8 | 9 | 12 | 1.012 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0352 | 0.3652 | 0.0012 | 1.004 | 1.118 | 1.000 | 0.548 | 1.000 | 1.000 | 1.000 | 1.000 | 8.48 | 8 | 9 | 11 | 1.007 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0171 | 0.3597 | 0.0018 | 1.004 | 1.103 | 1.000 | 0.617 | 1.000 | 1.000 | 1.000 | 0.998 | 8.40 | 8 | 9 | 12 | 1.004 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0113 | 0.3574 | 0.0014 | 1.003 | 1.099 | 1.000 | 0.647 | 1.000 | 1.000 | 1.000 | 0.999 | 8.36 | 8 | 9 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0391 | 0.3893 | 0.0088 | 1.004 | 1.168 | 1.000 | 0.285 | 1.000 | 1.000 | 1.000 | 1.000 | 8.87 | 8 | 10 | 12 | 1.005 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0189 | 0.3828 | 0.0113 | 1.004 | 1.152 | 1.000 | 0.364 | 1.000 | 1.000 | 1.000 | 1.000 | 8.77 | 8 | 10 | 15 | 1.003 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0124 | 0.3794 | 0.0099 | 1.004 | 1.148 | 1.000 | 0.386 | 1.000 | 1.000 | 1.000 | 1.000 | 8.71 | 8 | 10 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0377 | 0.3811 | 0.0051 | 1.004 | 1.146 | 1.000 | 0.360 | 1.000 | 1.000 | 1.000 | 1.000 | 8.74 | 8 | 10 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0182 | 0.3742 | 0.0066 | 1.004 | 1.131 | 1.000 | 0.446 | 1.000 | 1.000 | 1.000 | 1.000 | 8.63 | 8 | 10 | 13 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0119 | 0.3706 | 0.0050 | 1.003 | 1.127 | 1.000 | 0.476 | 1.000 | 1.000 | 1.000 | 0.999 | 8.57 | 8 | 9 | 12 | 1.002 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0351 | 0.3649 | 0.0007 | 1.004 | 1.110 | 1.000 | 0.550 | 1.000 | 1.000 | 1.000 | 1.000 | 8.48 | 8 | 9 | 11 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0171 | 0.3595 | 0.0015 | 1.004 | 1.097 | 1.000 | 0.619 | 1.000 | 1.000 | 1.000 | 0.998 | 8.40 | 8 | 9 | 12 | 1.001 | 0.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0112 | 0.3573 | 0.0012 | 1.003 | 1.094 | 1.000 | 0.649 | 1.000 | 1.000 | 1.000 | 0.999 | 8.36 | 8 | 9 | 11 | 1.001 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0823 | 0.4502 | 0.3807 | 1.017 | 1.524 | 1.000 | 0.093 | 1.000 | 0.227 | 0.112 | 0.096 | 13.15 | 5 | 28 | 40 | - | - | - | - |
| | 200 | 1.0000 | 0.0409 | 0.4700 | 0.4218 | 1.019 | 1.541 | 1.000 | 0.041 | 1.000 | 0.193 | 0.092 | 0.064 | 13.13 | 6 | 36 | 57 | - | - | - | - |
| | 300 | 1.0000 | 0.0324 | 0.5240 | 0.4825 | 1.020 | 1.610 | 1.000 | 0.030 | 1.000 | 0.196 | 0.082 | 0.071 | 14.70 | 6 | 39 | 74 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0075 | 0.0895 | 0.0767 | 1.001 | 1.133 | 1.000 | 0.596 | 1.000 | 0.018 | 0.013 | 0.009 | 5.74 | 5 | 8 | 15 | - | - | - | - |
| | 200 | 1.0000 | 0.0039 | 0.0920 | 0.0838 | 1.002 | 1.145 | 1.000 | 0.587 | 1.000 | 0.019 | 0.011 | 0.005 | 5.78 | 5 | 8 | 16 | - | - | - | - |
| | 300 | 1.0000 | 0.0033 | 0.1110 | 0.1045 | 1.002 | 1.182 | 1.000 | 0.526 | 1.000 | 0.015 | 0.009 | 0.010 | 5.98 | 5 | 9 | 21 | - | - | - | - |

Notes: See notes to Table 100.

## Table 553: MC findings for DGPII(b)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7671 | 0.0263 | 0.3431 | 0.0231 | 1.072 | 1.932 | 0.243 | 0.182 | 1.000 | 0.988 | 0.817 | 0.536 | 6.44 | 4 | 8 | 12 | 1.496 | 0.46 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7452 | 0.0130 | 0.3456 | 0.0294 | 1.080 | 2.024 | 0.209 | 0.159 | 1.000 | 0.978 | 0.797 | 0.520 | 6.32 | 4 | 8 | 12 | 1.572 | 0.53 | 0.04 | 0.00 |
| | 300 | 0.7248 | 0.0085 | 0.3468 | 0.0322 | 1.088 | 2.115 | 0.189 | 0.153 | 1.000 | 0.978 | 0.780 | 0.491 | 6.17 | 4 | 8 | 11 | 1.579 | 0.54 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 0.7454 | 0.0246 | 0.3326 | 0.0143 | 1.076 | 1.988 | 0.225 | 0.189 | 1.000 | 0.982 | 0.786 | 0.497 | 6.16 | 4 | 8 | 11 | 1.534 | 0.51 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7240 | 0.0121 | 0.3356 | 0.0191 | 1.083 | 2.069 | 0.188 | 0.155 | 1.000 | 0.973 | 0.772 | 0.479 | 6.04 | 4 | 8 | 12 | 1.599 | 0.56 | 0.03 | 0.00 |
| | 300 | 0.7132 | 0.0079 | 0.3329 | 0.0203 | 1.088 | 2.131 | 0.180 | 0.158 | 1.000 | 0.975 | 0.748 | 0.453 | 5.93 | 4 | 8 | 11 | 1.614 | 0.58 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.7153 | 0.0217 | 0.3125 | 0.0039 | 1.081 | 2.061 | 0.202 | 0.188 | 1.000 | 0.963 | 0.714 | 0.421 | 5.73 | 3 | 8 | 10 | 1.630 | 0.61 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7004 | 0.0107 | 0.3120 | 0.0068 | 1.086 | 2.118 | 0.182 | 0.168 | 1.000 | 0.954 | 0.702 | 0.400 | 5.63 | 3 | 8 | 9 | 1.687 | 0.67 | 0.02 | 0.00 |
| | 300 | 0.6919 | 0.0069 | 0.3071 | 0.0069 | 1.090 | 2.162 | 0.169 | 0.161 | 1.000 | 0.954 | 0.674 | 0.371 | 5.52 | 3 | 8 | 9 | 1.701 | 0.69 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.7139 | 0.0257 | 0.3517 | 0.0183 | 1.086 | 2.059 | 0.159 | 0.126 | 1.000 | 0.988 | 0.817 | 0.536 | 6.11 | 4 | 8 | 11 | 1.348 | 0.34 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6807 | 0.0127 | 0.3562 | 0.0231 | 1.097 | 2.172 | 0.113 | 0.093 | 1.000 | 0.978 | 0.797 | 0.520 | 5.92 | 4 | 8 | 12 | 1.397 | 0.39 | 0.01 | 0.00 |
| | 300 | 0.6600 | 0.0083 | 0.3577 | 0.0265 | 1.106 | 2.253 | 0.098 | 0.085 | 1.000 | 0.978 | 0.780 | 0.491 | 5.78 | 4 | 8 | 10 | 1.421 | 0.41 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.6888 | 0.0241 | 0.3427 | 0.0105 | 1.092 | 2.129 | 0.137 | 0.122 | 1.000 | 0.982 | 0.786 | 0.497 | 5.83 | 4 | 8 | 11 | 1.401 | 0.39 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6567 | 0.0119 | 0.3477 | 0.0144 | 1.104 | 2.233 | 0.103 | 0.091 | 1.000 | 0.973 | 0.772 | 0.479 | 5.65 | 3 | 8 | 10 | 1.442 | 0.43 | 0.01 | 0.00 |
| | 300 | 0.6451 | 0.0077 | 0.3455 | 0.0156 | 1.108 | 2.284 | 0.087 | 0.080 | 1.000 | 0.975 | 0.748 | 0.453 | 5.53 | 3 | 8 | 9 | 1.476 | 0.47 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6538 | 0.0216 | 0.3260 | 0.0028 | 1.101 | 2.220 | 0.116 | 0.110 | 1.000 | 0.963 | 0.714 | 0.421 | 5.41 | 3 | 8 | 10 | 1.525 | 0.52 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6261 | 0.0105 | 0.3274 | 0.0044 | 1.113 | 2.306 | 0.090 | 0.085 | 1.000 | 0.954 | 0.702 | 0.400 | 5.23 | 3 | 8 | 9 | 1.567 | 0.56 | 0.00 | 0.00 |
| | 300 | 0.6108 | 0.0068 | 0.3247 | 0.0048 | 1.118 | 2.361 | 0.075 | 0.072 | 1.000 | 0.954 | 0.674 | 0.371 | 5.09 | 3 | 7 | 9 | 1.584 | 0.58 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9582 | 0.0759 | 0.4804 | 0.4160 | 1.104 | 1.526 | 0.811 | 0.041 | 1.000 | 0.167 | 0.089 | 0.083 | 12.30 | 5 | 23 | 67 | - | - | - | - |
| | 200 | 0.9554 | 0.0525 | 0.5532 | 0.5071 | 1.118 | 1.624 | 0.802 | 0.027 | 1.000 | 0.175 | 0.084 | 0.068 | 15.22 | 5 | 30 | 55 | - | - | - | - |
| | 300 | 0.9514 | 0.0440 | 0.6031 | 0.5687 | 1.132 | 1.694 | 0.790 | 0.015 | 1.000 | 0.145 | 0.080 | 0.058 | 17.92 | 5 | 37 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7603 | 0.0314 | 0.2318 | 0.2044 | 1.145 | 2.115 | 0.423 | 0.050 | 1.000 | 0.044 | 0.029 | 0.026 | 6.91 | 1 | 17 | 40 | - | - | - | - |
| | 200 | 0.7757 | 0.0236 | 0.3066 | 0.2829 | 1.158 | 2.245 | 0.451 | 0.031 | 1.000 | 0.057 | 0.027 | 0.028 | 8.58 | 1 | 21 | 37 | - | - | - | - |
| | 300 | 0.7894 | 0.0210 | 0.3618 | 0.3434 | 1.167 | 2.350 | 0.461 | 0.026 | 1.000 | 0.048 | 0.034 | 0.024 | 10.21 | 1 | 25 | 43 | - | - | - | - |

Notes: See notes to Table 100.

## Table 554: MC findings for DGPII(b)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9938 | 0.0339 | 0.3574 | 0.0132 | 1.008 | 1.210 | 0.970 | 0.665 | 1.000 | 1.000 | 1.000 | 0.987 | 8.32 | 8 | 9 | 12 | 1.068 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9872 | 0.0165 | 0.3536 | 0.0134 | 1.009 | 1.282 | 0.938 | 0.687 | 1.000 | 1.000 | 1.000 | 0.973 | 8.21 | 7 | 9 | 12 | 1.084 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.9840 | 0.0109 | 0.3528 | 0.0130 | 1.010 | 1.333 | 0.922 | 0.689 | 1.000 | 1.000 | 1.000 | 0.968 | 8.18 | 7 | 9 | 11 | 1.089 | 0.09 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9911 | 0.0326 | 0.3501 | 0.0073 | 1.008 | 1.218 | 0.956 | 0.740 | 1.000 | 1.000 | 1.000 | 0.982 | 8.19 | 7.5 | 9 | 12 | 1.075 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9816 | 0.0159 | 0.3474 | 0.0075 | 1.010 | 1.324 | 0.911 | 0.743 | 1.000 | 1.000 | 0.999 | 0.969 | 8.07 | 7 | 9 | 11 | 1.098 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.9765 | 0.0105 | 0.3477 | 0.0072 | 1.011 | 1.397 | 0.887 | 0.727 | 1.000 | 1.000 | 1.000 | 0.962 | 8.04 | 7 | 9 | 11 | 1.113 | 0.11 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9728 | 0.0310 | 0.3430 | 0.0020 | 1.011 | 1.422 | 0.873 | 0.782 | 1.000 | 1.000 | 1.000 | 0.964 | 7.93 | 7 | 9 | 10 | 1.122 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9616 | 0.0152 | 0.3426 | 0.0019 | 1.013 | 1.522 | 0.819 | 0.750 | 1.000 | 1.000 | 0.999 | 0.951 | 7.84 | 7 | 9 | 11 | 1.147 | 0.14 | 0.00 | 0.00 |
| | 300 | 0.9545 | 0.0101 | 0.3425 | 0.0014 | 1.015 | 1.607 | 0.788 | 0.728 | 1.000 | 1.000 | 0.999 | 0.939 | 7.78 | 7 | 9 | 10 | 1.166 | 0.16 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9905 | 0.0336 | 0.3567 | 0.0112 | 1.008 | 1.235 | 0.954 | 0.668 | 1.000 | 1.000 | 1.000 | 0.987 | 8.28 | 8 | 9 | 11 | 1.031 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9826 | 0.0163 | 0.3529 | 0.0109 | 1.010 | 1.313 | 0.915 | 0.685 | 1.000 | 1.000 | 1.000 | 0.973 | 8.16 | 7 | 9 | 12 | 1.036 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9794 | 0.0108 | 0.3522 | 0.0106 | 1.011 | 1.362 | 0.899 | 0.689 | 1.000 | 1.000 | 1.000 | 0.968 | 8.13 | 7 | 9 | 11 | 1.044 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9861 | 0.0325 | 0.3503 | 0.0061 | 1.009 | 1.275 | 0.932 | 0.730 | 1.000 | 1.000 | 1.000 | 0.982 | 8.15 | 7 | 9 | 11 | 1.038 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9746 | 0.0158 | 0.3479 | 0.0060 | 1.011 | 1.392 | 0.879 | 0.727 | 1.000 | 1.000 | 0.999 | 0.969 | 8.02 | 7 | 9 | 11 | 1.050 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9691 | 0.0105 | 0.3480 | 0.0055 | 1.013 | 1.463 | 0.850 | 0.712 | 1.000 | 1.000 | 1.000 | 0.962 | 7.98 | 7 | 9 | 11 | 1.064 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9641 | 0.0309 | 0.3444 | 0.0015 | 1.013 | 1.515 | 0.833 | 0.748 | 1.000 | 1.000 | 1.000 | 0.964 | 7.88 | 7 | 9 | 10 | 1.076 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9494 | 0.0152 | 0.3449 | 0.0015 | 1.016 | 1.650 | 0.765 | 0.702 | 1.000 | 1.000 | 0.999 | 0.951 | 7.77 | 7 | 9 | 10 | 1.088 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.9416 | 0.0100 | 0.3449 | 0.0009 | 1.018 | 1.731 | 0.730 | 0.675 | 1.000 | 1.000 | 0.999 | 0.939 | 7.71 | 7 | 9 | 10 | 1.103 | 0.10 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0801 | 0.5018 | 0.4321 | 1.025 | 1.479 | 1.000 | 0.032 | 1.000 | 0.193 | 0.105 | 0.101 | 12.93 | 6 | 23 | 47 | - | - | - | - |
| | 200 | 0.9999 | 0.0485 | 0.5424 | 0.4938 | 1.032 | 1.534 | 1.000 | 0.027 | 1.000 | 0.195 | 0.098 | 0.074 | 14.65 | 6 | 29 | 76 | - | - | - | - |
| | 300 | 1.0000 | 0.0402 | 0.5900 | 0.5490 | 1.035 | 1.615 | 1.000 | 0.020 | 1.000 | 0.182 | 0.082 | 0.066 | 17.02 | 7 | 33 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9877 | 0.0286 | 0.2670 | 0.2323 | 1.019 | 1.627 | 0.965 | 0.181 | 1.000 | 0.068 | 0.028 | 0.034 | 7.77 | 5 | 13 | 24 | - | - | - | - |
| | 200 | 0.9902 | 0.0172 | 0.3029 | 0.2785 | 1.020 | 1.687 | 0.974 | 0.145 | 1.000 | 0.064 | 0.031 | 0.023 | 8.38 | 5 | 15 | 34 | - | - | - | - |
| | 300 | 0.9883 | 0.0148 | 0.3552 | 0.3332 | 1.026 | 1.826 | 0.969 | 0.093 | 1.000 | 0.058 | 0.026 | 0.021 | 9.36 | 5 | 17 | 35 | - | - | - | - |

Notes: See notes to Table 100.

## Table 555: MC findings for DGPII(b)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0364 | 0.3725 | 0.0111 | 1.004 | 1.145 | 1.000 | 0.494 | 1.000 | 1.000 | 1.000 | 0.999 | 8.61 | 8 | 10 | 12 | 1.022 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0176 | 0.3654 | 0.0110 | 1.005 | 1.141 | 1.000 | 0.573 | 1.000 | 1.000 | 1.000 | 0.999 | 8.50 | 8 | 10 | 12 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0117 | 0.3651 | 0.0127 | 1.004 | 1.135 | 1.000 | 0.583 | 1.000 | 1.000 | 1.000 | 1.000 | 8.49 | 8 | 10 | 12 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9999 | 0.0349 | 0.3629 | 0.0059 | 1.004 | 1.116 | 1.000 | 0.595 | 1.000 | 1.000 | 1.000 | 0.999 | 8.45 | 8 | 9 | 12 | 1.014 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0169 | 0.3571 | 0.0062 | 1.004 | 1.112 | 1.000 | 0.671 | 1.000 | 1.000 | 1.000 | 0.999 | 8.36 | 8 | 9 | 12 | 1.015 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9998 | 0.0112 | 0.3564 | 0.0063 | 1.004 | 1.107 | 0.999 | 0.677 | 1.000 | 1.000 | 1.000 | 0.999 | 8.35 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9996 | 0.0328 | 0.3500 | 0.0013 | 1.003 | 1.084 | 0.998 | 0.758 | 1.000 | 1.000 | 1.000 | 0.998 | 8.25 | 8 | 9 | 11 | 1.013 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9995 | 0.0161 | 0.3463 | 0.0017 | 1.004 | 1.087 | 0.998 | 0.811 | 1.000 | 1.000 | 1.000 | 0.998 | 8.19 | 8 | 9 | 11 | 1.015 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9989 | 0.0106 | 0.3454 | 0.0016 | 1.004 | 1.095 | 0.995 | 0.820 | 1.000 | 1.000 | 1.000 | 0.998 | 8.17 | 8 | 9 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0363 | 0.3714 | 0.0094 | 1.004 | 1.125 | 1.000 | 0.503 | 1.000 | 1.000 | 1.000 | 0.999 | 8.59 | 8 | 10 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0175 | 0.3645 | 0.0095 | 1.004 | 1.123 | 1.000 | 0.580 | 1.000 | 1.000 | 1.000 | 0.999 | 8.48 | 8 | 10 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.9999 | 0.0116 | 0.3641 | 0.0112 | 1.004 | 1.116 | 1.000 | 0.592 | 1.000 | 1.000 | 1.000 | 1.000 | 8.47 | 8 | 10 | 12 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0348 | 0.3623 | 0.0049 | 1.003 | 1.106 | 0.999 | 0.601 | 1.000 | 1.000 | 1.000 | 0.999 | 8.44 | 8 | 9 | 12 | 1.003 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0169 | 0.3565 | 0.0054 | 1.004 | 1.105 | 0.999 | 0.676 | 1.000 | 1.000 | 1.000 | 0.999 | 8.35 | 8 | 9 | 11 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9997 | 0.0112 | 0.3559 | 0.0055 | 1.004 | 1.097 | 0.999 | 0.682 | 1.000 | 1.000 | 1.000 | 0.999 | 8.34 | 8 | 9 | 11 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9993 | 0.0328 | 0.3498 | 0.0010 | 1.003 | 1.086 | 0.997 | 0.760 | 1.000 | 1.000 | 1.000 | 0.998 | 8.24 | 8 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9991 | 0.0160 | 0.3460 | 0.0012 | 1.004 | 1.089 | 0.996 | 0.812 | 1.000 | 1.000 | 1.000 | 0.998 | 8.19 | 8 | 9 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.9980 | 0.0106 | 0.3453 | 0.0013 | 1.004 | 1.113 | 0.991 | 0.820 | 1.000 | 1.000 | 1.000 | 0.998 | 8.17 | 8 | 9 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.0762 | 0.4973 | 0.4263 | 1.015 | 1.466 | 1.000 | 0.033 | 1.000 | 0.219 | 0.124 | 0.097 | 12.55 | 6 | 22 | 49 | - | - | - | - |
| | 200 | 1.0000 | 0.0512 | 0.5498 | 0.5016 | 1.018 | 1.555 | 1.000 | 0.041 | 1.000 | 0.183 | 0.089 | 0.080 | 15.19 | 6 | 27 | 68 | - | - | - | - |
| | 300 | 1.0000 | 0.0395 | 0.5663 | 0.5273 | 1.021 | 1.601 | 1.000 | 0.033 | 1.000 | 0.202 | 0.094 | 0.067 | 16.80 | 6 | 32 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0159 | 0.1735 | 0.1483 | 1.003 | 1.275 | 1.000 | 0.336 | 1.000 | 0.044 | 0.025 | 0.021 | 6.57 | 5 | 10 | 19 | - | - | - | - |
| | 200 | 0.9996 | 0.0110 | 0.2212 | 0.2023 | 1.005 | 1.374 | 0.999 | 0.265 | 1.000 | 0.030 | 0.018 | 0.016 | 7.19 | 5 | 12 | 22 | - | - | - | - |
| | 300 | 0.9998 | 0.0085 | 0.2455 | 0.2296 | 1.006 | 1.415 | 1.000 | 0.231 | 1.000 | 0.043 | 0.017 | 0.013 | 7.53 | 5 | 12 | 27 | - | - | - | - |

Notes: See notes to Table 100.

## Table 556: MC findings for DGPII(b)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5932 | 0.0265 | 0.3924 | 0.0288 | 1.069 | 1.745 | 0.069 | 0.053 | 1.000 | 0.985 | 0.818 | 0.560 | 5.59 | 3 | 8 | 10 | 1.585 | 0.56 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5491 | 0.0128 | 0.3981 | 0.0340 | 1.081 | 1.800 | 0.053 | 0.040 | 1.000 | 0.976 | 0.782 | 0.513 | 5.29 | 3 | 8 | 11 | 1.582 | 0.55 | 0.03 | 0.00 |
| | 300 | 0.5374 | 0.0085 | 0.4002 | 0.0370 | 1.085 | 1.805 | 0.042 | 0.032 | 1.000 | 0.981 | 0.777 | 0.489 | 5.22 | 3 | 8 | 12 | 1.579 | 0.55 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.5721 | 0.0247 | 0.3823 | 0.0177 | 1.071 | 1.743 | 0.064 | 0.056 | 1.000 | 0.977 | 0.788 | 0.523 | 5.31 | 3 | 8 | 9 | 1.603 | 0.58 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5282 | 0.0119 | 0.3863 | 0.0211 | 1.082 | 1.792 | 0.050 | 0.044 | 1.000 | 0.968 | 0.752 | 0.479 | 5.00 | 3 | 7 | 10 | 1.593 | 0.57 | 0.02 | 0.00 |
| | 300 | 0.5170 | 0.0078 | 0.3880 | 0.0226 | 1.085 | 1.793 | 0.036 | 0.031 | 1.000 | 0.974 | 0.746 | 0.449 | 4.92 | 3 | 7 | 9 | 1.600 | 0.57 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.5219 | 0.0221 | 0.3708 | 0.0053 | 1.080 | 1.758 | 0.043 | 0.039 | 1.000 | 0.965 | 0.724 | 0.444 | 4.80 | 2 | 7 | 9 | 1.622 | 0.61 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4785 | 0.0104 | 0.3700 | 0.0076 | 1.091 | 1.798 | 0.032 | 0.027 | 1.000 | 0.946 | 0.683 | 0.388 | 4.47 | 2 | 7 | 9 | 1.600 | 0.59 | 0.01 | 0.00 |
| | 300 | 0.4637 | 0.0069 | 0.3721 | 0.0080 | 1.094 | 1.802 | 0.023 | 0.020 | 1.000 | 0.957 | 0.663 | 0.372 | 4.37 | 2 | 7 | 9 | 1.589 | 0.58 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.5114 | 0.0258 | 0.4133 | 0.0237 | 1.086 | 1.810 | 0.026 | 0.022 | 1.000 | 0.985 | 0.817 | 0.560 | 5.11 | 3 | 7 | 9 | 1.410 | 0.40 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4597 | 0.0125 | 0.4221 | 0.0286 | 1.101 | 1.859 | 0.019 | 0.016 | 1.000 | 0.976 | 0.782 | 0.513 | 4.78 | 3 | 7 | 10 | 1.379 | 0.37 | 0.01 | 0.00 |
| | 300 | 0.4426 | 0.0082 | 0.4256 | 0.0302 | 1.105 | 1.866 | 0.012 | 0.009 | 1.000 | 0.981 | 0.777 | 0.489 | 4.67 | 2 | 7 | 9 | 1.371 | 0.37 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4866 | 0.0242 | 0.4054 | 0.0136 | 1.089 | 1.822 | 0.021 | 0.020 | 1.000 | 0.977 | 0.788 | 0.523 | 4.83 | 3 | 7 | 9 | 1.445 | 0.44 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4356 | 0.0116 | 0.4122 | 0.0161 | 1.104 | 1.861 | 0.015 | 0.013 | 1.000 | 0.968 | 0.752 | 0.479 | 4.49 | 2 | 7 | 9 | 1.400 | 0.40 | 0.00 | 0.00 |
| | 300 | 0.4212 | 0.0077 | 0.4156 | 0.0178 | 1.107 | 1.860 | 0.006 | 0.006 | 1.000 | 0.974 | 0.746 | 0.449 | 4.39 | 2 | 7 | 8 | 1.395 | 0.39 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4361 | 0.0219 | 0.3970 | 0.0038 | 1.101 | 1.847 | 0.015 | 0.014 | 1.000 | 0.965 | 0.724 | 0.444 | 4.35 | 2 | 7 | 8 | 1.473 | 0.47 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3923 | 0.0103 | 0.3958 | 0.0055 | 1.115 | 1.861 | 0.011 | 0.010 | 1.000 | 0.946 | 0.683 | 0.388 | 4.01 | 2 | 6 | 8 | 1.422 | 0.42 | 0.00 | 0.00 |
| | 300 | 0.3698 | 0.0068 | 0.4023 | 0.0064 | 1.121 | 1.861 | 0.004 | 0.004 | 1.000 | 0.957 | 0.663 | 0.372 | 3.88 | 2 | 6 | 8 | 1.382 | 0.38 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8132 | 0.0593 | 0.4304 | 0.3667 | 1.100 | 1.378 | 0.374 | 0.023 | 1.000 | 0.156 | 0.087 | 0.073 | 9.93 | 3 | 21.5 | 49 | - | - | - | - |
| | 200 | 0.7903 | 0.0431 | 0.5148 | 0.4689 | 1.121 | 1.450 | 0.314 | 0.010 | 1.000 | 0.141 | 0.070 | 0.054 | 12.53 | 3 | 29 | 68 | - | - | - | - |
| | 300 | 0.7824 | 0.0364 | 0.5602 | 0.5240 | 1.123 | 1.482 | 0.292 | 0.005 | 1.000 | 0.141 | 0.065 | 0.049 | 14.81 | 3 | 35 | 80 | - | - | - | - |
| Adaptive Lasso | 100 | 0.5027 | 0.0193 | 0.1534 | 0.1335 | 1.124 | 1.793 | 0.100 | 0.002 | 1.000 | 0.034 | 0.015 | 0.020 | 4.43 | 1 | 15 | 36 | - | - | - | - |
| | 200 | 0.5285 | 0.0174 | 0.2318 | 0.2168 | 1.137 | 1.924 | 0.107 | 0.004 | 1.000 | 0.031 | 0.021 | 0.016 | 6.11 | 1 | 21 | 47 | - | - | - | - |
| | 300 | 0.5374 | 0.0163 | 0.2833 | 0.2692 | 1.148 | 2.019 | 0.109 | 0.001 | 1.000 | 0.043 | 0.019 | 0.019 | 7.57 | 1 | 25 | 44 | - | - | - | - |

Notes: See notes to Table 100.

## Table 557: MC findings for DGPII(b)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8872 | 0.0324 | 0.3713 | 0.0138 | 1.017 | 1.662 | 0.538 | 0.416 | 1.000 | 1.000 | 0.999 | 0.973 | 7.64 | 6 | 9 | 12 | 1.164 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8572 | 0.0161 | 0.3785 | 0.0164 | 1.022 | 1.785 | 0.456 | 0.359 | 1.000 | 1.000 | 0.999 | 0.973 | 7.49 | 6 | 9 | 12 | 1.177 | 0.17 | 0.00 | 0.00 |
| | 300 | 0.8384 | 0.0107 | 0.3820 | 0.0177 | 1.023 | 1.897 | 0.408 | 0.320 | 1.000 | 1.000 | 1.000 | 0.972 | 7.38 | 6 | 9 | 10 | 1.188 | 0.18 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8617 | 0.0315 | 0.3711 | 0.0082 | 1.019 | 1.756 | 0.451 | 0.378 | 1.000 | 1.000 | 0.999 | 0.970 | 7.42 | 6 | 9 | 10 | 1.199 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8316 | 0.0156 | 0.3775 | 0.0091 | 1.023 | 1.867 | 0.386 | 0.337 | 1.000 | 1.000 | 0.999 | 0.967 | 7.26 | 6 | 9 | 12 | 1.216 | 0.21 | 0.00 | 0.00 |
| | 300 | 0.8126 | 0.0103 | 0.3818 | 0.0105 | 1.025 | 1.992 | 0.350 | 0.299 | 1.000 | 1.000 | 0.999 | 0.964 | 7.15 | 6 | 9 | 10 | 1.216 | 0.21 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.8038 | 0.0303 | 0.3774 | 0.0025 | 1.024 | 1.989 | 0.311 | 0.286 | 1.000 | 1.000 | 0.999 | 0.951 | 7.02 | 6 | 8 | 9 | 1.274 | 0.27 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7804 | 0.0150 | 0.3821 | 0.0021 | 1.028 | 2.060 | 0.277 | 0.261 | 1.000 | 1.000 | 0.999 | 0.941 | 6.89 | 5 | 8 | 12 | 1.313 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.7661 | 0.0100 | 0.3860 | 0.0024 | 1.028 | 2.170 | 0.261 | 0.248 | 1.000 | 1.000 | 0.999 | 0.944 | 6.81 | 5 | 8 | 10 | 1.327 | 0.32 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.8705 | 0.0322 | 0.3739 | 0.0119 | 1.018 | 1.719 | 0.489 | 0.385 | 1.000 | 1.000 | 0.999 | 0.973 | 7.54 | 6 | 9 | 12 | 1.094 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8391 | 0.0160 | 0.3815 | 0.0144 | 1.023 | 1.843 | 0.412 | 0.329 | 1.000 | 1.000 | 0.999 | 0.973 | 7.38 | 6 | 9 | 12 | 1.105 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.8173 | 0.0106 | 0.3858 | 0.0159 | 1.025 | 1.970 | 0.362 | 0.291 | 1.000 | 1.000 | 1.000 | 0.972 | 7.25 | 6 | 9 | 10 | 1.106 | 0.10 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.8416 | 0.0313 | 0.3749 | 0.0067 | 1.021 | 1.831 | 0.402 | 0.345 | 1.000 | 1.000 | 0.999 | 0.970 | 7.31 | 6 | 9 | 10 | 1.122 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8063 | 0.0155 | 0.3829 | 0.0080 | 1.026 | 1.957 | 0.329 | 0.291 | 1.000 | 1.000 | 0.999 | 0.967 | 7.11 | 6 | 8 | 12 | 1.134 | 0.13 | 0.00 | 0.00 |
| | 300 | 0.7901 | 0.0103 | 0.3865 | 0.0089 | 1.027 | 2.072 | 0.304 | 0.266 | 1.000 | 1.000 | 0.999 | 0.964 | 7.02 | 5 | 8 | 10 | 1.146 | 0.15 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.7801 | 0.0302 | 0.3831 | 0.0021 | 1.028 | 2.080 | 0.266 | 0.250 | 1.000 | 1.000 | 0.999 | 0.951 | 6.90 | 5 | 8 | 9 | 1.203 | 0.20 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7477 | 0.0150 | 0.3903 | 0.0017 | 1.033 | 2.182 | 0.221 | 0.210 | 1.000 | 1.000 | 0.999 | 0.941 | 6.71 | 5 | 8 | 12 | 1.223 | 0.22 | 0.00 | 0.00 |
| | 300 | 0.7321 | 0.0100 | 0.3947 | 0.0022 | 1.034 | 2.299 | 0.202 | 0.193 | 1.000 | 1.000 | 0.999 | 0.944 | 6.64 | 5 | 8 | 10 | 1.239 | 0.24 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9923 | 0.0785 | 0.4989 | 0.4286 | 1.027 | 1.474 | 0.964 | 0.035 | 1.000 | 0.201 | 0.114 | 0.108 | 12.73 | 6 | 24 | 40 | - | - | - | - |
| | 200 | 0.9888 | 0.0491 | 0.5464 | 0.4977 | 1.033 | 1.535 | 0.946 | 0.029 | 1.000 | 0.183 | 0.092 | 0.068 | 14.72 | 6 | 28 | 57 | - | - | - | - |
| | 300 | 0.9858 | 0.0386 | 0.5807 | 0.5407 | 1.036 | 1.608 | 0.932 | 0.024 | 1.000 | 0.175 | 0.079 | 0.065 | 16.48 | 6 | 34 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8934 | 0.0336 | 0.2919 | 0.2552 | 1.037 | 1.948 | 0.752 | 0.058 | 1.000 | 0.068 | 0.041 | 0.044 | 7.80 | 2 | 14 | 25 | - | - | - | - |
| | 200 | 0.8905 | 0.0214 | 0.3396 | 0.3114 | 1.042 | 2.067 | 0.730 | 0.047 | 1.000 | 0.061 | 0.031 | 0.032 | 8.71 | 2 | 17 | 39 | - | - | - | - |
| | 300 | 0.8981 | 0.0170 | 0.3764 | 0.3533 | 1.043 | 2.172 | 0.752 | 0.035 | 1.000 | 0.069 | 0.033 | 0.026 | 9.59 | 2 | 19 | 42 | - | - | - | - |

Notes: See notes to Table 100.

