**Readme file**

*Data and code of “Effective Macroprudential Policy: Cross-Sector Substitution from Price and Quantity Measures” by Janko Cizel, Jon Frost, Aerdt Houben, and Peter Wierts, JMCB, May 2019*

This readme file gives a brief overview of the data files and code used for our paper, as published in the Journal of Money, Credit and Banking (JMCB). The data editing and estimations were conducted in R and STATA. All errors are those of the authors. Questions can be posed to [jon.frost@bis.org](mailto:jon.frost@bis.org).

**Dataset**

The underlying data for the paper are saved in the file “Table 1.csv”. Macroprudential policy events come from the Cerutti, Claessens and Laeven (CCL, 2017) and Cerutti, Correa, Fiorentino and Segalla (CCFS, 2017) databases. Country-level data come primarily from the BIS long series database on private non-financial sector credit (Dembiermont et al., 2013), the World Bank Global Financial Development Database (GFDD), and the IMF International Financial Statistics (IMF-IFS) and World Economic Outlook (WEO).

The STATA .do file “Table 1.do” generates the descriptive statistics used in table 1. The file “Table 1\_lookup.csv” shows the name, description, source, and other attributes of all the variables.

Tables 2 and 3 in the paper show the classification of variables. Table 4 uses this classification to define policy events in the CCL and CCFS databases.

**Analysis of de-trended credit growth**

The analysis for Table 5 was conducted in R. The data can be found in the file “Table 5 and Fig 1 - Data.RData”. The analysis is contained in the file “Table 5 and Fig 1.R”. The script uses functions that can be found in “Table 5 and Fig 1 - Functions.R”. The functions and other dependencies (such as the R packages listed in “Table 5 and Fig 1 - Functions.R”) should be loaded into the R environment before running the script (Table 5 and Fig 1.R).

**Generalized method of moments (GMM) analysis**

The GMM estimations in the paper, which use the Arellano and Bond (1991) GMM estimator, are conducted in STATA using the file “Table 6 - Code.do”. The underlying data can be found in “Table 6 - Code.dta”, and the results are contained in “Table 6.xlsx”.

A number of robustness checks are contained in the files “Table 7 - A”, “Table 7 - B”, etc. Note that for brevity, not all of these estimations were presented in the paper.

**Propensity score matching (PSM) analysis**

The PSM estimations were conducted in R. Once again, the data are in one file (“Table 8-10 and Fig 2 - Data.RData”), the analysis in the script (“Table 8-10 and Fig 2.R”) and the functions in a separate functions file (“Table 8-10 and Fig 2 - Functions.R”). The functions should be loaded into the R environment before running the script (Table 5 and Fig 1.R).

**Tables, figures and corresponding files**

|  |  |
| --- | --- |
| **Table** | **Corresponding Files** |
| Table 1 | Table 1.csv, Table 1.do, Table 1\_lookup.csv |
| Table 2 | (Data description) |
| Table 3 | (Data description) |
| Table 4 | Table 4.xlsx |
| Table 5 | Table 5 and Fig 1 - Data.RData, Table 5 and Fig 1 - Functions.R, Table 5 and Fig 1 - Data.RData |
| Table 6 | Table 6 - Code.do, Table 6 - Code.dta, Table 6.xlsx |
| Table 7 | Table 7 – A.do, Table 7 – B.do, Table 7 – C.do,  Table 7 – D.do, Table 7 – E.do, Table 7 – A.dta, Table 7 – **B**.dta, Table 7 – C.dta, Table 7 – D.dta, Table 7 – E.dta, Table 7 – A.xlsx, Table 7 – B.xlsx, Table 7 – C.xlsx, Table 7 – D.xlsx, Table 7 – E.xlsx |
| Table 8 | Table 8-10 and Fig 2.R |
| Table 9 | Table 8-10 and Fig 2.R |
| Table 10 | Table 8-10 and Fig 2.R |
| Figure 1 | Table 5 and Fig 1 - Data.RData, Table 5 and Fig 1 - Functions.R, Table 5 and Fig 1 - Data.RData |
| Figure 2 | Table 8-10 and Fig 2.R |