IFC Workshop on the use of financial accounts, co-organised with the Central Bank of the Republic of Turkey

18-20 March 2019, Istanbul, Turkey

Monitoring universe of non-bank financial intermediation (MUNFI): The experience of Bank of Portugal[1]

Pedro Miguel Alves

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[1] This presentation was prepared for the meeting. The views expressed are those of the author and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

Monitoring Universe of Non-bank Financial Intermediation (MUNFI): The experience of Banco de Portugal

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Istanbul, 18-20 March: The use of financial accounts

BANCO DE PORTUGAL
EUROSYSTEM

Outline

I. From Financial sector to Shadow Banking (general concepts, definition, overview)

II. MUNFI and Shadow Banking

III. Wrap-up

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General concepts

Financial sector

- institutional units which are independent legal entities and market producers, and whose principal activity is the production of financial services, such as financial intermediation and auxiliary financial activities;

MUNFI

- non-bank financial intermediation, comprising insurance corporations, pension funds, non-MMF investment funds, other financial intermediaries and financial auxiliaries;

Source: Global Shadow Banking Monitoring Report 2018, FSB

OFIFA

- consist of the non-MMF investment funds, other financial intermediaries, except insurance corporations and pension funds, financial auxiliaries and captive financial institution and money lenders subsectors;

Shadow banking

- “credit intermediation involving entities and activities (fully or partially) outside the regular banking system” or non-bank credit intermediation in short.

➢ Overview

Financial Stability

- Credit intermediation
- Market liquidity
- Funding diversity

- Systemic risk
- Spillover effect
- Regulatory arbitrage

G20 recommendation

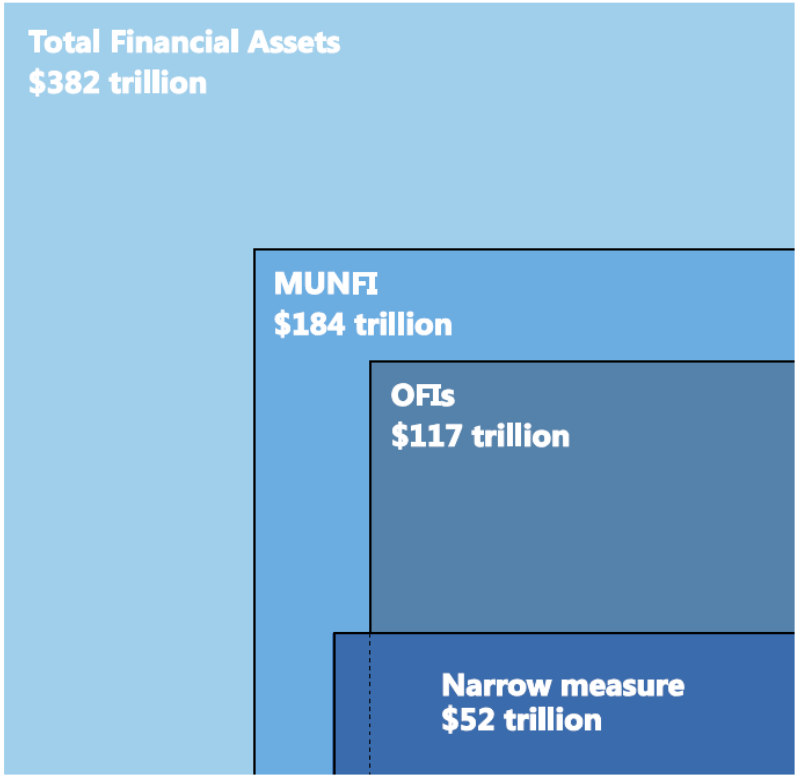
The Financial Stability Board assessed the evolution of shadow banking activities and related financial stability risks since the 2007-09 global financial crisis, and whether the post-crisis policies and monitoring efforts were adequate to identify and contain these risks.

FSB FINANCIAL STABILITY BOARD

ESRB European Systemic Risk Board European System of Financial Supervision

➢ Latest developments

Monitoring aggregates 2017 (USD trillion)



Source: Global Shadow Banking Monitoring Report 2018, FSB
Note: Total financial assets, MUNFI and OFIs are based on the 21+EA-Group, due to its broader sample. The narrow measure is based on data from the *29-Group*, as the data from eight participating euro area jurisdictions are more granular than the aggregate euro area data from the European Central Bank (ECB).

FSB FINANCIAL STABILITY BOARD

“*MUNFI’s share of total global financial assets increased for the sixth consecutive year (reaching 48.2%)*”

“*OFI assets grew faster than the assets of banks, insurance corporations and pension funds. OFI assets represent 30.5% of total global financial assets, the largest share OFIs have had on record*”