## Table 558: MC findings for DGPII(b)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9849 | 0.0339 | 0.3598 | 0.0109 | 1.005 | 1.254 | 0.928 | 0.636 | 1.000 | 1.000 | 1.000 | 1.000 | 8.28 | 7 | 9 | 12 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9747 | 0.0165 | 0.3570 | 0.0110 | 1.006 | 1.336 | 0.879 | 0.654 | 1.000 | 1.000 | 1.000 | 1.000 | 8.16 | 7 | 9 | 13 | 1.052 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.9704 | 0.0109 | 0.3563 | 0.0125 | 1.007 | 1.379 | 0.858 | 0.659 | 1.000 | 1.000 | 1.000 | 0.998 | 8.11 | 7 | 9 | 12 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9761 | 0.0328 | 0.3546 | 0.0057 | 1.005 | 1.307 | 0.888 | 0.683 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 7 | 9 | 11 | 1.053 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9645 | 0.0160 | 0.3529 | 0.0056 | 1.007 | 1.399 | 0.834 | 0.686 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 7 | 9 | 13 | 1.057 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.9586 | 0.0106 | 0.3529 | 0.0069 | 1.007 | 1.456 | 0.808 | 0.678 | 1.000 | 1.000 | 1.000 | 0.998 | 7.96 | 7 | 9 | 11 | 1.057 | 0.06 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9512 | 0.0314 | 0.3507 | 0.0012 | 1.007 | 1.489 | 0.776 | 0.690 | 1.000 | 1.000 | 1.000 | 1.000 | 7.86 | 7 | 9 | 10 | 1.072 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9317 | 0.0154 | 0.3522 | 0.0012 | 1.009 | 1.625 | 0.694 | 0.647 | 1.000 | 1.000 | 1.000 | 0.998 | 7.72 | 7 | 8 | 13 | 1.073 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.9236 | 0.0102 | 0.3538 | 0.0017 | 1.010 | 1.701 | 0.663 | 0.614 | 1.000 | 1.000 | 1.000 | 0.996 | 7.68 | 7 | 8 | 11 | 1.090 | 0.09 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.9820 | 0.0337 | 0.3592 | 0.0094 | 1.005 | 1.262 | 0.914 | 0.637 | 1.000 | 1.000 | 1.000 | 1.000 | 8.25 | 7 | 9 | 12 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9712 | 0.0164 | 0.3567 | 0.0093 | 1.006 | 1.347 | 0.863 | 0.650 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 7 | 9 | 13 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.9651 | 0.0108 | 0.3565 | 0.0112 | 1.007 | 1.409 | 0.832 | 0.641 | 1.000 | 1.000 | 1.000 | 0.998 | 8.07 | 7 | 9 | 12 | 1.015 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9721 | 0.0327 | 0.3547 | 0.0048 | 1.005 | 1.331 | 0.870 | 0.675 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 7 | 9 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9598 | 0.0159 | 0.3531 | 0.0044 | 1.007 | 1.424 | 0.817 | 0.679 | 1.000 | 1.000 | 1.000 | 1.000 | 7.97 | 7 | 9 | 13 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.9522 | 0.0106 | 0.3538 | 0.0062 | 1.008 | 1.502 | 0.779 | 0.652 | 1.000 | 1.000 | 1.000 | 0.998 | 7.92 | 7 | 9 | 11 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.9443 | 0.0313 | 0.3520 | 0.0010 | 1.008 | 1.541 | 0.745 | 0.662 | 1.000 | 1.000 | 1.000 | 1.000 | 7.82 | 7 | 9 | 10 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9238 | 0.0154 | 0.3539 | 0.0010 | 1.010 | 1.682 | 0.667 | 0.621 | 1.000 | 1.000 | 1.000 | 0.998 | 7.68 | 7 | 8 | 13 | 1.043 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.9147 | 0.0102 | 0.3555 | 0.0014 | 1.011 | 1.757 | 0.630 | 0.584 | 1.000 | 1.000 | 1.000 | 0.996 | 7.63 | 6 | 8 | 11 | 1.051 | 0.05 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9996 | 0.0808 | 0.5004 | 0.4297 | 1.014 | 1.458 | 0.998 | 0.041 | 1.000 | 0.216 | 0.124 | 0.109 | 13.00 | 6 | 22 | 45 | - | - | - | - |
| | 200 | 0.9998 | 0.0504 | 0.5410 | 0.4905 | 1.018 | 1.542 | 0.999 | 0.027 | 1.000 | 0.202 | 0.100 | 0.072 | 15.03 | 6 | 30 | 45 | - | - | - | - |
| | 300 | 0.9996 | 0.0386 | 0.5688 | 0.5285 | 1.021 | 1.586 | 0.998 | 0.020 | 1.000 | 0.176 | 0.091 | 0.068 | 16.53 | 6.5 | 37 | 60 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9790 | 0.0247 | 0.2434 | 0.2096 | 1.011 | 1.603 | 0.950 | 0.199 | 1.000 | 0.058 | 0.036 | 0.026 | 7.34 | 5 | 12 | 20 | - | - | - | - |
| | 200 | 0.9805 | 0.0152 | 0.2767 | 0.2536 | 1.012 | 1.692 | 0.949 | 0.165 | 1.000 | 0.050 | 0.029 | 0.025 | 7.92 | 5 | 14 | 23 | - | - | - | - |
| | 300 | 0.9795 | 0.0120 | 0.3077 | 0.2883 | 1.014 | 1.766 | 0.952 | 0.124 | 1.000 | 0.049 | 0.027 | 0.020 | 8.49 | 5 | 16 | 31 | - | - | - | - |

Notes: See notes to Table 100.

### 4.3.3 Findings for designs featuring hidden signals

## Table 559: MC findings for DGPIII

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9672 | 0.0261 | 0.2991 | 0.0273 | 1.058 | 1.815 | 0.915 | 0.712 | 1.000 | 0.986 | 0.812 | 0.531 | 7.42 | 5 | 9 | 11 | 2.670 | 0.96 | 0.63 | 0.08 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9418 | 0.0127 | 0.3008 | 0.0297 | 1.082 | 2.192 | 0.860 | 0.661 | 1.000 | 0.983 | 0.776 | 0.508 | 7.25 | 5 | 9 | 11 | 2.726 | 0.92 | 0.68 | 0.11 |
| | 300 | 0.9323 | 0.0085 | 0.3020 | 0.0309 | 1.094 | 2.312 | 0.830 | 0.633 | 1.000 | 0.979 | 0.786 | 0.482 | 7.19 | 5 | 9 | 12 | 2.726 | 0.92 | 0.68 | 0.12 |
| $p = 0.05$, | 100 | 0.9545 | 0.0243 | 0.2871 | 0.0166 | 1.067 | 1.985 | 0.886 | 0.763 | 1.000 | 0.982 | 0.783 | 0.488 | 7.18 | 5 | 9 | 10 | 2.730 | 0.95 | 0.68 | 0.10 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9264 | 0.0118 | 0.2891 | 0.0183 | 1.095 | 2.367 | 0.827 | 0.705 | 1.000 | 0.979 | 0.744 | 0.475 | 6.99 | 4 | 9 | 11 | 2.747 | 0.90 | 0.71 | 0.12 |
| | 300 | 0.9105 | 0.0078 | 0.2897 | 0.0180 | 1.113 | 2.555 | 0.784 | 0.670 | 1.000 | 0.974 | 0.751 | 0.443 | 6.88 | 4 | 9 | 12 | 2.713 | 0.89 | 0.70 | 0.12 |
| $p = 0.01$, | 100 | 0.9119 | 0.0215 | 0.2708 | 0.0052 | 1.105 | 2.537 | 0.799 | 0.763 | 1.000 | 0.966 | 0.709 | 0.408 | 6.69 | 4 | 8 | 10 | 2.746 | 0.89 | 0.74 | 0.12 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8820 | 0.0105 | 0.2724 | 0.0058 | 1.135 | 2.841 | 0.734 | 0.694 | 1.000 | 0.960 | 0.680 | 0.392 | 6.49 | 3 | 8 | 9 | 2.756 | 0.85 | 0.75 | 0.15 |
| | 300 | 0.8606 | 0.0069 | 0.2745 | 0.0063 | 1.157 | 3.065 | 0.694 | 0.659 | 1.000 | 0.959 | 0.675 | 0.367 | 6.35 | 3 | 8 | 10 | 2.693 | 0.84 | 0.71 | 0.15 |
| $p = 0.1$, | 100 | 0.9244 | 0.0253 | 0.3035 | 0.0197 | 1.095 | 2.393 | 0.813 | 0.680 | 1.000 | 0.986 | 0.812 | 0.531 | 7.13 | 5 | 9 | 11 | 2.542 | 0.91 | 0.56 | 0.08 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8745 | 0.0123 | 0.3096 | 0.0204 | 1.146 | 2.935 | 0.715 | 0.605 | 1.000 | 0.983 | 0.776 | 0.508 | 6.81 | 4 | 9 | 11 | 2.496 | 0.83 | 0.56 | 0.10 |
| | 300 | 0.8432 | 0.0082 | 0.3170 | 0.0232 | 1.175 | 3.236 | 0.649 | 0.544 | 1.000 | 0.979 | 0.786 | 0.482 | 6.66 | 4 | 9 | 12 | 2.428 | 0.80 | 0.53 | 0.10 |
| $p = 0.05$, | 100 | 0.8985 | 0.0237 | 0.2961 | 0.0113 | 1.121 | 2.690 | 0.764 | 0.690 | 1.000 | 0.982 | 0.783 | 0.488 | 6.84 | 4 | 8 | 10 | 2.561 | 0.87 | 0.59 | 0.09 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8494 | 0.0116 | 0.3027 | 0.0127 | 1.168 | 3.167 | 0.662 | 0.597 | 1.000 | 0.979 | 0.744 | 0.474 | 6.55 | 3 | 8 | 10 | 2.505 | 0.81 | 0.58 | 0.11 |
| | 300 | 0.8220 | 0.0076 | 0.3071 | 0.0133 | 1.194 | 3.412 | 0.612 | 0.556 | 1.000 | 0.974 | 0.751 | 0.443 | 6.38 | 3 | 8 | 11 | 2.440 | 0.78 | 0.55 | 0.11 |
| $p = 0.01$, | 100 | 0.8414 | 0.0213 | 0.2859 | 0.0037 | 1.177 | 3.271 | 0.654 | 0.636 | 1.000 | 0.966 | 0.709 | 0.408 | 6.32 | 3 | 8 | 10 | 2.539 | 0.80 | 0.63 | 0.11 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7882 | 0.0103 | 0.2921 | 0.0037 | 1.222 | 3.682 | 0.542 | 0.525 | 1.000 | 0.960 | 0.680 | 0.391 | 6.00 | 3 | 8 | 9 | 2.475 | 0.76 | 0.59 | 0.12 |
| | 300 | 0.7666 | 0.0068 | 0.2947 | 0.0043 | 1.245 | 3.860 | 0.516 | 0.503 | 1.000 | 0.959 | 0.675 | 0.367 | 5.86 | 3 | 8 | 9 | 2.409 | 0.73 | 0.56 | 0.12 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9921 | 0.1415 | 0.6482 | 0.6234 | 1.180 | 2.937 | 0.965 | 0.010 | 1.000 | 0.208 | 0.128 | 0.135 | 18.97 | 7 | 33 | 59 | - | - | - | - |
| | 200 | 0.9853 | 0.0999 | 0.7155 | 0.6974 | 1.232 | 3.344 | 0.935 | 0.004 | 1.000 | 0.189 | 0.107 | 0.091 | 24.81 | 8 | 44 | 73 | - | - | - | - |
| | 300 | 0.9802 | 0.0759 | 0.7378 | 0.7236 | 1.265 | 3.569 | 0.914 | 0.002 | 1.000 | 0.186 | 0.108 | 0.096 | 27.61 | 8 | 49 | 88 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9463 | 0.0577 | 0.3823 | 0.3705 | 1.163 | 2.812 | 0.878 | 0.147 | 1.000 | 0.064 | 0.042 | 0.049 | 10.45 | 2 | 20 | 30 | - | - | - | - |
| | 200 | 0.9369 | 0.0441 | 0.4776 | 0.4679 | 1.204 | 3.061 | 0.856 | 0.084 | 1.000 | 0.075 | 0.043 | 0.036 | 13.47 | 2 | 26 | 40 | - | - | - | - |
| | 300 | 0.9290 | 0.0336 | 0.5138 | 0.5059 | 1.223 | 3.196 | 0.839 | 0.056 | 1.000 | 0.073 | 0.045 | 0.045 | 14.68 | 2 | 28 | 43 | - | - | - | - |

Notes: See notes to Table 100.

## Table 560: MC findings for DGPIII

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0317 | 0.3422 | 0.0159 | 1.006 | 1.133 | 1.000 | 0.859 | 1.000 | 1.000 | 1.000 | 0.980 | 8.14 | 8 | 9 | 12 | 2.020 | 0.99 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0158 | 0.3420 | 0.0160 | 1.007 | 1.134 | 1.000 | 0.855 | 1.000 | 1.000 | 1.000 | 0.976 | 8.14 | 8 | 9 | 12 | 2.030 | 1.00 | 0.03 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3397 | 0.0135 | 1.007 | 1.123 | 1.000 | 0.877 | 1.000 | 1.000 | 1.000 | 0.969 | 8.11 | 8 | 9 | 11 | 2.027 | 1.00 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0310 | 0.3374 | 0.0092 | 1.006 | 1.113 | 1.000 | 0.913 | 1.000 | 1.000 | 1.000 | 0.976 | 8.07 | 8 | 9 | 10 | 2.021 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0153 | 0.3361 | 0.0087 | 1.006 | 1.113 | 1.000 | 0.916 | 1.000 | 1.000 | 0.999 | 0.965 | 8.05 | 8 | 9 | 11 | 2.033 | 1.00 | 0.04 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3351 | 0.0075 | 1.006 | 1.104 | 1.000 | 0.930 | 1.000 | 1.000 | 0.999 | 0.962 | 8.04 | 8 | 9 | 10 | 2.030 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3314 | 0.0025 | 1.005 | 1.085 | 1.000 | 0.977 | 1.000 | 1.000 | 0.999 | 0.958 | 7.98 | 8 | 8 | 10 | 2.030 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0149 | 0.3301 | 0.0026 | 1.005 | 1.083 | 1.000 | 0.975 | 1.000 | 1.000 | 0.998 | 0.944 | 7.97 | 7 | 8 | 9 | 2.057 | 1.00 | 0.06 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3300 | 0.0019 | 1.006 | 1.086 | 1.000 | 0.982 | 1.000 | 1.000 | 0.999 | 0.946 | 7.96 | 7 | 8 | 10 | 2.072 | 1.00 | 0.07 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3401 | 0.0127 | 1.006 | 1.102 | 1.000 | 0.886 | 1.000 | 1.000 | 1.000 | 0.980 | 8.11 | 8 | 9 | 11 | 2.007 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0156 | 0.3397 | 0.0126 | 1.006 | 1.099 | 1.000 | 0.883 | 1.000 | 1.000 | 1.000 | 0.976 | 8.10 | 8 | 9 | 11 | 2.012 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3384 | 0.0115 | 1.006 | 1.102 | 1.000 | 0.894 | 1.000 | 1.000 | 1.000 | 0.969 | 8.08 | 8 | 9 | 11 | 2.018 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0308 | 0.3360 | 0.0071 | 1.005 | 1.091 | 1.000 | 0.933 | 1.000 | 1.000 | 1.000 | 0.976 | 8.05 | 8 | 9 | 10 | 2.013 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0152 | 0.3346 | 0.0064 | 1.005 | 1.087 | 1.000 | 0.937 | 1.000 | 1.000 | 0.999 | 0.965 | 8.03 | 8 | 9 | 10 | 2.023 | 1.00 | 0.03 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3344 | 0.0064 | 1.006 | 1.092 | 1.000 | 0.940 | 1.000 | 1.000 | 0.999 | 0.962 | 8.03 | 8 | 9 | 10 | 2.028 | 1.00 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0301 | 0.3309 | 0.0019 | 1.005 | 1.079 | 1.000 | 0.982 | 1.000 | 1.000 | 0.999 | 0.958 | 7.98 | 8 | 8 | 10 | 2.032 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0149 | 0.3296 | 0.0018 | 1.005 | 1.072 | 1.000 | 0.983 | 1.000 | 1.000 | 0.998 | 0.944 | 7.96 | 7 | 8 | 9 | 2.059 | 1.00 | 0.06 | 0.00 |
| | 300 | 1.0000 | 0.0099 | 0.3296 | 0.0014 | 1.005 | 1.079 | 1.000 | 0.987 | 1.000 | 1.000 | 0.999 | 0.946 | 7.96 | 7 | 8 | 9 | 2.081 | 1.00 | 0.08 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1564 | 0.6591 | 0.6307 | 1.043 | 2.542 | 1.000 | 0.003 | 1.000 | 0.242 | 0.149 | 0.148 | 20.48 | 8 | 37 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0931 | 0.7056 | 0.6868 | 1.055 | 2.817 | 1.000 | 0.002 | 1.000 | 0.228 | 0.125 | 0.092 | 23.52 | 10 | 49.5 | 70 | - | - | - | - |
| | 300 | 1.0000 | 0.0808 | 0.7470 | 0.7299 | 1.062 | 3.041 | 1.000 | 0.002 | 1.000 | 0.216 | 0.121 | 0.097 | 29.16 | 11 | 53 | 77 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0318 | 0.2929 | 0.2823 | 1.009 | 1.374 | 1.000 | 0.160 | 1.000 | 0.046 | 0.027 | 0.025 | 8.15 | 5 | 13 | 25 | - | - | - | - |
| | 200 | 0.9996 | 0.0192 | 0.3314 | 0.3243 | 1.013 | 1.488 | 0.999 | 0.112 | 1.000 | 0.048 | 0.019 | 0.017 | 8.81 | 5 | 15 | 25 | - | - | - | - |
| | 300 | 0.9991 | 0.0163 | 0.3849 | 0.3773 | 1.016 | 1.623 | 0.998 | 0.085 | 1.000 | 0.046 | 0.025 | 0.023 | 9.88 | 5 | 17 | 31 | - | - | - | - |

Notes: See notes to Table 100.

## Table 561: MC findings for DGPIII

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0316 | 0.3415 | 0.0124 | 1.004 | 1.112 | 1.000 | 0.887 | 1.000 | 1.000 | 1.000 | 0.999 | 8.13 | 8 | 9 | 11 | 2.009 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0158 | 0.3426 | 0.0139 | 1.004 | 1.123 | 1.000 | 0.873 | 1.000 | 1.000 | 1.000 | 1.000 | 8.14 | 8 | 9 | 11 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0104 | 0.3406 | 0.0110 | 1.004 | 1.113 | 1.000 | 0.895 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0310 | 0.3381 | 0.0072 | 1.004 | 1.094 | 1.000 | 0.931 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 10 | 2.003 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0155 | 0.3383 | 0.0075 | 1.003 | 1.101 | 1.000 | 0.930 | 1.000 | 1.000 | 1.000 | 1.000 | 8.08 | 8 | 9 | 10 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3370 | 0.0057 | 1.004 | 1.095 | 1.000 | 0.945 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 2.003 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3342 | 0.0017 | 1.003 | 1.077 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 10 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3341 | 0.0014 | 1.003 | 1.077 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3340 | 0.0014 | 1.003 | 1.079 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 9 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0314 | 0.3402 | 0.0104 | 1.004 | 1.093 | 1.000 | 0.905 | 1.000 | 1.000 | 1.000 | 0.999 | 8.11 | 8 | 9 | 10 | 1.998 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0157 | 0.3409 | 0.0114 | 1.003 | 1.095 | 1.000 | 0.896 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3395 | 0.0093 | 1.004 | 1.095 | 1.000 | 0.912 | 1.000 | 1.000 | 1.000 | 0.999 | 8.09 | 8 | 9 | 10 | 1.997 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3374 | 0.0062 | 1.003 | 1.085 | 1.000 | 0.940 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0154 | 0.3375 | 0.0063 | 1.003 | 1.085 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3365 | 0.0049 | 1.003 | 1.085 | 1.000 | 0.953 | 1.000 | 1.000 | 1.000 | 0.999 | 8.05 | 8 | 8 | 10 | 1.999 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3340 | 0.0014 | 1.003 | 1.073 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 9 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3340 | 0.0012 | 1.003 | 1.075 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3338 | 0.0012 | 1.003 | 1.076 | 1.000 | 0.989 | 1.000 | 1.000 | 1.000 | 0.997 | 8.01 | 8 | 8 | 9 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1763 | 0.7078 | 0.6812 | 1.023 | 2.384 | 1.000 | 0.007 | 1.000 | 0.252 | 0.163 | 0.184 | 22.46 | 8 | 32 | 40 | - | - | - | - |
| | 200 | 1.0000 | 0.1157 | 0.6969 | 0.6767 | 1.034 | 2.890 | 1.000 | 0.006 | 1.000 | 0.237 | 0.141 | 0.127 | 28.03 | 7 | 51 | 62 | - | - | - | - |
| | 300 | 1.0000 | 0.0786 | 0.6846 | 0.6655 | 1.040 | 3.130 | 1.000 | 0.003 | 1.000 | 0.217 | 0.122 | 0.106 | 28.50 | 8 | 63 | 89 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0151 | 0.1709 | 0.1650 | 1.002 | 1.163 | 1.000 | 0.317 | 1.000 | 0.025 | 0.013 | 0.018 | 6.49 | 5 | 9 | 16 | - | - | - | - |
| | 200 | 1.0000 | 0.0101 | 0.2073 | 0.2029 | 1.003 | 1.219 | 1.000 | 0.285 | 1.000 | 0.019 | 0.017 | 0.011 | 7.01 | 5 | 11 | 22 | - | - | - | - |
| | 300 | 1.0000 | 0.0065 | 0.1966 | 0.1923 | 1.003 | 1.216 | 1.000 | 0.331 | 1.000 | 0.022 | 0.012 | 0.007 | 6.95 | 5 | 12 | 29 | - | - | - | - |

Notes: See notes to Table 100.

## Table 562: MC findings for DGPIII

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7889 | 0.0259 | 0.3395 | 0.0259 | 1.113 | 2.532 | 0.457 | 0.367 | 1.000 | 0.983 | 0.809 | 0.558 | 6.51 | 3.5 | 9 | 11 | 2.370 | 0.81 | 0.50 | 0.06 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7394 | 0.0127 | 0.3490 | 0.0293 | 1.138 | 2.816 | 0.382 | 0.305 | 1.000 | 0.982 | 0.802 | 0.505 | 6.22 | 3 | 8 | 11 | 2.272 | 0.75 | 0.47 | 0.05 |
| | 300 | 0.6994 | 0.0084 | 0.3563 | 0.0337 | 1.162 | 2.963 | 0.320 | 0.248 | 1.000 | 0.980 | 0.769 | 0.495 | 6.00 | 3 | 8 | 12 | 2.221 | 0.72 | 0.44 | 0.06 |
| $p = 0.05$, | 100 | 0.7546 | 0.0243 | 0.3337 | 0.0159 | 1.125 | 2.685 | 0.406 | 0.356 | 1.000 | 0.976 | 0.786 | 0.513 | 6.18 | 3 | 8 | 11 | 2.324 | 0.77 | 0.50 | 0.06 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7128 | 0.0118 | 0.3410 | 0.0179 | 1.147 | 2.919 | 0.341 | 0.300 | 1.000 | 0.978 | 0.775 | 0.468 | 5.92 | 3 | 8 | 10 | 2.271 | 0.74 | 0.47 | 0.06 |
| | 300 | 0.6687 | 0.0077 | 0.3473 | 0.0210 | 1.170 | 3.073 | 0.282 | 0.240 | 1.000 | 0.973 | 0.738 | 0.452 | 5.66 | 3 | 8 | 10 | 2.174 | 0.71 | 0.42 | 0.05 |
| $p = 0.01$, | 100 | 0.6850 | 0.0217 | 0.3256 | 0.0054 | 1.157 | 2.979 | 0.313 | 0.299 | 1.000 | 0.960 | 0.717 | 0.433 | 5.57 | 3 | 8 | 9 | 2.237 | 0.72 | 0.47 | 0.04 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6530 | 0.0105 | 0.3292 | 0.0062 | 1.171 | 3.147 | 0.267 | 0.254 | 1.000 | 0.964 | 0.696 | 0.388 | 5.36 | 3 | 8 | 10 | 2.189 | 0.71 | 0.44 | 0.04 |
| | 300 | 0.6067 | 0.0068 | 0.3346 | 0.0053 | 1.193 | 3.287 | 0.222 | 0.215 | 1.000 | 0.953 | 0.676 | 0.377 | 5.07 | 2 | 8 | 10 | 2.080 | 0.68 | 0.37 | 0.03 |
| $p = 0.1$, | 100 | 0.6778 | 0.0253 | 0.3640 | 0.0203 | 1.162 | 3.028 | 0.289 | 0.247 | 1.000 | 0.982 | 0.809 | 0.558 | 5.89 | 3 | 8 | 11 | 1.990 | 0.66 | 0.30 | 0.03 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6165 | 0.0124 | 0.3788 | 0.0241 | 1.192 | 3.313 | 0.218 | 0.186 | 1.000 | 0.982 | 0.802 | 0.505 | 5.54 | 3 | 8 | 10 | 1.877 | 0.59 | 0.26 | 0.02 |
| | 300 | 0.5671 | 0.0081 | 0.3872 | 0.0267 | 1.216 | 3.456 | 0.162 | 0.134 | 1.000 | 0.979 | 0.769 | 0.495 | 5.26 | 3 | 8 | 10 | 1.776 | 0.55 | 0.22 | 0.02 |
| $p = 0.05$, | 100 | 0.6380 | 0.0239 | 0.3614 | 0.0123 | 1.178 | 3.180 | 0.238 | 0.217 | 1.000 | 0.975 | 0.786 | 0.513 | 5.55 | 3 | 8 | 11 | 1.950 | 0.62 | 0.30 | 0.03 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5870 | 0.0116 | 0.3728 | 0.0138 | 1.204 | 3.416 | 0.188 | 0.172 | 1.000 | 0.978 | 0.775 | 0.468 | 5.25 | 3 | 8 | 10 | 1.864 | 0.57 | 0.27 | 0.02 |
| | 300 | 0.5343 | 0.0076 | 0.3803 | 0.0161 | 1.229 | 3.559 | 0.133 | 0.119 | 1.000 | 0.973 | 0.738 | 0.452 | 4.94 | 2 | 8 | 10 | 1.743 | 0.53 | 0.20 | 0.01 |
| $p = 0.01$, | 100 | 0.5681 | 0.0216 | 0.3561 | 0.0040 | 1.209 | 3.427 | 0.166 | 0.163 | 1.000 | 0.960 | 0.717 | 0.432 | 4.97 | 2 | 8 | 9 | 1.885 | 0.59 | 0.28 | 0.02 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5284 | 0.0104 | 0.3630 | 0.0047 | 1.229 | 3.608 | 0.132 | 0.128 | 1.000 | 0.964 | 0.696 | 0.388 | 4.72 | 2 | 8 | 9 | 1.816 | 0.56 | 0.24 | 0.01 |
| | 300 | 0.4730 | 0.0068 | 0.3708 | 0.0040 | 1.257 | 3.742 | 0.091 | 0.089 | 1.000 | 0.953 | 0.676 | 0.377 | 4.39 | 2 | 7 | 9 | 1.684 | 0.51 | 0.17 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9157 | 0.1057 | 0.5640 | 0.5374 | 1.181 | 2.887 | 0.696 | 0.006 | 1.000 | 0.169 | 0.110 | 0.108 | 15.04 | 4 | 29 | 47 | - | - | - | - |
| | 200 | 0.8810 | 0.0707 | 0.6211 | 0.6014 | 1.223 | 3.191 | 0.582 | 0.001 | 1.000 | 0.165 | 0.076 | 0.071 | 18.46 | 4 | 39 | 84 | - | - | - | - |
| | 300 | 0.8581 | 0.0533 | 0.6379 | 0.6210 | 1.250 | 3.340 | 0.510 | 0.002 | 1.000 | 0.158 | 0.083 | 0.066 | 20.22 | 4 | 43 | 84 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7440 | 0.0433 | 0.2812 | 0.2716 | 1.197 | 3.089 | 0.491 | 0.056 | 1.000 | 0.050 | 0.039 | 0.044 | 8.01 | 1 | 20 | 38 | - | - | - | - |
| | 200 | 0.7285 | 0.0338 | 0.3634 | 0.3554 | 1.233 | 3.329 | 0.453 | 0.026 | 1.000 | 0.055 | 0.030 | 0.026 | 10.36 | 1 | 26 | 48 | - | - | - | - |
| | 300 | 0.7068 | 0.0267 | 0.4023 | 0.3956 | 1.259 | 3.483 | 0.397 | 0.009 | 1.000 | 0.065 | 0.031 | 0.032 | 11.53 | 1 | 28 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 563: MC findings for DGPIII

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9998 | 0.0316 | 0.3413 | 0.0149 | 1.006 | 1.120 | 0.999 | 0.862 | 1.000 | 1.000 | 1.000 | 0.976 | 8.13 | 8 | 9 | 11 | 2.114 | 1.00 | 0.12 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9990 | 0.0157 | 0.3416 | 0.0144 | 1.007 | 1.145 | 0.995 | 0.862 | 1.000 | 1.000 | 1.000 | 0.982 | 8.12 | 8 | 9 | 10 | 2.147 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9978 | 0.0104 | 0.3413 | 0.0154 | 1.007 | 1.181 | 0.989 | 0.850 | 1.000 | 1.000 | 1.000 | 0.967 | 8.11 | 8 | 9 | 11 | 2.172 | 1.00 | 0.17 | 0.00 |
| $p = 0.05$, | 100 | 0.9994 | 0.0308 | 0.3361 | 0.0078 | 1.006 | 1.109 | 0.997 | 0.924 | 1.000 | 1.000 | 1.000 | 0.970 | 8.05 | 8 | 9 | 10 | 2.150 | 1.00 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9987 | 0.0153 | 0.3365 | 0.0075 | 1.007 | 1.131 | 0.994 | 0.921 | 1.000 | 1.000 | 1.000 | 0.976 | 8.04 | 8 | 9 | 10 | 2.201 | 1.00 | 0.20 | 0.00 |
| | 300 | 0.9955 | 0.0102 | 0.3365 | 0.0081 | 1.008 | 1.230 | 0.984 | 0.909 | 1.000 | 1.000 | 1.000 | 0.961 | 8.02 | 8 | 9 | 10 | 2.228 | 1.00 | 0.23 | 0.00 |
| $p = 0.01$, | 100 | 0.9977 | 0.0300 | 0.3311 | 0.0021 | 1.006 | 1.130 | 0.989 | 0.969 | 1.000 | 1.000 | 1.000 | 0.951 | 7.96 | 7 | 8 | 9 | 2.279 | 1.00 | 0.28 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9948 | 0.0150 | 0.3323 | 0.0019 | 1.007 | 1.223 | 0.979 | 0.960 | 1.000 | 1.000 | 1.000 | 0.959 | 7.95 | 7 | 8 | 9 | 2.325 | 1.00 | 0.32 | 0.01 |
| | 300 | 0.9882 | 0.0099 | 0.3327 | 0.0026 | 1.011 | 1.409 | 0.958 | 0.934 | 1.000 | 1.000 | 1.000 | 0.940 | 7.91 | 7 | 8 | 10 | 2.360 | 0.99 | 0.36 | 0.01 |
| $p = 0.1$, | 100 | 0.9992 | 0.0313 | 0.3395 | 0.0120 | 1.006 | 1.110 | 0.996 | 0.885 | 1.000 | 1.000 | 1.000 | 0.976 | 8.09 | 8 | 9 | 11 | 2.111 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9960 | 0.0156 | 0.3405 | 0.0118 | 1.008 | 1.204 | 0.982 | 0.872 | 1.000 | 1.000 | 1.000 | 0.982 | 8.08 | 8 | 9 | 10 | 2.133 | 1.00 | 0.14 | 0.00 |
| | 300 | 0.9931 | 0.0104 | 0.3410 | 0.0133 | 1.009 | 1.293 | 0.971 | 0.852 | 1.000 | 1.000 | 1.000 | 0.967 | 8.07 | 7 | 9 | 11 | 2.167 | 1.00 | 0.17 | 0.01 |
| $p = 0.05$, | 100 | 0.9982 | 0.0306 | 0.3351 | 0.0059 | 1.006 | 1.125 | 0.991 | 0.935 | 1.000 | 1.000 | 1.000 | 0.970 | 8.02 | 8 | 9 | 10 | 2.159 | 1.00 | 0.16 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9950 | 0.0152 | 0.3361 | 0.0056 | 1.008 | 1.221 | 0.978 | 0.923 | 1.000 | 1.000 | 1.000 | 0.976 | 8.01 | 8 | 9 | 10 | 2.191 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9884 | 0.0101 | 0.3374 | 0.0070 | 1.011 | 1.409 | 0.956 | 0.895 | 1.000 | 1.000 | 1.000 | 0.961 | 7.97 | 7 | 9 | 10 | 2.218 | 0.99 | 0.22 | 0.01 |
| $p = 0.01$, | 100 | 0.9909 | 0.0299 | 0.3322 | 0.0014 | 1.009 | 1.332 | 0.966 | 0.954 | 1.000 | 1.000 | 1.000 | 0.951 | 7.92 | 7 | 8 | 9 | 2.276 | 0.99 | 0.28 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9841 | 0.0149 | 0.3346 | 0.0015 | 1.012 | 1.517 | 0.945 | 0.931 | 1.000 | 1.000 | 1.000 | 0.959 | 7.89 | 7 | 8 | 9 | 2.306 | 0.99 | 0.31 | 0.01 |
| | 300 | 0.9701 | 0.0099 | 0.3369 | 0.0021 | 1.019 | 1.837 | 0.906 | 0.887 | 1.000 | 1.000 | 1.000 | 0.940 | 7.81 | 7 | 8 | 10 | 2.313 | 0.97 | 0.33 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9997 | 0.1487 | 0.6747 | 0.6494 | 1.041 | 2.502 | 0.999 | 0.006 | 1.000 | 0.239 | 0.156 | 0.162 | 19.72 | 10 | 33.5 | 51 | - | - | - | - |
| | 200 | 0.9998 | 0.1014 | 0.7312 | 0.7120 | 1.054 | 2.802 | 0.999 | 0.002 | 1.000 | 0.236 | 0.119 | 0.118 | 25.17 | 10 | 41 | 69 | - | - | - | - |
| | 300 | 0.9998 | 0.0784 | 0.7576 | 0.7407 | 1.064 | 3.034 | 0.999 | 0.004 | 1.000 | 0.207 | 0.120 | 0.098 | 28.45 | 12 | 53 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9919 | 0.0515 | 0.4095 | 0.3959 | 1.022 | 1.875 | 0.984 | 0.045 | 1.000 | 0.068 | 0.051 | 0.050 | 10.05 | 5 | 16 | 27 | - | - | - | - |
| | 200 | 0.9912 | 0.0353 | 0.4808 | 0.4703 | 1.029 | 2.036 | 0.981 | 0.026 | 1.000 | 0.071 | 0.039 | 0.041 | 11.98 | 6 | 20 | 34 | - | - | - | - |
| | 300 | 0.9936 | 0.0275 | 0.5166 | 0.5067 | 1.036 | 2.110 | 0.987 | 0.023 | 1.000 | 0.069 | 0.040 | 0.032 | 13.18 | 6 | 23 | 40 | - | - | - | - |

Notes: See notes to Table 100.

