# Monetary Financial Institutions Balance Sheet Database - Data Manual

#### **BPLIM**

Extraction Date: June 2023

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Abstract: The Monetary Financial Institutions (MFIs) Balance Sheet Database reports detailed information on the assets and liabilities of the monetary financial institutions (MFIs) operating in Portugal. The database covers the period from 1997 to 2022 and is updated annually.

Keywords: balance sheet, asset, liabilities, instrument, counterparty, revisions.

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## **General Information**

Data Type: longitudinal data

Unit of Analysis: instrument-counterparty

Frequency: monthly

Start Date: September, 1997

Most Recent Date: December, 2022

Reference date: month-end

Data Organization: data is organized for assets and liabilities separately. All data files are available in Stata format.

Version of the Data: the data made available by BPLIM corresponds to a data freeze at a certain time of the year. Therefore, all files contain information as reported at the extraction date. The most recent update of the data occurred in June 2023.

Languages Available: variables labels are available in Portuguese and in English. 1

Data Access: this data set is available to external researchers under certain conditions.<sup>2</sup>

Digital Object Identifier: 10.17900/BBS.Jun2023.V1.

## Geographical Coverage

The MFIs Balance Sheet Database includes the assets and liabilities of all monetary financial institutions (MFIs) operating in mainland Portugal and autonomous regions - Azores and Madeira.

## Population

The MFIs Balance Sheet Database collects the balance sheet data for all monetary financial institutions (MFIs) that were in operation in Portugal between September 1997 and December 2022.

**Comment**: Non-monetary financial agents are not covered in the database. In case an institution stops to be classified as MFI, data reporting will be discontinued. Some MFIs in Portugal have experienced acquisitions and/or mergers, which induced asset/liability flows from one institution to another.

# Methodology

The MFIs Balance Sheet Database has undergone the first major revision in December, 2014 which lead to the reclassification of financial institutions and counterparties.<sup>3</sup>. Due to this revision, there are some breaks in the series. The revision also adds an extra variable that indicates institution type.

Furthermore, in March 2021 a new data Warehouse was implemented at the Bank of Portugal, which expands the reporting of the balance sheet information for the Monetary Financial Institutions (MFIs) after December 2014 within the scope of Instruction No. 14/2021. The reporting was extended to a wider range of financial instruments and reflects mark-to-market values, taking into account changes in prices and exchange rates. The previous Instruction No. 25/2014 was revoked with effect from January 31, 2022.

To make variables compatible over time, we have harmonized the data based on the correspondence table illustrated in the *Description of Variables* section.

To preserve confidentiality, MFIs are anonymized through unique identifiers and the instrument values are perturbed for external researchers. $^4$ 

# Description of Files

The MFIs Balance Sheet Database is organized separately for assets and liabilities in the bank balance sheet (BBS) files. Each row corresponds to an instrument-counterparty pair in a given month.

<sup>&</sup>lt;sup>1</sup>To see the labels in Portuguese type the following command line in Stata: "label language pt".

<sup>&</sup>lt;sup>2</sup>Conditions for data access for external researchers are detailed in the Guide for Researchers Using Banco de Portugal Microdata Research Laboratory (BPLIM) Data.

<sup>&</sup>lt;sup>3</sup>Please refer to the variable spreadsheet for details.

<sup>&</sup>lt;sup>4</sup>See the Guide for Researcher's Using Banco de Portugal Microdata Research Laboratory (BPLIM) Data.

The data files are organized with the following nomenclature:

#### $BBS\_METH\_BNK\_xxxx\_yyyy\_V01.dta$

where xxxx denotes the data range (eg: SEP1997DEC2022), yyyy denotes the type of balance (ASSET for asset instruments; LIAB for liability instrument), and METH denotes the method used to prepare the data ("A" for Anonymized and "P" for Perturbed).

Identification of MFIs will be anonymized in the data. Additionally, for external researchers the data values are perturbed.

We also provide a harmonized data set to facilitate the comparison between the two reporting systems, i.e. before and after December, 2014.