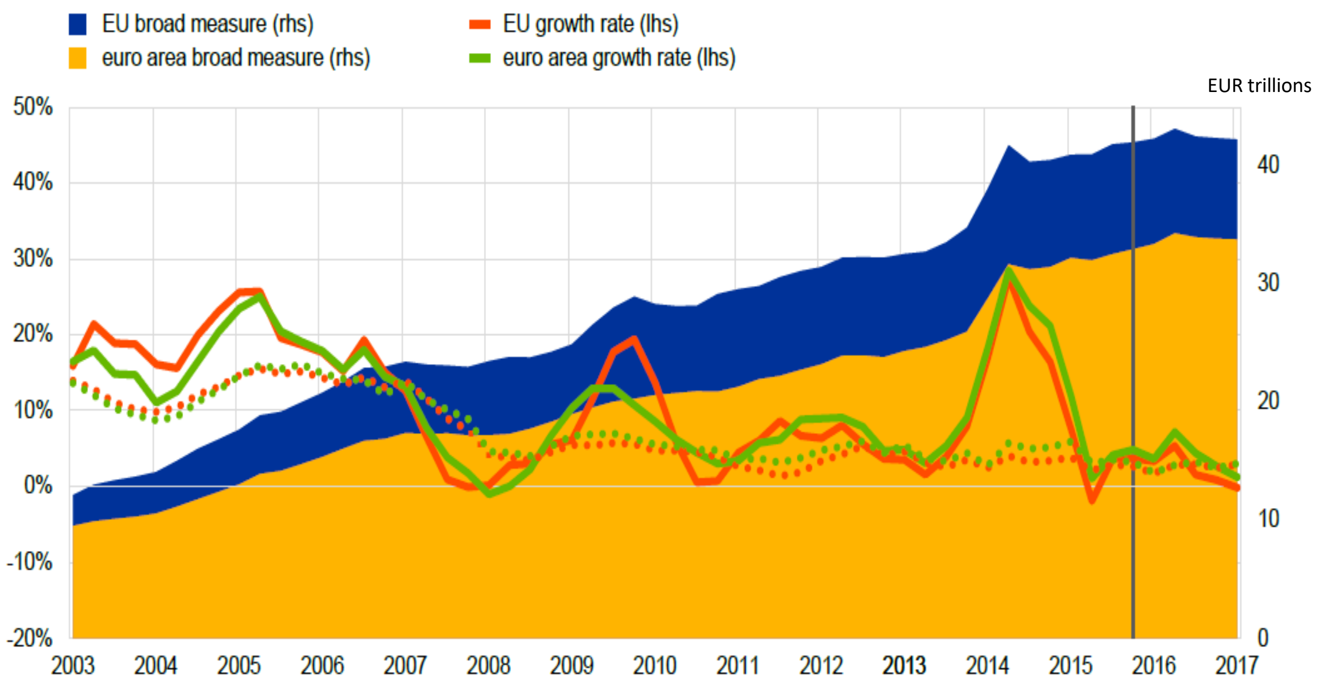
“*Investment funds continue to be the largest OFI sub-sector*”

“*The narrow measure of NBFI grew by 8.5%, to 51.6 USD trillion in 2017*”

➢ Latest developments

ESRB
European Systemic Risk Board
European System of Financial Supervision

Size of EU and euro area shadow banking system (investment funds and other financial institutions)



Source: ECB and ECB calculations (EU Shadow Banking Monitor, September 2018)
Notes: The continuous lines indicate annual growth rates based on changes in outstanding amounts. The dotted lines indicate annual growth rates based on transactions – i.e. excluding the impact of FX or other revaluations and statistical reclassifications.

“A significant portion of assets held within the EU shadow banking system is concentrated in a few countries that function as international financial centers. These centers account for a larger share than those countries with a more domestically focused financial sector”

“Investment funds represent about one-third of the total assets of the shadow banking system, while entities that come under the category of OFIs account for the remainder”

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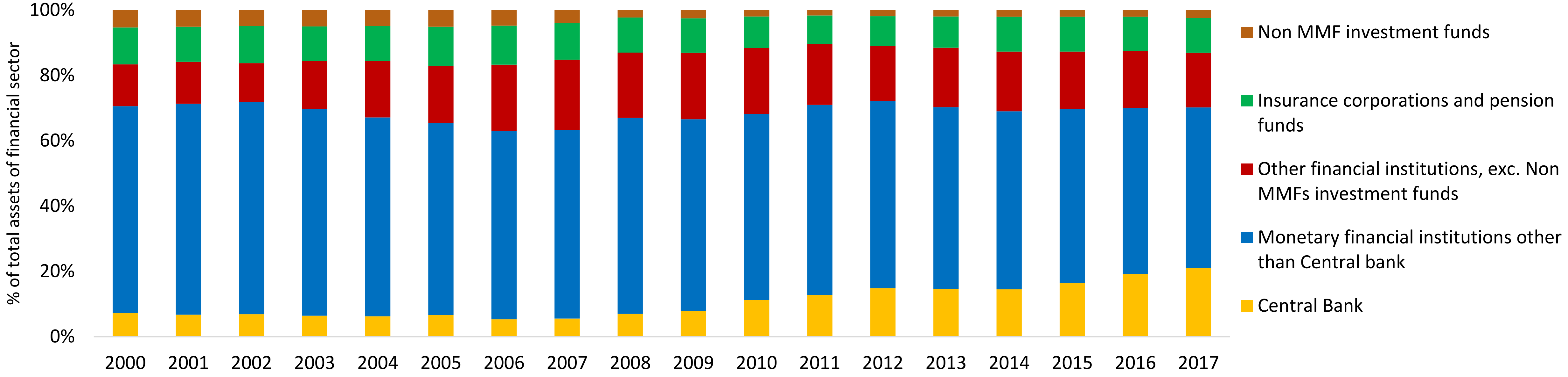
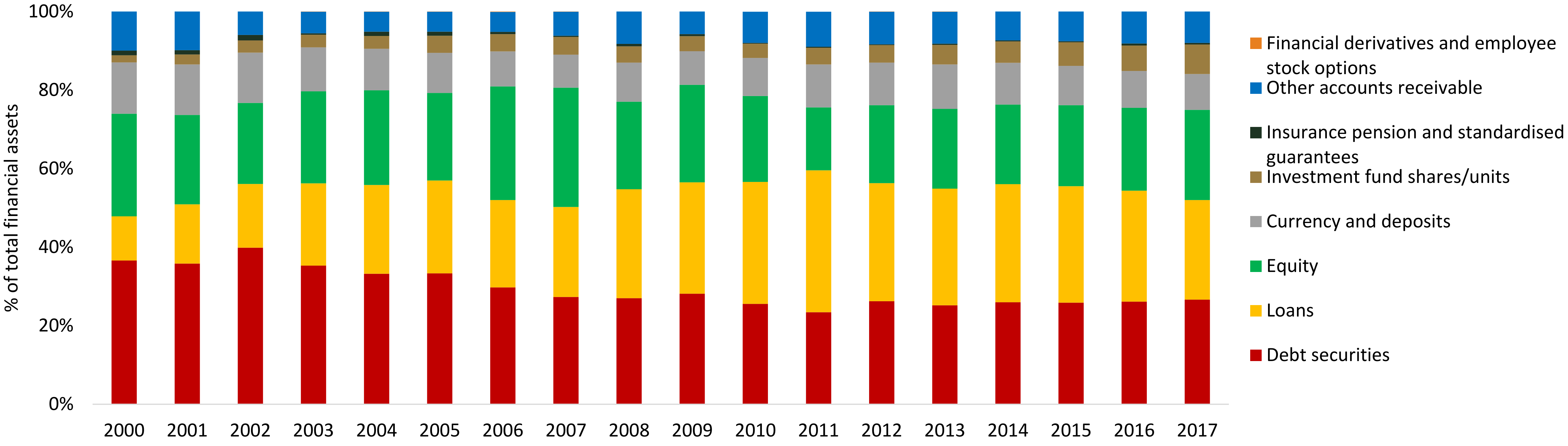
Portugal: Development of the financial sector