## Table 564: MC findings for DGPIII

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0315 | 0.3413 | 0.0120 | 1.004 | 1.105 | 1.000 | 0.890 | 1.000 | 1.000 | 1.000 | 1.000 | 8.12 | 8 | 9 | 11 | 2.011 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0156 | 0.3407 | 0.0111 | 1.004 | 1.101 | 1.000 | 0.897 | 1.000 | 1.000 | 1.000 | 1.000 | 8.11 | 8 | 9 | 11 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3429 | 0.0144 | 1.004 | 1.112 | 1.000 | 0.866 | 1.000 | 1.000 | 1.000 | 1.000 | 8.15 | 8 | 9 | 11 | 2.013 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0310 | 0.3378 | 0.0068 | 1.004 | 1.085 | 1.000 | 0.937 | 1.000 | 1.000 | 1.000 | 1.000 | 8.07 | 8 | 9 | 10 | 2.010 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0154 | 0.3370 | 0.0056 | 1.004 | 1.082 | 1.000 | 0.946 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 2.014 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0103 | 0.3382 | 0.0074 | 1.004 | 1.087 | 1.000 | 0.930 | 1.000 | 1.000 | 1.000 | 0.999 | 8.07 | 8 | 9 | 10 | 2.018 | 1.00 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0304 | 0.3342 | 0.0013 | 1.003 | 1.061 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 10 | 2.017 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0151 | 0.3340 | 0.0012 | 1.003 | 1.061 | 1.000 | 0.988 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.020 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3343 | 0.0017 | 1.003 | 1.064 | 1.000 | 0.984 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 2.033 | 1.00 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0313 | 0.3400 | 0.0099 | 1.004 | 1.084 | 1.000 | 0.908 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 11 | 2.003 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0155 | 0.3393 | 0.0090 | 1.004 | 1.078 | 1.000 | 0.917 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 10 | 2.005 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0105 | 0.3417 | 0.0125 | 1.004 | 1.088 | 1.000 | 0.884 | 1.000 | 1.000 | 1.000 | 1.000 | 8.13 | 8 | 9 | 11 | 2.005 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0309 | 0.3370 | 0.0054 | 1.003 | 1.069 | 1.000 | 0.948 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 10 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0153 | 0.3362 | 0.0044 | 1.004 | 1.067 | 1.000 | 0.958 | 1.000 | 1.000 | 1.000 | 0.999 | 8.04 | 8 | 8 | 10 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0102 | 0.3375 | 0.0064 | 1.004 | 1.074 | 1.000 | 0.939 | 1.000 | 1.000 | 1.000 | 0.999 | 8.06 | 8 | 9 | 10 | 2.014 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9999 | 0.0304 | 0.3341 | 0.0011 | 1.003 | 1.061 | 1.000 | 0.990 | 1.000 | 1.000 | 1.000 | 1.000 | 8.01 | 8 | 8 | 10 | 2.015 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0151 | 0.3338 | 0.0009 | 1.003 | 1.057 | 1.000 | 0.991 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 8 | 8 | 10 | 2.022 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0101 | 0.3341 | 0.0014 | 1.003 | 1.059 | 1.000 | 0.987 | 1.000 | 1.000 | 1.000 | 0.998 | 8.01 | 8 | 8 | 9 | 2.035 | 1.00 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1604 | 0.6548 | 0.6277 | 1.025 | 2.505 | 1.000 | 0.002 | 1.000 | 0.253 | 0.167 | 0.160 | 20.88 | 8 | 38 | 48 | - | - | - | - |
| | 200 | 1.0000 | 0.0876 | 0.7019 | 0.6805 | 1.030 | 2.764 | 1.000 | 0.001 | 1.000 | 0.216 | 0.128 | 0.098 | 22.44 | 11 | 50 | 79 | - | - | - | - |
| | 300 | 1.0000 | 0.0720 | 0.7502 | 0.7343 | 1.034 | 2.882 | 1.000 | 0.001 | 1.000 | 0.205 | 0.108 | 0.098 | 26.52 | 13 | 42.5 | 90 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9995 | 0.0319 | 0.2891 | 0.2786 | 1.005 | 1.377 | 0.999 | 0.171 | 1.000 | 0.052 | 0.031 | 0.032 | 8.16 | 5 | 14 | 21 | - | - | - | - |
| | 200 | 0.9997 | 0.0180 | 0.3216 | 0.3123 | 1.006 | 1.412 | 1.000 | 0.102 | 1.000 | 0.039 | 0.023 | 0.019 | 8.58 | 5 | 14 | 34 | - | - | - | - |
| | 300 | 0.9998 | 0.0144 | 0.3669 | 0.3600 | 1.008 | 1.506 | 1.000 | 0.059 | 1.000 | 0.039 | 0.024 | 0.019 | 9.30 | 5 | 15 | 34 | - | - | - | - |

Notes: See notes to Table 100.

## Table 565: MC findings for DGPIII

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4890 | 0.0254 | 0.4210 | 0.0274 | 1.121 | 2.543 | 0.076 | 0.061 | 1.000 | 0.984 | 0.808 | 0.535 | 4.96 | 2 | 8 | 10 | 1.699 | 0.53 | 0.16 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4369 | 0.0125 | 0.4339 | 0.0322 | 1.135 | 2.612 | 0.054 | 0.046 | 1.000 | 0.977 | 0.784 | 0.518 | 4.67 | 2 | 7 | 10 | 1.598 | 0.47 | 0.12 | 0.01 |
| | 300 | 0.4180 | 0.0082 | 0.4390 | 0.0383 | 1.141 | 2.675 | 0.052 | 0.039 | 1.000 | 0.977 | 0.769 | 0.478 | 4.56 | 2 | 7 | 11 | 1.581 | 0.45 | 0.12 | 0.01 |
| $p = 0.05$, | 100 | 0.4548 | 0.0239 | 0.4176 | 0.0167 | 1.125 | 2.587 | 0.060 | 0.052 | 1.000 | 0.979 | 0.778 | 0.501 | 4.65 | 2 | 7 | 10 | 1.650 | 0.51 | 0.14 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4114 | 0.0116 | 0.4245 | 0.0179 | 1.137 | 2.634 | 0.043 | 0.039 | 1.000 | 0.971 | 0.751 | 0.477 | 4.36 | 2 | 7 | 9 | 1.561 | 0.45 | 0.10 | 0.01 |
| | 300 | 0.3920 | 0.0076 | 0.4286 | 0.0215 | 1.143 | 2.690 | 0.038 | 0.035 | 1.000 | 0.972 | 0.737 | 0.442 | 4.24 | 2 | 7 | 10 | 1.534 | 0.43 | 0.10 | 0.00 |
| $p = 0.01$, | 100 | 0.3814 | 0.0214 | 0.4134 | 0.0048 | 1.137 | 2.690 | 0.034 | 0.033 | 1.000 | 0.963 | 0.706 | 0.420 | 4.02 | 2 | 7 | 9 | 1.504 | 0.43 | 0.08 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3471 | 0.0103 | 0.4159 | 0.0061 | 1.148 | 2.710 | 0.021 | 0.021 | 1.000 | 0.949 | 0.685 | 0.389 | 3.79 | 2 | 6 | 8 | 1.433 | 0.38 | 0.05 | 0.00 |
| | 300 | 0.3381 | 0.0067 | 0.4128 | 0.0063 | 1.152 | 2.749 | 0.017 | 0.017 | 1.000 | 0.950 | 0.664 | 0.356 | 3.69 | 2 | 6 | 8 | 1.410 | 0.36 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 0.3911 | 0.0250 | 0.4510 | 0.0231 | 1.140 | 2.699 | 0.028 | 0.022 | 1.000 | 0.984 | 0.808 | 0.535 | 4.43 | 2 | 7 | 10 | 1.373 | 0.32 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3455 | 0.0123 | 0.4630 | 0.0283 | 1.154 | 2.741 | 0.018 | 0.016 | 1.000 | 0.977 | 0.784 | 0.518 | 4.17 | 2 | 6 | 10 | 1.288 | 0.26 | 0.03 | 0.00 |
| | 300 | 0.3292 | 0.0081 | 0.4665 | 0.0339 | 1.160 | 2.799 | 0.011 | 0.009 | 1.000 | 0.977 | 0.769 | 0.477 | 4.07 | 2 | 6 | 9 | 1.277 | 0.25 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.3670 | 0.0236 | 0.4455 | 0.0133 | 1.143 | 2.722 | 0.022 | 0.019 | 1.000 | 0.979 | 0.778 | 0.501 | 4.18 | 2 | 7 | 9 | 1.366 | 0.32 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3246 | 0.0115 | 0.4532 | 0.0150 | 1.155 | 2.755 | 0.012 | 0.011 | 1.000 | 0.971 | 0.751 | 0.477 | 3.91 | 2 | 6 | 9 | 1.278 | 0.26 | 0.02 | 0.00 |
| | 300 | 0.3084 | 0.0075 | 0.4558 | 0.0182 | 1.161 | 2.806 | 0.005 | 0.005 | 1.000 | 0.972 | 0.737 | 0.441 | 3.79 | 2 | 6 | 8 | 1.249 | 0.23 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.3129 | 0.0213 | 0.4368 | 0.0039 | 1.153 | 2.787 | 0.010 | 0.010 | 1.000 | 0.963 | 0.706 | 0.420 | 3.67 | 2 | 6 | 9 | 1.290 | 0.26 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2870 | 0.0103 | 0.4369 | 0.0051 | 1.162 | 2.789 | 0.007 | 0.007 | 1.000 | 0.949 | 0.685 | 0.389 | 3.48 | 2 | 5 | 8 | 1.235 | 0.22 | 0.01 | 0.00 |
| | 300 | 0.2759 | 0.0067 | 0.4343 | 0.0049 | 1.166 | 2.830 | 0.002 | 0.002 | 1.000 | 0.950 | 0.664 | 0.356 | 3.37 | 2 | 5 | 8 | 1.207 | 0.20 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6873 | 0.0615 | 0.4516 | 0.4163 | 1.154 | 2.486 | 0.187 | 0.001 | 1.000 | 0.149 | 0.079 | 0.072 | 9.53 | 2 | 23 | 38 | - | - | - | - |
| | 200 | 0.6472 | 0.0416 | 0.5152 | 0.4901 | 1.177 | 2.552 | 0.127 | 0.001 | 1.000 | 0.133 | 0.067 | 0.053 | 11.51 | 2 | 29 | 57 | - | - | - | - |
| | 300 | 0.6256 | 0.0332 | 0.5579 | 0.5358 | 1.186 | 2.634 | 0.090 | 0.000 | 1.000 | 0.138 | 0.062 | 0.047 | 13.06 | 2 | 33 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4318 | 0.0197 | 0.1541 | 0.1477 | 1.162 | 2.705 | 0.092 | 0.003 | 1.000 | 0.025 | 0.019 | 0.021 | 4.11 | 1 | 16 | 27 | - | - | - | - |
| | 200 | 0.4338 | 0.0164 | 0.2158 | 0.2104 | 1.178 | 2.771 | 0.080 | 0.002 | 1.000 | 0.035 | 0.015 | 0.016 | 5.43 | 1 | 21 | 39 | - | - | - | - |
| | 300 | 0.4249 | 0.0146 | 0.2592 | 0.2543 | 1.193 | 2.896 | 0.052 | 0.000 | 1.000 | 0.034 | 0.020 | 0.017 | 6.50 | 1 | 24 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 566: MC findings for DGPIII

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9316 | 0.0315 | 0.3570 | 0.0137 | 1.019 | 1.835 | 0.762 | 0.672 | 1.000 | 1.000 | 1.000 | 0.983 | 7.77 | 6 | 9 | 11 | 2.324 | 0.95 | 0.37 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9005 | 0.0157 | 0.3655 | 0.0157 | 1.025 | 2.088 | 0.666 | 0.572 | 1.000 | 1.000 | 1.000 | 0.979 | 7.63 | 5 | 9 | 11 | 2.320 | 0.92 | 0.39 | 0.01 |
| | 300 | 0.8845 | 0.0104 | 0.3688 | 0.0161 | 1.028 | 2.247 | 0.644 | 0.557 | 1.000 | 1.000 | 0.999 | 0.964 | 7.54 | 5 | 9 | 10 | 2.293 | 0.89 | 0.40 | 0.01 |
| $p = 0.05$, | 100 | 0.9112 | 0.0308 | 0.3582 | 0.0081 | 1.023 | 2.009 | 0.716 | 0.667 | 1.000 | 1.000 | 1.000 | 0.977 | 7.61 | 5 | 8.5 | 10 | 2.337 | 0.92 | 0.41 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8800 | 0.0154 | 0.3658 | 0.0084 | 1.028 | 2.244 | 0.622 | 0.573 | 1.000 | 1.000 | 0.999 | 0.976 | 7.46 | 5 | 8.5 | 11 | 2.329 | 0.89 | 0.43 | 0.01 |
| | 300 | 0.8612 | 0.0102 | 0.3700 | 0.0091 | 1.032 | 2.421 | 0.599 | 0.556 | 1.000 | 1.000 | 0.999 | 0.958 | 7.35 | 5 | 8 | 10 | 2.289 | 0.85 | 0.42 | 0.01 |
| $p = 0.01$, | 100 | 0.8616 | 0.0301 | 0.3657 | 0.0021 | 1.032 | 2.409 | 0.598 | 0.589 | 1.000 | 1.000 | 1.000 | 0.961 | 7.29 | 5 | 8 | 9 | 2.361 | 0.85 | 0.50 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8391 | 0.0150 | 0.3715 | 0.0025 | 1.036 | 2.548 | 0.554 | 0.541 | 1.000 | 1.000 | 0.998 | 0.957 | 7.17 | 5 | 8 | 10 | 2.335 | 0.82 | 0.50 | 0.01 |
| | 300 | 0.8133 | 0.0099 | 0.3772 | 0.0025 | 1.041 | 2.754 | 0.507 | 0.495 | 1.000 | 1.000 | 0.998 | 0.942 | 7.03 | 5 | 8 | 9 | 2.283 | 0.79 | 0.48 | 0.01 |
| $p = 0.1$, | 100 | 0.8810 | 0.0312 | 0.3684 | 0.0113 | 1.028 | 2.262 | 0.637 | 0.579 | 1.000 | 1.000 | 1.000 | 0.983 | 7.49 | 5 | 9 | 11 | 2.136 | 0.88 | 0.26 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8342 | 0.0156 | 0.3812 | 0.0137 | 1.037 | 2.585 | 0.519 | 0.458 | 1.000 | 1.000 | 1.000 | 0.979 | 7.28 | 5 | 9 | 10 | 2.081 | 0.81 | 0.26 | 0.01 |
| | 300 | 0.8153 | 0.0103 | 0.3860 | 0.0144 | 1.042 | 2.750 | 0.500 | 0.443 | 1.000 | 1.000 | 0.999 | 0.964 | 7.17 | 5 | 9 | 10 | 2.048 | 0.79 | 0.26 | 0.00 |
| $p = 0.05$, | 100 | 0.8537 | 0.0307 | 0.3721 | 0.0069 | 1.034 | 2.464 | 0.571 | 0.540 | 1.000 | 1.000 | 1.000 | 0.977 | 7.31 | 5 | 8 | 10 | 2.134 | 0.84 | 0.29 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8050 | 0.0153 | 0.3848 | 0.0069 | 1.042 | 2.771 | 0.469 | 0.437 | 1.000 | 1.000 | 0.999 | 0.976 | 7.06 | 5 | 8 | 10 | 2.069 | 0.78 | 0.29 | 0.01 |
| | 300 | 0.7853 | 0.0101 | 0.3894 | 0.0076 | 1.048 | 2.944 | 0.447 | 0.425 | 1.000 | 1.000 | 0.999 | 0.958 | 6.95 | 5 | 8 | 10 | 2.030 | 0.74 | 0.28 | 0.01 |
| $p = 0.01$, | 100 | 0.7944 | 0.0301 | 0.3834 | 0.0018 | 1.045 | 2.876 | 0.456 | 0.452 | 1.000 | 1.000 | 1.000 | 0.961 | 6.95 | 5 | 8 | 9 | 2.145 | 0.77 | 0.37 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7599 | 0.0149 | 0.3928 | 0.0020 | 1.052 | 3.057 | 0.399 | 0.393 | 1.000 | 1.000 | 0.998 | 0.957 | 6.77 | 5 | 8 | 10 | 2.081 | 0.72 | 0.35 | 0.01 |
| | 300 | 0.7192 | 0.0099 | 0.4033 | 0.0022 | 1.062 | 3.333 | 0.335 | 0.327 | 1.000 | 1.000 | 0.998 | 0.942 | 6.55 | 4 | 8 | 9 | 1.984 | 0.66 | 0.32 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9896 | 0.1374 | 0.6358 | 0.6088 | 1.045 | 2.627 | 0.954 | 0.014 | 1.000 | 0.223 | 0.133 | 0.135 | 18.56 | 7 | 31 | 53 | - | - | - | - |
| | 200 | 0.9804 | 0.0848 | 0.6750 | 0.6545 | 1.057 | 2.917 | 0.918 | 0.005 | 1.000 | 0.197 | 0.115 | 0.102 | 21.77 | 7 | 41 | 58 | - | - | - | - |
| | 300 | 0.9701 | 0.0648 | 0.6954 | 0.6777 | 1.067 | 3.151 | 0.874 | 0.005 | 1.000 | 0.194 | 0.109 | 0.098 | 24.24 | 6 | 45 | 82 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8977 | 0.0554 | 0.3971 | 0.3848 | 1.047 | 2.629 | 0.807 | 0.027 | 1.000 | 0.074 | 0.044 | 0.051 | 9.98 | 1 | 18 | 30 | - | - | - | - |
| | 200 | 0.8928 | 0.0353 | 0.4462 | 0.4361 | 1.054 | 2.755 | 0.790 | 0.011 | 1.000 | 0.064 | 0.044 | 0.039 | 11.49 | 1 | 23 | 38 | - | - | - | - |
| | 300 | 0.8818 | 0.0276 | 0.4830 | 0.4745 | 1.064 | 2.943 | 0.774 | 0.007 | 1.000 | 0.065 | 0.046 | 0.042 | 12.67 | 1 | 24 | 48 | - | - | - | - |

Notes: See notes to Table 100.

## Table 567: MC findings for DGPIII

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9968 | 0.0314 | 0.3412 | 0.0108 | 1.004 | 1.144 | 0.985 | 0.892 | 1.000 | 1.000 | 1.000 | 1.000 | 8.09 | 8 | 9 | 12 | 2.111 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9941 | 0.0157 | 0.3428 | 0.0124 | 1.005 | 1.212 | 0.974 | 0.861 | 1.000 | 1.000 | 1.000 | 0.999 | 8.10 | 8 | 9 | 11 | 2.153 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9919 | 0.0105 | 0.3441 | 0.0136 | 1.005 | 1.258 | 0.962 | 0.840 | 1.000 | 1.000 | 1.000 | 1.000 | 8.10 | 8 | 9 | 12 | 2.186 | 1.00 | 0.18 | 0.00 |
| $p = 0.05$, | 100 | 0.9948 | 0.0308 | 0.3379 | 0.0054 | 1.004 | 1.169 | 0.975 | 0.929 | 1.000 | 1.000 | 1.000 | 0.999 | 8.03 | 8 | 8 | 11 | 2.157 | 1.00 | 0.16 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9912 | 0.0154 | 0.3393 | 0.0062 | 1.005 | 1.245 | 0.960 | 0.904 | 1.000 | 1.000 | 1.000 | 0.999 | 8.02 | 8 | 9 | 10 | 2.197 | 1.00 | 0.20 | 0.00 |
| | 300 | 0.9873 | 0.0102 | 0.3403 | 0.0063 | 1.005 | 1.325 | 0.942 | 0.885 | 1.000 | 1.000 | 1.000 | 1.000 | 8.00 | 7 | 9 | 10 | 2.226 | 1.00 | 0.22 | 0.01 |
| $p = 0.01$, | 100 | 0.9867 | 0.0304 | 0.3370 | 0.0014 | 1.005 | 1.323 | 0.939 | 0.926 | 1.000 | 1.000 | 1.000 | 0.999 | 7.95 | 7 | 8 | 9 | 2.261 | 1.00 | 0.26 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9769 | 0.0151 | 0.3394 | 0.0016 | 1.007 | 1.502 | 0.904 | 0.891 | 1.000 | 1.000 | 1.000 | 0.999 | 7.90 | 7 | 8 | 9 | 2.310 | 0.99 | 0.31 | 0.01 |
| | 300 | 0.9671 | 0.0101 | 0.3419 | 0.0015 | 1.009 | 1.686 | 0.879 | 0.865 | 1.000 | 1.000 | 1.000 | 0.998 | 7.85 | 7 | 8 | 9 | 2.322 | 0.98 | 0.33 | 0.01 |
| $p = 0.1$, | 100 | 0.9925 | 0.0313 | 0.3412 | 0.0094 | 1.005 | 1.227 | 0.967 | 0.887 | 1.000 | 1.000 | 1.000 | 1.000 | 8.06 | 8 | 9 | 11 | 2.097 | 1.00 | 0.10 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9858 | 0.0156 | 0.3435 | 0.0106 | 1.006 | 1.364 | 0.942 | 0.849 | 1.000 | 1.000 | 1.000 | 0.999 | 8.04 | 7 | 9 | 11 | 2.124 | 0.99 | 0.13 | 0.00 |
| | 300 | 0.9800 | 0.0104 | 0.3456 | 0.0118 | 1.007 | 1.474 | 0.917 | 0.815 | 1.000 | 1.000 | 1.000 | 1.000 | 8.02 | 7 | 9 | 10 | 2.138 | 0.99 | 0.14 | 0.00 |
| $p = 0.05$, | 100 | 0.9877 | 0.0308 | 0.3390 | 0.0046 | 1.006 | 1.315 | 0.945 | 0.907 | 1.000 | 1.000 | 1.000 | 0.999 | 7.98 | 7 | 8 | 10 | 2.133 | 1.00 | 0.13 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9789 | 0.0154 | 0.3417 | 0.0056 | 1.007 | 1.481 | 0.913 | 0.863 | 1.000 | 1.000 | 1.000 | 0.999 | 7.95 | 7 | 8.5 | 10 | 2.156 | 0.99 | 0.16 | 0.00 |
| | 300 | 0.9691 | 0.0102 | 0.3440 | 0.0053 | 1.009 | 1.657 | 0.885 | 0.840 | 1.000 | 1.000 | 1.000 | 1.000 | 7.90 | 7 | 8 | 10 | 2.161 | 0.98 | 0.18 | 0.00 |
| $p = 0.01$, | 100 | 0.9684 | 0.0304 | 0.3411 | 0.0008 | 1.009 | 1.671 | 0.880 | 0.872 | 1.000 | 1.000 | 1.000 | 0.999 | 7.85 | 7 | 8 | 9 | 2.202 | 0.98 | 0.22 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9554 | 0.0151 | 0.3445 | 0.0013 | 1.011 | 1.858 | 0.836 | 0.826 | 1.000 | 1.000 | 1.000 | 0.999 | 7.79 | 7 | 8 | 9 | 2.235 | 0.97 | 0.26 | 0.00 |
| | 300 | 0.9382 | 0.0101 | 0.3490 | 0.0012 | 1.015 | 2.126 | 0.799 | 0.788 | 1.000 | 1.000 | 1.000 | 0.998 | 7.70 | 5.5 | 8 | 9 | 2.218 | 0.94 | 0.27 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9999 | 0.1409 | 0.6601 | 0.6322 | 1.025 | 2.499 | 1.000 | 0.003 | 1.000 | 0.263 | 0.151 | 0.148 | 18.95 | 10 | 37.5 | 54 | - | - | - | - |
| | 200 | 0.9997 | 0.1002 | 0.7291 | 0.7099 | 1.031 | 2.734 | 0.999 | 0.007 | 1.000 | 0.224 | 0.120 | 0.107 | 24.93 | 10 | 38 | 82 | - | - | - | - |
| | 300 | 0.9991 | 0.0794 | 0.7488 | 0.7328 | 1.035 | 2.934 | 0.996 | 0.004 | 1.000 | 0.241 | 0.106 | 0.102 | 28.75 | 10 | 47 | 92 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9855 | 0.0414 | 0.3566 | 0.3433 | 1.012 | 1.841 | 0.973 | 0.042 | 1.000 | 0.066 | 0.045 | 0.037 | 9.02 | 5 | 15 | 26 | - | - | - | - |
| | 200 | 0.9808 | 0.0292 | 0.4351 | 0.4251 | 1.017 | 2.055 | 0.964 | 0.036 | 1.000 | 0.055 | 0.032 | 0.035 | 10.72 | 5 | 18 | 35 | - | - | - | - |
| | 300 | 0.9831 | 0.0231 | 0.4696 | 0.4616 | 1.019 | 2.099 | 0.968 | 0.031 | 1.000 | 0.061 | 0.027 | 0.030 | 11.83 | 5 | 20.5 | 35 | - | - | - | - |

Notes: See notes to Table 100.

### 4.3.4 Findings for designs featuring hidden signals and pseudo-signals

## Table 568: MC findings for DGPIV(a)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9593 | 0.0355 | 0.3690 | 0.0220 | 1.066 | 2.027 | 0.884 | 0.192 | 0.222 | 0.182 | 1.000 | 0.982 | 0.807 | 0.546 | 8.31 | 6 | 10 | 13 | 2.649 | 0.96 | 0.60 | 0.08 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9348 | 0.0174 | 0.3698 | 0.0286 | 1.089 | 2.320 | 0.825 | 0.181 | 0.193 | 0.148 | 1.000 | 0.978 | 0.792 | 0.516 | 8.13 | 5 | 10 | 13 | 2.705 | 0.93 | 0.66 | 0.11 |
| | 300 | 0.9199 | 0.0111 | 0.3619 | 0.0301 | 1.108 | 2.552 | 0.799 | 0.205 | 0.175 | 0.131 | 1.000 | 0.974 | 0.755 | 0.486 | 7.92 | 5 | 10 | 13 | 2.709 | 0.91 | 0.68 | 0.12 |
| $p = 0.05$, | 100 | 0.9444 | 0.0332 | 0.3567 | 0.0127 | 1.078 | 2.209 | 0.854 | 0.220 | 0.201 | 0.177 | 1.000 | 0.975 | 0.784 | 0.504 | 8.01 | 5 | 10 | 12 | 2.690 | 0.94 | 0.65 | 0.10 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9214 | 0.0161 | 0.3547 | 0.0178 | 1.100 | 2.456 | 0.800 | 0.218 | 0.158 | 0.131 | 1.000 | 0.973 | 0.765 | 0.487 | 7.81 | 5 | 10 | 12 | 2.735 | 0.91 | 0.69 | 0.13 |
| | 300 | 0.9005 | 0.0103 | 0.3484 | 0.0184 | 1.123 | 2.736 | 0.756 | 0.219 | 0.149 | 0.125 | 1.000 | 0.963 | 0.733 | 0.448 | 7.57 | 4 | 10 | 12 | 2.708 | 0.89 | 0.70 | 0.12 |
| $p = 0.01$, | 100 | 0.9048 | 0.0293 | 0.3353 | 0.0037 | 1.113 | 2.662 | 0.770 | 0.250 | 0.153 | 0.149 | 1.000 | 0.958 | 0.714 | 0.417 | 7.42 | 4 | 10 | 11 | 2.745 | 0.89 | 0.73 | 0.12 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8774 | 0.0141 | 0.3339 | 0.0060 | 1.141 | 2.897 | 0.716 | 0.248 | 0.129 | 0.119 | 1.000 | 0.958 | 0.692 | 0.413 | 7.19 | 4 | 10 | 11 | 2.732 | 0.86 | 0.73 | 0.14 |
| | 300 | 0.8572 | 0.0089 | 0.3260 | 0.0055 | 1.162 | 3.148 | 0.681 | 0.248 | 0.119 | 0.115 | 1.000 | 0.943 | 0.658 | 0.376 | 6.96 | 3 | 10 | 11 | 2.687 | 0.84 | 0.72 | 0.13 |
| $p = 0.1$, | 100 | 0.9143 | 0.0338 | 0.3691 | 0.0163 | 1.106 | 2.569 | 0.783 | 0.202 | 0.175 | 0.152 | 1.000 | 0.982 | 0.807 | 0.546 | 7.92 | 5 | 10 | 12 | 2.505 | 0.90 | 0.53 | 0.08 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8598 | 0.0162 | 0.3723 | 0.0222 | 1.162 | 3.069 | 0.674 | 0.184 | 0.129 | 0.108 | 1.000 | 0.978 | 0.792 | 0.516 | 7.51 | 4 | 10 | 13 | 2.455 | 0.83 | 0.53 | 0.09 |
| | 300 | 0.8322 | 0.0102 | 0.3652 | 0.0233 | 1.190 | 3.390 | 0.625 | 0.215 | 0.108 | 0.088 | 1.000 | 0.974 | 0.755 | 0.486 | 7.20 | 4 | 10 | 13 | 2.404 | 0.80 | 0.52 | 0.08 |
| $p = 0.05$, | 100 | 0.8893 | 0.0314 | 0.3577 | 0.0096 | 1.131 | 2.836 | 0.737 | 0.237 | 0.136 | 0.124 | 1.000 | 0.975 | 0.783 | 0.504 | 7.55 | 4 | 10 | 11 | 2.530 | 0.86 | 0.57 | 0.09 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8365 | 0.0149 | 0.3594 | 0.0131 | 1.181 | 3.266 | 0.625 | 0.210 | 0.099 | 0.089 | 1.000 | 0.973 | 0.765 | 0.486 | 7.16 | 4 | 10 | 11 | 2.469 | 0.81 | 0.55 | 0.11 |
| | 300 | 0.8050 | 0.0094 | 0.3531 | 0.0141 | 1.215 | 3.606 | 0.576 | 0.227 | 0.074 | 0.066 | 1.000 | 0.963 | 0.733 | 0.448 | 6.83 | 3 | 10 | 12 | 2.395 | 0.77 | 0.53 | 0.09 |
| $p = 0.01$, | 100 | 0.8325 | 0.0274 | 0.3387 | 0.0022 | 1.185 | 3.358 | 0.624 | 0.247 | 0.088 | 0.087 | 1.000 | 0.958 | 0.714 | 0.417 | 6.88 | 3 | 9 | 11 | 2.532 | 0.80 | 0.61 | 0.12 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7792 | 0.0130 | 0.3408 | 0.0035 | 1.235 | 3.716 | 0.527 | 0.232 | 0.072 | 0.068 | 1.000 | 0.958 | 0.692 | 0.413 | 6.49 | 3 | 9 | 11 | 2.430 | 0.75 | 0.56 | 0.11 |
| | 300 | 0.7549 | 0.0081 | 0.3310 | 0.0037 | 1.258 | 3.983 | 0.493 | 0.236 | 0.055 | 0.054 | 1.000 | 0.943 | 0.658 | 0.376 | 6.21 | 3 | 9 | 11 | 2.386 | 0.72 | 0.55 | 0.11 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9897 | 0.1449 | 0.6577 | 0.5985 | 1.186 | 3.055 | 0.955 | 0.005 | 0.084 | 0.001 | 1.000 | 0.207 | 0.129 | 0.135 | 19.29 | 8 | 33 | 54 | - | - | - | - |
| | 200 | 0.9786 | 0.1010 | 0.7181 | 0.6771 | 1.243 | 3.432 | 0.911 | 0.003 | 0.079 | 0.000 | 1.000 | 0.193 | 0.115 | 0.107 | 25.00 | 8 | 45 | 75 | - | - | - | - |
| | 300 | 0.9720 | 0.0770 | 0.7435 | 0.7096 | 1.279 | 3.752 | 0.883 | 0.003 | 0.052 | 0.000 | 1.000 | 0.180 | 0.099 | 0.092 | 27.89 | 8 | 51 | 85 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9406 | 0.0608 | 0.3991 | 0.3662 | 1.164 | 2.867 | 0.860 | 0.126 | 0.020 | 0.000 | 1.000 | 0.070 | 0.048 | 0.054 | 10.73 | 2 | 20 | 32 | - | - | - | - |
| | 200 | 0.9242 | 0.0443 | 0.4788 | 0.4525 | 1.210 | 3.139 | 0.819 | 0.076 | 0.013 | 0.000 | 1.000 | 0.067 | 0.041 | 0.042 | 13.44 | 2 | 26 | 42 | - | - | - | - |
| | 300 | 0.9194 | 0.0349 | 0.5250 | 0.5021 | 1.243 | 3.391 | 0.803 | 0.051 | 0.012 | 0.000 | 1.000 | 0.072 | 0.035 | 0.043 | 15.03 | 2 | 29 | 45 | - | - | - | - |

Notes: See notes to Table 145.

