README FILE

Data and Programs for "International Spillovers and Local Credit Cycles" by Julian di Giovanni, Şebnem Kalemli-Özcan, Mehmet Fatih Ulu and Yusuf Soner Başkaya. Forthcoming, *Review of Economic Studies*

I. Overview

The code in this replication package constructs the analysis file from the three data sources (di Giovanni et al. 2021; CBRT17a; CBRT17b) using Stata. The first of these datasets is available publicly and contains macro and financial data, and is described in Section II, Item (1) below. The second two datasets are confidential loan-level and bank-level data, and are described in Section II, Item (2) below.

II. Data Availability and Provenance Statements

This paper uses two type of data:

1) Public use **macroeconomics and financial data** are publicly available and are sourced from the International Monetary Fund's International Financial Statistics database, and from publicly available data from the CBRT. These data (di Giovanni et al., 2021) are included in a Stata dta files under the DTA folder. The Stata do files below load these data in directly.

2) Confidential The **bank-level and loan-level data** used in this paper are all collected by the Central Bank of the Republic of Turkey (CBRT17a, CBRT17b). These data must be sourced directly from the CBRT and are proprietary. These data must first be manually downloaded and converted to Stata. The code below explains the steps used with these data to convert them for final use.

Process for obtaining bank-level and loan-level data:

Researchers should get permission from the Central Bank of the Republic of Turkey. The data can only be accessed via the CBRT. For your inquiries, please fill out the question form at:

https://tcmb.gov.tr/wps/wcm/connect/en/tcmb+en/main+menu/about+the+bank/contact+us/for+your+questions

III. STATA code and Loading/Running of datasets

All the analysis for the paper was conducted on a workstation computer, with 64 GB RAM and some Intel i5 processor, using statistical package program STATA. All the STATA codes that replicate the output of the paper are shared in this folder.

All Stata program files are standard, except for **reghdfe.ado**. The package is included under the **ADO** folder. The program can also be installed directly in Stata by typing **net install reghdfe** at the prompt.

Run the Stata do files in the following sequence:

- For data preparation:
    - **A_Generate_BANK_dataset.do** generates BANK dataset from the raw data. It firstly, generates temp dta files for TL and FX components of Bank Balance (B/S) Sheet components (**VIGMTBLB.dta**). Then, generates temp dta files for TL and FX components of Bank Profit Loss components (**VIGMTKZ.dta**). Finally, it merges these datasets. Output of the file is **Bank02-14.dta** which is a clean merged monthly BANK B/S and Income statement data.
    - **B_WholeCR_fixing.do** fixes the possible typos in principal and interest rates in the Credit Registry dataset (**ALLappended.dta**). It creates principal values that are adjusted for the valuation effects stemming from exchange rate fluctuations. **FX_rate.dta**, which is used for adjusting for the valuation effects, includes monthly exchange rate (FX/TL) information for 13 different currencies. Output of the file is **WholeCR_collapsedcleanloans.dta**.
    - **C_WholeCR_FXadjustment&Sum stats.do** file adjusts the FX loans and generates the summary statistics of loan level and firm-bank level CR data. This code creates deflated loan variables and creates logged variables. It loads in **WholeCR_collapsedcleanloans.dta** and outputs **WholeCR_collapsedcleanFXadjustedloans.dta**.
    - **D_PrepareBANKformergeQ_CYCLE.do** code loads in **Bank02-14.dta** data and prepares for merge for the paper. It keeps the end of quarter values in the monthly **Bank02-14.dta** data. Output of this code is **CYCLERegs_BankQ.dta**.
    - **E_PrepareWholeCRdataformergeQ_CYCLE.do** code loads in the Credit Registry data and prepares for merge for the paper. It loads in **CR_collapsedcleanFXadjustedloans_M.dta** and generates **CollapsedWholeCR_FXsplit.dta**.
    - **F_datamergeWholeCR_QFXsplit_CYCLE.do** file merges Credit Registry dataset with Quarterly Macro, Bank B\S datasets. It uses **CYCLERegs_BankQ.dta, CollapsedCR_MFXsplit.dta**, **mastermacroQ.dta** files. It generates **masterdataCR_Q_Cycle_FXsplit.dta** file which is at Bank-Firm-FX Quarter level and the main data file that is used for analysis.
- For the in-text tables:
    - **table_1_2_3_4_5_6_7.do** generates the results presented in Tables 1 through 7 of the manuscript. These results are the summary statistics for the data.

All results that enter the summary statistics tables are clearly titled and each part that enters into a specific table of the manuscript are separated from each other in the log file.

- **table_8_9_10_11_13_14.do** generates the in Tables 8 through 14 of the manuscript except Table 12. Results in these tables are produced using loan data aggregated at bank-firm-quarter level.

- **table12.do** generates the results in Table 12 of the paper. This table presents results for the OLS regressions using quarterly data for all *new loan issuances* and augmented with an interaction for the maturity of loans.

- **table_15_16.do** generates the results in Tables 15 and 16 of the paper. This table presents results for regressions using monthly data at the loan level at the origination date for the collateral regressions.

- For Appendix tables:

  - **tableA_1235678.do** produces the Appendix tables A1 to A8 except Table A4.

  - **tableA4.do** produces the results in Table A4.

  - **tableA9.do** produces the results in Table A9.

- For figures:

  - **master_figs_final.do** file generates all the figures in the paper. It calls the dta files form the DTA folder and writes all the figures of the manuscript into the Figures folder.

References

Central Bank of the Republic of Turkey. 2017a. Bank-Level [data set]. Last accessed March 4, 2017.

Central Bank of the Republic of Turkey. 2017b. Credit Registry [data set]. Last accessed March 4, 2017.

di Giovanni, Julian, Şebnem Kalemli-Özcan, Mehmet Fatih Ulu and Yusuf Soner Başkaya. 2021. Macroeconomic and Financial [data set]. Zenodo. https://doi.org/10.5281/zenodo.4733035