Source: OECD Financial accounts data;
Notes: Consolidated total financial assets for each sector. MFIs includes MMFs investment funds.

- Monetary financial institutions other than Central bank has kept his relative importance in the Portuguese financial structure
- Non-bank financial institutions have kept their weight around 30% over the years
- Central Bank has been increasing his relative importance in the last few years due to the Asset Purchase Program led by ESCB

Portugal: Breakdown of financial assets of MUNFI institutions



Source: OECD Financial accounts data;

- The expansion of loans in the MUNFI portfolio is justified by FVC engaged in securitisation operations, SPE and Holdings engaged in intragroup and external financing
- Debt securities is the financial asset with more relative weight in the MUNFI portfolio, mainly supported by Insurance Corporations and Pension Funds

Risk measures – ESRB indicators

Maturity transformation
- Short-term assets / Total assets
- Long-term assets / Short-term liabilities
- Long-term assets / Total assets
- Short-term liabilities / Short-term assets

Liquidity transformation
- Liquid assets / Total assets
- Short-term liabilities / Liquid assets
- Short-term assets / Short-term liabilities (current ratio)
- (Deposits with MFIs + Short-term debt holdings + Equity holdings) / NAV
- Liquidity mismatch: Liquid liabilities less liquid assets, as % of total assets

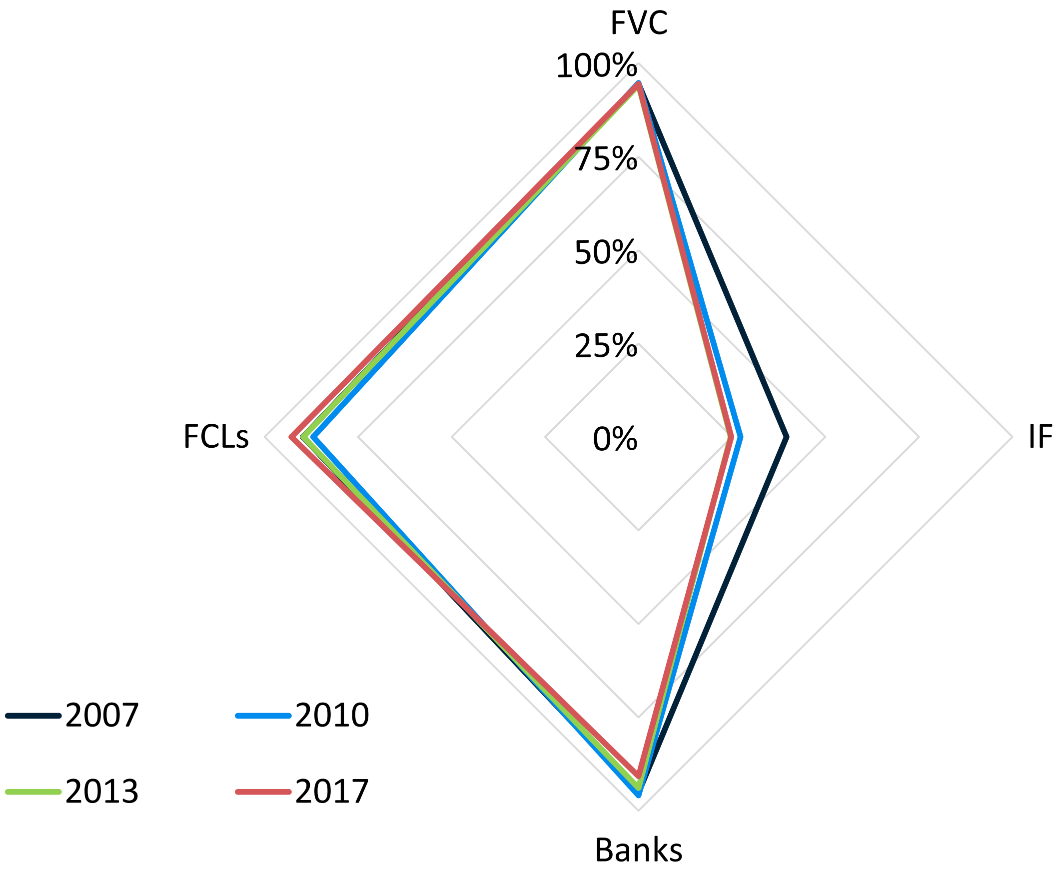
Interconnectedness
- Assets with OMFI counterpart / Total assets
- Liabilities with OMFI counterpart / Total assets

Leverage
- Leverage = Loans received / Total liabilities
- Leverage multiplier = Total assets / Equity

Credit intermediation
- Loans / Total assets
- "Credit assets" (loans and debt securities) / Total assets