## Table 569: MC findings for DGPIV(a)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0500 | 0.4504 | 0.0123 | 1.010 | 1.448 | 1.000 | 0.011 | 0.835 | 0.724 | 1.000 | 1.000 | 1.000 | 0.980 | 9.95 | 9 | 11 | 13 | 2.025 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0246 | 0.4474 | 0.0121 | 1.010 | 1.450 | 1.000 | 0.021 | 0.796 | 0.691 | 1.000 | 1.000 | 1.000 | 0.977 | 9.89 | 9 | 11 | 13 | 2.028 | 1.00 | 0.03 | 0.00 |
| | 300 | 1.0000 | 0.0162 | 0.4442 | 0.0136 | 1.010 | 1.432 | 1.000 | 0.029 | 0.746 | 0.634 | 1.000 | 1.000 | 0.999 | 0.967 | 9.84 | 9 | 11 | 12 | 2.044 | 1.00 | 0.04 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0485 | 0.4425 | 0.0069 | 1.009 | 1.422 | 1.000 | 0.024 | 0.768 | 0.710 | 1.000 | 1.000 | 1.000 | 0.974 | 9.80 | 9 | 11 | 12 | 2.024 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0239 | 0.4396 | 0.0068 | 1.009 | 1.420 | 1.000 | 0.035 | 0.736 | 0.677 | 1.000 | 1.000 | 0.999 | 0.970 | 9.75 | 9 | 11 | 12 | 2.027 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9999 | 0.0156 | 0.4353 | 0.0074 | 1.010 | 1.400 | 1.000 | 0.051 | 0.677 | 0.624 | 1.000 | 1.000 | 0.999 | 0.964 | 9.67 | 8 | 11 | 12 | 2.047 | 1.00 | 0.05 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0459 | 0.4288 | 0.0019 | 1.008 | 1.375 | 1.000 | 0.056 | 0.628 | 0.613 | 1.000 | 1.000 | 0.999 | 0.957 | 9.55 | 8 | 10 | 11 | 2.037 | 1.00 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0224 | 0.4239 | 0.0014 | 1.008 | 1.366 | 1.000 | 0.084 | 0.586 | 0.575 | 1.000 | 1.000 | 0.999 | 0.948 | 9.47 | 8 | 10 | 11 | 2.050 | 1.00 | 0.05 | 0.00 |
| | 300 | 0.9997 | 0.0146 | 0.4187 | 0.0021 | 1.009 | 1.359 | 0.999 | 0.111 | 0.527 | 0.515 | 1.000 | 1.000 | 0.998 | 0.941 | 9.38 | 8 | 10 | 12 | 2.078 | 1.00 | 0.08 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0497 | 0.4489 | 0.0096 | 1.009 | 1.424 | 1.000 | 0.012 | 0.835 | 0.748 | 1.000 | 1.000 | 1.000 | 0.980 | 9.92 | 9 | 11 | 13 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0244 | 0.4460 | 0.0097 | 1.009 | 1.427 | 1.000 | 0.022 | 0.796 | 0.712 | 1.000 | 1.000 | 1.000 | 0.977 | 9.86 | 9 | 11 | 13 | 2.011 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0161 | 0.4427 | 0.0106 | 1.009 | 1.400 | 1.000 | 0.030 | 0.749 | 0.659 | 1.000 | 1.000 | 0.999 | 0.967 | 9.81 | 9 | 11 | 12 | 2.022 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0482 | 0.4415 | 0.0051 | 1.009 | 1.404 | 1.000 | 0.025 | 0.768 | 0.726 | 1.000 | 1.000 | 1.000 | 0.974 | 9.78 | 9 | 10 | 12 | 2.011 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0238 | 0.4389 | 0.0054 | 1.009 | 1.406 | 1.000 | 0.035 | 0.735 | 0.688 | 1.000 | 1.000 | 0.999 | 0.970 | 9.73 | 9 | 10 | 12 | 2.021 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9999 | 0.0156 | 0.4345 | 0.0055 | 1.009 | 1.379 | 1.000 | 0.052 | 0.681 | 0.640 | 1.000 | 1.000 | 0.999 | 0.964 | 9.65 | 8 | 10 | 12 | 2.039 | 1.00 | 0.04 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0459 | 0.4285 | 0.0013 | 1.008 | 1.369 | 1.000 | 0.057 | 0.629 | 0.619 | 1.000 | 1.000 | 0.999 | 0.957 | 9.54 | 8 | 10 | 11 | 2.040 | 1.00 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0224 | 0.4241 | 0.0011 | 1.008 | 1.370 | 1.000 | 0.080 | 0.585 | 0.577 | 1.000 | 1.000 | 0.999 | 0.948 | 9.47 | 8 | 10 | 11 | 2.058 | 1.00 | 0.06 | 0.00 |
| | 300 | 0.9996 | 0.0146 | 0.4183 | 0.0015 | 1.009 | 1.356 | 0.998 | 0.113 | 0.528 | 0.518 | 1.000 | 1.000 | 0.998 | 0.941 | 9.37 | 8 | 10 | 12 | 2.084 | 1.00 | 0.08 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1566 | 0.6632 | 0.6040 | 1.045 | 2.614 | 1.000 | 0.002 | 0.101 | 0.000 | 1.000 | 0.229 | 0.156 | 0.151 | 20.51 | 9 | 37 | 54 | - | - | - | - |
| | 200 | 1.0000 | 0.0950 | 0.7136 | 0.6679 | 1.056 | 2.940 | 1.000 | 0.001 | 0.094 | 0.000 | 1.000 | 0.195 | 0.131 | 0.099 | 23.90 | 11 | 50 | 74 | - | - | - | - |
| | 300 | 1.0000 | 0.0805 | 0.7504 | 0.7152 | 1.066 | 3.130 | 1.000 | 0.000 | 0.071 | 0.000 | 1.000 | 0.220 | 0.131 | 0.106 | 29.08 | 11 | 53 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0326 | 0.2987 | 0.2719 | 1.010 | 1.421 | 1.000 | 0.136 | 0.006 | 0.001 | 1.000 | 0.049 | 0.029 | 0.028 | 8.22 | 5 | 13.5 | 24 | - | - | - | - |
| | 200 | 1.0000 | 0.0199 | 0.3405 | 0.3171 | 1.012 | 1.478 | 1.000 | 0.092 | 0.006 | 0.000 | 1.000 | 0.040 | 0.024 | 0.024 | 8.96 | 5 | 16 | 30 | - | - | - | - |
| | 300 | 1.0000 | 0.0165 | 0.3923 | 0.3725 | 1.016 | 1.590 | 1.000 | 0.067 | 0.006 | 0.000 | 1.000 | 0.048 | 0.019 | 0.022 | 9.94 | 5 | 17 | 27 | - | - | - | - |

Notes: See notes to Table 145.

## Table 570: MC findings for DGPIV(a)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0518 | 0.4602 | 0.0110 | 1.006 | 1.458 | 1.000 | 0.000 | 0.995 | 0.876 | 1.000 | 1.000 | 1.000 | 1.000 | 10.13 | 10 | 11 | 13 | 2.007 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0258 | 0.4601 | 0.0115 | 1.006 | 1.459 | 1.000 | 0.000 | 0.988 | 0.861 | 1.000 | 1.000 | 1.000 | 0.999 | 10.13 | 10 | 11 | 12 | 2.015 | 1.00 | 0.02 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4600 | 0.0119 | 1.006 | 1.456 | 1.000 | 0.001 | 0.983 | 0.851 | 1.000 | 1.000 | 1.000 | 0.999 | 10.13 | 10 | 11 | 13 | 2.016 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0511 | 0.4570 | 0.0057 | 1.006 | 1.445 | 1.000 | 0.000 | 0.989 | 0.928 | 1.000 | 1.000 | 1.000 | 0.999 | 10.06 | 10 | 11 | 13 | 2.005 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0254 | 0.4567 | 0.0060 | 1.006 | 1.441 | 1.000 | 0.000 | 0.981 | 0.914 | 1.000 | 1.000 | 1.000 | 0.999 | 10.05 | 10 | 11 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0169 | 0.4562 | 0.0060 | 1.006 | 1.436 | 1.000 | 0.001 | 0.973 | 0.907 | 1.000 | 1.000 | 1.000 | 0.999 | 10.04 | 10 | 11 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0503 | 0.4532 | 0.0011 | 1.005 | 1.424 | 1.000 | 0.002 | 0.967 | 0.956 | 1.000 | 1.000 | 1.000 | 0.998 | 9.98 | 10 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0250 | 0.4527 | 0.0015 | 1.005 | 1.423 | 1.000 | 0.001 | 0.956 | 0.940 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 10 | 10 | 12 | 2.003 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4518 | 0.0015 | 1.006 | 1.414 | 1.000 | 0.003 | 0.940 | 0.924 | 1.000 | 1.000 | 1.000 | 0.999 | 9.95 | 9 | 10 | 12 | 2.005 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0516 | 0.4592 | 0.0091 | 1.006 | 1.441 | 1.000 | 0.000 | 0.995 | 0.895 | 1.000 | 1.000 | 1.000 | 1.000 | 10.11 | 10 | 11 | 13 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0256 | 0.4589 | 0.0093 | 1.006 | 1.437 | 1.000 | 0.000 | 0.988 | 0.885 | 1.000 | 1.000 | 1.000 | 0.999 | 10.10 | 10 | 11 | 12 | 1.998 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0171 | 0.4588 | 0.0098 | 1.006 | 1.432 | 1.000 | 0.001 | 0.983 | 0.873 | 1.000 | 1.000 | 1.000 | 0.999 | 10.10 | 10 | 11 | 13 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0509 | 0.4564 | 0.0046 | 1.006 | 1.433 | 1.000 | 0.000 | 0.989 | 0.940 | 1.000 | 1.000 | 1.000 | 0.999 | 10.04 | 10 | 10.5 | 13 | 1.996 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0253 | 0.4562 | 0.0051 | 1.005 | 1.430 | 1.000 | 0.000 | 0.981 | 0.924 | 1.000 | 1.000 | 1.000 | 0.999 | 10.04 | 10 | 11 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0168 | 0.4557 | 0.0051 | 1.006 | 1.423 | 1.000 | 0.001 | 0.973 | 0.916 | 1.000 | 1.000 | 1.000 | 0.999 | 10.03 | 10 | 11 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0503 | 0.4531 | 0.0010 | 1.005 | 1.422 | 1.000 | 0.002 | 0.967 | 0.958 | 1.000 | 1.000 | 1.000 | 0.998 | 9.98 | 10 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0250 | 0.4526 | 0.0013 | 1.005 | 1.420 | 1.000 | 0.001 | 0.956 | 0.942 | 1.000 | 1.000 | 1.000 | 0.998 | 9.97 | 10 | 10 | 12 | 2.002 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4516 | 0.0012 | 1.006 | 1.410 | 1.000 | 0.003 | 0.940 | 0.927 | 1.000 | 1.000 | 1.000 | 0.999 | 9.95 | 9 | 10 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1817 | 0.7151 | 0.6613 | 1.023 | 2.444 | 1.000 | 0.009 | 0.099 | 0.001 | 1.000 | 0.264 | 0.174 | 0.164 | 22.98 | 9 | 32.5 | 43 | - | - | - | - |
| | 200 | 1.0000 | 0.1184 | 0.7076 | 0.6652 | 1.034 | 2.958 | 1.000 | 0.003 | 0.093 | 0.001 | 1.000 | 0.218 | 0.133 | 0.121 | 28.56 | 8 | 50 | 67 | - | - | - | - |
| | 300 | 1.0000 | 0.0787 | 0.6944 | 0.6521 | 1.040 | 3.213 | 1.000 | 0.001 | 0.072 | 0.000 | 1.000 | 0.217 | 0.117 | 0.101 | 28.54 | 9 | 61 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0158 | 0.1778 | 0.1610 | 1.002 | 1.182 | 1.000 | 0.290 | 0.001 | 0.000 | 1.000 | 0.020 | 0.016 | 0.013 | 6.56 | 5 | 10 | 17 | - | - | - | - |
| | 200 | 1.0000 | 0.0103 | 0.2104 | 0.1969 | 1.003 | 1.230 | 1.000 | 0.289 | 0.002 | 0.001 | 1.000 | 0.021 | 0.013 | 0.008 | 7.06 | 5 | 11 | 18 | - | - | - | - |
| | 300 | 1.0000 | 0.0068 | 0.2041 | 0.1923 | 1.003 | 1.245 | 1.000 | 0.304 | 0.002 | 0.000 | 1.000 | 0.025 | 0.008 | 0.009 | 7.04 | 5 | 12 | 21 | - | - | - | - |

Notes: See notes to Table 145.

## Table 571: MC findings for DGPIV(a)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7745 | 0.0325 | 0.3935 | 0.0245 | 1.122 | 2.683 | 0.438 | 0.123 | 0.083 | 0.064 | 1.000 | 0.989 | 0.812 | 0.573 | 7.09 | 4 | 10 | 13 | 2.364 | 0.78 | 0.51 | 0.07 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7185 | 0.0156 | 0.3990 | 0.0304 | 1.152 | 2.902 | 0.342 | 0.092 | 0.072 | 0.054 | 1.000 | 0.978 | 0.805 | 0.514 | 6.70 | 3 | 10 | 12 | 2.213 | 0.72 | 0.43 | 0.06 |
| | 300 | 0.6973 | 0.0101 | 0.3978 | 0.0311 | 1.160 | 3.045 | 0.312 | 0.086 | 0.067 | 0.048 | 1.000 | 0.980 | 0.765 | 0.495 | 6.51 | 3 | 10 | 12 | 2.212 | 0.71 | 0.44 | 0.06 |
| $p = 0.05$, | 100 | 0.7405 | 0.0304 | 0.3857 | 0.0154 | 1.134 | 2.827 | 0.391 | 0.127 | 0.079 | 0.066 | 1.000 | 0.981 | 0.779 | 0.527 | 6.71 | 3 | 10 | 12 | 2.307 | 0.75 | 0.50 | 0.05 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6877 | 0.0144 | 0.3881 | 0.0172 | 1.160 | 3.005 | 0.308 | 0.094 | 0.062 | 0.052 | 1.000 | 0.971 | 0.774 | 0.471 | 6.30 | 3 | 9 | 12 | 2.169 | 0.69 | 0.43 | 0.05 |
| | 300 | 0.6675 | 0.0094 | 0.3873 | 0.0189 | 1.170 | 3.143 | 0.275 | 0.092 | 0.054 | 0.044 | 1.000 | 0.975 | 0.735 | 0.464 | 6.13 | 3 | 9 | 12 | 2.170 | 0.69 | 0.43 | 0.05 |
| $p = 0.01$, | 100 | 0.6767 | 0.0267 | 0.3705 | 0.0044 | 1.159 | 3.079 | 0.305 | 0.105 | 0.058 | 0.055 | 1.000 | 0.962 | 0.724 | 0.437 | 6.03 | 3 | 9 | 12 | 2.229 | 0.71 | 0.47 | 0.04 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6347 | 0.0125 | 0.3675 | 0.0046 | 1.180 | 3.193 | 0.244 | 0.089 | 0.047 | 0.045 | 1.000 | 0.951 | 0.697 | 0.392 | 5.66 | 3 | 9 | 11 | 2.129 | 0.69 | 0.40 | 0.04 |
| | 300 | 0.6042 | 0.0082 | 0.3715 | 0.0066 | 1.196 | 3.366 | 0.217 | 0.076 | 0.044 | 0.043 | 1.000 | 0.950 | 0.669 | 0.387 | 5.47 | 2 | 9 | 11 | 2.084 | 0.67 | 0.38 | 0.04 |
| $p = 0.1$, | 100 | 0.6581 | 0.0307 | 0.4120 | 0.0205 | 1.170 | 3.174 | 0.256 | 0.079 | 0.045 | 0.038 | 1.000 | 0.989 | 0.812 | 0.571 | 6.33 | 3 | 9 | 12 | 1.960 | 0.62 | 0.31 | 0.03 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6024 | 0.0145 | 0.4164 | 0.0249 | 1.201 | 3.340 | 0.201 | 0.064 | 0.034 | 0.028 | 1.000 | 0.978 | 0.805 | 0.514 | 5.90 | 3 | 9 | 11 | 1.803 | 0.56 | 0.23 | 0.02 |
| | 300 | 0.5676 | 0.0094 | 0.4193 | 0.0268 | 1.216 | 3.522 | 0.163 | 0.053 | 0.027 | 0.018 | 1.000 | 0.980 | 0.765 | 0.495 | 5.64 | 3 | 9 | 12 | 1.782 | 0.54 | 0.22 | 0.02 |
| $p = 0.05$, | 100 | 0.6244 | 0.0284 | 0.4031 | 0.0126 | 1.184 | 3.298 | 0.227 | 0.082 | 0.035 | 0.031 | 1.000 | 0.981 | 0.779 | 0.526 | 5.94 | 3 | 9 | 11 | 1.934 | 0.60 | 0.31 | 0.03 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5734 | 0.0134 | 0.4062 | 0.0142 | 1.211 | 3.428 | 0.173 | 0.061 | 0.022 | 0.020 | 1.000 | 0.971 | 0.774 | 0.471 | 5.54 | 3 | 9 | 11 | 1.795 | 0.55 | 0.23 | 0.02 |
| | 300 | 0.5388 | 0.0087 | 0.4099 | 0.0165 | 1.226 | 3.606 | 0.137 | 0.055 | 0.022 | 0.019 | 1.000 | 0.975 | 0.735 | 0.464 | 5.30 | 2 | 9 | 11 | 1.771 | 0.53 | 0.22 | 0.02 |
| $p = 0.01$, | 100 | 0.5622 | 0.0248 | 0.3855 | 0.0031 | 1.212 | 3.509 | 0.163 | 0.071 | 0.018 | 0.017 | 1.000 | 0.962 | 0.724 | 0.437 | 5.26 | 2 | 9 | 10 | 1.890 | 0.59 | 0.28 | 0.02 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5115 | 0.0118 | 0.3903 | 0.0036 | 1.237 | 3.617 | 0.120 | 0.052 | 0.014 | 0.013 | 1.000 | 0.951 | 0.697 | 0.392 | 4.90 | 2 | 8 | 11 | 1.758 | 0.54 | 0.21 | 0.01 |
| | 300 | 0.4776 | 0.0076 | 0.3936 | 0.0055 | 1.254 | 3.785 | 0.096 | 0.040 | 0.015 | 0.015 | 1.000 | 0.950 | 0.669 | 0.387 | 4.66 | 2 | 8 | 10 | 1.707 | 0.51 | 0.19 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8962 | 0.1046 | 0.5689 | 0.5038 | 1.189 | 3.035 | 0.642 | 0.003 | 0.053 | 0.001 | 1.000 | 0.189 | 0.116 | 0.101 | 14.84 | 4 | 29 | 46 | - | - | - | - |
| | 200 | 0.8570 | 0.0689 | 0.6252 | 0.5769 | 1.231 | 3.248 | 0.510 | 0.001 | 0.028 | 0.000 | 1.000 | 0.153 | 0.089 | 0.089 | 18.00 | 4 | 38 | 59 | - | - | - | - |
| | 300 | 0.8415 | 0.0542 | 0.6583 | 0.6132 | 1.248 | 3.438 | 0.467 | 0.001 | 0.030 | 0.000 | 1.000 | 0.150 | 0.073 | 0.070 | 20.40 | 4 | 43 | 89 | - | - | - | - |
| Adaptive Lasso | 100 | 0.7177 | 0.0442 | 0.2942 | 0.2618 | 1.209 | 3.224 | 0.441 | 0.038 | 0.010 | 0.000 | 1.000 | 0.057 | 0.041 | 0.041 | 7.96 | 1 | 20 | 32 | - | - | - | - |
| | 200 | 0.6918 | 0.0325 | 0.3632 | 0.3379 | 1.243 | 3.404 | 0.367 | 0.016 | 0.006 | 0.000 | 1.000 | 0.049 | 0.032 | 0.036 | 9.93 | 1 | 26 | 47 | - | - | - | - |
| | 300 | 0.6806 | 0.0259 | 0.3981 | 0.3745 | 1.261 | 3.578 | 0.339 | 0.012 | 0.006 | 0.000 | 1.000 | 0.056 | 0.032 | 0.026 | 11.14 | 1 | 28 | 48 | - | - | - | - |

Notes: See notes to Table 145.

## Table 572: MC findings for DGPIV(a)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9983 | 0.0466 | 0.4321 | 0.0122 | 1.010 | 1.439 | 0.992 | 0.069 | 0.571 | 0.496 | 1.000 | 1.000 | 0.999 | 0.980 | 9.61 | 8 | 11 | 13 | 2.110 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9976 | 0.0227 | 0.4265 | 0.0130 | 1.010 | 1.432 | 0.989 | 0.096 | 0.507 | 0.443 | 1.000 | 1.000 | 1.000 | 0.973 | 9.50 | 8 | 11 | 13 | 2.152 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9972 | 0.0148 | 0.4219 | 0.0135 | 1.010 | 1.441 | 0.987 | 0.120 | 0.458 | 0.389 | 1.000 | 1.000 | 1.000 | 0.968 | 9.42 | 8 | 11 | 12 | 2.186 | 1.00 | 0.18 | 0.00 |
| $p = 0.05$, | 100 | 0.9980 | 0.0447 | 0.4216 | 0.0067 | 1.009 | 1.405 | 0.990 | 0.113 | 0.488 | 0.448 | 1.000 | 1.000 | 0.999 | 0.979 | 9.41 | 8 | 10 | 12 | 2.145 | 1.00 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9951 | 0.0217 | 0.4159 | 0.0071 | 1.010 | 1.454 | 0.979 | 0.145 | 0.429 | 0.402 | 1.000 | 1.000 | 0.999 | 0.969 | 9.29 | 8 | 10 | 12 | 2.197 | 1.00 | 0.20 | 0.00 |
| | 300 | 0.9956 | 0.0143 | 0.4125 | 0.0077 | 1.010 | 1.445 | 0.979 | 0.154 | 0.390 | 0.359 | 1.000 | 1.000 | 1.000 | 0.960 | 9.24 | 8 | 10 | 12 | 2.231 | 1.00 | 0.23 | 0.00 |
| $p = 0.01$, | 100 | 0.9951 | 0.0417 | 0.4048 | 0.0017 | 1.009 | 1.421 | 0.977 | 0.197 | 0.348 | 0.339 | 1.000 | 1.000 | 0.998 | 0.959 | 9.10 | 8 | 10 | 12 | 2.264 | 1.00 | 0.26 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9919 | 0.0202 | 0.3993 | 0.0015 | 1.010 | 1.480 | 0.966 | 0.234 | 0.297 | 0.293 | 1.000 | 1.000 | 0.998 | 0.953 | 8.98 | 8 | 10 | 11 | 2.343 | 1.00 | 0.34 | 0.01 |
| | 300 | 0.9881 | 0.0132 | 0.3965 | 0.0020 | 1.011 | 1.578 | 0.957 | 0.254 | 0.271 | 0.266 | 1.000 | 1.000 | 0.999 | 0.940 | 8.90 | 8 | 10 | 11 | 2.367 | 0.99 | 0.36 | 0.01 |
| $p = 0.1$, | 100 | 0.9976 | 0.0462 | 0.4300 | 0.0096 | 1.009 | 1.434 | 0.989 | 0.075 | 0.560 | 0.501 | 1.000 | 1.000 | 0.999 | 0.980 | 9.56 | 8 | 11 | 13 | 2.106 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9949 | 0.0224 | 0.4243 | 0.0105 | 1.010 | 1.469 | 0.979 | 0.107 | 0.498 | 0.448 | 1.000 | 1.000 | 1.000 | 0.973 | 9.44 | 8 | 11 | 13 | 2.139 | 1.00 | 0.14 | 0.00 |
| | 300 | 0.9924 | 0.0147 | 0.4204 | 0.0110 | 1.011 | 1.523 | 0.969 | 0.123 | 0.444 | 0.389 | 1.000 | 1.000 | 1.000 | 0.968 | 9.35 | 8 | 11 | 12 | 2.167 | 1.00 | 0.17 | 0.00 |
| $p = 0.05$, | 100 | 0.9960 | 0.0443 | 0.4201 | 0.0053 | 1.009 | 1.438 | 0.982 | 0.118 | 0.473 | 0.444 | 1.000 | 1.000 | 0.999 | 0.979 | 9.37 | 8 | 10 | 12 | 2.144 | 1.00 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9917 | 0.0215 | 0.4149 | 0.0057 | 1.011 | 1.518 | 0.966 | 0.151 | 0.417 | 0.396 | 1.000 | 1.000 | 0.999 | 0.969 | 9.24 | 8 | 10 | 12 | 2.195 | 0.99 | 0.20 | 0.00 |
| | 300 | 0.9868 | 0.0141 | 0.4115 | 0.0062 | 1.013 | 1.633 | 0.950 | 0.161 | 0.369 | 0.346 | 1.000 | 1.000 | 1.000 | 0.960 | 9.14 | 8 | 10 | 12 | 2.209 | 0.99 | 0.21 | 0.00 |
| $p = 0.01$, | 100 | 0.9885 | 0.0414 | 0.4050 | 0.0015 | 1.011 | 1.577 | 0.954 | 0.196 | 0.333 | 0.326 | 1.000 | 1.000 | 0.998 | 0.959 | 9.04 | 8 | 10 | 12 | 2.263 | 0.99 | 0.26 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9799 | 0.0200 | 0.3997 | 0.0012 | 1.015 | 1.758 | 0.929 | 0.237 | 0.272 | 0.269 | 1.000 | 1.000 | 0.998 | 0.953 | 8.87 | 8 | 10 | 11 | 2.320 | 0.99 | 0.33 | 0.01 |
| | 300 | 0.9695 | 0.0131 | 0.3982 | 0.0017 | 1.019 | 1.978 | 0.907 | 0.251 | 0.246 | 0.242 | 1.000 | 1.000 | 0.999 | 0.940 | 8.76 | 7 | 10 | 11 | 2.311 | 0.97 | 0.33 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9998 | 0.1496 | 0.6797 | 0.6226 | 1.041 | 2.581 | 0.999 | 0.003 | 0.093 | 0.001 | 1.000 | 0.254 | 0.158 | 0.156 | 19.81 | 11 | 34 | 50 | - | - | - | - |
| | 200 | 0.9998 | 0.1057 | 0.7415 | 0.7001 | 1.055 | 2.911 | 1.000 | 0.002 | 0.068 | 0.000 | 1.000 | 0.230 | 0.125 | 0.116 | 26.04 | 12 | 42 | 75 | - | - | - | - |
| | 300 | 0.9996 | 0.0789 | 0.7635 | 0.7282 | 1.061 | 3.094 | 0.999 | 0.001 | 0.073 | 0.000 | 1.000 | 0.214 | 0.111 | 0.100 | 28.60 | 13 | 50.5 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9948 | 0.0517 | 0.4109 | 0.3755 | 1.021 | 1.848 | 0.988 | 0.053 | 0.020 | 0.000 | 1.000 | 0.089 | 0.037 | 0.044 | 10.10 | 5 | 16 | 29 | - | - | - | - |
| | 200 | 0.9917 | 0.0366 | 0.4918 | 0.4643 | 1.030 | 2.090 | 0.983 | 0.028 | 0.011 | 0.000 | 1.000 | 0.077 | 0.036 | 0.040 | 12.24 | 6 | 21 | 37 | - | - | - | - |
| | 300 | 0.9923 | 0.0277 | 0.5246 | 0.4996 | 1.034 | 2.175 | 0.982 | 0.019 | 0.015 | 0.000 | 1.000 | 0.059 | 0.035 | 0.032 | 13.25 | 6 | 22 | 36 | - | - | - | - |

Notes: See notes to Table 145.

## Table 573: MC findings for DGPIV(a)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0509 | 0.4557 | 0.0108 | 1.006 | 1.426 | 1.000 | 0.006 | 0.920 | 0.811 | 1.000 | 1.000 | 1.000 | 1.000 | 10.04 | 9 | 11 | 13 | 2.007 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0250 | 0.4522 | 0.0099 | 1.005 | 1.428 | 1.000 | 0.009 | 0.870 | 0.773 | 1.000 | 1.000 | 1.000 | 0.999 | 9.98 | 9 | 11 | 13 | 2.011 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0167 | 0.4525 | 0.0118 | 1.005 | 1.435 | 1.000 | 0.013 | 0.861 | 0.746 | 1.000 | 1.000 | 1.000 | 0.999 | 9.99 | 9 | 11 | 13 | 2.014 | 1.00 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0499 | 0.4506 | 0.0063 | 1.005 | 1.407 | 1.000 | 0.011 | 0.878 | 0.815 | 1.000 | 1.000 | 1.000 | 1.000 | 9.94 | 9 | 11 | 12 | 2.007 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9997 | 0.0245 | 0.4471 | 0.0053 | 1.005 | 1.413 | 0.999 | 0.014 | 0.828 | 0.779 | 1.000 | 1.000 | 1.000 | 0.998 | 9.87 | 9 | 10 | 12 | 2.010 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0163 | 0.4467 | 0.0063 | 1.005 | 1.406 | 1.000 | 0.019 | 0.818 | 0.758 | 1.000 | 1.000 | 1.000 | 0.999 | 9.87 | 9 | 11 | 12 | 2.016 | 1.00 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0478 | 0.4396 | 0.0013 | 1.005 | 1.369 | 1.000 | 0.037 | 0.759 | 0.750 | 1.000 | 1.000 | 1.000 | 0.999 | 9.74 | 9 | 10 | 11 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0235 | 0.4361 | 0.0012 | 1.005 | 1.374 | 0.999 | 0.041 | 0.705 | 0.696 | 1.000 | 1.000 | 1.000 | 0.996 | 9.67 | 9 | 10 | 11 | 2.026 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9999 | 0.0156 | 0.4350 | 0.0017 | 1.004 | 1.368 | 1.000 | 0.056 | 0.697 | 0.685 | 1.000 | 1.000 | 1.000 | 0.996 | 9.66 | 8 | 10 | 12 | 2.032 | 1.00 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0507 | 0.4547 | 0.0090 | 1.005 | 1.411 | 1.000 | 0.006 | 0.920 | 0.828 | 1.000 | 1.000 | 1.000 | 1.000 | 10.02 | 9 | 11 | 12 | 1.999 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9999 | 0.0249 | 0.4516 | 0.0086 | 1.005 | 1.415 | 1.000 | 0.008 | 0.870 | 0.785 | 1.000 | 1.000 | 1.000 | 0.999 | 9.96 | 9 | 11 | 12 | 2.001 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0166 | 0.4518 | 0.0104 | 1.005 | 1.418 | 1.000 | 0.012 | 0.861 | 0.760 | 1.000 | 1.000 | 1.000 | 0.999 | 9.97 | 9 | 11 | 13 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0498 | 0.4501 | 0.0054 | 1.005 | 1.398 | 1.000 | 0.012 | 0.878 | 0.824 | 1.000 | 1.000 | 1.000 | 1.000 | 9.93 | 9 | 11 | 12 | 2.003 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9997 | 0.0245 | 0.4468 | 0.0047 | 1.005 | 1.408 | 0.999 | 0.014 | 0.827 | 0.784 | 1.000 | 1.000 | 1.000 | 0.998 | 9.87 | 9 | 10 | 12 | 2.009 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0163 | 0.4462 | 0.0055 | 1.005 | 1.397 | 1.000 | 0.019 | 0.818 | 0.765 | 1.000 | 1.000 | 1.000 | 0.999 | 9.86 | 9 | 11 | 12 | 2.013 | 1.00 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0478 | 0.4395 | 0.0010 | 1.005 | 1.366 | 1.000 | 0.036 | 0.760 | 0.754 | 1.000 | 1.000 | 1.000 | 0.999 | 9.73 | 9 | 10 | 11 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9998 | 0.0235 | 0.4361 | 0.0010 | 1.005 | 1.370 | 0.999 | 0.041 | 0.706 | 0.698 | 1.000 | 1.000 | 1.000 | 0.996 | 9.67 | 9 | 10 | 11 | 2.027 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9999 | 0.0156 | 0.4349 | 0.0014 | 1.004 | 1.364 | 1.000 | 0.056 | 0.697 | 0.687 | 1.000 | 1.000 | 1.000 | 0.996 | 9.65 | 8 | 10 | 12 | 2.035 | 1.00 | 0.04 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1624 | 0.6633 | 0.6071 | 1.025 | 2.583 | 1.000 | 0.001 | 0.098 | 0.000 | 1.000 | 0.239 | 0.148 | 0.156 | 21.08 | 9 | 38 | 46 | - | - | - | - |
| | 200 | 1.0000 | 0.0926 | 0.7101 | 0.6653 | 1.032 | 2.885 | 1.000 | 0.001 | 0.075 | 0.000 | 1.000 | 0.223 | 0.135 | 0.113 | 23.43 | 12 | 53.5 | 78 | - | - | - | - |
| | 300 | 1.0000 | 0.0742 | 0.7575 | 0.7221 | 1.035 | 3.056 | 1.000 | 0.000 | 0.073 | 0.000 | 1.000 | 0.224 | 0.116 | 0.101 | 27.20 | 14 | 43 | 93 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9998 | 0.0326 | 0.3000 | 0.2736 | 1.005 | 1.393 | 1.000 | 0.133 | 0.006 | 0.001 | 1.000 | 0.051 | 0.032 | 0.031 | 8.23 | 5 | 14 | 22 | - | - | - | - |
| | 200 | 0.9998 | 0.0187 | 0.3286 | 0.3074 | 1.006 | 1.466 | 1.000 | 0.101 | 0.004 | 0.000 | 1.000 | 0.045 | 0.022 | 0.023 | 8.72 | 5 | 15 | 29 | - | - | - | - |
| | 300 | 1.0000 | 0.0152 | 0.3799 | 0.3597 | 1.008 | 1.556 | 1.000 | 0.054 | 0.003 | 0.001 | 1.000 | 0.043 | 0.020 | 0.021 | 9.55 | 5 | 16 | 34 | - | - | - | - |

Notes: See notes to Table 145.

