*Data article*

**Title: *Currency crisis identification***

**Authors: Boonman, T. M.**

**Affiliations: Banco de Mexico**

**Contact email:** **tboonman@banxico.org.mx**

**Abstract**

The empirical research is focused on 35 emerging market economies, from 1990 to 2016, on a monthly basis. The data can be divided in three areas.

First, the data to construct the currency crisis dummy variables. I specify the sources of the raw data and transformations. I include the spreadsheet with all operations, including macro’s to replicate and extend the country base. The spreadsheet contains a brief description in the first sheet. The original, raw data is not included due to publication restrictions. At continuation, I label this as Part I: quantitative definitions.

Second, the narrative contains a detailed description around events that are considered currency crises in other studies or that the six definitions employed identify as a currency crisis. The narrative is very useful to distinguish currency crises from other type of events. For each potential crisis date, we review academic papers and articles from Bloomberg, Economist, BBC News and similar sources, and where possible use more than one source per event. At continuation I call this Part II: narrative.

Third, a list of alternative currency crisis definitions. I have included the definitions of more than 70 papers on currency crises. Although not complete, the overview is comprehensive and can be helpful to anyone interested in the different definitions that are being used in the literature. At continuation I label this as Part III: literature.

**Specifications Table** *[please fill in right-hand column of the table below]*

|  |  |
| --- | --- |
| Subject area | Economics, finance |
| More specific subject area | Currency crises |
| Type of data | (Part I: quantitative definitions): Table and two spreadsheets; (Part II: narrative): Text file;(Part III: literature): Table |
| How data was acquired | (Part I: quantitative definitions): International Finance Statistics; Ilzetski, Reinhart and Rogoff (2016); (Part II: narrative): academic papers; articles from Bloomberg, the Economist, BBC News and similar sources. (Part III: literature): academic papers |
| Data format | Processed |
| Experimental factors | N/A |
| Experimental features | N/A |
| Data source location | N/A |
| Data accessibility | Data with this article |

**Value of the data**

* The resulting set of currency crisis dates on a monthly basis for 35 emerging market economies in the period 1990 to 2016 can be used as a benchmark for empirical studies on currency crises.
* The spreadsheet to construct the currency crisis dummy variables is included, in two versions. The first (CCdefs\_results.xls) contains the results, and the second (CCdefs\_calculations.xlsm) contains the links, macro’s and formulas. The latter is very useful to extend the country base. The spreadsheet contains a brief description in the first sheet, including instructions on how to deal with the macro’s. The country selection is focused on Latin America, Central and Eastern Europe and the former Soviet republics and Asia. Subsaharan Africa and Middle East and North Africa are not represented extensively, so here is a great opportunity to extend the database. This would not only increase the value of the database as the benchmark, but it would also be a good robustness check for the methodology to identify currency crises.
* The narrative is useful for anyone interested in the episodes of high turbulence in the exchange rate markets of the 35 countries that are included in the sample. A brief description of each historical event increases the understanding, and may improve analysis.
* The list of alternative currency crisis definitions covers definitions from over 70 studies and can be helpful to anyone interested in the different definitions that are being used in the literature.

**Data**

Country selection

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Latin America & Caribbean** | **CEE[[1]](#footnote-1) and CIS[[2]](#footnote-2)**  | **Asia** | **Rest of the world** |
| 1 | Argentina | Bulgaria | India | Egypt |
| 2 | Bolivia | Croatia | Indonesia | South Africa |
| 3 | Brazil | Czech Republic | Korea | Turkey |
| 4 | Chile  | Hungary | Malaysia |  |
| 5 | Colombia | Kazakhstan | Pakistan |  |
| 6 | Costa Rica | Poland | Philippines |  |
| 7 | Dominican Republic | Romania | Sri Lanka |  |
| 8 | Guatemala | Russia | Thailand |  |
| 9 | Jamaica | Ukraine | Vietnam |  |
| 10 | Mexico |  |  |  |
| 11 | Paraguay |  |  |  |
| 12 | Peru |  |  |  |
| 13 | Uruguay |  |  |  |
| 14 | Venezuela |  |  |  |

Part I: quantitative definitions

Dataset on exchange rates, reserves, interest rates and EMPI:

* Nominal exchange rate versus US dollar (and versus DEM or euro for the CEE countries) at the end of the month. Source: International Finance Statistics (IFS) from IMF.
* Consumer Price Index for all items. Source: IFS
* International reserves excluding gold (measured in current US dollar). Source: IFS.
* Money market interest rate. Source: IFS
* Treasury bill rate. Source: IFS

Dataset on exchange rate regimes

* Source: Ilzetzki, Reinhart and Rogoff (2016), available in the website from Reinhart (link: <http://www.carmenreinhart.com/data/browse-by-topic/topics/11/>).

Part II: narrative

The attached word file contains the narrative (26 pages in total).

Part III: Literature

The attached excel file contains a meta study on definitions, split into the two main categories (large depreciations and EMPI). In total more than 70 studies are included in the overview.

**Experimental Design, Materials and Methods**

Part I: quantitative definitions

Processing the raw data:

* Real exchange rate is constructed: RERi =NERi CPIF /CPIi, with CPIF the consumer price index for the reference country, NERi the nominal exchange rate (local currency units per 1 USD), CPIi the consumer price index for the domestic country i.
* Interest rate: use the Money market interest rate, or Treasury bill rate if the first is missing. The correlation between these series is on average 0.88 for the 21 countries that contain both series.
* In the case of missing observations in five or less consecutive months, we use linear interpolation. If six or more consecutive months are missing, then these months are excluded from the sample.
* The data are standardized in the EMPI definitions, using the country-specific mean and the country-specific standard deviation for the entire period (1990M1 to 2016M12 ).

Exchange rate regime:

* Ilzetzki et al. (2016) classify countries into fifteen categories: (1) no separate legal tender or currency union, (2) pre-announced peg or currency board arrangement, (3) pre-announced horizontal band that is narrower than or equal to ±2%, (4) de facto peg, (5) pre-announced crawling peg; de facto moving band narrower than or equal to +/- 1%, (6) pre-announced crawling band that is narrower than or equal to ±2% or de facto horizontal band that is narrower than or equal to +/-2%, (7) de facto crawling peg, (8) pre-announced crawling band that is wider than or equal to ±2%, (9) de facto crawling band that is narrower than or equal to ±2%, (10) de facto crawling band that is narrower than or equal to ±5%, (11) moving band that is narrower than or equal to ±2%, (12) managed floating, (13) freely floating, (14) freely falling, and (15) dual market in which parallel market data is missing. We exclude the latter category as there are no data.
* In the spirit of Esaka (2010) we collapse the fine classification into four categories: (i) “hard pegs”, comprising of categories (1)-(2), (ii) “intermediate regimes”, categories (3)-(11), (iii) “floating regimes”, categories (12)-(13) , and (iv) “freely falling”, category (14).

Construction of currency crisis definitions

* CCdefs\_results.xls: Spreadsheet with results from currency crisis dating.
* CCdefs\_calculations.xls: Spreadsheet with operations, including macro’s.

**Acknowledgements**

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**References**

Part I: quantitative definitions

International Finance Statistics (IFS) from the IMF. Retrieved from <https://data.imf.org/IFS>

Part II: narrative

More than 200. See the attached file

Part III: Literature

More than 70. See the attached file

1. Central & Eastern Europe [↑](#footnote-ref-1)
2. Commonwealth of Independent States (former Soviet Union) [↑](#footnote-ref-2)