“Credit assets” (loans and debt securities) / Total assets

➢ Comparing credit intermediation[1] in Portugal



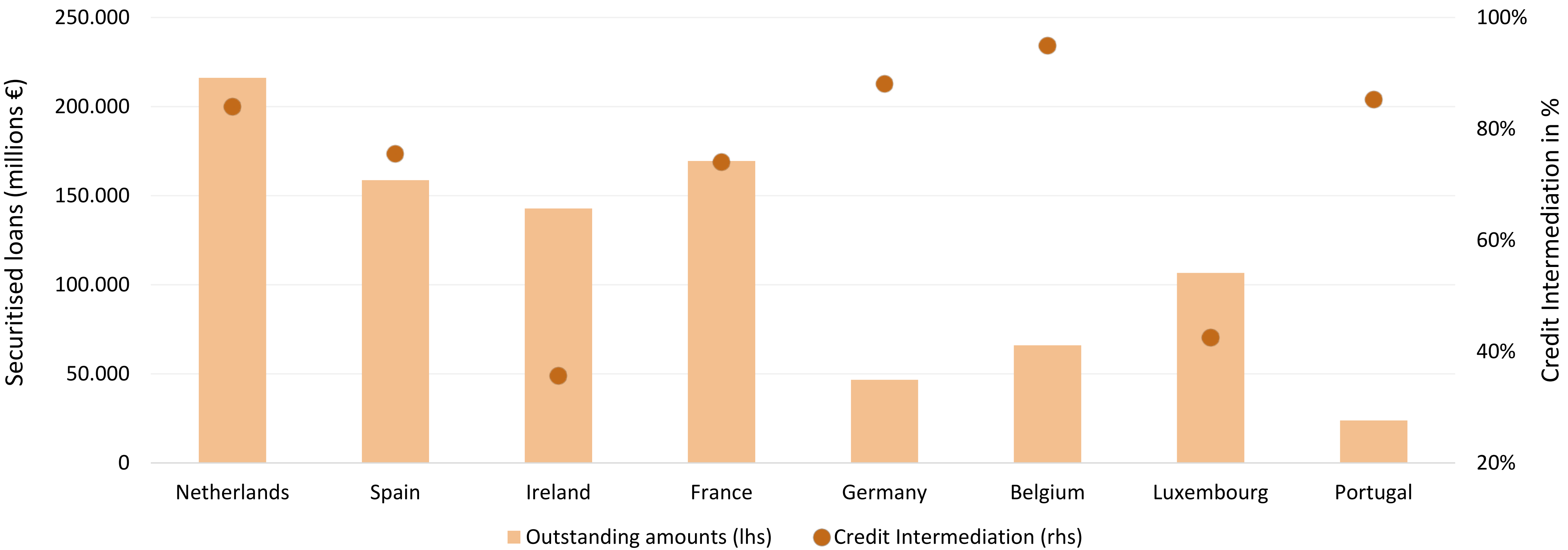
Banks, FVC and FCLs have a very stable situation over time, with credit intermediation having an import weight in their activity

The decreasing of credit intermediation ration of IF over time is justified by disinvestment of bond IF in debt securities, mainly in the course of 2008 crisis

Source: OECD Financial accounts data; FVC ,IF and FCLs primary statistics data (Banco de Portugal)
Note: 1) Credit intermediation was measured as the ratio of credit assets over total assets. Credit assets comprise loans granted and holdings of debt securities.

Loans / Total assets

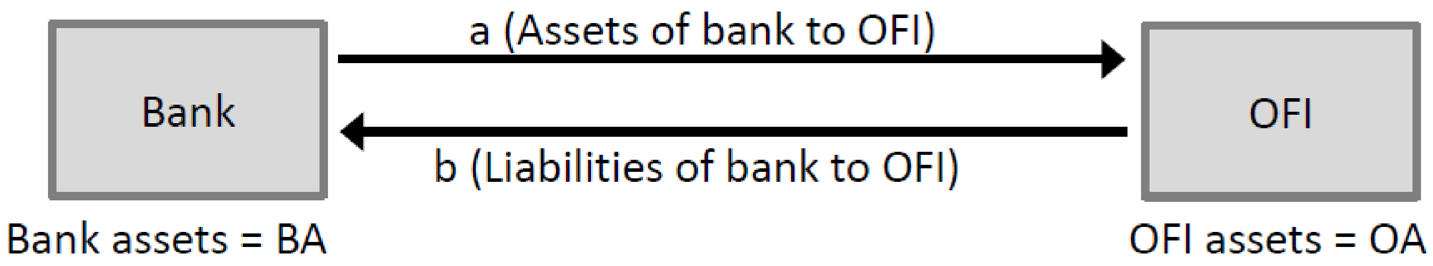
➢ Securitised loans and credit intermediation (FVC at end 2017)



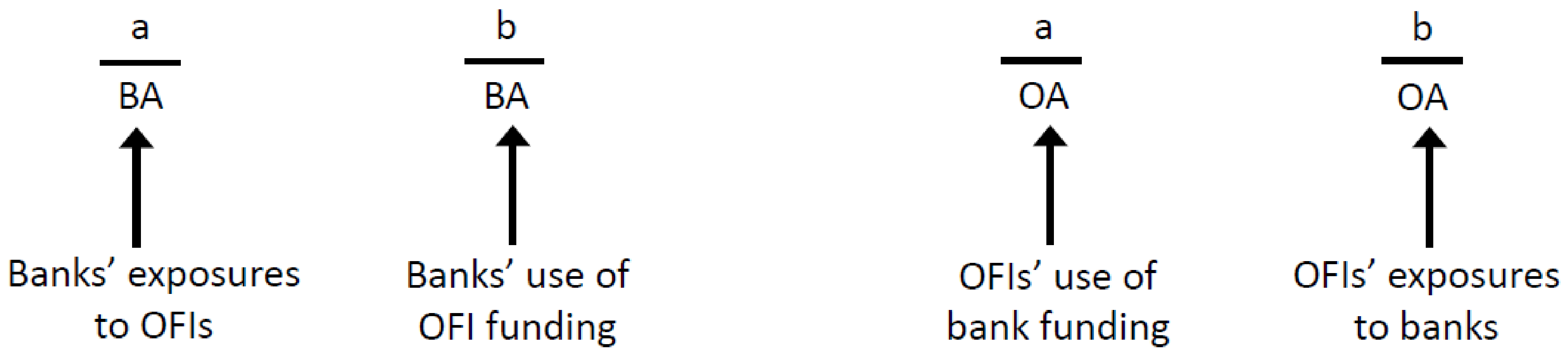
Source: ECB

- Most of the countries under analysis have a loans to total assets ratio above 70% in 2017
- Ireland's FVC are increasing diversity in business models, including nursing home receipts, royalties and life settlements