## Table 574: MC findings for DGPIV(a)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.4912 | 0.0295 | 0.4562 | 0.0291 | 1.124 | 2.576 | 0.072 | 0.025 | 0.015 | 0.013 | 1.000 | 0.986 | 0.830 | 0.561 | 5.38 | 3 | 9 | 12 | 1.721 | 0.53 | 0.18 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4315 | 0.0141 | 0.4648 | 0.0348 | 1.137 | 2.624 | 0.046 | 0.016 | 0.009 | 0.007 | 1.000 | 0.983 | 0.795 | 0.522 | 4.96 | 2 | 8 | 11 | 1.576 | 0.45 | 0.12 | 0.01 |
| | 300 | 0.4041 | 0.0091 | 0.4659 | 0.0383 | 1.144 | 2.718 | 0.035 | 0.011 | 0.007 | 0.004 | 1.000 | 0.976 | 0.773 | 0.488 | 4.75 | 2 | 8 | 12 | 1.555 | 0.45 | 0.10 | 0.01 |
| $p = 0.05$, | 100 | 0.4573 | 0.0275 | 0.4495 | 0.0167 | 1.127 | 2.613 | 0.061 | 0.023 | 0.012 | 0.011 | 1.000 | 0.982 | 0.802 | 0.520 | 5.01 | 2 | 8 | 11 | 1.677 | 0.52 | 0.15 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4053 | 0.0130 | 0.4525 | 0.0202 | 1.139 | 2.644 | 0.036 | 0.013 | 0.007 | 0.006 | 1.000 | 0.977 | 0.764 | 0.479 | 4.61 | 2 | 8 | 11 | 1.543 | 0.44 | 0.10 | 0.01 |
| | 300 | 0.3781 | 0.0084 | 0.4534 | 0.0227 | 1.146 | 2.734 | 0.026 | 0.010 | 0.005 | 0.003 | 1.000 | 0.969 | 0.742 | 0.460 | 4.40 | 2 | 7 | 11 | 1.514 | 0.43 | 0.08 | 0.01 |
| $p = 0.01$, | 100 | 0.3850 | 0.0239 | 0.4377 | 0.0059 | 1.141 | 2.710 | 0.032 | 0.015 | 0.005 | 0.005 | 1.000 | 0.969 | 0.730 | 0.434 | 4.29 | 2 | 7 | 11 | 1.540 | 0.45 | 0.09 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3484 | 0.0113 | 0.4353 | 0.0070 | 1.147 | 2.701 | 0.018 | 0.008 | 0.003 | 0.003 | 1.000 | 0.959 | 0.693 | 0.397 | 3.98 | 2 | 7 | 10 | 1.439 | 0.38 | 0.05 | 0.00 |
| | 300 | 0.3294 | 0.0072 | 0.4310 | 0.0073 | 1.153 | 2.773 | 0.015 | 0.009 | 0.001 | 0.001 | 1.000 | 0.952 | 0.662 | 0.374 | 3.80 | 2 | 7 | 10 | 1.395 | 0.35 | 0.04 | 0.00 |
| $p = 0.1$, | 100 | 0.3931 | 0.0280 | 0.4777 | 0.0251 | 1.144 | 2.725 | 0.024 | 0.008 | 0.006 | 0.004 | 1.000 | 0.986 | 0.830 | 0.560 | 4.73 | 2 | 8 | 11 | 1.396 | 0.34 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3490 | 0.0133 | 0.4814 | 0.0306 | 1.153 | 2.732 | 0.012 | 0.005 | 0.003 | 0.003 | 1.000 | 0.983 | 0.795 | 0.522 | 4.40 | 2 | 7 | 11 | 1.296 | 0.26 | 0.03 | 0.00 |
| | 300 | 0.3245 | 0.0086 | 0.4832 | 0.0343 | 1.162 | 2.813 | 0.013 | 0.006 | 0.002 | 0.001 | 1.000 | 0.976 | 0.773 | 0.488 | 4.20 | 2 | 7 | 12 | 1.261 | 0.24 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.3632 | 0.0261 | 0.4710 | 0.0144 | 1.148 | 2.756 | 0.019 | 0.009 | 0.005 | 0.004 | 1.000 | 0.982 | 0.802 | 0.519 | 4.40 | 2 | 7 | 11 | 1.366 | 0.32 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3247 | 0.0123 | 0.4704 | 0.0172 | 1.156 | 2.747 | 0.008 | 0.002 | 0.002 | 0.002 | 1.000 | 0.977 | 0.764 | 0.479 | 4.08 | 2 | 7 | 11 | 1.279 | 0.26 | 0.02 | 0.00 |
| | 300 | 0.3063 | 0.0080 | 0.4702 | 0.0197 | 1.163 | 2.818 | 0.009 | 0.005 | 0.001 | 0.000 | 1.000 | 0.969 | 0.742 | 0.460 | 3.92 | 2 | 7 | 11 | 1.247 | 0.23 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.3097 | 0.0230 | 0.4559 | 0.0044 | 1.157 | 2.815 | 0.008 | 0.003 | 0.002 | 0.002 | 1.000 | 0.969 | 0.730 | 0.434 | 3.82 | 2 | 6 | 10 | 1.298 | 0.28 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2863 | 0.0109 | 0.4508 | 0.0055 | 1.161 | 2.777 | 0.005 | 0.001 | 0.002 | 0.002 | 1.000 | 0.959 | 0.693 | 0.397 | 3.60 | 2 | 6 | 10 | 1.239 | 0.23 | 0.01 | 0.00 |
| | 300 | 0.2720 | 0.0070 | 0.4461 | 0.0058 | 1.167 | 2.841 | 0.003 | 0.003 | 0.000 | 0.000 | 1.000 | 0.952 | 0.662 | 0.374 | 3.45 | 2 | 6 | 9 | 1.199 | 0.19 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6708 | 0.0690 | 0.4825 | 0.4117 | 1.155 | 2.527 | 0.173 | 0.001 | 0.010 | 0.000 | 1.000 | 0.142 | 0.079 | 0.072 | 10.19 | 2 | 24 | 48 | - | - | - | - |
| | 200 | 0.6192 | 0.0429 | 0.5305 | 0.4722 | 1.176 | 2.560 | 0.116 | 0.001 | 0.009 | 0.000 | 1.000 | 0.144 | 0.064 | 0.053 | 11.64 | 2 | 30 | 67 | - | - | - | - |
| | 300 | 0.5913 | 0.0333 | 0.5670 | 0.5158 | 1.188 | 2.668 | 0.075 | 0.001 | 0.003 | 0.000 | 1.000 | 0.136 | 0.060 | 0.045 | 12.91 | 2 | 34 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4279 | 0.0245 | 0.1802 | 0.1562 | 1.163 | 2.748 | 0.088 | 0.003 | 0.003 | 0.000 | 1.000 | 0.024 | 0.018 | 0.016 | 4.57 | 1 | 18 | 42 | - | - | - | - |
| | 200 | 0.4207 | 0.0177 | 0.2306 | 0.2112 | 1.179 | 2.773 | 0.068 | 0.001 | 0.001 | 0.000 | 1.000 | 0.027 | 0.018 | 0.016 | 5.62 | 1 | 21.5 | 43 | - | - | - | - |
| | 300 | 0.4035 | 0.0139 | 0.2569 | 0.2379 | 1.190 | 2.905 | 0.047 | 0.000 | 0.001 | 0.000 | 1.000 | 0.034 | 0.022 | 0.018 | 6.16 | 1 | 23 | 44 | - | - | - | - |

Notes: See notes to Table 145.

## Table 575: MC findings for DGPIV(a)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9325 | 0.0410 | 0.4159 | 0.0137 | 1.020 | 1.950 | 0.755 | 0.158 | 0.215 | 0.190 | 1.000 | 1.000 | 1.000 | 0.979 | 8.72 | 7 | 10 | 12 | 2.326 | 0.95 | 0.37 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9003 | 0.0200 | 0.4196 | 0.0139 | 1.027 | 2.191 | 0.672 | 0.160 | 0.193 | 0.167 | 1.000 | 1.000 | 1.000 | 0.976 | 8.49 | 6 | 10 | 12 | 2.310 | 0.91 | 0.39 | 0.01 |
| | 300 | 0.8818 | 0.0132 | 0.4215 | 0.0144 | 1.030 | 2.339 | 0.628 | 0.151 | 0.176 | 0.149 | 1.000 | 1.000 | 0.998 | 0.964 | 8.35 | 5 | 10 | 12 | 2.311 | 0.89 | 0.40 | 0.02 |
| $p = 0.05$, | 100 | 0.9082 | 0.0395 | 0.4129 | 0.0077 | 1.024 | 2.143 | 0.694 | 0.180 | 0.184 | 0.173 | 1.000 | 1.000 | 1.000 | 0.972 | 8.45 | 6 | 10 | 12 | 2.336 | 0.92 | 0.40 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8705 | 0.0193 | 0.4187 | 0.0077 | 1.032 | 2.407 | 0.611 | 0.166 | 0.168 | 0.157 | 1.000 | 1.000 | 1.000 | 0.971 | 8.19 | 5 | 10 | 12 | 2.284 | 0.87 | 0.40 | 0.02 |
| | 300 | 0.8571 | 0.0127 | 0.4200 | 0.0070 | 1.034 | 2.500 | 0.580 | 0.155 | 0.154 | 0.141 | 1.000 | 1.000 | 0.998 | 0.958 | 8.09 | 5 | 10 | 12 | 2.309 | 0.86 | 0.44 | 0.01 |
| $p = 0.01$, | 100 | 0.8589 | 0.0375 | 0.4144 | 0.0026 | 1.034 | 2.525 | 0.596 | 0.180 | 0.149 | 0.145 | 1.000 | 1.000 | 1.000 | 0.957 | 8.01 | 5 | 10 | 12 | 2.356 | 0.85 | 0.49 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8313 | 0.0185 | 0.4193 | 0.0021 | 1.039 | 2.676 | 0.536 | 0.161 | 0.147 | 0.145 | 1.000 | 1.000 | 1.000 | 0.957 | 7.83 | 5 | 10 | 11 | 2.311 | 0.82 | 0.48 | 0.01 |
| | 300 | 0.8155 | 0.0121 | 0.4191 | 0.0015 | 1.041 | 2.781 | 0.503 | 0.154 | 0.124 | 0.124 | 1.000 | 1.000 | 0.997 | 0.937 | 7.69 | 5 | 10 | 11 | 2.321 | 0.80 | 0.51 | 0.01 |
| $p = 0.1$, | 100 | 0.8861 | 0.0402 | 0.4233 | 0.0123 | 1.029 | 2.339 | 0.651 | 0.143 | 0.187 | 0.168 | 1.000 | 1.000 | 1.000 | 0.979 | 8.41 | 5 | 10 | 12 | 2.158 | 0.89 | 0.27 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8370 | 0.0194 | 0.4294 | 0.0119 | 1.040 | 2.648 | 0.528 | 0.129 | 0.150 | 0.135 | 1.000 | 1.000 | 1.000 | 0.976 | 8.05 | 5 | 10 | 12 | 2.068 | 0.82 | 0.25 | 0.00 |
| | 300 | 0.8102 | 0.0127 | 0.4316 | 0.0128 | 1.044 | 2.825 | 0.467 | 0.123 | 0.122 | 0.109 | 1.000 | 1.000 | 0.998 | 0.964 | 7.84 | 5 | 10 | 11 | 2.048 | 0.78 | 0.26 | 0.00 |
| $p = 0.05$, | 100 | 0.8541 | 0.0385 | 0.4215 | 0.0070 | 1.035 | 2.564 | 0.571 | 0.156 | 0.144 | 0.138 | 1.000 | 1.000 | 1.000 | 0.972 | 8.08 | 5 | 10 | 12 | 2.140 | 0.84 | 0.29 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8036 | 0.0186 | 0.4290 | 0.0061 | 1.046 | 2.857 | 0.471 | 0.135 | 0.116 | 0.111 | 1.000 | 1.000 | 1.000 | 0.971 | 7.73 | 5 | 10 | 11 | 2.046 | 0.77 | 0.26 | 0.01 |
| | 300 | 0.7753 | 0.0122 | 0.4333 | 0.0064 | 1.050 | 3.034 | 0.420 | 0.126 | 0.099 | 0.092 | 1.000 | 1.000 | 0.998 | 0.958 | 7.53 | 5 | 10 | 11 | 2.025 | 0.73 | 0.28 | 0.01 |
| $p = 0.01$, | 100 | 0.7862 | 0.0361 | 0.4256 | 0.0022 | 1.049 | 3.015 | 0.444 | 0.148 | 0.095 | 0.095 | 1.000 | 1.000 | 1.000 | 0.957 | 7.51 | 5 | 10 | 12 | 2.113 | 0.74 | 0.36 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7499 | 0.0177 | 0.4321 | 0.0015 | 1.055 | 3.172 | 0.377 | 0.133 | 0.076 | 0.076 | 1.000 | 1.000 | 1.000 | 0.957 | 7.27 | 5 | 10 | 11 | 2.053 | 0.71 | 0.33 | 0.01 |
| | 300 | 0.7214 | 0.0114 | 0.4329 | 0.0014 | 1.061 | 3.337 | 0.336 | 0.134 | 0.056 | 0.056 | 1.000 | 1.000 | 0.997 | 0.937 | 7.02 | 5 | 10 | 11 | 2.032 | 0.69 | 0.34 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9874 | 0.1417 | 0.6519 | 0.5924 | 1.047 | 2.731 | 0.945 | 0.005 | 0.084 | 0.000 | 1.000 | 0.233 | 0.130 | 0.138 | 18.96 | 7 | 31 | 54 | - | - | - | - |
| | 200 | 0.9747 | 0.0885 | 0.6866 | 0.6409 | 1.062 | 3.030 | 0.890 | 0.004 | 0.064 | 0.001 | 1.000 | 0.209 | 0.113 | 0.091 | 22.48 | 7 | 43 | 68 | - | - | - | - |
| | 300 | 0.9657 | 0.0665 | 0.7031 | 0.6621 | 1.068 | 3.197 | 0.857 | 0.003 | 0.056 | 0.000 | 1.000 | 0.210 | 0.098 | 0.079 | 24.71 | 7 | 46 | 87 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8986 | 0.0583 | 0.4155 | 0.3805 | 1.047 | 2.688 | 0.793 | 0.016 | 0.014 | 0.000 | 1.000 | 0.086 | 0.048 | 0.060 | 10.26 | 1.5 | 19 | 29 | - | - | - | - |
| | 200 | 0.8828 | 0.0377 | 0.4656 | 0.4349 | 1.060 | 2.866 | 0.757 | 0.012 | 0.016 | 0.000 | 1.000 | 0.073 | 0.040 | 0.036 | 11.91 | 1 | 23 | 43 | - | - | - | - |
| | 300 | 0.8773 | 0.0288 | 0.4911 | 0.4645 | 1.064 | 3.001 | 0.734 | 0.007 | 0.013 | 0.001 | 1.000 | 0.070 | 0.040 | 0.028 | 12.99 | 1 | 26 | 44 | - | - | - | - |

Notes: See notes to Table 145.

## Table 576: MC findings for DGPIV(a)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $N$ | TPR | FPR | FDR* | FDR | rRMSFE | rRMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{k+k^*}$ | $\hat{\pi}^*$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9928 | 0.0464 | 0.4322 | 0.0104 | 1.006 | 1.464 | 0.967 | 0.080 | 0.562 | 0.491 | 1.000 | 1.000 | 1.000 | 0.999 | 9.56 | 8 | 11 | 13 | 2.122 | 1.00 | 0.12 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9928 | 0.0225 | 0.4257 | 0.0109 | 1.006 | 1.452 | 0.964 | 0.109 | 0.487 | 0.434 | 1.000 | 1.000 | 1.000 | 0.998 | 9.44 | 8 | 11 | 12 | 2.150 | 1.00 | 0.15 | 0.00 |
| | 300 | 0.9894 | 0.0147 | 0.4209 | 0.0118 | 1.007 | 1.511 | 0.948 | 0.133 | 0.421 | 0.378 | 1.000 | 1.000 | 1.000 | 0.999 | 9.33 | 8 | 10 | 13 | 2.178 | 1.00 | 0.18 | 0.00 |
| $p = 0.05$, | 100 | 0.9906 | 0.0447 | 0.4234 | 0.0059 | 1.006 | 1.473 | 0.958 | 0.114 | 0.482 | 0.446 | 1.000 | 1.000 | 1.000 | 0.999 | 9.38 | 8 | 10 | 13 | 2.163 | 1.00 | 0.17 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9894 | 0.0216 | 0.4170 | 0.0063 | 1.006 | 1.482 | 0.952 | 0.145 | 0.406 | 0.380 | 1.000 | 1.000 | 1.000 | 0.998 | 9.26 | 8 | 10 | 12 | 2.186 | 1.00 | 0.19 | 0.00 |
| | 300 | 0.9828 | 0.0142 | 0.4141 | 0.0072 | 1.008 | 1.588 | 0.923 | 0.167 | 0.362 | 0.340 | 1.000 | 1.000 | 1.000 | 0.999 | 9.15 | 8 | 10 | 12 | 2.214 | 0.99 | 0.21 | 0.00 |
| $p = 0.01$, | 100 | 0.9816 | 0.0416 | 0.4081 | 0.0018 | 1.007 | 1.572 | 0.920 | 0.191 | 0.322 | 0.316 | 1.000 | 1.000 | 1.000 | 0.999 | 9.03 | 8 | 10 | 12 | 2.264 | 0.99 | 0.27 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9751 | 0.0201 | 0.4027 | 0.0014 | 1.008 | 1.672 | 0.900 | 0.232 | 0.265 | 0.259 | 1.000 | 1.000 | 1.000 | 0.998 | 8.88 | 8 | 10 | 11 | 2.289 | 0.99 | 0.29 | 0.01 |
| | 300 | 0.9667 | 0.0133 | 0.4020 | 0.0016 | 1.011 | 1.806 | 0.868 | 0.250 | 0.266 | 0.263 | 1.000 | 1.000 | 1.000 | 0.998 | 8.80 | 7 | 10 | 12 | 2.310 | 0.98 | 0.32 | 0.01 |
| $p = 0.1$, | 100 | 0.9877 | 0.0460 | 0.4313 | 0.0089 | 1.007 | 1.530 | 0.946 | 0.082 | 0.547 | 0.489 | 1.000 | 1.000 | 1.000 | 0.999 | 9.49 | 8 | 11 | 13 | 2.106 | 1.00 | 0.11 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9848 | 0.0224 | 0.4259 | 0.0094 | 1.007 | 1.571 | 0.935 | 0.106 | 0.477 | 0.433 | 1.000 | 1.000 | 1.000 | 0.998 | 9.37 | 8 | 10 | 12 | 2.123 | 0.99 | 0.13 | 0.00 |
| | 300 | 0.9755 | 0.0145 | 0.4219 | 0.0104 | 1.010 | 1.726 | 0.897 | 0.131 | 0.407 | 0.371 | 1.000 | 1.000 | 1.000 | 0.999 | 9.22 | 8 | 10 | 12 | 2.123 | 0.99 | 0.13 | 0.00 |
| $p = 0.05$, | 100 | 0.9832 | 0.0443 | 0.4231 | 0.0046 | 1.007 | 1.580 | 0.929 | 0.115 | 0.468 | 0.440 | 1.000 | 1.000 | 1.000 | 0.999 | 9.31 | 8 | 10 | 13 | 2.146 | 0.99 | 0.15 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9785 | 0.0215 | 0.4178 | 0.0053 | 1.008 | 1.650 | 0.911 | 0.138 | 0.398 | 0.376 | 1.000 | 1.000 | 1.000 | 0.998 | 9.17 | 8 | 10 | 12 | 2.154 | 0.99 | 0.16 | 0.00 |
| | 300 | 0.9635 | 0.0140 | 0.4164 | 0.0062 | 1.012 | 1.882 | 0.862 | 0.156 | 0.344 | 0.328 | 1.000 | 1.000 | 1.000 | 0.999 | 9.01 | 7 | 10 | 12 | 2.145 | 0.98 | 0.17 | 0.00 |
| $p = 0.01$, | 100 | 0.9653 | 0.0412 | 0.4093 | 0.0012 | 1.010 | 1.823 | 0.870 | 0.185 | 0.299 | 0.294 | 1.000 | 1.000 | 1.000 | 0.999 | 8.90 | 7 | 10 | 12 | 2.215 | 0.98 | 0.23 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9489 | 0.0199 | 0.4065 | 0.0013 | 1.013 | 2.056 | 0.820 | 0.213 | 0.246 | 0.241 | 1.000 | 1.000 | 1.000 | 0.998 | 8.70 | 7 | 10 | 11 | 2.196 | 0.96 | 0.23 | 0.01 |
| | 300 | 0.9347 | 0.0131 | 0.4068 | 0.0014 | 1.017 | 2.248 | 0.776 | 0.219 | 0.230 | 0.229 | 1.000 | 1.000 | 1.000 | 0.998 | 8.58 | 7 | 10 | 12 | 2.196 | 0.95 | 0.24 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9995 | 0.1490 | 0.6715 | 0.6122 | 1.025 | 2.568 | 0.998 | 0.003 | 0.102 | 0.000 | 1.000 | 0.231 | 0.152 | 0.142 | 19.74 | 11 | 38.5 | 55 | - | - | - | - |
| | 200 | 0.9993 | 0.1019 | 0.7371 | 0.6947 | 1.030 | 2.814 | 0.997 | 0.002 | 0.089 | 0.000 | 1.000 | 0.216 | 0.128 | 0.112 | 25.28 | 10 | 38 | 88 | - | - | - | - |
| | 300 | 0.9991 | 0.0804 | 0.7533 | 0.7179 | 1.036 | 3.056 | 0.996 | 0.002 | 0.073 | 0.000 | 1.000 | 0.213 | 0.121 | 0.098 | 29.03 | 11 | 48 | 98 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9806 | 0.0434 | 0.3660 | 0.3315 | 1.014 | 1.976 | 0.958 | 0.050 | 0.010 | 0.001 | 1.000 | 0.060 | 0.040 | 0.045 | 9.20 | 5 | 16 | 31 | - | - | - | - |
| | 200 | 0.9847 | 0.0299 | 0.4470 | 0.4182 | 1.016 | 2.042 | 0.968 | 0.025 | 0.012 | 0.000 | 1.000 | 0.055 | 0.033 | 0.036 | 10.88 | 6 | 17 | 31 | - | - | - | - |
| | 300 | 0.9804 | 0.0233 | 0.4752 | 0.4524 | 1.019 | 2.195 | 0.959 | 0.026 | 0.008 | 0.000 | 1.000 | 0.056 | 0.034 | 0.028 | 11.86 | 5 | 20 | 38 | - | - | - | - |

Notes: See notes to Table 145.

## Table 577: MC findings for DGPIV(b)

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.8437 | 0.0271 | 0.3322 | 0.0239 | 1.100 | 2.559 | 0.553 | 0.377 | 1.000 | 0.982 | 0.806 | 0.542 | 6.90 | 4 | 9 | 13 | 1.920 | 0.68 | 0.22 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8108 | 0.0133 | 0.3357 | 0.0301 | 1.119 | 2.779 | 0.482 | 0.325 | 1.000 | 0.979 | 0.788 | 0.514 | 6.69 | 4 | 9 | 11 | 1.896 | 0.64 | 0.23 | 0.03 |
| | 300 | 0.7858 | 0.0087 | 0.3365 | 0.0319 | 1.133 | 2.930 | 0.422 | 0.298 | 1.000 | 0.975 | 0.773 | 0.496 | 6.52 | 4 | 9 | 12 | 1.852 | 0.61 | 0.22 | 0.03 |
| $p = 0.05$, | 100 | 0.8163 | 0.0251 | 0.3213 | 0.0146 | 1.110 | 2.714 | 0.489 | 0.373 | 1.000 | 0.978 | 0.780 | 0.505 | 6.57 | 4 | 9 | 11 | 1.901 | 0.64 | 0.23 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7801 | 0.0123 | 0.3248 | 0.0190 | 1.131 | 2.945 | 0.418 | 0.318 | 1.000 | 0.974 | 0.755 | 0.474 | 6.34 | 4 | 9 | 11 | 1.862 | 0.60 | 0.23 | 0.03 |
| | 300 | 0.7589 | 0.0080 | 0.3246 | 0.0203 | 1.142 | 3.063 | 0.360 | 0.282 | 1.000 | 0.971 | 0.740 | 0.456 | 6.19 | 4 | 8 | 12 | 1.827 | 0.58 | 0.22 | 0.02 |
| $p = 0.01$, | 100 | 0.7461 | 0.0221 | 0.3074 | 0.0050 | 1.141 | 3.119 | 0.335 | 0.304 | 1.000 | 0.965 | 0.703 | 0.422 | 5.92 | 4 | 8 | 10 | 1.821 | 0.58 | 0.21 | 0.02 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7264 | 0.0107 | 0.3053 | 0.0056 | 1.155 | 3.236 | 0.303 | 0.271 | 1.000 | 0.955 | 0.679 | 0.400 | 5.75 | 3 | 8 | 10 | 1.827 | 0.58 | 0.23 | 0.02 |
| | 300 | 0.7090 | 0.0070 | 0.3052 | 0.0075 | 1.162 | 3.327 | 0.262 | 0.230 | 1.000 | 0.950 | 0.670 | 0.382 | 5.64 | 3 | 8 | 10 | 1.823 | 0.58 | 0.22 | 0.02 |
| $p = 0.1$, | 100 | 0.7867 | 0.0264 | 0.3400 | 0.0189 | 1.126 | 2.889 | 0.399 | 0.290 | 1.000 | 0.982 | 0.806 | 0.542 | 6.55 | 4 | 9 | 13 | 1.647 | 0.52 | 0.12 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7504 | 0.0129 | 0.3433 | 0.0238 | 1.147 | 3.101 | 0.333 | 0.248 | 1.000 | 0.979 | 0.788 | 0.513 | 6.31 | 4 | 9 | 11 | 1.602 | 0.48 | 0.12 | 0.01 |
| | 300 | 0.7207 | 0.0084 | 0.3454 | 0.0254 | 1.162 | 3.257 | 0.268 | 0.205 | 1.000 | 0.975 | 0.773 | 0.496 | 6.12 | 4 | 8 | 11 | 1.547 | 0.43 | 0.10 | 0.01 |
| $p = 0.05$, | 100 | 0.7532 | 0.0247 | 0.3320 | 0.0113 | 1.141 | 3.072 | 0.327 | 0.260 | 1.000 | 0.978 | 0.780 | 0.505 | 6.21 | 4 | 8 | 11 | 1.614 | 0.49 | 0.12 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7202 | 0.0120 | 0.3335 | 0.0143 | 1.159 | 3.259 | 0.277 | 0.232 | 1.000 | 0.974 | 0.755 | 0.474 | 5.98 | 4 | 8 | 10 | 1.585 | 0.45 | 0.12 | 0.01 |
| | 300 | 0.6935 | 0.0078 | 0.3347 | 0.0157 | 1.173 | 3.395 | 0.220 | 0.185 | 1.000 | 0.971 | 0.740 | 0.456 | 5.80 | 4 | 8 | 11 | 1.539 | 0.42 | 0.11 | 0.01 |
| $p = 0.01$, | 100 | 0.6908 | 0.0218 | 0.3172 | 0.0031 | 1.170 | 3.407 | 0.215 | 0.201 | 1.000 | 0.965 | 0.703 | 0.422 | 5.62 | 3 | 8 | 9 | 1.595 | 0.46 | 0.12 | 0.01 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6670 | 0.0105 | 0.3155 | 0.0037 | 1.185 | 3.534 | 0.179 | 0.167 | 1.000 | 0.955 | 0.679 | 0.400 | 5.43 | 3 | 8 | 10 | 1.590 | 0.46 | 0.12 | 0.01 |
| | 300 | 0.6487 | 0.0069 | 0.3160 | 0.0051 | 1.194 | 3.640 | 0.150 | 0.140 | 1.000 | 0.950 | 0.670 | 0.382 | 5.31 | 3 | 8 | 9 | 1.583 | 0.46 | 0.11 | 0.01 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9626 | 0.1035 | 0.5665 | 0.4938 | 1.149 | 2.514 | 0.829 | 0.010 | 1.000 | 0.187 | 0.106 | 0.104 | 15.06 | 5 | 28 | 46 | - | - | - | - |
| | 200 | 0.9514 | 0.0733 | 0.6460 | 0.6003 | 1.183 | 2.708 | 0.780 | 0.001 | 1.000 | 0.190 | 0.098 | 0.082 | 19.35 | 6 | 37.5 | 75 | - | - | - | - |
| | 300 | 0.9397 | 0.0569 | 0.6767 | 0.6386 | 1.202 | 2.845 | 0.735 | 0.002 | 1.000 | 0.165 | 0.095 | 0.074 | 21.72 | 6 | 43 | 69 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8764 | 0.0416 | 0.3023 | 0.2680 | 1.156 | 2.755 | 0.649 | 0.074 | 1.000 | 0.057 | 0.035 | 0.040 | 8.50 | 2 | 18 | 33 | - | - | - | - |
| | 200 | 0.8749 | 0.0310 | 0.3836 | 0.3590 | 1.178 | 2.887 | 0.634 | 0.042 | 1.000 | 0.064 | 0.039 | 0.031 | 10.55 | 2 | 22 | 45 | - | - | - | - |
| | 300 | 0.8691 | 0.0248 | 0.4295 | 0.4092 | 1.199 | 3.006 | 0.609 | 0.026 | 1.000 | 0.062 | 0.033 | 0.025 | 11.75 | 2 | 25 | 37 | - | - | - | - |

Notes: See notes to Table 100.

## Table 578: MC findings for DGPIV(b)

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9998 | 0.0375 | 0.3789 | 0.0132 | 1.007 | 1.199 | 1.000 | 0.403 | 1.000 | 1.000 | 1.000 | 0.983 | 8.71 | 8 | 10 | 12 | 2.024 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0183 | 0.3738 | 0.0147 | 1.008 | 1.199 | 1.000 | 0.462 | 1.000 | 1.000 | 1.000 | 0.975 | 8.63 | 8 | 10 | 12 | 2.036 | 1.00 | 0.04 | 0.00 |
| | 300 | 0.9991 | 0.0119 | 0.3685 | 0.0143 | 1.008 | 1.227 | 0.998 | 0.518 | 1.000 | 1.000 | 1.000 | 0.974 | 8.54 | 8 | 10 | 12 | 2.029 | 1.00 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9998 | 0.0358 | 0.3685 | 0.0073 | 1.006 | 1.168 | 1.000 | 0.506 | 1.000 | 1.000 | 1.000 | 0.976 | 8.54 | 8 | 10 | 12 | 2.023 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9998 | 0.0174 | 0.3634 | 0.0086 | 1.007 | 1.169 | 1.000 | 0.566 | 1.000 | 1.000 | 0.999 | 0.972 | 8.46 | 8 | 10 | 11 | 2.034 | 1.00 | 0.04 | 0.00 |
| | 300 | 0.9987 | 0.0113 | 0.3586 | 0.0084 | 1.008 | 1.217 | 0.997 | 0.622 | 1.000 | 1.000 | 1.000 | 0.967 | 8.38 | 8 | 9 | 11 | 2.032 | 1.00 | 0.04 | 0.00 |
| $p = 0.01$, | 100 | 0.9982 | 0.0332 | 0.3523 | 0.0019 | 1.006 | 1.191 | 0.996 | 0.682 | 1.000 | 1.000 | 0.999 | 0.959 | 8.28 | 8 | 9 | 10 | 2.029 | 1.00 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9972 | 0.0162 | 0.3487 | 0.0020 | 1.007 | 1.237 | 0.993 | 0.729 | 1.000 | 1.000 | 0.999 | 0.955 | 8.22 | 8 | 9 | 11 | 2.046 | 0.99 | 0.05 | 0.00 |
| | 300 | 0.9952 | 0.0106 | 0.3452 | 0.0020 | 1.008 | 1.324 | 0.988 | 0.771 | 1.000 | 1.000 | 0.999 | 0.950 | 8.15 | 7 | 9 | 10 | 2.057 | 0.99 | 0.07 | 0.00 |
| $p = 0.1$, | 100 | 0.9998 | 0.0372 | 0.3770 | 0.0104 | 1.006 | 1.167 | 1.000 | 0.418 | 1.000 | 1.000 | 1.000 | 0.983 | 8.68 | 8 | 10 | 12 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9991 | 0.0181 | 0.3719 | 0.0114 | 1.007 | 1.200 | 0.998 | 0.475 | 1.000 | 1.000 | 1.000 | 0.975 | 8.59 | 8 | 10 | 12 | 2.017 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9982 | 0.0118 | 0.3671 | 0.0118 | 1.008 | 1.232 | 0.995 | 0.529 | 1.000 | 1.000 | 1.000 | 0.974 | 8.51 | 8 | 10 | 12 | 2.020 | 0.99 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9992 | 0.0356 | 0.3675 | 0.0056 | 1.006 | 1.174 | 0.998 | 0.514 | 1.000 | 1.000 | 1.000 | 0.976 | 8.52 | 8 | 10 | 12 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9986 | 0.0173 | 0.3622 | 0.0064 | 1.007 | 1.194 | 0.996 | 0.575 | 1.000 | 1.000 | 0.999 | 0.972 | 8.44 | 8 | 9 | 11 | 2.020 | 1.00 | 0.03 | 0.00 |
| | 300 | 0.9969 | 0.0113 | 0.3577 | 0.0065 | 1.008 | 1.269 | 0.992 | 0.632 | 1.000 | 1.000 | 1.000 | 0.967 | 8.35 | 8 | 9 | 11 | 2.025 | 0.99 | 0.03 | 0.00 |
| $p = 0.01$, | 100 | 0.9962 | 0.0332 | 0.3525 | 0.0014 | 1.007 | 1.267 | 0.990 | 0.680 | 1.000 | 1.000 | 0.999 | 0.959 | 8.27 | 8 | 9 | 10 | 2.023 | 0.99 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9913 | 0.0162 | 0.3497 | 0.0013 | 1.010 | 1.459 | 0.978 | 0.724 | 1.000 | 1.000 | 0.999 | 0.955 | 8.18 | 7 | 9 | 11 | 2.023 | 0.98 | 0.05 | 0.00 |
| | 300 | 0.9863 | 0.0106 | 0.3468 | 0.0012 | 1.013 | 1.641 | 0.964 | 0.760 | 1.000 | 1.000 | 0.999 | 0.950 | 8.10 | 7 | 9 | 10 | 2.026 | 0.96 | 0.06 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1194 | 0.5947 | 0.5174 | 1.036 | 2.292 | 1.000 | 0.009 | 1.000 | 0.231 | 0.124 | 0.118 | 16.82 | 8 | 34 | 56 | - | - | - | - |
| | 200 | 1.0000 | 0.0762 | 0.6648 | 0.6167 | 1.045 | 2.480 | 1.000 | 0.002 | 1.000 | 0.203 | 0.110 | 0.098 | 20.17 | 9 | 40 | 75 | - | - | - | - |
| | 300 | 0.9998 | 0.0634 | 0.6943 | 0.6566 | 1.054 | 2.682 | 0.999 | 0.004 | 1.000 | 0.185 | 0.110 | 0.080 | 23.95 | 9 | 48 | 72 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9986 | 0.0252 | 0.2471 | 0.2181 | 1.008 | 1.409 | 0.996 | 0.202 | 1.000 | 0.043 | 0.022 | 0.026 | 7.48 | 5 | 12 | 25 | - | - | - | - |
| | 200 | 0.9988 | 0.0163 | 0.2979 | 0.2776 | 1.012 | 1.531 | 0.996 | 0.137 | 1.000 | 0.039 | 0.022 | 0.020 | 8.24 | 5 | 14 | 26 | - | - | - | - |
| | 300 | 0.9989 | 0.0133 | 0.3385 | 0.3223 | 1.015 | 1.653 | 0.996 | 0.110 | 1.000 | 0.034 | 0.024 | 0.017 | 8.99 | 5 | 16 | 31 | - | - | - | - |

Notes: See notes to Table 100.