# Description of Variables

#### Bank identifier

Anonymized identification number for MFI that enables tracking the MFI over time. BPLIM provides an anonymized version of the MFIs identifier which is denoted by bina.

Abbreviation	Definition
$\overline{bina}$	Anonymized bank identification number

Availability: Sep. 1997 - Dec. 2022

Reference date

The reference month of the data

Abbreviation	Definition
$\overline{date}$	Reference month of the data

Availability: Sep. 1997 - Dec. 2022

Instrument code

Classification of the financial instrument

The classification of financial instruments was revised in December, 2014. As a result, a new categorization was applied thereafter. Below is the correspondence table for the instrument codes between the two reporting systems (aligned based on the previous reporting system).

Abbreviation	Definition	
$instrument\_asset$ $instrument\_liab$	Financial instruments: Financial instruments:	

Availability: Sep. 1997 - Dec. 2022

 ${\bf Table~2} \hbox{ - Correspondence Table for Financial Instruments}$ 

Panel A: Asset side (instrument\_asset)

Before December 2014		December 2014 onwards	
Code	Designation	Code	Designation
10	Banknotes and coins	10	Banknotes and coins
20	Credit and equivalent - up to 1 year	20	Credit and equivalent - up to 1 year
30	Credit and equivalent - from 1 year to 5 years	30	Credit and equivalent - from 1 year to 2 years
30	Credit and equivalent - from 1 year to 5 years	40	Credit and equivalent - from 2 year to 5 years
40	Credit and equivalent - more than 5 years	50	Credit and equivalent - more than 5 years
50	Securities other than equity - up to 1 year	60	Debt securities - up to 1 year
60	Securities other than equity - from 1 year to 2 years	70	Debt securities - from 1 year to 2 years
70	Securities other than equity - more than 2 years	80	Debt securities - more than 2 years
80	Equity securities	90	Traded shares
80	Equity securities	100	Untraded shares
80	Equity securities	110	Other equities
80	Equity securities	120	Units
100	Properties, furnitures, and equipments	130	Properties, furnitures, and equipments
110	Miscellaneous assets	140	Miscellaneous assets
90	Units (included in equity securities)	120	Units

**Comment**: Before December 2014, the financial instrument "Units" (coded 90) is also included in the financial instrument "Equity securities" (coded 80).

When calculating the aggregates, to avoid double counting the value for "Unit" should be dropped.

Panel B: Liability side  $(instrument\_liab)$ 

Before December 2014		December 2014 onwards	
Code	Designation	Code	Designation
130	Demand deposits (excluding sight deposits)	380	Demand deposits (excluding sight deposits)
140	Deposits redeemable at a notice of up to 90 days (excluding sight deposits)	390	Deposits redeemable at a notice of up to 90 days (excluding sight deposits)
150	Deposits redeemable at a notice of more than 90 days (including sight deposits)	400	Deposits redeemable at a notice of more than 90 days (including sight deposits)

Before December 2014		December 2014 onwards	
170	Deposits and equivalent (excluding demand deposits, deposits redeemable at notice, and trading liabilities) - up to 1 year	420	Deposits and equivalent (excluding demand deposits, deposits redeemable at notice, and trading liabilities) - up to 1 year
180	Deposits and equivalent (excluding demand deposits, deposits redeemable at notice, and trading liabilities) - from 1 to 2 years	430	Deposits and equivalent (excluding demand deposits, deposits redeemable at notice, and trading liabilities) - from 1 to 2 years
190	Deposits and equivalent (excluding demand deposits, deposits redeemable at notice, and trading liabilities) - more than 2 years	440	Deposits and equivalent (excluding demand deposits, deposits redeemable at notice, and trading liabilities) - more than 2 years
200	Trading liabilities	450	Trading liabilities - up to 1 year
200	Trading liabilities	460	Trading liabilities - more than 1 year
210	Securities other than capital - up to 1 year	470	Debt securities issued - up to 1 year
220	Securities other than capital - from 1 to 2 years	480	Debt securities issued - from 1 to 2 years
230	Securities other than capital - from 2 years	490	Debt securities issued - more than 2 years
240	Capital and reserves	500	Capital and reserves
260	Miscellaneous liabilities	520	Miscellaneous Liabilities