➢ Interlinkages: A risk analysis framework of interconnectedness between banks and OFIFA



High-level interconnectedness measures:

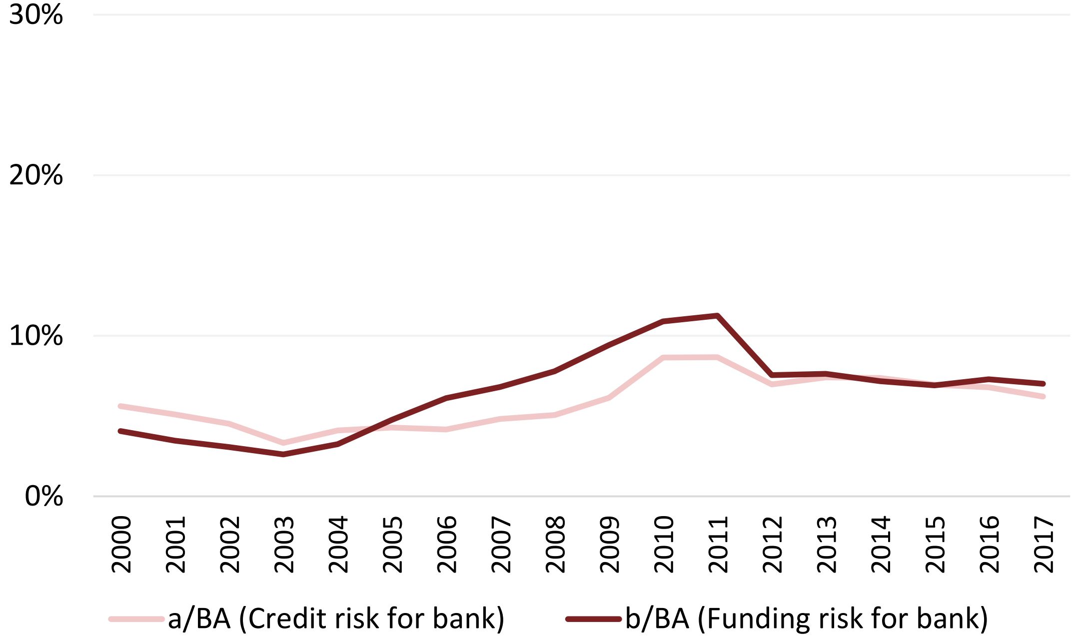


Source: Global Shadow Banking Monitoring Report 2017, FSB

➢ Interlinkages: A risk analysis framework of interconnectedness between banks and OFIFA for Portugal

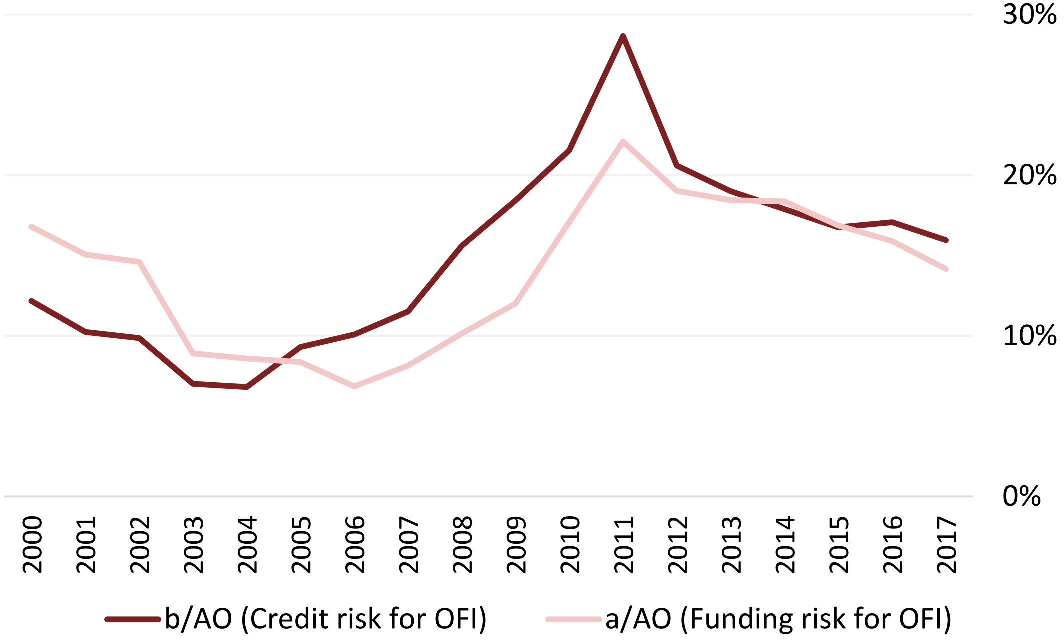
Banks

Interconnectedness risks for banks (% of bank assets)



OFIFA

Interconnectedness risks for OFIFA (% of OFIFA assets)