## Table 579: MC findings for DGPIV(b)

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 1.0000 | 0.0418 | 0.4055 | 0.0119 | 1.005 | 1.240 | 1.000 | 0.128 | 1.000 | 1.000 | 1.000 | 1.000 | 9.14 | 8 | 10 | 12 | 2.016 | 1.00 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0204 | 0.4008 | 0.0118 | 1.005 | 1.223 | 1.000 | 0.170 | 1.000 | 1.000 | 1.000 | 1.000 | 9.06 | 8 | 10 | 12 | 2.015 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0134 | 0.3982 | 0.0133 | 1.005 | 1.224 | 1.000 | 0.189 | 1.000 | 1.000 | 1.000 | 1.000 | 9.01 | 8 | 10 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0403 | 0.3970 | 0.0064 | 1.004 | 1.208 | 1.000 | 0.175 | 1.000 | 1.000 | 1.000 | 1.000 | 8.99 | 8 | 10 | 12 | 2.012 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0196 | 0.3920 | 0.0064 | 1.004 | 1.193 | 1.000 | 0.229 | 1.000 | 1.000 | 1.000 | 1.000 | 8.91 | 8 | 10 | 12 | 2.006 | 1.00 | 0.01 | 0.00 |
| | 300 | 1.0000 | 0.0129 | 0.3890 | 0.0077 | 1.004 | 1.195 | 1.000 | 0.260 | 1.000 | 1.000 | 1.000 | 0.999 | 8.86 | 8 | 10 | 12 | 2.006 | 1.00 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0377 | 0.3813 | 0.0015 | 1.004 | 1.158 | 1.000 | 0.323 | 1.000 | 1.000 | 1.000 | 0.999 | 8.73 | 8 | 10 | 11 | 2.003 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 1.0000 | 0.0184 | 0.3775 | 0.0013 | 1.004 | 1.147 | 1.000 | 0.371 | 1.000 | 1.000 | 1.000 | 0.999 | 8.67 | 8 | 9 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0121 | 0.3748 | 0.0022 | 1.004 | 1.158 | 1.000 | 0.411 | 1.000 | 1.000 | 1.000 | 0.998 | 8.63 | 8 | 9 | 11 | 2.002 | 1.00 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 1.0000 | 0.0415 | 0.4039 | 0.0094 | 1.004 | 1.208 | 1.000 | 0.131 | 1.000 | 1.000 | 1.000 | 1.000 | 9.11 | 8 | 10 | 12 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0203 | 0.3995 | 0.0098 | 1.004 | 1.197 | 1.000 | 0.173 | 1.000 | 1.000 | 1.000 | 1.000 | 9.03 | 8 | 10 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0134 | 0.3972 | 0.0117 | 1.004 | 1.202 | 1.000 | 0.194 | 1.000 | 1.000 | 1.000 | 1.000 | 8.99 | 8 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 1.0000 | 0.0401 | 0.3960 | 0.0048 | 1.004 | 1.186 | 1.000 | 0.177 | 1.000 | 1.000 | 1.000 | 1.000 | 8.97 | 8 | 10 | 12 | 2.002 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0196 | 0.3913 | 0.0055 | 1.004 | 1.179 | 1.000 | 0.231 | 1.000 | 1.000 | 1.000 | 1.000 | 8.89 | 8 | 10 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0129 | 0.3884 | 0.0068 | 1.004 | 1.183 | 1.000 | 0.262 | 1.000 | 1.000 | 1.000 | 0.999 | 8.85 | 8 | 10 | 12 | 2.001 | 1.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 1.0000 | 0.0376 | 0.3810 | 0.0011 | 1.004 | 1.152 | 1.000 | 0.324 | 1.000 | 1.000 | 1.000 | 0.999 | 8.73 | 8 | 9 | 11 | 2.001 | 1.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 1.0000 | 0.0184 | 0.3774 | 0.0011 | 1.004 | 1.144 | 1.000 | 0.372 | 1.000 | 1.000 | 1.000 | 0.999 | 8.67 | 8 | 9 | 12 | 2.000 | 1.00 | 0.00 | 0.00 |
| | 300 | 1.0000 | 0.0121 | 0.3747 | 0.0020 | 1.004 | 1.155 | 1.000 | 0.411 | 1.000 | 1.000 | 1.000 | 0.998 | 8.63 | 8 | 9 | 11 | 2.002 | 1.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1499 | 0.6455 | 0.5708 | 1.020 | 2.216 | 1.000 | 0.020 | 1.000 | 0.260 | 0.165 | 0.148 | 19.84 | 7 | 31 | 41 | - | - | - | - |
| | 200 | 1.0000 | 0.0844 | 0.6157 | 0.5644 | 1.030 | 2.602 | 1.000 | 0.016 | 1.000 | 0.221 | 0.122 | 0.097 | 21.80 | 7 | 47 | 62 | - | - | - | - |
| | 300 | 1.0000 | 0.0555 | 0.6190 | 0.5793 | 1.033 | 2.719 | 1.000 | 0.007 | 1.000 | 0.208 | 0.114 | 0.097 | 21.59 | 7 | 57 | 79 | - | - | - | - |
| Adaptive Lasso | 100 | 1.0000 | 0.0132 | 0.1517 | 0.1329 | 1.002 | 1.198 | 1.000 | 0.383 | 1.000 | 0.019 | 0.016 | 0.008 | 6.31 | 5 | 9 | 14 | - | - | - | - |
| | 200 | 1.0000 | 0.0074 | 0.1593 | 0.1472 | 1.003 | 1.222 | 1.000 | 0.401 | 1.000 | 0.022 | 0.014 | 0.011 | 6.47 | 5 | 10 | 20 | - | - | - | - |
| | 300 | 0.9998 | 0.0050 | 0.1574 | 0.1475 | 1.003 | 1.244 | 1.000 | 0.410 | 1.000 | 0.014 | 0.011 | 0.011 | 6.49 | 5 | 10 | 23 | - | - | - | - |

Notes: See notes to Table 100.

## Table 580: MC findings for DGPIV(b)

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.6661 | 0.0271 | 0.3755 | 0.0256 | 1.099 | 2.501 | 0.135 | 0.098 | 1.000 | 0.987 | 0.835 | 0.563 | 6.01 | 4 | 8 | 11 | 1.575 | 0.47 | 0.10 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6343 | 0.0131 | 0.3758 | 0.0295 | 1.113 | 2.553 | 0.095 | 0.065 | 1.000 | 0.978 | 0.803 | 0.523 | 5.78 | 4 | 8 | 11 | 1.558 | 0.47 | 0.08 | 0.01 |
| | 300 | 0.6195 | 0.0086 | 0.3748 | 0.0362 | 1.113 | 2.608 | 0.077 | 0.061 | 1.000 | 0.979 | 0.776 | 0.489 | 5.67 | 3 | 8 | 10 | 1.577 | 0.49 | 0.08 | 0.01 |
| $p = 0.05$, | 100 | 0.6447 | 0.0253 | 0.3641 | 0.0148 | 1.100 | 2.551 | 0.106 | 0.084 | 1.000 | 0.981 | 0.803 | 0.530 | 5.73 | 3.5 | 8 | 10 | 1.580 | 0.49 | 0.09 | 0.01 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6218 | 0.0121 | 0.3606 | 0.0178 | 1.113 | 2.570 | 0.077 | 0.062 | 1.000 | 0.974 | 0.766 | 0.486 | 5.53 | 3 | 8 | 10 | 1.582 | 0.50 | 0.08 | 0.00 |
| | 300 | 0.6064 | 0.0079 | 0.3592 | 0.0216 | 1.111 | 2.620 | 0.061 | 0.051 | 1.000 | 0.974 | 0.750 | 0.450 | 5.40 | 3 | 8 | 10 | 1.586 | 0.51 | 0.07 | 0.01 |
| $p = 0.01$, | 100 | 0.6076 | 0.0226 | 0.3472 | 0.0054 | 1.109 | 2.653 | 0.067 | 0.062 | 1.000 | 0.969 | 0.743 | 0.442 | 5.28 | 3 | 7 | 9 | 1.621 | 0.55 | 0.07 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.5978 | 0.0107 | 0.3350 | 0.0058 | 1.114 | 2.622 | 0.048 | 0.042 | 1.000 | 0.961 | 0.687 | 0.403 | 5.11 | 3 | 7 | 10 | 1.645 | 0.58 | 0.06 | 0.00 |
| | 300 | 0.5867 | 0.0069 | 0.3316 | 0.0072 | 1.111 | 2.641 | 0.034 | 0.031 | 1.000 | 0.947 | 0.678 | 0.377 | 5.01 | 3 | 7 | 9 | 1.647 | 0.60 | 0.05 | 0.00 |
| $p = 0.1$, | 100 | 0.6143 | 0.0264 | 0.3840 | 0.0202 | 1.110 | 2.631 | 0.068 | 0.055 | 1.000 | 0.987 | 0.835 | 0.563 | 5.69 | 4 | 8 | 11 | 1.365 | 0.33 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5843 | 0.0127 | 0.3831 | 0.0229 | 1.124 | 2.669 | 0.039 | 0.032 | 1.000 | 0.978 | 0.803 | 0.523 | 5.46 | 3 | 8 | 9 | 1.375 | 0.35 | 0.02 | 0.00 |
| | 300 | 0.5673 | 0.0083 | 0.3818 | 0.0280 | 1.123 | 2.718 | 0.026 | 0.022 | 1.000 | 0.979 | 0.776 | 0.489 | 5.32 | 3 | 7 | 10 | 1.376 | 0.35 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.5903 | 0.0249 | 0.3751 | 0.0117 | 1.116 | 2.699 | 0.045 | 0.038 | 1.000 | 0.981 | 0.803 | 0.529 | 5.41 | 3 | 7 | 10 | 1.390 | 0.36 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5700 | 0.0119 | 0.3694 | 0.0128 | 1.126 | 2.699 | 0.028 | 0.025 | 1.000 | 0.974 | 0.766 | 0.486 | 5.21 | 3 | 7 | 10 | 1.421 | 0.40 | 0.02 | 0.00 |
| | 300 | 0.5528 | 0.0077 | 0.3688 | 0.0161 | 1.124 | 2.747 | 0.019 | 0.019 | 1.000 | 0.974 | 0.750 | 0.450 | 5.07 | 3 | 7 | 9 | 1.413 | 0.39 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.5606 | 0.0224 | 0.3571 | 0.0043 | 1.123 | 2.785 | 0.025 | 0.023 | 1.000 | 0.969 | 0.743 | 0.442 | 5.02 | 3 | 7 | 9 | 1.508 | 0.48 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.5421 | 0.0105 | 0.3480 | 0.0042 | 1.133 | 2.776 | 0.017 | 0.015 | 1.000 | 0.961 | 0.687 | 0.403 | 4.81 | 3 | 7 | 9 | 1.533 | 0.51 | 0.02 | 0.00 |
| | 300 | 0.5292 | 0.0068 | 0.3447 | 0.0047 | 1.130 | 2.801 | 0.008 | 0.008 | 1.000 | 0.947 | 0.678 | 0.377 | 4.69 | 3 | 7 | 9 | 1.531 | 0.52 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.8512 | 0.0795 | 0.5068 | 0.4359 | 1.138 | 2.282 | 0.414 | 0.004 | 1.000 | 0.180 | 0.098 | 0.096 | 12.13 | 4 | 25 | 42 | - | - | - | - |
| | 200 | 0.8294 | 0.0541 | 0.5755 | 0.5285 | 1.161 | 2.355 | 0.336 | 0.000 | 1.000 | 0.139 | 0.075 | 0.064 | 14.92 | 4 | 32 | 55 | - | - | - | - |
| | 300 | 0.8139 | 0.0444 | 0.6252 | 0.5886 | 1.166 | 2.413 | 0.279 | 0.000 | 1.000 | 0.156 | 0.079 | 0.056 | 17.35 | 4 | 37 | 64 | - | - | - | - |
| Adaptive Lasso | 100 | 0.6737 | 0.0289 | 0.2133 | 0.1856 | 1.165 | 2.686 | 0.245 | 0.019 | 1.000 | 0.041 | 0.032 | 0.032 | 6.23 | 1 | 17 | 28 | - | - | - | - |
| | 200 | 0.6718 | 0.0237 | 0.2978 | 0.2770 | 1.184 | 2.753 | 0.228 | 0.004 | 1.000 | 0.045 | 0.023 | 0.029 | 8.08 | 1 | 22 | 43 | - | - | - | - |
| | 300 | 0.6755 | 0.0201 | 0.3523 | 0.3352 | 1.193 | 2.839 | 0.195 | 0.004 | 1.000 | 0.047 | 0.025 | 0.022 | 9.40 | 1 | 24.5 | 45 | - | - | - | - |

Notes: See notes to Table 100.

## Table 581: MC findings for DGPIV(b)

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9799 | 0.0355 | 0.3706 | 0.0134 | 1.012 | 1.496 | 0.929 | 0.519 | 1.000 | 1.000 | 1.000 | 0.983 | 8.41 | 7 | 10 | 12 | 1.986 | 0.93 | 0.05 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9601 | 0.0171 | 0.3686 | 0.0157 | 1.017 | 1.791 | 0.874 | 0.550 | 1.000 | 1.000 | 0.999 | 0.970 | 8.21 | 6.5 | 10 | 12 | 1.957 | 0.89 | 0.07 | 0.00 |
| | 300 | 0.9497 | 0.0113 | 0.3682 | 0.0149 | 1.018 | 1.895 | 0.840 | 0.553 | 1.000 | 1.000 | 1.000 | 0.965 | 8.11 | 6 | 9 | 12 | 1.912 | 0.85 | 0.06 | 0.00 |
| $p = 0.05$, | 100 | 0.9667 | 0.0339 | 0.3640 | 0.0076 | 1.014 | 1.661 | 0.891 | 0.587 | 1.000 | 1.000 | 1.000 | 0.975 | 8.19 | 7 | 9 | 11 | 1.962 | 0.90 | 0.06 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9425 | 0.0164 | 0.3639 | 0.0087 | 1.020 | 1.982 | 0.824 | 0.600 | 1.000 | 1.000 | 0.999 | 0.966 | 7.98 | 6 | 9 | 11 | 1.918 | 0.84 | 0.08 | 0.00 |
| | 300 | 0.9324 | 0.0108 | 0.3633 | 0.0077 | 1.021 | 2.079 | 0.790 | 0.600 | 1.000 | 1.000 | 1.000 | 0.959 | 7.89 | 6 | 9 | 11 | 1.872 | 0.80 | 0.07 | 0.00 |
| $p = 0.01$, | 100 | 0.9249 | 0.0318 | 0.3599 | 0.0023 | 1.023 | 2.136 | 0.770 | 0.626 | 1.000 | 1.000 | 0.999 | 0.960 | 7.77 | 6 | 9 | 11 | 1.866 | 0.79 | 0.08 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8880 | 0.0156 | 0.3649 | 0.0022 | 1.030 | 2.525 | 0.671 | 0.573 | 1.000 | 1.000 | 0.998 | 0.948 | 7.53 | 6 | 9 | 10 | 1.778 | 0.70 | 0.08 | 0.00 |
| | 300 | 0.8806 | 0.0102 | 0.3643 | 0.0017 | 1.030 | 2.573 | 0.647 | 0.568 | 1.000 | 1.000 | 1.000 | 0.941 | 7.46 | 6 | 9 | 10 | 1.752 | 0.68 | 0.07 | 0.00 |
| $p = 0.1$, | 100 | 0.9616 | 0.0352 | 0.3731 | 0.0112 | 1.017 | 1.739 | 0.859 | 0.492 | 1.000 | 1.000 | 1.000 | 0.983 | 8.29 | 7 | 10 | 12 | 1.893 | 0.87 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9333 | 0.0170 | 0.3725 | 0.0125 | 1.022 | 2.087 | 0.772 | 0.499 | 1.000 | 1.000 | 0.999 | 0.970 | 8.04 | 6 | 9 | 12 | 1.810 | 0.78 | 0.03 | 0.00 |
| | 300 | 0.9235 | 0.0112 | 0.3728 | 0.0130 | 1.023 | 2.183 | 0.736 | 0.492 | 1.000 | 1.000 | 1.000 | 0.965 | 7.96 | 6 | 9 | 12 | 1.776 | 0.75 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.9427 | 0.0338 | 0.3685 | 0.0060 | 1.020 | 1.955 | 0.805 | 0.536 | 1.000 | 1.000 | 1.000 | 0.975 | 8.06 | 6 | 9 | 11 | 1.843 | 0.82 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9121 | 0.0163 | 0.3692 | 0.0066 | 1.027 | 2.299 | 0.711 | 0.530 | 1.000 | 1.000 | 0.999 | 0.966 | 7.81 | 6 | 9 | 11 | 1.760 | 0.73 | 0.03 | 0.00 |
| | 300 | 0.9001 | 0.0107 | 0.3697 | 0.0064 | 1.027 | 2.409 | 0.667 | 0.508 | 1.000 | 1.000 | 1.000 | 0.959 | 7.71 | 6 | 9 | 10 | 1.710 | 0.69 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.8924 | 0.0317 | 0.3671 | 0.0019 | 1.030 | 2.450 | 0.662 | 0.542 | 1.000 | 1.000 | 0.999 | 0.960 | 7.61 | 6 | 9 | 11 | 1.707 | 0.68 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8540 | 0.0155 | 0.3723 | 0.0014 | 1.038 | 2.824 | 0.556 | 0.477 | 1.000 | 1.000 | 0.998 | 0.948 | 7.36 | 6 | 9 | 10 | 1.610 | 0.58 | 0.03 | 0.00 |
| | 300 | 0.8409 | 0.0102 | 0.3730 | 0.0014 | 1.039 | 2.914 | 0.504 | 0.441 | 1.000 | 1.000 | 1.000 | 0.941 | 7.26 | 6 | 9 | 10 | 1.561 | 0.53 | 0.03 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9965 | 0.1186 | 0.6129 | 0.5392 | 1.037 | 2.252 | 0.983 | 0.006 | 1.000 | 0.233 | 0.140 | 0.122 | 16.73 | 7 | 28 | 50 | - | - | - | - |
| | 200 | 0.9927 | 0.0758 | 0.6564 | 0.6081 | 1.048 | 2.549 | 0.964 | 0.005 | 1.000 | 0.234 | 0.117 | 0.105 | 20.04 | 8 | 36.5 | 72 | - | - | - | - |
| | 300 | 0.9903 | 0.0584 | 0.6860 | 0.6465 | 1.053 | 2.679 | 0.953 | 0.003 | 1.000 | 0.202 | 0.118 | 0.078 | 22.40 | 8 | 41 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9811 | 0.0409 | 0.3501 | 0.3092 | 1.021 | 1.881 | 0.938 | 0.066 | 1.000 | 0.071 | 0.043 | 0.038 | 8.95 | 5 | 15 | 27 | - | - | - | - |
| | 200 | 0.9759 | 0.0265 | 0.4014 | 0.3737 | 1.031 | 2.136 | 0.919 | 0.045 | 1.000 | 0.070 | 0.041 | 0.032 | 10.15 | 4 | 18 | 34 | - | - | - | - |
| | 300 | 0.9714 | 0.0206 | 0.4376 | 0.4140 | 1.033 | 2.258 | 0.905 | 0.028 | 1.000 | 0.061 | 0.032 | 0.025 | 11.01 | 4 | 20 | 36 | - | - | - | - |

Notes: See notes to Table 100.

## Table 582: MC findings for DGPIV(b)

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9997 | 0.0386 | 0.3861 | 0.0098 | 1.004 | 1.194 | 0.999 | 0.328 | 1.000 | 1.000 | 1.000 | 1.000 | 8.82 | 8 | 10 | 12 | 2.008 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9999 | 0.0189 | 0.3828 | 0.0138 | 1.005 | 1.193 | 1.000 | 0.369 | 1.000 | 1.000 | 1.000 | 0.999 | 8.77 | 8 | 10 | 12 | 2.017 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9985 | 0.0123 | 0.3781 | 0.0119 | 1.005 | 1.224 | 0.995 | 0.420 | 1.000 | 1.000 | 1.000 | 1.000 | 8.68 | 8 | 10 | 12 | 2.005 | 0.99 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.9995 | 0.0370 | 0.3768 | 0.0052 | 1.004 | 1.172 | 0.998 | 0.411 | 1.000 | 1.000 | 1.000 | 1.000 | 8.66 | 8 | 10 | 12 | 2.006 | 1.00 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9989 | 0.0181 | 0.3730 | 0.0073 | 1.005 | 1.184 | 0.997 | 0.463 | 1.000 | 1.000 | 1.000 | 0.999 | 8.60 | 8 | 10 | 11 | 2.011 | 1.00 | 0.02 | 0.00 |
| | 300 | 0.9975 | 0.0119 | 0.3702 | 0.0068 | 1.005 | 1.230 | 0.992 | 0.504 | 1.000 | 1.000 | 1.000 | 1.000 | 8.54 | 8 | 10 | 11 | 2.004 | 0.99 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9966 | 0.0347 | 0.3631 | 0.0012 | 1.004 | 1.218 | 0.989 | 0.576 | 1.000 | 1.000 | 1.000 | 0.999 | 8.42 | 8 | 9 | 11 | 2.003 | 0.99 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9939 | 0.0169 | 0.3591 | 0.0018 | 1.005 | 1.286 | 0.983 | 0.633 | 1.000 | 1.000 | 1.000 | 0.998 | 8.34 | 8 | 9 | 11 | 2.002 | 0.98 | 0.02 | 0.00 |
| | 300 | 0.9937 | 0.0111 | 0.3562 | 0.0013 | 1.005 | 1.306 | 0.981 | 0.677 | 1.000 | 1.000 | 1.000 | 0.999 | 8.29 | 8 | 9 | 11 | 2.007 | 0.98 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.9990 | 0.0384 | 0.3851 | 0.0081 | 1.004 | 1.195 | 0.995 | 0.336 | 1.000 | 1.000 | 1.000 | 1.000 | 8.79 | 8 | 10 | 12 | 1.995 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9986 | 0.0188 | 0.3816 | 0.0114 | 1.005 | 1.200 | 0.995 | 0.377 | 1.000 | 1.000 | 1.000 | 0.999 | 8.74 | 8 | 10 | 12 | 2.000 | 0.99 | 0.01 | 0.00 |
| | 300 | 0.9974 | 0.0123 | 0.3774 | 0.0103 | 1.005 | 1.236 | 0.990 | 0.422 | 1.000 | 1.000 | 1.000 | 1.000 | 8.66 | 8 | 10 | 12 | 1.995 | 0.99 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.9988 | 0.0369 | 0.3762 | 0.0042 | 1.004 | 1.178 | 0.994 | 0.415 | 1.000 | 1.000 | 1.000 | 1.000 | 8.65 | 8 | 10 | 12 | 1.998 | 0.99 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9973 | 0.0180 | 0.3724 | 0.0059 | 1.005 | 1.213 | 0.991 | 0.469 | 1.000 | 1.000 | 1.000 | 0.999 | 8.58 | 8 | 10 | 11 | 1.997 | 0.99 | 0.01 | 0.00 |
| | 300 | 0.9953 | 0.0119 | 0.3700 | 0.0056 | 1.005 | 1.280 | 0.983 | 0.503 | 1.000 | 1.000 | 1.000 | 1.000 | 8.52 | 8 | 10 | 11 | 1.989 | 0.98 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.9929 | 0.0347 | 0.3638 | 0.0009 | 1.005 | 1.319 | 0.978 | 0.569 | 1.000 | 1.000 | 1.000 | 0.999 | 8.40 | 8 | 9 | 11 | 1.984 | 0.98 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.9909 | 0.0169 | 0.3596 | 0.0015 | 1.005 | 1.366 | 0.973 | 0.629 | 1.000 | 1.000 | 1.000 | 0.998 | 8.32 | 8 | 9 | 11 | 1.986 | 0.97 | 0.01 | 0.00 |
| | 300 | 0.9875 | 0.0111 | 0.3575 | 0.0010 | 1.007 | 1.473 | 0.958 | 0.663 | 1.000 | 1.000 | 1.000 | 0.999 | 8.26 | 8 | 9 | 11 | 1.975 | 0.96 | 0.02 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 1.0000 | 0.1228 | 0.5912 | 0.5139 | 1.022 | 2.255 | 1.000 | 0.009 | 1.000 | 0.230 | 0.138 | 0.131 | 17.16 | 7 | 36.5 | 50 | - | - | - | - |
| | 200 | 0.9998 | 0.0723 | 0.6612 | 0.6108 | 1.026 | 2.430 | 0.999 | 0.004 | 1.000 | 0.216 | 0.117 | 0.086 | 19.39 | 9 | 31 | 74 | - | - | - | - |
| | 300 | 0.9996 | 0.0607 | 0.7057 | 0.6665 | 1.029 | 2.578 | 0.998 | 0.004 | 1.000 | 0.212 | 0.103 | 0.087 | 23.16 | 9 | 38 | 93 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9989 | 0.0248 | 0.2393 | 0.2083 | 1.005 | 1.388 | 0.996 | 0.232 | 1.000 | 0.039 | 0.026 | 0.026 | 7.45 | 5 | 13 | 21 | - | - | - | - |
| | 200 | 0.9986 | 0.0150 | 0.2887 | 0.2663 | 1.007 | 1.484 | 0.996 | 0.126 | 1.000 | 0.034 | 0.022 | 0.020 | 7.99 | 5 | 13 | 25 | - | - | - | - |
| | 300 | 0.9982 | 0.0126 | 0.3325 | 0.3142 | 1.009 | 1.596 | 0.994 | 0.097 | 1.000 | 0.046 | 0.016 | 0.016 | 8.75 | 5 | 14 | 30 | - | - | - | - |

Notes: See notes to Table 100.

## Table 583: MC findings for DGPIV(b)

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.5171 | 0.0265 | 0.4149 | 0.0267 | 1.079 | 1.990 | 0.012 | 0.009 | 1.000 | 0.985 | 0.831 | 0.548 | 5.21 | 3 | 7 | 10 | 1.528 | 0.50 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4886 | 0.0129 | 0.4184 | 0.0330 | 1.085 | 2.046 | 0.008 | 0.007 | 1.000 | 0.982 | 0.792 | 0.524 | 5.02 | 3 | 7 | 10 | 1.563 | 0.53 | 0.03 | 0.00 |
| | 300 | 0.4745 | 0.0085 | 0.4207 | 0.0350 | 1.089 | 2.065 | 0.004 | 0.002 | 1.000 | 0.981 | 0.784 | 0.513 | 4.92 | 3 | 7 | 10 | 1.564 | 0.54 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.5022 | 0.0247 | 0.4028 | 0.0153 | 1.078 | 1.984 | 0.009 | 0.007 | 1.000 | 0.982 | 0.803 | 0.504 | 4.95 | 3 | 7 | 10 | 1.553 | 0.53 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4728 | 0.0121 | 0.4082 | 0.0209 | 1.086 | 2.045 | 0.007 | 0.006 | 1.000 | 0.977 | 0.766 | 0.489 | 4.77 | 3 | 7 | 9 | 1.584 | 0.56 | 0.02 | 0.00 |
| | 300 | 0.4602 | 0.0079 | 0.4084 | 0.0229 | 1.090 | 2.058 | 0.003 | 0.002 | 1.000 | 0.975 | 0.757 | 0.472 | 4.68 | 2 | 7 | 10 | 1.587 | 0.56 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.4624 | 0.0221 | 0.3866 | 0.0059 | 1.084 | 2.019 | 0.002 | 0.002 | 1.000 | 0.964 | 0.734 | 0.417 | 4.50 | 2 | 7 | 9 | 1.599 | 0.59 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.4368 | 0.0107 | 0.3898 | 0.0079 | 1.093 | 2.058 | 0.002 | 0.002 | 1.000 | 0.961 | 0.698 | 0.404 | 4.32 | 2 | 6 | 8 | 1.605 | 0.59 | 0.01 | 0.00 |
| | 300 | 0.4195 | 0.0070 | 0.3924 | 0.0087 | 1.096 | 2.077 | 0.001 | 0.001 | 1.000 | 0.957 | 0.694 | 0.393 | 4.20 | 2 | 6 | 8 | 1.574 | 0.57 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.4589 | 0.0259 | 0.4301 | 0.0217 | 1.090 | 2.064 | 0.003 | 0.003 | 1.000 | 0.985 | 0.831 | 0.548 | 4.85 | 3 | 7 | 9 | 1.378 | 0.37 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4259 | 0.0126 | 0.4358 | 0.0276 | 1.100 | 2.116 | 0.002 | 0.002 | 1.000 | 0.982 | 0.792 | 0.524 | 4.64 | 2 | 7 | 9 | 1.393 | 0.39 | 0.01 | 0.00 |
| | 300 | 0.4046 | 0.0083 | 0.4402 | 0.0278 | 1.106 | 2.134 | 0.001 | 0.001 | 1.000 | 0.981 | 0.784 | 0.513 | 4.50 | 2 | 7 | 9 | 1.365 | 0.36 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.4406 | 0.0243 | 0.4212 | 0.0124 | 1.092 | 2.074 | 0.002 | 0.002 | 1.000 | 0.982 | 0.803 | 0.504 | 4.61 | 3 | 7 | 9 | 1.413 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.4078 | 0.0119 | 0.4272 | 0.0165 | 1.102 | 2.126 | 0.002 | 0.002 | 1.000 | 0.977 | 0.766 | 0.489 | 4.40 | 2 | 6 | 9 | 1.424 | 0.42 | 0.01 | 0.00 |
| | 300 | 0.3891 | 0.0078 | 0.4297 | 0.0174 | 1.108 | 2.139 | 0.001 | 0.000 | 1.000 | 0.975 | 0.757 | 0.472 | 4.27 | 2 | 6 | 8 | 1.397 | 0.39 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.4013 | 0.0218 | 0.4056 | 0.0044 | 1.101 | 2.110 | 0.001 | 0.001 | 1.000 | 0.964 | 0.734 | 0.416 | 4.16 | 2 | 6 | 9 | 1.470 | 0.47 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3688 | 0.0106 | 0.4113 | 0.0056 | 1.111 | 2.149 | 0.000 | 0.000 | 1.000 | 0.961 | 0.698 | 0.404 | 3.95 | 2 | 6 | 7 | 1.441 | 0.44 | 0.00 | 0.00 |
| | 300 | 0.3515 | 0.0070 | 0.4149 | 0.0060 | 1.118 | 2.167 | 0.000 | 0.000 | 1.000 | 0.957 | 0.694 | 0.393 | 3.84 | 2 | 6 | 8 | 1.399 | 0.40 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.6955 | 0.0574 | 0.4431 | 0.3794 | 1.114 | 1.782 | 0.109 | 0.000 | 1.000 | 0.146 | 0.075 | 0.073 | 9.16 | 2 | 20 | 46 | - | - | - | - |
| | 200 | 0.6722 | 0.0425 | 0.5292 | 0.4802 | 1.130 | 1.864 | 0.077 | 0.000 | 1.000 | 0.142 | 0.064 | 0.052 | 11.81 | 3 | 29 | 59 | - | - | - | - |
| | 300 | 0.6579 | 0.0328 | 0.5589 | 0.5187 | 1.141 | 1.894 | 0.045 | 0.000 | 1.000 | 0.135 | 0.059 | 0.051 | 13.09 | 3 | 31.5 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.4529 | 0.0164 | 0.1424 | 0.1267 | 1.128 | 2.098 | 0.050 | 0.001 | 1.000 | 0.028 | 0.016 | 0.014 | 3.88 | 1 | 14 | 36 | - | - | - | - |
| | 200 | 0.4654 | 0.0164 | 0.2206 | 0.2058 | 1.143 | 2.227 | 0.039 | 0.000 | 1.000 | 0.036 | 0.017 | 0.017 | 5.59 | 1 | 20 | 41 | - | - | - | - |
| | 300 | 0.4593 | 0.0134 | 0.2529 | 0.2389 | 1.154 | 2.283 | 0.027 | 0.000 | 1.000 | 0.030 | 0.017 | 0.015 | 6.32 | 1 | 22 | 47 | - | - | - | - |

Notes: See notes to Table 100.

## Table 584: MC findings for DGPIV(b)

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.7781 | 0.0333 | 0.4048 | 0.0146 | 1.030 | 2.339 | 0.310 | 0.219 | 1.000 | 1.000 | 1.000 | 0.982 | 7.19 | 6 | 9 | 11 | 1.452 | 0.41 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7404 | 0.0162 | 0.4096 | 0.0163 | 1.033 | 2.486 | 0.232 | 0.170 | 1.000 | 1.000 | 0.998 | 0.972 | 6.93 | 5 | 9 | 12 | 1.396 | 0.35 | 0.04 | 0.00 |
| | 300 | 0.7274 | 0.0107 | 0.4114 | 0.0168 | 1.036 | 2.554 | 0.199 | 0.148 | 1.000 | 1.000 | 0.999 | 0.967 | 6.84 | 5 | 9 | 11 | 1.366 | 0.33 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.7448 | 0.0322 | 0.4061 | 0.0081 | 1.033 | 2.467 | 0.247 | 0.194 | 1.000 | 1.000 | 1.000 | 0.977 | 6.91 | 5 | 9 | 10 | 1.409 | 0.37 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.7098 | 0.0157 | 0.4104 | 0.0090 | 1.035 | 2.593 | 0.180 | 0.149 | 1.000 | 1.000 | 0.997 | 0.966 | 6.67 | 5 | 8 | 10 | 1.356 | 0.32 | 0.04 | 0.00 |
| | 300 | 0.6987 | 0.0104 | 0.4122 | 0.0095 | 1.038 | 2.652 | 0.151 | 0.125 | 1.000 | 1.000 | 0.998 | 0.962 | 6.60 | 5 | 8 | 10 | 1.341 | 0.30 | 0.04 | 0.00 |
| $p = 0.01$, | 100 | 0.6783 | 0.0309 | 0.4143 | 0.0029 | 1.039 | 2.722 | 0.128 | 0.114 | 1.000 | 1.000 | 1.000 | 0.958 | 6.45 | 5 | 8 | 10 | 1.348 | 0.31 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.6566 | 0.0151 | 0.4163 | 0.0023 | 1.041 | 2.786 | 0.097 | 0.091 | 1.000 | 1.000 | 0.997 | 0.948 | 6.29 | 5 | 8 | 9 | 1.334 | 0.30 | 0.04 | 0.00 |
| | 300 | 0.6416 | 0.0100 | 0.4202 | 0.0027 | 1.044 | 2.873 | 0.083 | 0.077 | 1.000 | 1.000 | 0.998 | 0.947 | 6.20 | 5 | 8 | 9 | 1.329 | 0.30 | 0.03 | 0.00 |
| $p = 0.1$, | 100 | 0.7379 | 0.0331 | 0.4132 | 0.0130 | 1.034 | 2.491 | 0.179 | 0.128 | 1.000 | 1.000 | 1.000 | 0.982 | 6.97 | 5 | 9 | 11 | 1.260 | 0.25 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.7049 | 0.0161 | 0.4162 | 0.0135 | 1.036 | 2.603 | 0.129 | 0.095 | 1.000 | 1.000 | 0.998 | 0.972 | 6.72 | 5 | 8 | 11 | 1.219 | 0.21 | 0.01 | 0.00 |
| | 300 | 0.6872 | 0.0107 | 0.4201 | 0.0153 | 1.040 | 2.695 | 0.093 | 0.071 | 1.000 | 1.000 | 0.999 | 0.967 | 6.62 | 5 | 8 | 11 | 1.183 | 0.17 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.7087 | 0.0320 | 0.4139 | 0.0069 | 1.037 | 2.600 | 0.139 | 0.112 | 1.000 | 1.000 | 1.000 | 0.977 | 6.71 | 5 | 8 | 10 | 1.245 | 0.23 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6769 | 0.0156 | 0.4174 | 0.0073 | 1.039 | 2.701 | 0.099 | 0.084 | 1.000 | 1.000 | 0.997 | 0.966 | 6.49 | 5 | 8 | 10 | 1.202 | 0.19 | 0.01 | 0.00 |
| | 300 | 0.6602 | 0.0103 | 0.4213 | 0.0086 | 1.043 | 2.786 | 0.067 | 0.056 | 1.000 | 1.000 | 0.998 | 0.962 | 6.39 | 5 | 8 | 10 | 1.179 | 0.17 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.6489 | 0.0307 | 0.4210 | 0.0022 | 1.042 | 2.826 | 0.066 | 0.059 | 1.000 | 1.000 | 1.000 | 0.958 | 6.28 | 5 | 8 | 10 | 1.220 | 0.21 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.6276 | 0.0150 | 0.4235 | 0.0019 | 1.044 | 2.890 | 0.043 | 0.041 | 1.000 | 1.000 | 0.997 | 0.948 | 6.13 | 5 | 8 | 9 | 1.217 | 0.21 | 0.01 | 0.00 |
| | 300 | 0.6104 | 0.0100 | 0.4279 | 0.0020 | 1.047 | 2.975 | 0.028 | 0.027 | 1.000 | 1.000 | 0.998 | 0.947 | 6.04 | 5 | 7 | 9 | 1.213 | 0.20 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9364 | 0.0985 | 0.5578 | 0.4837 | 1.039 | 2.231 | 0.714 | 0.002 | 1.000 | 0.197 | 0.120 | 0.106 | 14.44 | 5 | 27 | 51 | - | - | - | - |
| | 200 | 0.9060 | 0.0567 | 0.5894 | 0.5384 | 1.046 | 2.394 | 0.589 | 0.002 | 1.000 | 0.202 | 0.118 | 0.077 | 15.81 | 5 | 33 | 54 | - | - | - | - |
| | 300 | 0.8887 | 0.0429 | 0.6157 | 0.5743 | 1.053 | 2.509 | 0.517 | 0.001 | 1.000 | 0.179 | 0.085 | 0.070 | 17.27 | 5 | 36 | 83 | - | - | - | - |
| Adaptive Lasso | 100 | 0.8341 | 0.0409 | 0.3300 | 0.2894 | 1.044 | 2.440 | 0.570 | 0.014 | 1.000 | 0.066 | 0.038 | 0.040 | 8.22 | 2 | 17 | 27 | - | - | - | - |
| | 200 | 0.8085 | 0.0237 | 0.3607 | 0.3334 | 1.052 | 2.618 | 0.476 | 0.010 | 1.000 | 0.064 | 0.038 | 0.030 | 8.76 | 2 | 19 | 32 | - | - | - | - |
| | 300 | 0.7897 | 0.0182 | 0.3887 | 0.3665 | 1.059 | 2.779 | 0.407 | 0.004 | 1.000 | 0.057 | 0.028 | 0.026 | 9.38 | 2 | 20 | 39 | - | - | - | - |

Notes: See notes to Table 100.

