

This document is prepared for the replication package of Bruce E. Hansen and Seojeong Lee, "Inference for Iterated GMM under Misspecification".

## **MAIN FILES FOR THE APPLICATION**

`main_AJRY_CJSV.m` is the main code for the application (Acemoglu, Johnson, Robinson, and Yared 2008 AER and Cervellati, Jung, Sunde, and Fischer 2014 AER). It replicates the results in Tables 3 and 4.

`Figure1_AJRY_CJSV.m` generates Figure 1.

The main codes require the following files in the same working folder.

```
arellano_bond.m
iterated_gmm_cluster.m
fiveyearpanel.mat
tenyearpanel.mat
```

### **Description**

- `arellano_bond.m` calculates the data matrices required for the Arellano-Bond difference GMM.
- `iterated_gmm_cluster.m` calculates the iterated GMM, new robust, Windmeijer, and conventional standard errors, and the J test for i.i.d. or clustered data (e.g., panel data)
- `fiveyearpanel.mat` is a Matlab data file containing unbalanced panel observations with 5 year frequencies for both AJRY and CJSV
- `tenyearpanel.mat` is a Matlab data file containing unbalanced panel observations with 10 year frequencies for both AJRY and CJSV

## **OPTIONAL FILES FOR THE APPLICATION**

`IV_robust_cluster.m` calculates the 2SLS estimator, new robust and conventional standard errors, and the J test

`AJRY_dataset.xls` is an Excel file containing the original AJRY dataset. It also includes Stata commands for the tables.

`CJSV_dataset.xlsx` is an Excel file containing the original CJSV dataset. It also includes Stata commands for the tables.

## **MAIN FILES FOR SIMULATION 1 (LINEAR)**

`main_Simulation1.m` is the main code for the linear model in Section 8 and replicates Table 1. This code requires the following file in the same working folder.

`iterated_gmm_cluster.m`

### **Description**

- `iterated_gmm_cluster.m` calculates the iterated GMM, new robust, Windmeijer, and conventional standard errors, and the J test for i.i.d. or clustered data (e.g., panel data)

## **MAIN FILES FOR SIMULATION 2 (NON-LINEAR)**

`main_Simulation2.m` is the main code for the linear model in Section 8 and replicates Table 2. This code requires the following file in the same working folder.

`iterated_gmm_nl_cen.m`  
`moment.m`  
`dmoment.m`  
`d2moment.m`  
`dwc.m`  
`crit.m`

### **Description**

- `iterated_gmm_nl_cen.m` calculates the nonlinear iterated GMM, new robust, Windmeijer, and conventional standard errors, and the J test for i.i.d. data
- `moment.m` is a user-specified moment function
- `dmoment.m` is a user-specified first derivative of the moment function
- `d2moment.m` is a user-specified second derivative of the moment function
- `dwc.m` is a user-specified first derivative of the vectorized centered weight matrix
- `crit.m` is the GMM criterion function (no need to change)