## Counterparty code

Classification of counterparty

Abbreviation	Definition
$counterparty\_asset$ $counterparty\_liab$	Classification of counterparty: asset side Classification of counterparty: liability side

Availability: Sep. 1997 - Dec. 2022

The classification of counterparties was also revised in December, 2014. The correspondence table for the counterparty codes between the two reporting systems (aligned based on the previous reporting system) is:

 ${\bf Table~3} \hbox{ - Correspondence Table for Counterparties}$ 

Panel A: Asset side (counterparty\_asset)

Before December 2014		December 2014 onwards	
Code	Designation	Code	Designation
10	Monetary financial institutions	11	Central banks
10	Monetary financial institutions	12	Money market funds
10	Monetary financial institutions	13	Deposit institutions, excluding central banks
20	Other financial intermediaries and financial auxiliaries	18	Other financial intermediaries, financial auxiliaries, and captive financial institutions and money lenders
20	Other financial intermediaries and financial auxiliaries	22	Investment fund, excluding money market funds
30	Insurance corporations and pension funds	31	Insurance corporations
30	Insurance corporations and pension funds	32	Pension funds
40	Central government	40	Central government
50	Regional government	50	Regional government
60	Local government	60	Local government
70	Social security	70	Social security
80	Non-financial institutions	80	Non-financial institutions
90	Individuals	91	Family
90	Individuals	92	Non-profit institutions serving households
120	Irrelevant sector	120	Irrelevant sector

Panel B: Liability side (  $counterparty\_liab$  )

Before December 2014		December 2014 onwards	
Code	Designation	Code	Designation
10	Central banks	10	Central banks
20	Institutions not subject to minimum reserves, namely the money market funds	21	Money market funds
30	Institutions subject to minimum reserves	22	Deposit institutions, excluding central banks
40	Other financial intermediaries and financial auxiliaries	39	Other financial intermediaries, financial auxiliaries, and captive financial institutions and money lenders

Before December 2014		December 2014 onwards	
40	Other financial intermediaries and financial auxiliaries	43	Investment fund, excluding money market funds
50	Insurance corporations and pension funds	51	Insurance corporations
50	Insurance corporations and pension funds	52	Pension funds
60	Central government	60	Central government
70	Regional government	70	Regional government
80	Local government	80	Local government
90	Social security	90	Social security
100	Non-financial institutions	100	Non-financial institutions
110	Individuals	111	Family
110	Individuals	112	Non-profit institutions serving households
120	Irrelevant sector	120	Irrelevant sector

#### Country

Country of origin or region of the counterparty

Abbreviation	Definition
country	Country of origin $^5$

Availability: Sep. 1997 - Dec. 2022

 Table 4 - Counterparty Countries (country)

Designation
Monetary Union countries excluding Portugal
Countries outside Monetary Union
European Central Bank
Austria
Belgium
Cyprus
Germany
Spain
Estonia
Finland
France
Greece
Ireland

<sup>&</sup>lt;sup>5</sup>This variable has experienced a reclassification in the current extraction, causing a break in the data after December 2014. The affected instruments include Properties, furnitures, and equipments; Miscellaneous assets; Debt securities issued - up to 1 year; Debt securities issued - from 1 to 2 years; Debt securities issued - more than 2 years; Capital and reserves; Miscellaneous Liabilities. Furthermore, the following components: Portugal, Monetary Union countries excluding Portugal (UM-PT) and Countries outside Monetary Union (PT-UM). are no longer available in the data after December, 2014, but can be reconstructed summing up the values of the related countries.

$\overline{\text{Code}}$	Designation
ITA	Italy
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MLT	Malta
NLD	Netherlands
PRT	Portugal
SVK	Slovakia
SVN	Slovenia

**Comment**: One should take caution not to double count the Monetary Union (UM) countries when calculating the aggregates.