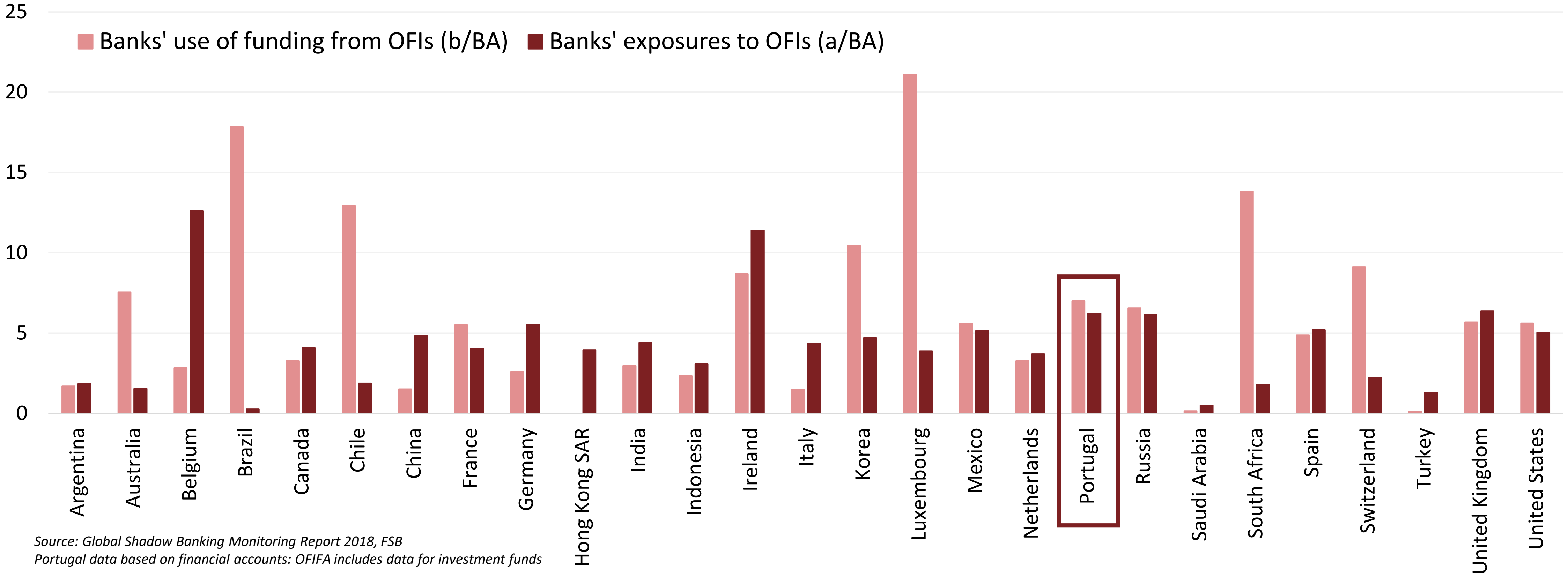


Source: Financial accounts data for Portugal (Banco de Portugal)

- The interconnectedness between Banks and OFIFA is explained by a significant amount of securitised loans that took place in 2007-2011 period

➢ Interlinkages: A risk analysis framework of interconnectedness between banks and OFIFA

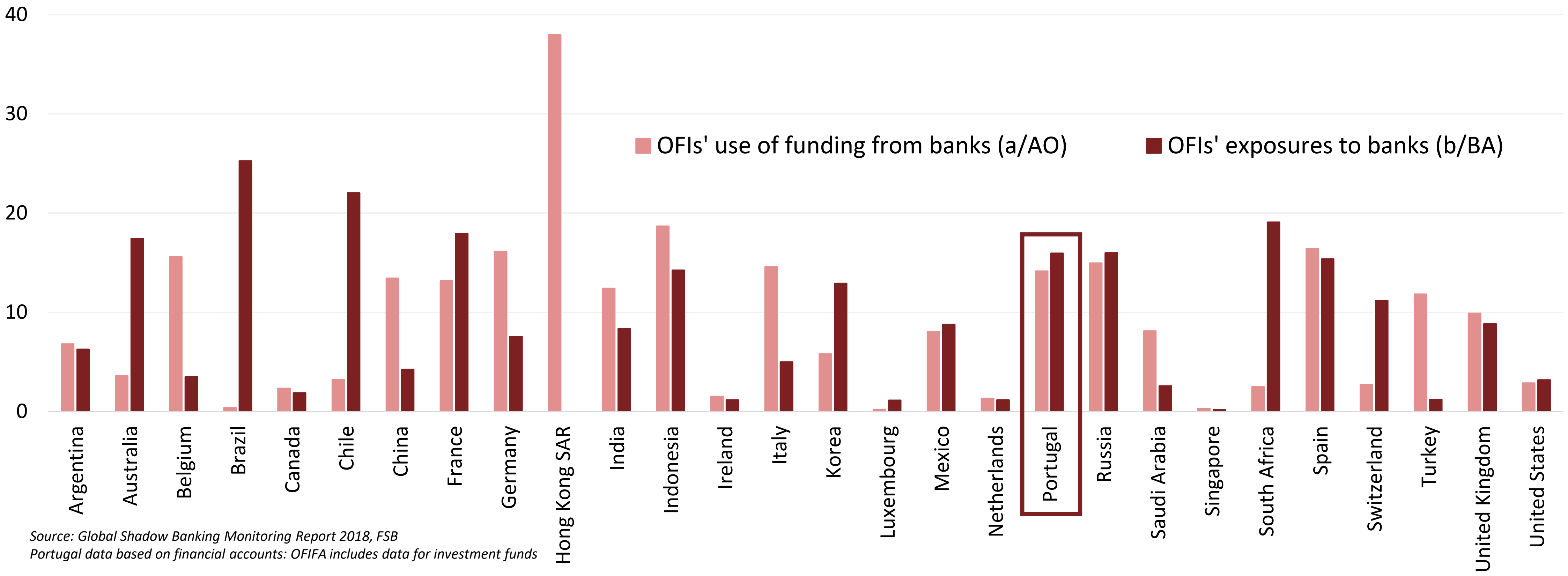
Banks’ interconnectedness with OFIs as % of bank assets at end-2017



