

Empirical Replication Package Instructions

for “Global Banks and Systemic Debt Crises”

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1. EMPIRICAL REPLICATION INSTRUCTIONS

The results of the paper can be generated out of the raw data by running the following .do and .m files, contained in the *codes* folder:

(1) *construct_plots_intro.m*

Matlab code to replicate Figure 3. Note that *columnlegend.m* is a Matlab code used in “construct_plots_intro.m”. No need to run separately.

(2) *generate_descriptive_statistics.do*

Stata code to replicate: Table 1; Table B1, Table B2; Table B4; Figure B1; and Tables B5-B9.

(3) *russia.do*

Stata code to replicate Figure B2 and additional data used in code “Regressions.do” (see next).

(4) *Regressions.do*

Stata code to replicate: Table 2; Table B3; Tables B10-11; and Figure C1.

(5) *tables_exposure.do*

Stata code to replicate Tables C1-C2.

Due to copyright restrictions, we cannot upload the data used in the empirical analysis. However, in addition to the codes, the replication package includes the output tables and figures. To compile all tables and figures into a single pdf, go to the folder “tables_output” and open and compile the Latex file “tables_empirical.tex.”

Should the user have the input data, she should follow this order to replicate all results.

(1) Run “construct_plots_intro.m”

(2) Run “generate_descriptive_statistics.do”

(3) Run “russia.do”

(4) Run “Regressions.do”

(5) Run “tables_exposure.do”

2. DETAILED CONTENT OF FOLDERS AND FILES

2.1. *codes*

This folder contains all of the codes needed to replicate the empirical results from the raw data, as explained in Section 1.

2.2. *data*

Due to copyright restrictions, this folder and its subfolders are empty. However, below we present a detailed description of the files used to replicate the paper's empirical analysis.

This folder contains subfolders with raw data used for the empirical analysis.

2.2.1. *bloomberg*

Contains a unique Excel file called *Country_codes_names.xlsx*. This file describes the short and long names of countries as used in Bloomberg data.

2.2.2. *raw_data*

This folder contains two Excel files. One is called *intro_data_for_matlab.xlsx*, and it contains data on net worth and spreads used by the code *construct_plots_intro.m* described in Section 1. The second file is called *KeyItems.xlsx* and has data on balance sheet item for a set of lenders. It is used by the code *tables_exposure.do*, also explained in Section 1.

2.2.3. *stata_data*

This folder contains several .dta files and a subfolder called *beneficiary*. In what follows, we first describe the .dta files and then the subfolder with its contents.

- *bank_names.dta*. Has the names of the banks in our sample as they appear in Bloomberg. This file is called by the code *generate_descriptive_statistics.do* to generate the list of banks as it appears on tables B4 and B5 of the appendix to the paper.
- *country_currency.dta*. Links a country with its currency, and it is used in the code *Regressions.do* to determine whether a bond is on its local currency or not.
- *country_names.dta*. Lists the names of the countries; it is an output file produced by *generate_descriptive_statistics.do* based on *Country_codes_names.xlsx*.

- *list_top_20_banks.dta*. It is Table B5 of the appendix in .dta form. It is an output file produced by *generate_descriptive_statistics.do*.
- *regression_variables_russia.dta*. It has the input data used for the empirical analysis involving the Russian crisis.
- *stocks_deltap.dta*. It has the variation in stock prices for our sample of banks for different windows around the collapse of Lehman Brothers. It is used in *generate_descriptive_statistics.do*.

The subfolder *beneficiary* has several files that are used for the regression exercises.

- *regression_variables_prepared.dta*. Dataset created in the code *generate_descriptive_statistics.do*. It contains auxiliary variables used for robustness regressions that are ran in the code *Regressions.do*. The dataset is also used in the code *generate_descriptive_statistics.do* to generate Tables 1, B1, B2, B6, B7, and B8, and Figure B1.
- *regression_variables.dta*, *regression_variables_extension.dta* and *regression_variables_ext2010.dta*. These files have the input data for the regressions. There are 3 files because data was downloaded in 3 stages from Bloomberg. The file *regression_variables.dta* contains a set of countries that at some point belonged to the EMBI+. In the file *regression_variables_extension.dta*, we added countries that were in the EMBI-G. Finally, in the file *regression_variables_ext2010.dta* we included bonds (for all countries) with maturity prior to 2010. The dataset contains bonds' id, weighted average of variation in stock prices for different windows, variation in bond yields and prices for different windows, and all bond-level characteristics used as controls in the regressions.
- *lender_holdings_*_ts.dta*. The “*” refers to abbreviations for all countries in the sample. These files contain the amount held of bonds by lenders per country, quarterly for the period 2007-2008, as obtained from Bloomberg. These datasets are uploaded in the code *generate_descriptive_statistics.do*, and appended to create a new dataset called *holders.dta*.
- *lender_holdings_*_ext_ts.dta*. Similar to the previous dataset, but for the extended list of countries. A new dataset called *holders_exten.dta* is created.
- *lender_holdings_*_ext2010_ts.dta*. Idem, but for the sample extension including bonds with maturity prior to 2010. A new dataset called *holders_ext2010.dta* is created.

- The datasets *holders.dta*, *holders_exten.dta*, and *holders_ext2010.dta* are combined and used to compute auxiliary regressions shown in Table B9 of the Appendix to the paper.
- *lender_holdings_append.dta*, *lender_holdings_append_ext.dta*, and *lender_holdings_append_ext2010.dta*. Contain data on lenders' holdings by bond in 2008:Q2, for the core set of countries, the extended set of countries, and the extended set of bonds, respectively. These datasets are merged and used in the code *generate_descriptive_statistics.do* to construct Appendix Table B5. It is also used in the code to create the dataset *banks_names_sample_dummy.dta*, which contains the total amount held by each lender across all bonds, as well as a dummy indicating if the lender is a bank or not.
- *banks_names_sample_dummy.dta*. (See previous item.)

2.2.4. *stata_output*

This folder has two subfolders, each containing outputs from the codes described in Section 1. The first one is *baseline*, which contains output from the (baseline) Lehman episode. The second subfolder is *russia*, containing output from the Russian crisis episode.

Within the subfolder *baseline*, there are some output tables and figures that are shown in the paper. There is also a subfolder *regressions* with temporary datasets that are constructed while running the code *Regressions.do*. These datasets contain bootstrap simulations for regressions that are run in the code. The folder also contains further output tables and figures shown in the paper.

Within the subfolder *russia*, there is a file *regression_output_russia.dta* which contains the output of the regression for the Russian crisis. There is also a PDF file that contains Figure B2 of the Appendix to the paper.

2.3. *tables_output*

This folder contains the .tex file to compile all tables and figures of the paper.