### Institution type

Type of institution. This variable is only available from December, 2014 onwards.

Abbreviation	Definition	
$inst\_type$	Type of institution	

Availability: Dec. 2014 - Dec. 2022

**Table 5** – Institution type (*inst\_type*)

Code	Designation
1	Banks
2	Saving banks
3	Money market fund
4	Central agricultural credit bank and mutual agricultural credit
	banks
5	Branch of Credit Institution Headquartered in the EU
6	Branch of Credit Institution Headquartered in Third Countries
7	Branch of Affiliates of Financial Institutions headquartered in
	the EU

#### Value

Value outstanding of a financial instrument, expressed in millions of euros.

Abbreviation	Definition
$\overline{value}$	Amount (in million euros)

Availability: Sep. 1997 - Dec. 2022

# **Basic Descriptive Statistics**

Table 6 - Number of observations over the data period (as of December)

Year | Freq.

	<b>.</b>
1997	2,990
1998	3,117
1999	3,321
2000	3,014
2001	1 2,940
2002	1 2,926
2003	3,164
2004	3,194
2005	1 2,252
2006	1 2,391
2007	1 2,452
2008	1 2,545
2009	2,542
2010	1 2,429
2011	2,317
2012	2,326
2013	2,206
2014	3,784
2015	3,798
2016	3,728
2017	3,761
2018	3,734
2019	3,710
2020	3,704
2021	3,781
2022	4,519

# **Auxiliary Files**

For a description of each variable in each dataset (name, unit of measurement, data and storage type, format, year of first and last observation), an account of the changes occurred over time, summary statistics for each dataset and a codebook for each dataset, please check the following auxiliary files:

Data File	Description of Variables	Summary Statistics	Codebook	Dataset description
Bank Balance Sheet (BBS)	var_bbs.html	stat_bbs.html <sup>6</sup>	cdbk_bbs.html	dscr_bbs.html

The Summary Statistics, Codebook and Dataset Description files are available on BPLIM's servers.

## Useful Links

 $https://www.bportugal.pt/EstatisticasWEB/MetadataItens/MContexto\_IFM\_EN.htm$ 

<sup>&</sup>lt;sup>6</sup>Please note that the summary statistics are run based on the perturbed data.

## Legislation

Below is a list of relevant legislations:

- 1. Instrução no. 43/97
- 2. Instrução no. 19/2002
- 3. Instrução no. 12/2010
- 4. Instrução no. 20/2012
- 5. Instrução no. 25/2014
- 6. Instrução no. 14/2021

### **Useful Tools**

We provide an ado file written by BPLIM staff for researchers to implement the matching of the Monetary Financial Institutions (MFIs) Balance Sheet Database with the other BPLIM databases that report bank-related information.

#### linkbank

#### Description

linkbank is a Stata user-written command to help create linking ids for financial institutions operating in Portugal for the purpose of merging various BPLIM databases, such as the Central Credit Responsibility (CRC) database, the Bank Balance Sheet (BBS) and Historical Series of the Portuguese Banking Sector (SLB)

#### Syntax

linkbank bankid timeid, options

where bankid is BPLIM's anonymized bank identifier and timeid identifies the time variable.

#### options

base specifies the database to link with (BBS or SLB)

method specifies the linking method (i.e. assign ids of the parent banks; take into account credit transfers due to Mergers and Acquisitions)

replace replace the bank id with the new linking bank id that users can use to merge CRC with BBS/SLB

generate creates a variable with the new linking bank id that users can use to merge CRC with BBS/SLB

keepindicator indicates the situations in which the new linking bank id is assigned

add includes further information on the institutions (i.e. the banking group to which a financial institution belongs and the type of affiliation; banking events and the type of counterparties)

## Citation of this dataset

Banco de Portugal Microdata Research Laboratory (BPLIM)(2023): Bank Balance Sheet Monthly Data. Extraction: June 2023. Version:V1. BANCO DE PORTUGAL. Dataset. https://doi.org/10.17900/BBS.Jun 2023.V1