## Table 585: MC findings for DGPIV(b)

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_4$ | $\hat{\pi}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.9418 | 0.0352 | 0.3776 | 0.0128 | 1.011 | 1.755 | 0.787 | 0.468 | 1.000 | 1.000 | 1.000 | 0.999 | 8.19 | 6 | 10 | 13 | 1.839 | 0.80 | 0.04 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.9177 | 0.0170 | 0.3770 | 0.0115 | 1.013 | 1.974 | 0.710 | 0.471 | 1.000 | 1.000 | 1.000 | 1.000 | 7.97 | 6 | 9 | 12 | 1.766 | 0.73 | 0.03 | 0.00 |
| | 300 | 0.9047 | 0.0113 | 0.3800 | 0.0135 | 1.014 | 2.087 | 0.664 | 0.441 | 1.000 | 1.000 | 1.000 | 1.000 | 7.91 | 6 | 9 | 11 | 1.713 | 0.69 | 0.02 | 0.00 |
| $p = 0.05$, | 100 | 0.9209 | 0.0338 | 0.3741 | 0.0069 | 1.012 | 1.915 | 0.718 | 0.492 | 1.000 | 1.000 | 1.000 | 0.999 | 7.95 | 6 | 9 | 11 | 1.778 | 0.74 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8926 | 0.0164 | 0.3757 | 0.0064 | 1.015 | 2.155 | 0.637 | 0.465 | 1.000 | 1.000 | 1.000 | 1.000 | 7.73 | 6 | 9 | 11 | 1.700 | 0.67 | 0.03 | 0.00 |
| | 300 | 0.8779 | 0.0109 | 0.3786 | 0.0070 | 1.016 | 2.274 | 0.582 | 0.435 | 1.000 | 1.000 | 1.000 | 1.000 | 7.65 | 6 | 9 | 11 | 1.636 | 0.61 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.8669 | 0.0319 | 0.3746 | 0.0018 | 1.017 | 2.301 | 0.558 | 0.473 | 1.000 | 1.000 | 1.000 | 0.997 | 7.50 | 6 | 9 | 10 | 1.625 | 0.59 | 0.03 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.8360 | 0.0157 | 0.3797 | 0.0015 | 1.020 | 2.528 | 0.481 | 0.413 | 1.000 | 1.000 | 1.000 | 1.000 | 7.30 | 6 | 9 | 10 | 1.557 | 0.52 | 0.03 | 0.00 |
| | 300 | 0.8117 | 0.0104 | 0.3844 | 0.0017 | 1.022 | 2.690 | 0.410 | 0.366 | 1.000 | 1.000 | 1.000 | 0.999 | 7.17 | 6 | 8 | 11 | 1.473 | 0.45 | 0.02 | 0.00 |
| $p = 0.1$, | 100 | 0.9107 | 0.0349 | 0.3832 | 0.0109 | 1.014 | 2.010 | 0.655 | 0.406 | 1.000 | 1.000 | 1.000 | 0.999 | 8.01 | 6 | 9 | 12 | 1.680 | 0.67 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8836 | 0.0169 | 0.3835 | 0.0100 | 1.017 | 2.229 | 0.565 | 0.380 | 1.000 | 1.000 | 1.000 | 1.000 | 7.78 | 6 | 9 | 11 | 1.592 | 0.58 | 0.01 | 0.00 |
| | 300 | 0.8647 | 0.0112 | 0.3875 | 0.0117 | 1.019 | 2.376 | 0.488 | 0.325 | 1.000 | 1.000 | 1.000 | 1.000 | 7.69 | 6 | 9 | 11 | 1.508 | 0.50 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.8898 | 0.0336 | 0.3800 | 0.0055 | 1.015 | 2.153 | 0.589 | 0.415 | 1.000 | 1.000 | 1.000 | 0.999 | 7.78 | 6 | 9 | 11 | 1.619 | 0.61 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8563 | 0.0164 | 0.3831 | 0.0052 | 1.019 | 2.406 | 0.491 | 0.360 | 1.000 | 1.000 | 1.000 | 1.000 | 7.54 | 6 | 9 | 11 | 1.517 | 0.51 | 0.01 | 0.00 |
| | 300 | 0.8414 | 0.0109 | 0.3857 | 0.0057 | 1.020 | 2.519 | 0.425 | 0.322 | 1.000 | 1.000 | 1.000 | 1.000 | 7.45 | 6 | 9 | 11 | 1.450 | 0.44 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.8349 | 0.0319 | 0.3813 | 0.0014 | 1.021 | 2.515 | 0.426 | 0.367 | 1.000 | 1.000 | 1.000 | 0.997 | 7.33 | 6 | 9 | 10 | 1.466 | 0.45 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.8001 | 0.0157 | 0.3876 | 0.0012 | 1.024 | 2.747 | 0.344 | 0.290 | 1.000 | 1.000 | 1.000 | 1.000 | 7.12 | 6 | 9 | 10 | 1.387 | 0.38 | 0.01 | 0.00 |
| | 300 | 0.7797 | 0.0104 | 0.3913 | 0.0014 | 1.026 | 2.878 | 0.281 | 0.252 | 1.000 | 1.000 | 1.000 | 0.999 | 7.00 | 6 | 8 | 11 | 1.318 | 0.31 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.9889 | 0.1080 | 0.5878 | 0.5134 | 1.022 | 2.230 | 0.947 | 0.011 | 1.000 | 0.228 | 0.139 | 0.121 | 15.64 | 7 | 26 | 54 | - | - | - | - |
| | 200 | 0.9776 | 0.0720 | 0.6381 | 0.5871 | 1.028 | 2.444 | 0.892 | 0.005 | 1.000 | 0.205 | 0.118 | 0.092 | 19.21 | 7 | 34 | 72 | - | - | - | - |
| | 300 | 0.9697 | 0.0530 | 0.6496 | 0.6100 | 1.032 | 2.636 | 0.855 | 0.005 | 1.000 | 0.203 | 0.099 | 0.088 | 20.70 | 7 | 42 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.9613 | 0.0321 | 0.3004 | 0.2643 | 1.014 | 1.935 | 0.881 | 0.075 | 1.000 | 0.051 | 0.042 | 0.038 | 7.98 | 4 | 13 | 26 | - | - | - | - |
| | 200 | 0.9484 | 0.0211 | 0.3532 | 0.3271 | 1.018 | 2.136 | 0.822 | 0.049 | 1.000 | 0.052 | 0.034 | 0.023 | 8.94 | 4 | 16 | 29 | - | - | - | - |
| | 300 | 0.9404 | 0.0164 | 0.3827 | 0.3629 | 1.022 | 2.313 | 0.781 | 0.039 | 1.000 | 0.055 | 0.029 | 0.026 | 9.60 | 4 | 18 | 33 | - | - | - | - |

Notes: See notes to Table 100.

### 4.3.5 Findings for designs featuring many signals

## Table 586: MC findings for DGPV

$T = 100$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2579 | 0.0277 | 0.3746 | 0.0284 | 1.007 | 0.834 | 0.000 | 1.000 | 0.982 | 0.821 | 0.533 | 5.65 | 4 | 8 | 10 | 1.206 | 0.19 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2462 | 0.0133 | 0.3808 | 0.0340 | 1.010 | 0.861 | 0.000 | 1.000 | 0.982 | 0.797 | 0.515 | 5.50 | 4 | 7 | 12 | 1.209 | 0.20 | 0.01 | 0.00 |
| | 300 | 0.2396 | 0.0085 | 0.3809 | 0.0316 | 1.011 | 0.875 | 0.000 | 1.000 | 0.982 | 0.789 | 0.497 | 5.37 | 3 | 7 | 10 | 1.211 | 0.20 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.2458 | 0.0259 | 0.3657 | 0.0173 | 1.007 | 0.840 | 0.000 | 1.000 | 0.976 | 0.789 | 0.493 | 5.34 | 3 | 7 | 10 | 1.179 | 0.17 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2355 | 0.0123 | 0.3701 | 0.0208 | 1.011 | 0.866 | 0.000 | 1.000 | 0.974 | 0.767 | 0.476 | 5.19 | 3 | 7 | 9 | 1.196 | 0.19 | 0.01 | 0.00 |
| | 300 | 0.2309 | 0.0080 | 0.3701 | 0.0200 | 1.010 | 0.873 | 0.000 | 1.000 | 0.974 | 0.762 | 0.456 | 5.10 | 3 | 7 | 9 | 1.193 | 0.18 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.2247 | 0.0231 | 0.3503 | 0.0071 | 1.011 | 0.863 | 0.000 | 1.000 | 0.959 | 0.710 | 0.406 | 4.82 | 3 | 7 | 9 | 1.171 | 0.17 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2175 | 0.0109 | 0.3501 | 0.0069 | 1.015 | 0.886 | 0.000 | 1.000 | 0.953 | 0.688 | 0.399 | 4.70 | 3 | 6 | 8 | 1.181 | 0.17 | 0.01 | 0.00 |
| | 300 | 0.2128 | 0.0070 | 0.3506 | 0.0073 | 1.013 | 0.892 | 0.000 | 1.000 | 0.959 | 0.676 | 0.376 | 4.61 | 3 | 6 | 9 | 1.187 | 0.18 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2490 | 0.0271 | 0.3761 | 0.0217 | 1.005 | 0.810 | 0.000 | 1.000 | 0.982 | 0.821 | 0.533 | 5.48 | 4 | 7 | 10 | 1.079 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2374 | 0.0129 | 0.3817 | 0.0262 | 1.009 | 0.842 | 0.000 | 1.000 | 0.982 | 0.797 | 0.515 | 5.33 | 3 | 7 | 11 | 1.083 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.2312 | 0.0083 | 0.3812 | 0.0233 | 1.008 | 0.846 | 0.000 | 1.000 | 0.982 | 0.789 | 0.497 | 5.21 | 3 | 7 | 9 | 1.087 | 0.08 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2377 | 0.0256 | 0.3687 | 0.0135 | 1.007 | 0.826 | 0.000 | 1.000 | 0.976 | 0.789 | 0.493 | 5.21 | 3 | 7 | 9 | 1.080 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2270 | 0.0121 | 0.3720 | 0.0149 | 1.011 | 0.853 | 0.000 | 1.000 | 0.974 | 0.767 | 0.476 | 5.04 | 3 | 7 | 9 | 1.088 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.2229 | 0.0078 | 0.3715 | 0.0140 | 1.009 | 0.854 | 0.000 | 1.000 | 0.974 | 0.762 | 0.456 | 4.96 | 3 | 7 | 9 | 1.088 | 0.09 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2171 | 0.0230 | 0.3544 | 0.0055 | 1.013 | 0.861 | 0.000 | 1.000 | 0.959 | 0.710 | 0.406 | 4.72 | 3 | 6 | 8 | 1.094 | 0.09 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2101 | 0.0108 | 0.3533 | 0.0041 | 1.016 | 0.884 | 0.000 | 1.000 | 0.953 | 0.688 | 0.399 | 4.59 | 3 | 6 | 8 | 1.100 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.2052 | 0.0070 | 0.3543 | 0.0047 | 1.014 | 0.887 | 0.000 | 1.000 | 0.959 | 0.676 | 0.376 | 4.50 | 3 | 6 | 9 | 1.107 | 0.11 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3889 | 0.0642 | 0.4336 | 0.4029 | 1.049 | 0.788 | 0.000 | 1.000 | 0.178 | 0.094 | 0.079 | 10.57 | 4 | 21 | 42 | - | - | - | - |
| | 200 | 0.3758 | 0.0471 | 0.5355 | 0.5105 | 1.060 | 0.845 | 0.000 | 1.000 | 0.156 | 0.085 | 0.062 | 13.55 | 4 | 28 | 50 | - | - | - | - |
| | 300 | 0.3644 | 0.0392 | 0.5888 | 0.5703 | 1.065 | 0.867 | 0.000 | 1.000 | 0.149 | 0.068 | 0.063 | 15.81 | 4 | 35 | 65 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2441 | 0.0147 | 0.1227 | 0.1171 | 1.041 | 0.894 | 0.000 | 1.000 | 0.027 | 0.014 | 0.015 | 4.28 | 2 | 12 | 31 | - | - | - | - |
| | 200 | 0.2557 | 0.0135 | 0.1999 | 0.1934 | 1.050 | 0.968 | 0.000 | 1.000 | 0.034 | 0.022 | 0.016 | 5.66 | 2 | 16 | 29 | - | - | - | - |
| | 300 | 0.2584 | 0.0124 | 0.2478 | 0.2425 | 1.055 | 1.012 | 0.000 | 1.000 | 0.032 | 0.024 | 0.022 | 6.71 | 2 | 20 | 40 | - | - | - | - |

Notes: See notes to Table 190.

## Table 587: MC findings for DGPV

$T = 300$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3435 | 0.0341 | 0.3812 | 0.0165 | 1.006 | 0.878 | 0.000 | 1.000 | 1.000 | 0.999 | 0.983 | 7.26 | 6 | 9 | 11 | 1.123 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3332 | 0.0162 | 0.3852 | 0.0142 | 1.007 | 0.906 | 0.000 | 1.000 | 1.000 | 1.000 | 0.980 | 7.11 | 6 | 8 | 12 | 1.103 | 0.10 | 0.00 | 0.00 |
| | 300 | 0.3243 | 0.0108 | 0.3925 | 0.0192 | 1.007 | 0.902 | 0.000 | 1.000 | 1.000 | 1.000 | 0.974 | 7.04 | 6 | 8 | 11 | 1.107 | 0.11 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3325 | 0.0333 | 0.3825 | 0.0098 | 1.006 | 0.879 | 0.000 | 1.000 | 1.000 | 0.999 | 0.978 | 7.05 | 6 | 8 | 10 | 1.110 | 0.11 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3221 | 0.0159 | 0.3880 | 0.0094 | 1.007 | 0.910 | 0.000 | 1.000 | 1.000 | 1.000 | 0.975 | 6.92 | 6 | 8 | 11 | 1.087 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.3141 | 0.0105 | 0.3923 | 0.0105 | 1.007 | 0.903 | 0.000 | 1.000 | 1.000 | 1.000 | 0.967 | 6.83 | 6 | 8 | 10 | 1.087 | 0.09 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3087 | 0.0325 | 0.3904 | 0.0033 | 1.007 | 0.894 | 0.000 | 1.000 | 1.000 | 0.999 | 0.961 | 6.69 | 6 | 8 | 10 | 1.083 | 0.08 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2990 | 0.0155 | 0.3956 | 0.0028 | 1.008 | 0.932 | 0.000 | 1.000 | 1.000 | 1.000 | 0.955 | 6.57 | 6 | 8 | 9 | 1.069 | 0.07 | 0.00 | 0.00 |
| | 300 | 0.2950 | 0.0101 | 0.3966 | 0.0022 | 1.008 | 0.918 | 0.000 | 1.000 | 1.000 | 0.999 | 0.946 | 6.50 | 6 | 8 | 10 | 1.062 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3373 | 0.0337 | 0.3825 | 0.0133 | 1.005 | 0.854 | 0.000 | 1.000 | 1.000 | 0.999 | 0.983 | 7.15 | 6 | 9 | 11 | 1.038 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3280 | 0.0160 | 0.3861 | 0.0110 | 1.006 | 0.880 | 0.000 | 1.000 | 1.000 | 1.000 | 0.980 | 7.02 | 6 | 8 | 12 | 1.029 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.3192 | 0.0107 | 0.3933 | 0.0159 | 1.006 | 0.877 | 0.000 | 1.000 | 1.000 | 1.000 | 0.974 | 6.95 | 6 | 8 | 11 | 1.033 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3263 | 0.0331 | 0.3848 | 0.0079 | 1.006 | 0.860 | 0.000 | 1.000 | 1.000 | 0.999 | 0.978 | 6.96 | 6 | 8 | 10 | 1.037 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3173 | 0.0158 | 0.3893 | 0.0072 | 1.006 | 0.891 | 0.000 | 1.000 | 1.000 | 1.000 | 0.975 | 6.85 | 6 | 8 | 11 | 1.025 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.3095 | 0.0104 | 0.3936 | 0.0084 | 1.007 | 0.885 | 0.000 | 1.000 | 1.000 | 1.000 | 0.967 | 6.75 | 6 | 8 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3044 | 0.0324 | 0.3926 | 0.0027 | 1.008 | 0.886 | 0.000 | 1.000 | 1.000 | 0.999 | 0.961 | 6.64 | 6 | 8 | 9 | 1.038 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2944 | 0.0155 | 0.3977 | 0.0018 | 1.008 | 0.921 | 0.000 | 1.000 | 1.000 | 1.000 | 0.955 | 6.50 | 6 | 8 | 9 | 1.021 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2909 | 0.0101 | 0.3987 | 0.0016 | 1.009 | 0.913 | 0.000 | 1.000 | 1.000 | 0.999 | 0.946 | 6.45 | 6 | 8 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4942 | 0.0689 | 0.4150 | 0.3845 | 1.014 | 0.837 | 0.000 | 1.000 | 0.199 | 0.102 | 0.083 | 12.27 | 6 | 23 | 44 | - | - | - | - |
| | 200 | 0.4692 | 0.0448 | 0.4875 | 0.4635 | 1.021 | 0.900 | 0.000 | 1.000 | 0.198 | 0.096 | 0.076 | 14.22 | 5 | 27 | 49 | - | - | - | - |
| | 300 | 0.4602 | 0.0360 | 0.5281 | 0.5047 | 1.023 | 0.917 | 0.000 | 1.000 | 0.176 | 0.085 | 0.064 | 16.03 | 6 | 37 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3526 | 0.0133 | 0.1396 | 0.1315 | 1.014 | 1.002 | 0.000 | 1.000 | 0.032 | 0.016 | 0.018 | 5.46 | 2 | 10 | 18 | - | - | - | - |
| | 200 | 0.3445 | 0.0089 | 0.1846 | 0.1776 | 1.017 | 1.047 | 0.000 | 1.000 | 0.038 | 0.018 | 0.012 | 5.85 | 2 | 11 | 21 | - | - | - | - |
| | 300 | 0.3431 | 0.0072 | 0.2098 | 0.2043 | 1.017 | 1.057 | 0.000 | 1.000 | 0.027 | 0.016 | 0.006 | 6.21 | 2 | 12 | 30 | - | - | - | - |

Notes: See notes to Table 190.

## Table 588: MC findings for DGPV

$T = 500$, $R^2 = 70\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3885 | 0.0339 | 0.3568 | 0.0122 | 1.004 | 0.919 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.78 | 7 | 9 | 12 | 1.118 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3761 | 0.0163 | 0.3631 | 0.0131 | 1.004 | 0.924 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.64 | 7 | 9 | 12 | 1.090 | 0.09 | 0.00 | 0.00 |
| | 300 | 0.3695 | 0.0107 | 0.3672 | 0.0147 | 1.005 | 0.925 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.57 | 7 | 9 | 11 | 1.085 | 0.09 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3761 | 0.0333 | 0.3590 | 0.0066 | 1.004 | 0.917 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.57 | 7 | 9 | 11 | 1.096 | 0.10 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3661 | 0.0160 | 0.3640 | 0.0069 | 1.004 | 0.925 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.46 | 7 | 9 | 12 | 1.082 | 0.08 | 0.00 | 0.00 |
| | 300 | 0.3590 | 0.0105 | 0.3684 | 0.0085 | 1.005 | 0.925 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.39 | 7 | 9 | 10 | 1.072 | 0.07 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3530 | 0.0327 | 0.3672 | 0.0016 | 1.005 | 0.926 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.25 | 6 | 8 | 10 | 1.071 | 0.07 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3449 | 0.0157 | 0.3720 | 0.0022 | 1.006 | 0.947 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.16 | 6 | 8 | 12 | 1.058 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.3399 | 0.0103 | 0.3744 | 0.0020 | 1.006 | 0.951 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.09 | 6 | 8 | 10 | 1.058 | 0.06 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3822 | 0.0336 | 0.3583 | 0.0100 | 1.003 | 0.896 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.68 | 7 | 9 | 11 | 1.040 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3710 | 0.0162 | 0.3644 | 0.0113 | 1.004 | 0.902 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.56 | 7 | 9 | 12 | 1.025 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3646 | 0.0107 | 0.3684 | 0.0128 | 1.004 | 0.905 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.50 | 7 | 9 | 11 | 1.023 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3705 | 0.0332 | 0.3610 | 0.0055 | 1.004 | 0.900 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.50 | 7 | 9 | 11 | 1.034 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3610 | 0.0159 | 0.3658 | 0.0059 | 1.004 | 0.907 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.39 | 6 | 9 | 12 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3544 | 0.0105 | 0.3700 | 0.0074 | 1.005 | 0.911 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.32 | 6 | 9 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3482 | 0.0327 | 0.3694 | 0.0011 | 1.005 | 0.918 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 7.19 | 6 | 8 | 10 | 1.024 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3412 | 0.0157 | 0.3736 | 0.0017 | 1.006 | 0.938 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.11 | 6 | 8 | 11 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3360 | 0.0103 | 0.3765 | 0.0019 | 1.006 | 0.945 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 7.05 | 6 | 8 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.5432 | 0.0827 | 0.3947 | 0.3634 | 1.012 | 0.925 | 0.000 | 1.000 | 0.213 | 0.114 | 0.096 | 14.12 | 6 | 30 | 39 | - | - | - | - |
| | 200 | 0.5141 | 0.0437 | 0.4356 | 0.4123 | 1.014 | 0.938 | 0.000 | 1.000 | 0.194 | 0.098 | 0.075 | 14.57 | 6 | 40 | 60 | - | - | - | - |
| | 300 | 0.5057 | 0.0316 | 0.4756 | 0.4543 | 1.015 | 0.947 | 0.000 | 1.000 | 0.187 | 0.085 | 0.065 | 15.31 | 6 | 40 | 81 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3921 | 0.0085 | 0.0936 | 0.0887 | 1.005 | 0.960 | 0.000 | 1.000 | 0.018 | 0.014 | 0.011 | 5.48 | 3 | 9 | 15 | - | - | - | - |
| | 200 | 0.3840 | 0.0044 | 0.1006 | 0.0963 | 1.006 | 0.978 | 0.000 | 1.000 | 0.013 | 0.004 | 0.011 | 5.44 | 3 | 9 | 18 | - | - | - | - |
| | 300 | 0.3772 | 0.0032 | 0.1110 | 0.1073 | 1.007 | 0.992 | 0.000 | 1.000 | 0.017 | 0.008 | 0.007 | 5.45 | 3 | 9 | 20 | - | - | - | - |

Notes: See notes to Table 190.

## Table 589: MC findings for DGPV

$T = 100$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2237 | 0.0278 | 0.3994 | 0.0289 | 0.992 | 0.711 | 0.000 | 1.000 | 0.982 | 0.828 | 0.541 | 5.24 | 3 | 7 | 10 | 1.191 | 0.19 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2182 | 0.0131 | 0.3975 | 0.0347 | 0.994 | 0.726 | 0.000 | 1.000 | 0.981 | 0.788 | 0.502 | 5.13 | 3 | 7 | 10 | 1.236 | 0.22 | 0.01 | 0.00 |
| | 300 | 0.2110 | 0.0086 | 0.4025 | 0.0387 | 0.998 | 0.752 | 0.000 | 1.000 | 0.979 | 0.777 | 0.496 | 5.05 | 3 | 7 | 10 | 1.263 | 0.25 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.2152 | 0.0259 | 0.3874 | 0.0170 | 0.991 | 0.702 | 0.000 | 1.000 | 0.978 | 0.791 | 0.500 | 4.97 | 3 | 7 | 9 | 1.212 | 0.21 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2110 | 0.0121 | 0.3824 | 0.0195 | 0.989 | 0.705 | 0.000 | 1.000 | 0.972 | 0.754 | 0.468 | 4.86 | 3 | 7 | 10 | 1.250 | 0.24 | 0.01 | 0.00 |
| | 300 | 0.2070 | 0.0080 | 0.3879 | 0.0252 | 0.995 | 0.736 | 0.000 | 1.000 | 0.975 | 0.746 | 0.458 | 4.83 | 3 | 7 | 9 | 1.290 | 0.28 | 0.01 | 0.00 |
| $p = 0.01$, | 100 | 0.2041 | 0.0233 | 0.3677 | 0.0061 | 0.989 | 0.691 | 0.000 | 1.000 | 0.965 | 0.721 | 0.420 | 4.60 | 3 | 6 | 8 | 1.291 | 0.29 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2026 | 0.0108 | 0.3578 | 0.0074 | 0.988 | 0.694 | 0.000 | 1.000 | 0.954 | 0.675 | 0.391 | 4.50 | 3 | 6 | 8 | 1.344 | 0.34 | 0.01 | 0.00 |
| | 300 | 0.2003 | 0.0070 | 0.3582 | 0.0076 | 0.989 | 0.703 | 0.000 | 1.000 | 0.953 | 0.673 | 0.381 | 4.46 | 3 | 6 | 8 | 1.365 | 0.36 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.2193 | 0.0273 | 0.3984 | 0.0226 | 0.990 | 0.693 | 0.000 | 1.000 | 0.982 | 0.828 | 0.541 | 5.14 | 3 | 7 | 9 | 1.125 | 0.12 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2116 | 0.0128 | 0.3975 | 0.0278 | 0.992 | 0.708 | 0.000 | 1.000 | 0.981 | 0.788 | 0.502 | 5.00 | 3 | 7 | 10 | 1.156 | 0.15 | 0.00 | 0.00 |
| | 300 | 0.2045 | 0.0084 | 0.4017 | 0.0299 | 0.995 | 0.729 | 0.000 | 1.000 | 0.979 | 0.777 | 0.496 | 4.91 | 3 | 7 | 9 | 1.174 | 0.17 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2101 | 0.0255 | 0.3877 | 0.0118 | 0.989 | 0.683 | 0.000 | 1.000 | 0.978 | 0.791 | 0.500 | 4.87 | 3 | 7 | 9 | 1.157 | 0.16 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2047 | 0.0120 | 0.3841 | 0.0151 | 0.989 | 0.699 | 0.000 | 1.000 | 0.972 | 0.754 | 0.468 | 4.75 | 3 | 6.5 | 10 | 1.195 | 0.19 | 0.00 | 0.00 |
| | 300 | 0.1997 | 0.0079 | 0.3891 | 0.0188 | 0.994 | 0.724 | 0.000 | 1.000 | 0.975 | 0.746 | 0.458 | 4.70 | 3 | 6 | 8 | 1.222 | 0.22 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1978 | 0.0232 | 0.3712 | 0.0043 | 0.991 | 0.696 | 0.000 | 1.000 | 0.965 | 0.721 | 0.420 | 4.51 | 3 | 6 | 8 | 1.256 | 0.26 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1954 | 0.0107 | 0.3613 | 0.0050 | 0.990 | 0.710 | 0.000 | 1.000 | 0.954 | 0.675 | 0.391 | 4.40 | 3 | 6 | 8 | 1.309 | 0.31 | 0.00 | 0.00 |
| | 300 | 0.1921 | 0.0070 | 0.3628 | 0.0054 | 0.993 | 0.716 | 0.000 | 1.000 | 0.953 | 0.673 | 0.381 | 4.34 | 3 | 6 | 8 | 1.329 | 0.33 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3293 | 0.0609 | 0.4410 | 0.4113 | 1.042 | 0.725 | 0.000 | 1.000 | 0.169 | 0.078 | 0.070 | 9.56 | 3 | 19 | 43 | - | - | - | - |
| | 200 | 0.3178 | 0.0439 | 0.5320 | 0.5075 | 1.053 | 0.773 | 0.000 | 1.000 | 0.160 | 0.077 | 0.059 | 12.24 | 3 | 27 | 51 | - | - | - | - |
| | 300 | 0.3044 | 0.0358 | 0.5898 | 0.5697 | 1.064 | 0.808 | 0.000 | 1.000 | 0.156 | 0.079 | 0.055 | 14.12 | 3 | 32 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2143 | 0.0140 | 0.1169 | 0.1115 | 1.031 | 0.824 | 0.000 | 1.000 | 0.028 | 0.015 | 0.015 | 3.86 | 2 | 12 | 29 | - | - | - | - |
| | 200 | 0.2215 | 0.0140 | 0.1952 | 0.1896 | 1.042 | 0.908 | 0.000 | 1.000 | 0.027 | 0.016 | 0.018 | 5.35 | 2 | 18 | 35 | - | - | - | - |
| | 300 | 0.2228 | 0.0125 | 0.2413 | 0.2361 | 1.055 | 0.976 | 0.000 | 1.000 | 0.044 | 0.017 | 0.019 | 6.32 | 2 | 20 | 45 | - | - | - | - |

Notes: See notes to Table 190.

## Table 590: MC findings for DGPV

$T = 300$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3063 | 0.0339 | 0.4023 | 0.0159 | 0.999 | 0.760 | 0.000 | 1.000 | 1.000 | 1.000 | 0.981 | 6.80 | 6 | 8 | 11 | 1.063 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2957 | 0.0162 | 0.4078 | 0.0165 | 1.001 | 0.773 | 0.000 | 1.000 | 1.000 | 0.999 | 0.970 | 6.66 | 6 | 8 | 10 | 1.051 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2886 | 0.0106 | 0.4119 | 0.0162 | 1.001 | 0.772 | 0.000 | 1.000 | 1.000 | 1.000 | 0.968 | 6.57 | 6 | 8 | 10 | 1.052 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2951 | 0.0332 | 0.4040 | 0.0086 | 0.999 | 0.751 | 0.000 | 1.000 | 1.000 | 1.000 | 0.976 | 6.59 | 6 | 8 | 10 | 1.050 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2854 | 0.0158 | 0.4093 | 0.0091 | 1.001 | 0.773 | 0.000 | 1.000 | 1.000 | 0.999 | 0.964 | 6.47 | 5 | 8 | 10 | 1.040 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.2784 | 0.0104 | 0.4143 | 0.0105 | 1.002 | 0.774 | 0.000 | 1.000 | 1.000 | 1.000 | 0.961 | 6.39 | 5 | 8 | 10 | 1.040 | 0.04 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2733 | 0.0323 | 0.4122 | 0.0019 | 1.000 | 0.764 | 0.000 | 1.000 | 1.000 | 1.000 | 0.959 | 6.25 | 5 | 7 | 9 | 1.033 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2654 | 0.0154 | 0.4165 | 0.0020 | 1.002 | 0.785 | 0.000 | 1.000 | 1.000 | 0.999 | 0.947 | 6.15 | 5 | 7 | 9 | 1.027 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2603 | 0.0102 | 0.4204 | 0.0034 | 1.003 | 0.796 | 0.000 | 1.000 | 1.000 | 0.999 | 0.942 | 6.09 | 5 | 7 | 9 | 1.028 | 0.03 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3037 | 0.0337 | 0.4026 | 0.0137 | 0.999 | 0.740 | 0.000 | 1.000 | 1.000 | 1.000 | 0.981 | 6.75 | 6 | 8 | 11 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2937 | 0.0161 | 0.4075 | 0.0138 | 1.000 | 0.754 | 0.000 | 1.000 | 1.000 | 0.999 | 0.970 | 6.61 | 6 | 8 | 10 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2868 | 0.0106 | 0.4115 | 0.0135 | 1.001 | 0.751 | 0.000 | 1.000 | 1.000 | 1.000 | 0.968 | 6.52 | 6 | 8 | 10 | 1.010 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2929 | 0.0330 | 0.4047 | 0.0075 | 0.999 | 0.738 | 0.000 | 1.000 | 1.000 | 1.000 | 0.976 | 6.56 | 6 | 8 | 10 | 1.016 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2836 | 0.0158 | 0.4095 | 0.0076 | 1.001 | 0.759 | 0.000 | 1.000 | 1.000 | 0.999 | 0.964 | 6.43 | 5 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2769 | 0.0104 | 0.4141 | 0.0085 | 1.001 | 0.758 | 0.000 | 1.000 | 1.000 | 1.000 | 0.961 | 6.35 | 5 | 8 | 10 | 1.009 | 0.01 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2717 | 0.0323 | 0.4128 | 0.0011 | 1.000 | 0.754 | 0.000 | 1.000 | 1.000 | 1.000 | 0.959 | 6.23 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2639 | 0.0154 | 0.4173 | 0.0014 | 1.002 | 0.779 | 0.000 | 1.000 | 1.000 | 0.999 | 0.947 | 6.12 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2589 | 0.0101 | 0.4210 | 0.0027 | 1.003 | 0.788 | 0.000 | 1.000 | 1.000 | 0.999 | 0.942 | 6.07 | 5 | 7 | 9 | 1.006 | 0.01 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4203 | 0.0663 | 0.4317 | 0.3991 | 1.011 | 0.770 | 0.000 | 1.000 | 0.199 | 0.112 | 0.081 | 11.15 | 4.5 | 21 | 38 | - | - | - | - |
| | 200 | 0.3970 | 0.0418 | 0.4932 | 0.4668 | 1.018 | 0.823 | 0.000 | 1.000 | 0.172 | 0.098 | 0.067 | 12.79 | 4 | 27 | 59 | - | - | - | - |
| | 300 | 0.3852 | 0.0331 | 0.5411 | 0.5194 | 1.021 | 0.846 | 0.000 | 1.000 | 0.178 | 0.079 | 0.058 | 14.29 | 5 | 30 | 66 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2847 | 0.0175 | 0.1692 | 0.1598 | 1.012 | 0.926 | 0.000 | 1.000 | 0.042 | 0.022 | 0.020 | 5.03 | 2 | 11 | 20 | - | - | - | - |
| | 200 | 0.2821 | 0.0116 | 0.2095 | 0.2010 | 1.014 | 0.976 | 0.000 | 1.000 | 0.036 | 0.025 | 0.013 | 5.61 | 2 | 13 | 23 | - | - | - | - |
| | 300 | 0.2805 | 0.0096 | 0.2507 | 0.2440 | 1.016 | 1.019 | 0.000 | 1.000 | 0.040 | 0.018 | 0.015 | 6.18 | 2 | 14 | 31 | - | - | - | - |

Notes: See notes to Table 190.

## Table 591: MC findings for DGPV

$T = 500$, $R^2 = 50\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3497 | 0.0339 | 0.3768 | 0.0127 | 1.001 | 0.789 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.31 | 6 | 9 | 11 | 1.054 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3388 | 0.0163 | 0.3837 | 0.0144 | 1.001 | 0.799 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.20 | 6 | 9 | 11 | 1.043 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.3340 | 0.0107 | 0.3858 | 0.0134 | 1.002 | 0.803 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.13 | 6 | 8 | 10 | 1.037 | 0.04 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3384 | 0.0333 | 0.3794 | 0.0073 | 1.001 | 0.784 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.13 | 6 | 8 | 11 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3286 | 0.0160 | 0.3854 | 0.0080 | 1.001 | 0.796 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.02 | 6 | 8 | 11 | 1.036 | 0.04 | 0.00 | 0.00 |
| | 300 | 0.3240 | 0.0105 | 0.3876 | 0.0074 | 1.002 | 0.800 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.95 | 6 | 8 | 10 | 1.030 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3163 | 0.0327 | 0.3882 | 0.0014 | 1.001 | 0.784 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.81 | 6 | 8 | 9 | 1.018 | 0.02 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.3077 | 0.0157 | 0.3935 | 0.0015 | 1.002 | 0.803 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.70 | 6 | 8 | 10 | 1.022 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.3033 | 0.0103 | 0.3961 | 0.0016 | 1.003 | 0.805 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.65 | 6 | 8 | 9 | 1.016 | 0.02 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3472 | 0.0337 | 0.3769 | 0.0107 | 1.000 | 0.769 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.26 | 6 | 9 | 11 | 1.010 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3375 | 0.0162 | 0.3831 | 0.0123 | 1.001 | 0.781 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.16 | 6 | 8 | 11 | 1.011 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3323 | 0.0107 | 0.3859 | 0.0121 | 1.002 | 0.787 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.10 | 6 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.3365 | 0.0332 | 0.3797 | 0.0061 | 1.000 | 0.770 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 7.09 | 6 | 8 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3272 | 0.0159 | 0.3855 | 0.0067 | 1.001 | 0.781 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.99 | 6 | 8 | 11 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3226 | 0.0105 | 0.3877 | 0.0063 | 1.002 | 0.785 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.93 | 6 | 8 | 9 | 1.005 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.3150 | 0.0327 | 0.3888 | 0.0011 | 1.001 | 0.778 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.79 | 6 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.3067 | 0.0157 | 0.3938 | 0.0010 | 1.002 | 0.793 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.69 | 6 | 8 | 10 | 1.006 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.3025 | 0.0103 | 0.3962 | 0.0011 | 1.003 | 0.798 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.64 | 6 | 8 | 9 | 1.004 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.4675 | 0.0704 | 0.4347 | 0.4019 | 1.008 | 0.819 | 0.000 | 1.000 | 0.227 | 0.117 | 0.095 | 12.09 | 5 | 21 | 47 | - | - | - | - |
| | 200 | 0.4419 | 0.0453 | 0.4948 | 0.4714 | 1.011 | 0.858 | 0.000 | 1.000 | 0.186 | 0.098 | 0.084 | 14.00 | 5 | 26 | 64 | - | - | - | - |
| | 300 | 0.4257 | 0.0335 | 0.5112 | 0.4860 | 1.014 | 0.885 | 0.000 | 1.000 | 0.194 | 0.094 | 0.076 | 14.90 | 5 | 31 | 75 | - | - | - | - |
| Adaptive Lasso | 100 | 0.3328 | 0.0135 | 0.1482 | 0.1384 | 1.006 | 0.937 | 0.000 | 1.000 | 0.045 | 0.016 | 0.015 | 5.23 | 2 | 9 | 18 | - | - | - | - |
| | 200 | 0.3262 | 0.0089 | 0.1921 | 0.1855 | 1.007 | 0.968 | 0.000 | 1.000 | 0.036 | 0.021 | 0.013 | 5.62 | 2 | 10 | 20 | - | - | - | - |
| | 300 | 0.3211 | 0.0067 | 0.2068 | 0.1982 | 1.008 | 0.986 | 0.000 | 1.000 | 0.029 | 0.011 | 0.010 | 5.80 | 2 | 12 | 20 | - | - | - | - |

Notes: See notes to Table 190.

## Table 592: MC findings for DGPV

$T = 100$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2012 | 0.0275 | 0.4141 | 0.0304 | 0.988 | 0.671 | 0.000 | 1.000 | 0.985 | 0.810 | 0.525 | 4.94 | 3 | 7 | 9 | 1.464 | 0.44 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1925 | 0.0131 | 0.4190 | 0.0360 | 0.994 | 0.713 | 0.000 | 1.000 | 0.984 | 0.784 | 0.516 | 4.83 | 3 | 7 | 9 | 1.509 | 0.49 | 0.02 | 0.00 |
| | 300 | 0.1888 | 0.0087 | 0.4251 | 0.0429 | 1.000 | 0.738 | 0.000 | 1.000 | 0.985 | 0.786 | 0.494 | 4.82 | 3 | 7 | 11 | 1.538 | 0.50 | 0.03 | 0.00 |
| $p = 0.05$, | 100 | 0.1949 | 0.0258 | 0.4035 | 0.0197 | 0.987 | 0.670 | 0.000 | 1.000 | 0.981 | 0.783 | 0.481 | 4.71 | 3 | 6 | 9 | 1.516 | 0.50 | 0.02 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1878 | 0.0123 | 0.4061 | 0.0231 | 0.992 | 0.696 | 0.000 | 1.000 | 0.980 | 0.753 | 0.477 | 4.61 | 3 | 6 | 9 | 1.552 | 0.53 | 0.02 | 0.00 |
| | 300 | 0.1833 | 0.0081 | 0.4113 | 0.0272 | 0.998 | 0.728 | 0.000 | 1.000 | 0.980 | 0.754 | 0.463 | 4.57 | 3 | 6 | 8 | 1.571 | 0.55 | 0.02 | 0.00 |
| $p = 0.01$, | 100 | 0.1843 | 0.0229 | 0.3808 | 0.0074 | 0.989 | 0.674 | 0.000 | 1.000 | 0.963 | 0.701 | 0.402 | 4.32 | 3 | 6 | 8 | 1.599 | 0.59 | 0.01 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.1786 | 0.0109 | 0.3829 | 0.0085 | 0.993 | 0.702 | 0.000 | 1.000 | 0.962 | 0.683 | 0.399 | 4.24 | 2 | 6 | 8 | 1.630 | 0.62 | 0.01 | 0.00 |
| | 300 | 0.1736 | 0.0072 | 0.3862 | 0.0106 | 1.000 | 0.729 | 0.000 | 1.000 | 0.959 | 0.686 | 0.382 | 4.17 | 2 | 6 | 8 | 1.633 | 0.62 | 0.01 | 0.00 |
| $p = 0.1$, | 100 | 0.1879 | 0.0269 | 0.4212 | 0.0240 | 0.993 | 0.694 | 0.000 | 1.000 | 0.985 | 0.810 | 0.524 | 4.73 | 3 | 6 | 8 | 1.361 | 0.36 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1772 | 0.0129 | 0.4277 | 0.0291 | 1.002 | 0.748 | 0.000 | 1.000 | 0.984 | 0.784 | 0.516 | 4.60 | 3 | 6 | 9 | 1.395 | 0.39 | 0.01 | 0.00 |
| | 300 | 0.1726 | 0.0085 | 0.4334 | 0.0337 | 1.009 | 0.776 | 0.000 | 1.000 | 0.985 | 0.786 | 0.494 | 4.55 | 3 | 6 | 9 | 1.402 | 0.40 | 0.01 | 0.00 |
| $p = 0.05$, | 100 | 0.1806 | 0.0254 | 0.4124 | 0.0144 | 0.995 | 0.712 | 0.000 | 1.000 | 0.981 | 0.783 | 0.481 | 4.50 | 3 | 6 | 8 | 1.414 | 0.41 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1722 | 0.0121 | 0.4157 | 0.0171 | 1.001 | 0.742 | 0.000 | 1.000 | 0.980 | 0.753 | 0.477 | 4.38 | 3 | 6 | 8 | 1.438 | 0.43 | 0.00 | 0.00 |
| | 300 | 0.1675 | 0.0079 | 0.4210 | 0.0202 | 1.010 | 0.778 | 0.000 | 1.000 | 0.980 | 0.754 | 0.463 | 4.33 | 2 | 6 | 8 | 1.453 | 0.45 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.1698 | 0.0228 | 0.3919 | 0.0052 | 1.001 | 0.737 | 0.000 | 1.000 | 0.963 | 0.701 | 0.402 | 4.13 | 2 | 6 | 7 | 1.517 | 0.51 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.1620 | 0.0108 | 0.3953 | 0.0052 | 1.009 | 0.776 | 0.000 | 1.000 | 0.962 | 0.683 | 0.399 | 4.02 | 2 | 6 | 8 | 1.514 | 0.51 | 0.00 | 0.00 |
| | 300 | 0.1573 | 0.0071 | 0.3990 | 0.0076 | 1.016 | 0.800 | 0.000 | 1.000 | 0.959 | 0.686 | 0.382 | 3.96 | 2 | 6 | 7 | 1.521 | 0.52 | 0.01 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.2788 | 0.0533 | 0.4207 | 0.3898 | 1.039 | 0.681 | 0.000 | 1.000 | 0.155 | 0.076 | 0.059 | 8.25 | 2 | 18 | 37 | - | - | - | - |
| | 200 | 0.2636 | 0.0397 | 0.5213 | 0.4949 | 1.050 | 0.732 | 0.000 | 1.000 | 0.136 | 0.070 | 0.052 | 10.78 | 2 | 25 | 60 | - | - | - | - |
| | 300 | 0.2577 | 0.0330 | 0.5743 | 0.5534 | 1.060 | 0.760 | 0.000 | 1.000 | 0.147 | 0.066 | 0.054 | 12.72 | 2 | 30 | 57 | - | - | - | - |
| Adaptive Lasso | 100 | 0.1812 | 0.0129 | 0.1154 | 0.1111 | 1.040 | 0.853 | 0.000 | 1.000 | 0.022 | 0.011 | 0.011 | 3.36 | 1 | 12 | 26 | - | - | - | - |
| | 200 | 0.1870 | 0.0130 | 0.1931 | 0.1887 | 1.048 | 0.927 | 0.000 | 1.000 | 0.025 | 0.014 | 0.011 | 4.73 | 1 | 17 | 46 | - | - | - | - |
| | 300 | 0.1888 | 0.0127 | 0.2449 | 0.2401 | 1.059 | 0.991 | 0.000 | 1.000 | 0.033 | 0.015 | 0.018 | 5.96 | 1 | 21 | 42 | - | - | - | - |

Notes: See notes to Table 190.

## Table 593: MC findings for DGPV

$T = 300$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | RMSE$_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\overline{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\overline{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.2569 | 0.0340 | 0.4366 | 0.0175 | 0.999 | 0.689 | 0.000 | 1.000 | 1.000 | 1.000 | 0.981 | 6.21 | 5 | 8 | 10 | 1.057 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2488 | 0.0163 | 0.4422 | 0.0177 | 0.998 | 0.700 | 0.000 | 1.000 | 1.000 | 1.000 | 0.982 | 6.11 | 5 | 8 | 10 | 1.053 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2381 | 0.0107 | 0.4497 | 0.0185 | 0.999 | 0.717 | 0.000 | 1.000 | 1.000 | 1.000 | 0.975 | 5.98 | 5 | 7 | 10 | 1.052 | 0.05 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2451 | 0.0332 | 0.4400 | 0.0099 | 0.999 | 0.685 | 0.000 | 1.000 | 1.000 | 1.000 | 0.974 | 5.99 | 5 | 7 | 10 | 1.051 | 0.05 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2372 | 0.0159 | 0.4451 | 0.0096 | 0.998 | 0.693 | 0.000 | 1.000 | 1.000 | 1.000 | 0.972 | 5.89 | 5 | 7 | 9 | 1.046 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2299 | 0.0104 | 0.4508 | 0.0106 | 0.999 | 0.710 | 0.000 | 1.000 | 1.000 | 0.999 | 0.969 | 5.81 | 5 | 7 | 9 | 1.053 | 0.05 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2247 | 0.0323 | 0.4490 | 0.0025 | 0.999 | 0.701 | 0.000 | 1.000 | 1.000 | 1.000 | 0.954 | 5.67 | 5 | 7 | 9 | 1.065 | 0.06 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2179 | 0.0155 | 0.4549 | 0.0026 | 0.999 | 0.710 | 0.000 | 1.000 | 1.000 | 1.000 | 0.958 | 5.59 | 5 | 7 | 9 | 1.058 | 0.06 | 0.00 | 0.00 |
| | 300 | 0.2129 | 0.0102 | 0.4580 | 0.0029 | 0.999 | 0.722 | 0.000 | 1.000 | 1.000 | 0.998 | 0.952 | 5.53 | 5 | 7 | 8 | 1.069 | 0.07 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.2551 | 0.0338 | 0.4366 | 0.0153 | 0.998 | 0.671 | 0.000 | 1.000 | 1.000 | 1.000 | 0.981 | 6.17 | 5 | 8 | 10 | 1.025 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2472 | 0.0162 | 0.4419 | 0.0150 | 0.997 | 0.680 | 0.000 | 1.000 | 1.000 | 1.000 | 0.982 | 6.07 | 5 | 7 | 10 | 1.017 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2372 | 0.0106 | 0.4486 | 0.0152 | 0.998 | 0.696 | 0.000 | 1.000 | 1.000 | 1.000 | 0.975 | 5.94 | 5 | 7 | 10 | 1.021 | 0.02 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2437 | 0.0330 | 0.4401 | 0.0083 | 0.998 | 0.674 | 0.000 | 1.000 | 1.000 | 1.000 | 0.974 | 5.97 | 5 | 7 | 10 | 1.028 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2358 | 0.0158 | 0.4450 | 0.0076 | 0.997 | 0.680 | 0.000 | 1.000 | 1.000 | 1.000 | 0.972 | 5.86 | 5 | 7 | 9 | 1.020 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2286 | 0.0104 | 0.4506 | 0.0086 | 0.998 | 0.695 | 0.000 | 1.000 | 1.000 | 0.999 | 0.969 | 5.78 | 5 | 7 | 9 | 1.029 | 0.03 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2229 | 0.0322 | 0.4500 | 0.0016 | 0.999 | 0.690 | 0.000 | 1.000 | 1.000 | 1.000 | 0.954 | 5.64 | 5 | 7 | 9 | 1.045 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2165 | 0.0155 | 0.4557 | 0.0021 | 0.999 | 0.707 | 0.000 | 1.000 | 1.000 | 1.000 | 0.958 | 5.57 | 5 | 7 | 9 | 1.048 | 0.05 | 0.00 | 0.00 |
| | 300 | 0.2112 | 0.0102 | 0.4591 | 0.0024 | 0.999 | 0.718 | 0.000 | 1.000 | 1.000 | 0.998 | 0.952 | 5.50 | 5 | 7 | 8 | 1.059 | 0.06 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3527 | 0.0618 | 0.4418 | 0.4058 | 1.011 | 0.714 | 0.000 | 1.000 | 0.195 | 0.102 | 0.085 | 9.92 | 4 | 20 | 33 | - | - | - | - |
| | 200 | 0.3372 | 0.0383 | 0.5007 | 0.4725 | 1.015 | 0.751 | 0.000 | 1.000 | 0.175 | 0.083 | 0.066 | 11.41 | 4 | 24 | 52 | - | - | - | - |
| | 300 | 0.3190 | 0.0315 | 0.5570 | 0.5318 | 1.018 | 0.779 | 0.000 | 1.000 | 0.184 | 0.075 | 0.048 | 13.02 | 4 | 29 | 50 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2459 | 0.0189 | 0.1807 | 0.1709 | 1.009 | 0.861 | 0.000 | 1.000 | 0.040 | 0.021 | 0.024 | 4.69 | 2 | 11 | 23 | - | - | - | - |
| | 200 | 0.2446 | 0.0129 | 0.2333 | 0.2253 | 1.014 | 0.947 | 0.000 | 1.000 | 0.034 | 0.017 | 0.019 | 5.40 | 2 | 13 | 29 | - | - | - | - |
| | 300 | 0.2430 | 0.0113 | 0.2820 | 0.2739 | 1.016 | 0.986 | 0.000 | 1.000 | 0.052 | 0.018 | 0.011 | 6.21 | 2 | 16 | 30 | - | - | - | - |

Notes: See notes to Table 190.

## Table 594: MC findings for DGPV

$T = 500$, $R^2 = 30\%$, NG, dynamic specifications with $\lambda_y = 0.8$.

| | $n$ | TPR | FPR | FDR* | FDR | RMSFE | $\text{RMSE}_{\tilde{\beta}}$ | $\hat{\pi}_{11}$ | $\hat{\pi}_{lag1}$ | $\hat{\pi}_{lag2}$ | $\hat{\pi}_{lag3}$ | $\hat{\pi}_{lag4}$ | $\bar{\hat{\kappa}}$ | $\hat{\kappa}_5$ | $\hat{\kappa}_{95}$ | $\hat{\kappa}_{\max}$ | $\bar{\hat{P}}$ | $A_1$ | $A_2$ | $A_3$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **OCMT method** | | | | | | | | | | | | | | | | | | | | |
| $p = 0.1$, | 100 | 0.3024 | 0.0339 | 0.4047 | 0.0131 | 0.999 | 0.698 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.75 | 6 | 8 | 11 | 1.039 | 0.04 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2901 | 0.0164 | 0.4142 | 0.0168 | 0.999 | 0.704 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.62 | 6 | 8 | 10 | 1.030 | 0.03 | 0.00 | 0.00 |
| | 300 | 0.2848 | 0.0107 | 0.4165 | 0.0148 | 0.999 | 0.701 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.54 | 6 | 8 | 11 | 1.025 | 0.03 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2909 | 0.0333 | 0.4083 | 0.0075 | 0.998 | 0.688 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.55 | 6 | 8 | 10 | 1.027 | 0.03 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2805 | 0.0160 | 0.4156 | 0.0089 | 0.998 | 0.693 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.44 | 6 | 8 | 10 | 1.019 | 0.02 | 0.00 | 0.00 |
| | 300 | 0.2760 | 0.0105 | 0.4185 | 0.0086 | 0.999 | 0.696 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.38 | 5 | 8 | 10 | 1.020 | 0.02 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2682 | 0.0327 | 0.4198 | 0.0016 | 0.999 | 0.697 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.23 | 5 | 7 | 9 | 1.009 | 0.01 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 1.5$ | 200 | 0.2606 | 0.0157 | 0.4245 | 0.0012 | 0.999 | 0.704 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.13 | 5 | 7 | 10 | 1.008 | 0.01 | 0.00 | 0.00 |
| | 300 | 0.2568 | 0.0103 | 0.4280 | 0.0024 | 0.999 | 0.713 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.10 | 5 | 7 | 9 | 1.013 | 0.01 | 0.00 | 0.00 |
| $p = 0.1$, | 100 | 0.3010 | 0.0337 | 0.4044 | 0.0112 | 0.998 | 0.679 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.71 | 6 | 8 | 10 | 1.004 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2894 | 0.0163 | 0.4133 | 0.0145 | 0.998 | 0.686 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.60 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2839 | 0.0107 | 0.4163 | 0.0135 | 0.999 | 0.688 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.52 | 6 | 8 | 11 | 1.004 | 0.00 | 0.00 | 0.00 |
| $p = 0.05$, | 100 | 0.2898 | 0.0332 | 0.4083 | 0.0063 | 0.998 | 0.677 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.53 | 6 | 8 | 10 | 1.005 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2800 | 0.0159 | 0.4152 | 0.0076 | 0.998 | 0.683 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.42 | 6 | 8 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2751 | 0.0105 | 0.4185 | 0.0077 | 0.999 | 0.686 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.36 | 5 | 8 | 10 | 1.003 | 0.00 | 0.00 | 0.00 |
| $p = 0.01$, | 100 | 0.2678 | 0.0327 | 0.4199 | 0.0013 | 0.999 | 0.694 | 0.000 | 1.000 | 1.000 | 1.000 | 1.000 | 6.22 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| $\delta = 1$, $\delta^* = 2$ | 200 | 0.2602 | 0.0157 | 0.4248 | 0.0010 | 0.999 | 0.702 | 0.000 | 1.000 | 1.000 | 1.000 | 0.998 | 6.13 | 5 | 7 | 10 | 1.002 | 0.00 | 0.00 | 0.00 |
| | 300 | 0.2560 | 0.0103 | 0.4284 | 0.0021 | 0.999 | 0.706 | 0.000 | 1.000 | 1.000 | 1.000 | 0.999 | 6.09 | 5 | 7 | 9 | 1.002 | 0.00 | 0.00 | 0.00 |
| **Penalised regression methods** | | | | | | | | | | | | | | | | | | | | |
| Lasso | 100 | 0.3957 | 0.0684 | 0.4494 | 0.4138 | 1.006 | 0.745 | 0.000 | 1.000 | 0.201 | 0.110 | 0.087 | 11.04 | 4 | 20 | 40 | - | - | - | - |
| | 200 | 0.3721 | 0.0416 | 0.5017 | 0.4747 | 1.009 | 0.781 | 0.000 | 1.000 | 0.179 | 0.102 | 0.071 | 12.45 | 4 | 28 | 40 | - | - | - | - |
| | 300 | 0.3610 | 0.0308 | 0.5304 | 0.5053 | 1.011 | 0.802 | 0.000 | 1.000 | 0.174 | 0.091 | 0.054 | 13.34 | 4 | 32 | 62 | - | - | - | - |
| Adaptive Lasso | 100 | 0.2844 | 0.0176 | 0.1901 | 0.1795 | 1.003 | 0.842 | 0.000 | 1.000 | 0.040 | 0.021 | 0.018 | 5.03 | 2 | 10 | 22 | - | - | - | - |
| | 200 | 0.2759 | 0.0109 | 0.2246 | 0.2168 | 1.005 | 0.893 | 0.000 | 1.000 | 0.034 | 0.022 | 0.015 | 5.40 | 2 | 12 | 22 | - | - | - | - |
| | 300 | 0.2749 | 0.0087 | 0.2562 | 0.2479 | 1.006 | 0.921 | 0.000 | 1.000 | 0.041 | 0.021 | 0.012 | 5.82 | 2 | 13 | 32 | - | - | - | - |

Notes: See notes to Table 190.

## 5 Additional Monte Carlo Experiments

In this section we consider two additional sets of Monte Carlo experiments where the active set of covariates under consideration does not include the signal variables. One of the experiments also considers the case where $n$ (the number of covariates in the active set) is small relative to $T$ (the sample size). These experiments were suggested to us by one of the referees, and complement our designs where the active set under consideration includes all the signal variables, and where $n$ is large relative to $T$.

**DGP-VI:**

DGP-VI(a) Under this design the dependent variable is generated as $y_t \sim IIDN\left(z_{1t} + 0.1z_{2t}, 20\right)$. There are only $n = 6$ covariates and these are generated as $x_{1t} = z_{1t} + e_{1t}$, $x_{2t} = -z_{1t} + e_{2t}$, $x_{3t} = z_{1t} + e_{3t}$, $x_{4t} = z_{2t} + e_{4t}$, $x_{5t} = -z_{2t} + e_{5t}$, and $x_{6t} = z_{2t} + e_{6t}$, where $z_{it} \sim IIDU\left(0, 20\right)$ for $i = 1, 2$, and $e_{it} \sim IIDN\left(0, 20\right)$, for $t = 1, 2, ..., T$. The sample size is set to $T = 200$.

DGP-VI(b) The DGP for this design is the same as the one used for DGP-VI(a), with the exception that $z_{2t} = 20\zeta_{it}$, and $\zeta_{it} \sim IIDN\left(0, 1\right)$.

**DGP-VII**:

DGP-VII(a) Under this design the dependent variable is generated according to $y_t = \sum_{i=1}^{15} \beta_i x_{it} + 15\varepsilon_{it}$, where $\varepsilon_{it} \sim IIDN\left(0, 1\right)$. The covariates are generated according to $x_{it} = z_{1t} + e_{it}$, for $i = 1, 2, ..., 5$, $x_{it} = z_{2t} + e_{it}$, for $i = 6, 7, ..., 10$, $x_{it} = z_{3t} + e_{it}$, for $i = 11, 12, ..., 15$, and $x_{it} \sim IIDN\left(0, 1\right)$ for $i = 16, 17, ..., n$, where $e_{it} \sim IIDN\left(0, 1\right)$, for all $i$, and $\beta_i = 3$ for $i = 1, 2, ..., 15$. We set $T = 200$.

DGP-VII(b) This design follows DGP-VII(a), but allows for $\beta_i$ to rise with $i$ in a linear fashion starting with $\beta_1 = 0.3$, and rising in increments of 0.18 to $\beta_{15} = 3$.

As before, we conduct $R = 2000$ Monte Carlo replications.

Under DGP-VI, the true model covariates, $z_{1t}$ and $z_{2t}$, are not part of the active defined by $S_t = \{x_{1t}, x_{2t}, ..., x_{6t}\}$, but have different degrees of correlations with the variables in the active set. Although, our theoretical findings do not apply and the approximate model selected by OCMT cannot include the true model by construction, nevertheless, the OCMT can still be used to select an approximating model that includes all the pseudo-signal variables asymptotically, as $n$ and $T \to \infty$. Since each of the covariates in $S_t$ is correlated with the signal variables, $\{z_{1t}, z_{2t}\}$, and thus satisfies our definition of the pseudo-signal variable, we expect that the all six pseudo-signal variables in $S_t$ will be selected with high probability when $T$ is sufficiently large. How large $T$ need to be for the power of OCMT procedure to pick up all six pseudo-signal variables in $S_t$ will depend in particular on the magnitude of the net effect coefficients, see Remark 1 in the main paper. Under DGP-VI(a), the magnitude of the net effect coefficients $\{\theta_4, \theta_5, \theta_6\}$ for the covariates $\{x_{4t}, x_{5t}, x_{6t}\}$ are very small (0.064 only), and therefore we expect that the sample size of $T = 200$ is not sufficient to pick up these covariates with high probability. This expectation is confirmed in Table 595, where the variables in $\{x_{1t}, x_{2t}, x_{3t}\}$ with net effects are picked up with high probability, and each of the covariates in $\{x_{4t}, x_{5t}, x_{6t}\}$ is picked up with a very small probability (less than 3% in the first-stage of OCMT procedure, and less than 4% using the multistage version of OCMT). Once $z_{2t}$ is generated with a higher variance, as is the case under DGP-VI(b), where the magnitude of the net effect coefficients of the pseudo-signal variables in $\{x_{4t}, x_{5t}, x_{6t}\}$ is larger (0.95 vs. 0.064), then the probability of picking up pseudo-signal variables in $\{x_{4t}, x_{5t}, x_{6t}\}$ should increase. This intuition is confirmed in the lower part of Table 595, where we see that the reported probability of selecting the individual pseudo-signal variables in $\{x_{4t}, x_{5t}, x_{6t}\}$ has increased to about 70% using the first stage of OCMT, and to about 90% using the multi-stage version of OCMT.

**Table 595: Monte Carlo findings for OCMT method in DGPVI**

| | $\hat{\phi}$ | $\lvert t_{\hat{\phi}}\rvert$ | OCMT selection probabilities first-stage | OCMT selection probabilities multi-stage |
|---|---|---|---|---|
| **DGP-VI(a)** | | | | |
| $i=1$ | 0.624 | 11.201 | 1.000 | 1.000 |
| $i=2$ | -0.625 | 11.272 | 1.000 | 1.000 |
| $i=3$ | 0.625 | 11.263 | 1.000 | 1.000 |
| $i=4$ | 0.064 | 1.124 | 0.010 | 0.014 |
| $i=5$ | -0.064 | 1.142 | 0.025 | 0.036 |
| $i=6$ | 0.064 | 1.128 | 0.020 | 0.027 |
| **DGP-VI(b)** | | | | |
| $i=1$ | 0.627 | 10.687 | 1.000 | 1.000 |
| $i=2$ | -0.629 | 10.734 | 1.000 | 1.000 |
| $i=3$ | 0.625 | 10.639 | 1.000 | 1.000 |
| $i=4$ | 0.095 | 3.735 | 0.722 | 0.898 |
| $i=5$ | -0.095 | 3.739 | 0.724 | 0.902 |
| $i=6$ | 0.095 | 3.732 | 0.719 | 0.898 |

Notes: OCMT is computed using $p = 0.01$, $\delta = 1$ and $\delta^* = 2$, which gives critical values 3.14 in the first stage and 3.64 in higher stages of the OCMT procedure. $\hat{\phi}$ is the mean value of the estimated net effect coefficients in the regression of $y_t$ on $x_{it}$ and a constant. $\lvert t_{\hat{\phi}}\rvert$ is the mean absolute value of the corresponding $t$-test statistics. Column 4 reports the selection probability of selecting the covariate $i$ using the first stage OCMT, and the last column reports the selection probability of selecting the covariate $i$ using the multi-stage OCMT.

In order to assess how well OCMT performs under DGP-VI relative to the penalised regression methods, we compare the absolute MSFE of multi-stage OCMT with Lasso and A-Lasso methods. Table 596 reports the MSFE results. In addition to $n = 6$, we have also considered a high-dimensional set up with $n = 100$ and 200, generating the additional variables as noise variables as: $x_{it} = e_{it} \sim IIDN\,(0, 20)$, for $i > 6$. The results (also summarized in Table 596) show that OCMT continues to outperform Lasso and A-Lasso in all cases considered.

**Table 596: Monte Carlo findings for absolute MSFE in DGPVI**

| | OCMT | Lasso | A-Lasso |
|---|---|---|---|
| **DGP-VI(a)** | | | |
| $n=6$ | 26.356 | 26.515 | 27.033 |
| $n=100$ | 26.466 | 27.369 | 27.684 |
| $n=200$ | 26.292 | 27.445 | 28.146 |
| **DGP-VI(b), Case B** | | | |
| $n=6$ | 26.560 | 26.602 | 27.247 |
| $n=100$ | 27.176 | 27.778 | 27.874 |
| $n=200$ | 27.516 | 28.123 | 28.865 |

Notes: See notes to Table 595.

Table 597 reports the results for DGP-VII. We see that all pseudo-signal covariates with net effect coefficients sufficiently large are picked up with high probability, which includes the first 15 covariates in the case of DGP-VII(a), reported on the left part of Table 597, and the covariates $x_{6t}, x_{7t}, ..., x_{15t}$, under DGP-VII(a), reported on the right part of Table 597. To shed light on the small sample performance of OCMT in comparison with Lasso and A-Lasso, we report MSFE results in Table 598 below. As before, we also consider additional higher choices of $n$, namely $n = 100$ and 200, and generate $x_{it} \sim IIDN(0, 1)$ for all $i > 15$. Table 598 shows that OCMT outperforms Lasso and A-Lasso in all cases but one, namely case (b), with $n = 20$, where OCMT is outperformed by Lasso.

**Table 597: Monte Carlo findings for OCMT method in DGPVII**

| | | | OCMT selection probabilities | | | | OCMT selection probabilities | |
|---|---|---|---|---|---|---|---|---|
| | $\hat{\phi}$ | $\lvert t_{\hat{\phi}}\rvert$ | first-stage | multi-stage | $\hat{\phi}$ | $\lvert t_{\hat{\phi}}\rvert$ | first-stage | multi-stage |
| | **DGP-VII(a)** | | | | **DGP-VII(b)** | | | |
| 1 | 8.985 | 6.088 | 0.992 | 0.992 | 1.849 | 1.668 | 0.033 | 0.046 |
| 2 | 8.979 | 6.076 | 0.993 | 0.993 | 1.960 | 1.750 | 0.037 | 0.058 |
| 3 | 9.006 | 6.109 | 0.995 | 0.995 | 2.012 | 1.805 | 0.041 | 0.072 |
| 4 | 8.980 | 6.078 | 0.995 | 0.995 | 2.112 | 1.881 | 0.051 | 0.083 |
| 5 | 8.995 | 6.080 | 0.995 | 0.995 | 2.221 | 1.972 | 0.072 | 0.123 |
| 6 | 9.038 | 6.130 | 0.993 | 0.993 | 4.732 | 4.306 | 0.794 | 0.801 |
| 7 | 9.051 | 6.141 | 0.994 | 0.994 | 4.839 | 4.409 | 0.817 | 0.825 |
| 8 | 9.059 | 6.150 | 0.995 | 0.995 | 4.998 | 4.568 | 0.846 | 0.855 |
| 9 | 8.965 | 6.095 | 0.992 | 0.993 | 5.046 | 4.617 | 0.863 | 0.872 |
| 10 | 9.011 | 6.113 | 0.993 | 0.993 | 5.165 | 4.738 | 0.883 | 0.894 |
| 11 | 8.953 | 6.043 | 0.988 | 0.989 | 7.654 | 7.548 | 1.000 | 1.000 |
| 12 | 9.004 | 6.087 | 0.988 | 0.988 | 7.754 | 7.687 | 1.000 | 1.000 |
| 13 | 8.951 | 6.050 | 0.993 | 0.994 | 7.858 | 7.820 | 1.000 | 1.000 |
| 14 | 8.954 | 6.050 | 0.994 | 0.994 | 7.956 | 7.938 | 1.000 | 1.000 |
| 15 | 8.934 | 6.035 | 0.991 | 0.991 | 8.046 | 8.066 | 1.000 | 1.000 |
| 16 | 0.011 | 0.806 | 0.001 | 0.001 | 0.051 | 0.781 | 0.001 | 0.001 |
| 17 | 0.011 | 0.799 | 0.001 | 0.001 | 0.016 | 0.776 | 0.002 | 0.002 |
| 18 | 0.038 | 0.812 | 0.001 | 0.001 | 0.020 | 0.775 | 0.001 | 0.001 |
| 19 | -0.036 | 0.790 | 0.001 | 0.001 | 0.043 | 0.801 | 0.001 | 0.001 |
| 20 | 0.057 | 0.817 | 0.001 | 0.001 | 0.012 | 0.801 | 0.001 | 0.001 |

Notes: See notes to Table 595.

**Table 598: Monte Carlo findings for absolute MSFE in DGPVII**

| | OCMT | Lasso | A-Lasso |
|---|---|---|---|
| **DGP-R2, Case A** | | | |
| $n = 20$ | 244.96 | 249.79 | 263.86 |
| $n = 100$ | 247.32 | 265.86 | 275.06 |
| $n = 200$ | 248.46 | 272.94 | 289.94 |
| **DGP-R2, Case B** | | | |
| $n = 20$ | 253.53 | 247.17 | 260.89 |
| $n = 100$ | 257.58 | 259.44 | 268.78 |
| $n = 200$ | 260.50 | 266.42 | 281.83 |

Notes: See notes to Table 595.

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