Source: Global Shadow Banking Monitoring Report 2018, FSB
Portugal data based on financial accounts: OFIFA includes data for investment funds

➢ Interlinkages: A risk analysis framework of interconnectedness between banks and OFIFA

OFIs' interconnectedness with banks as % of OFIs assets at end-2017



Source: Global Shadow Banking Monitoring Report 2018, FSB
Portugal data based on financial accounts: OFIFA includes data for investment funds

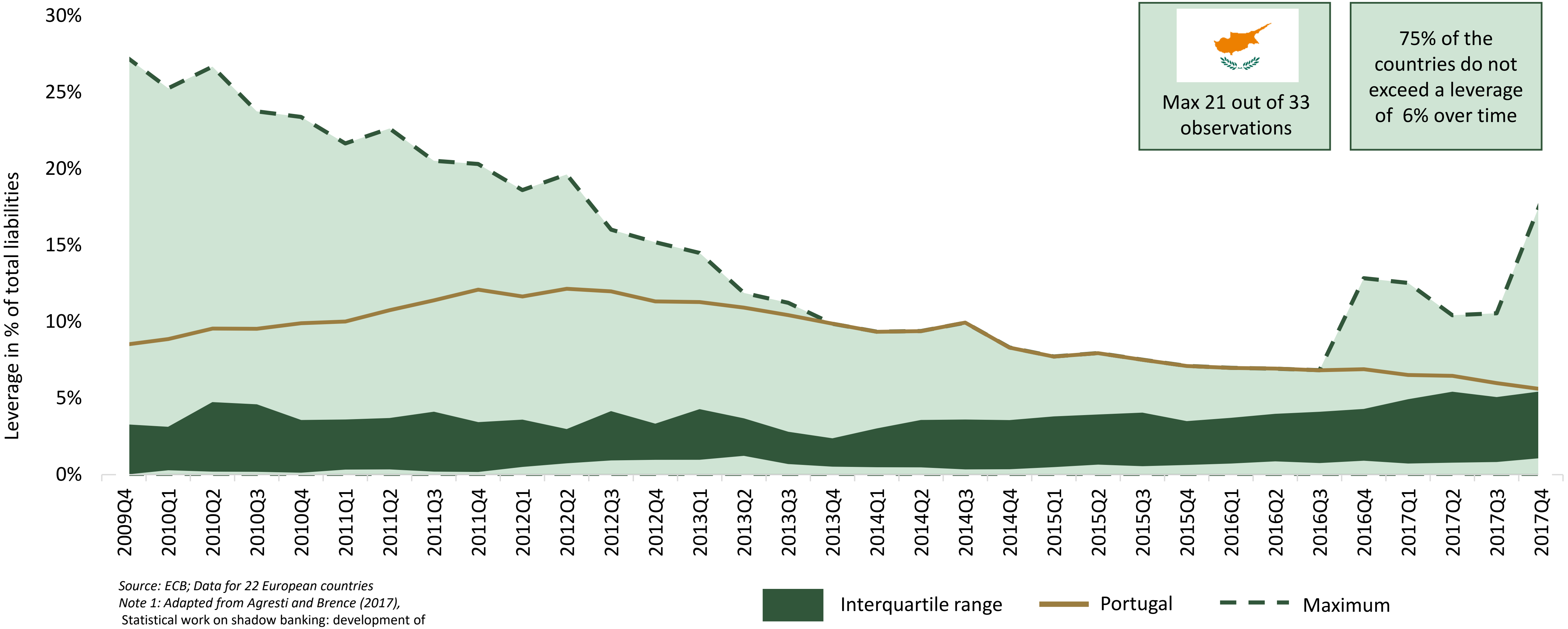
Leverage

➢ Total investment funds' leverage: dispersion measures for european countries

Leverage =
Loans received / Total liabilities

Max 21 out of 33 observations

75% of the countries do not exceed a leverage of 6% over time

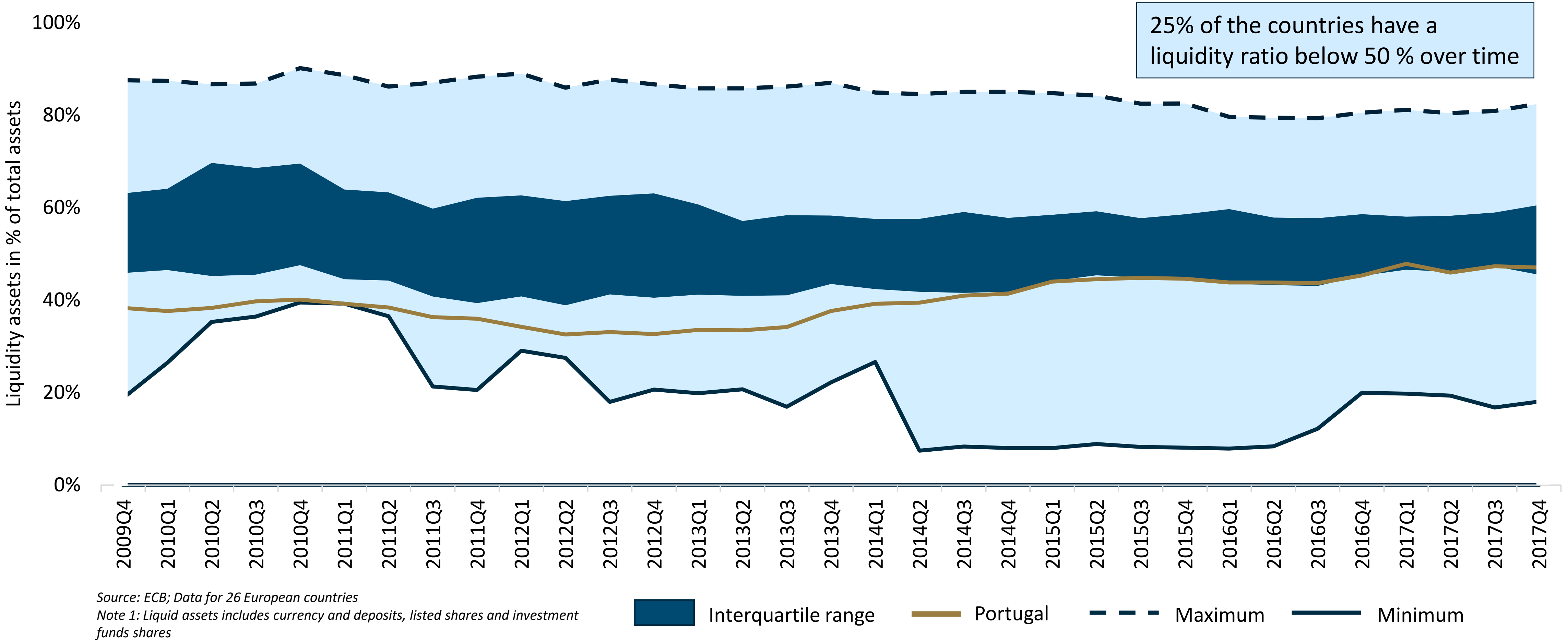


Source: ECB; Data for 22 European countries
Note 1: Adapted from Agresti and Brence (2017),
Statistical work on shadow banking: development of new datasets and indicators for shadow banking

➢ Total investment funds' liquidity: dispersion measures for european countries

Liquid assets / Total assets

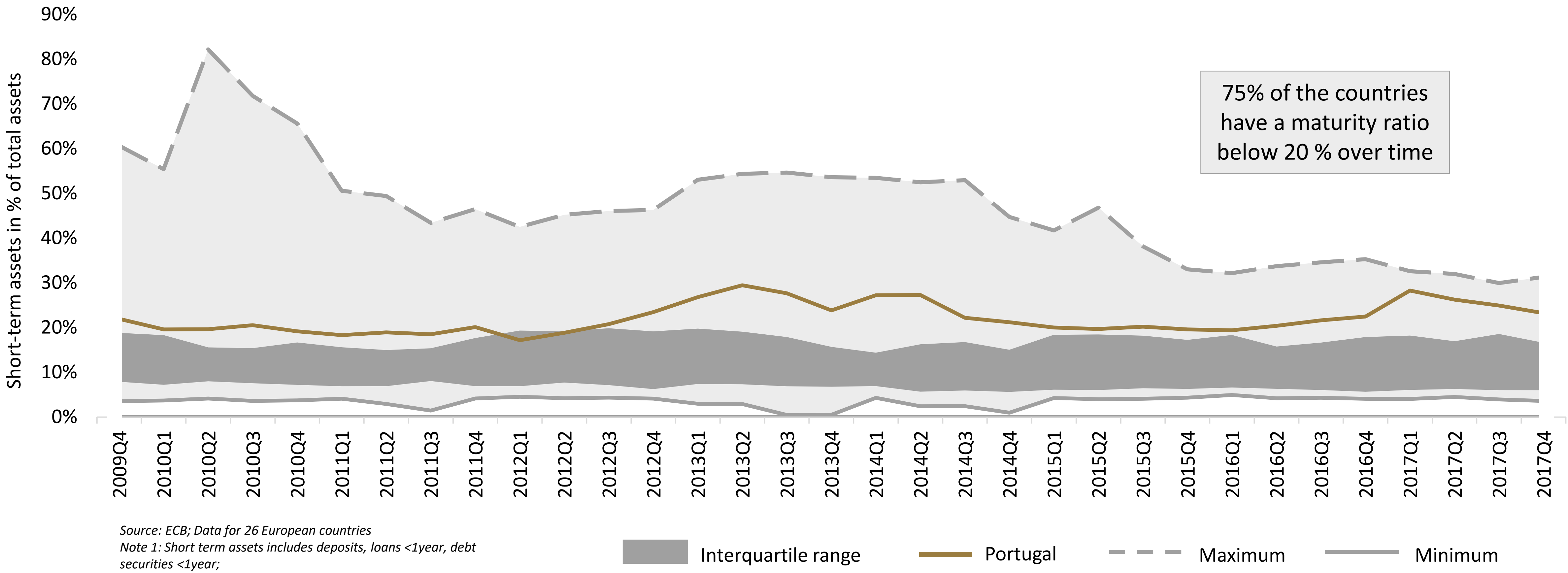
25% of the countries have a liquidity ratio below 50 % over time



Source: ECB; Data for 26 European countries
Note 1: Liquid assets includes currency and deposits, listed shares and investment funds shares
Note 2: Adapted from Agresti and Brence (2017),
Statistical work on shadow banking: development of new datasets and indicators for shadow banking

➢ Total investment funds' maturity: dispersion measures for european countries

Short-term assets / Total assets



Source: ECB; Data for 26 European countries
Note 1: Short term assets includes deposits, loans <1year, debt securities <1year;
Note 2: Adapted from Agresti and Brence (2017),
Statistical work on shadow banking: development of new datasets and indicators for shadow banking

FSB approach: Narrow measure of shadow banking based in 5 economic functions

Economic Function	Definition	Typical entity tipes
EF1	Management of collective investment vehicles with features that make them susceptible to runs	Fixed income funds, mixed funds, credit hedge funds, real estate funds
EF2	Loan provision that is dependent on short-term funding	Finance companies, leasing companies, factoring companies, consumer credit companies
EF3	Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets	Broker-dealers
EF4	Facilitation of credit creation	Credit insurance companies, financial guarantors, monolines
EF5	Securitisation-based credit intermediation and funding of financial entities	Securitisation vehicles

➢ FSB approach: Moving from MUNFI to the narrow measure to Portugal (end of 2017)

Source: Primary statistics, BdP Statistics Department
Note 1: CFIMLs – Captive Financial Institutions and Money Leders
Note 2: Adapted from Global Shadow Banking Monitoring Report 2018, FSB

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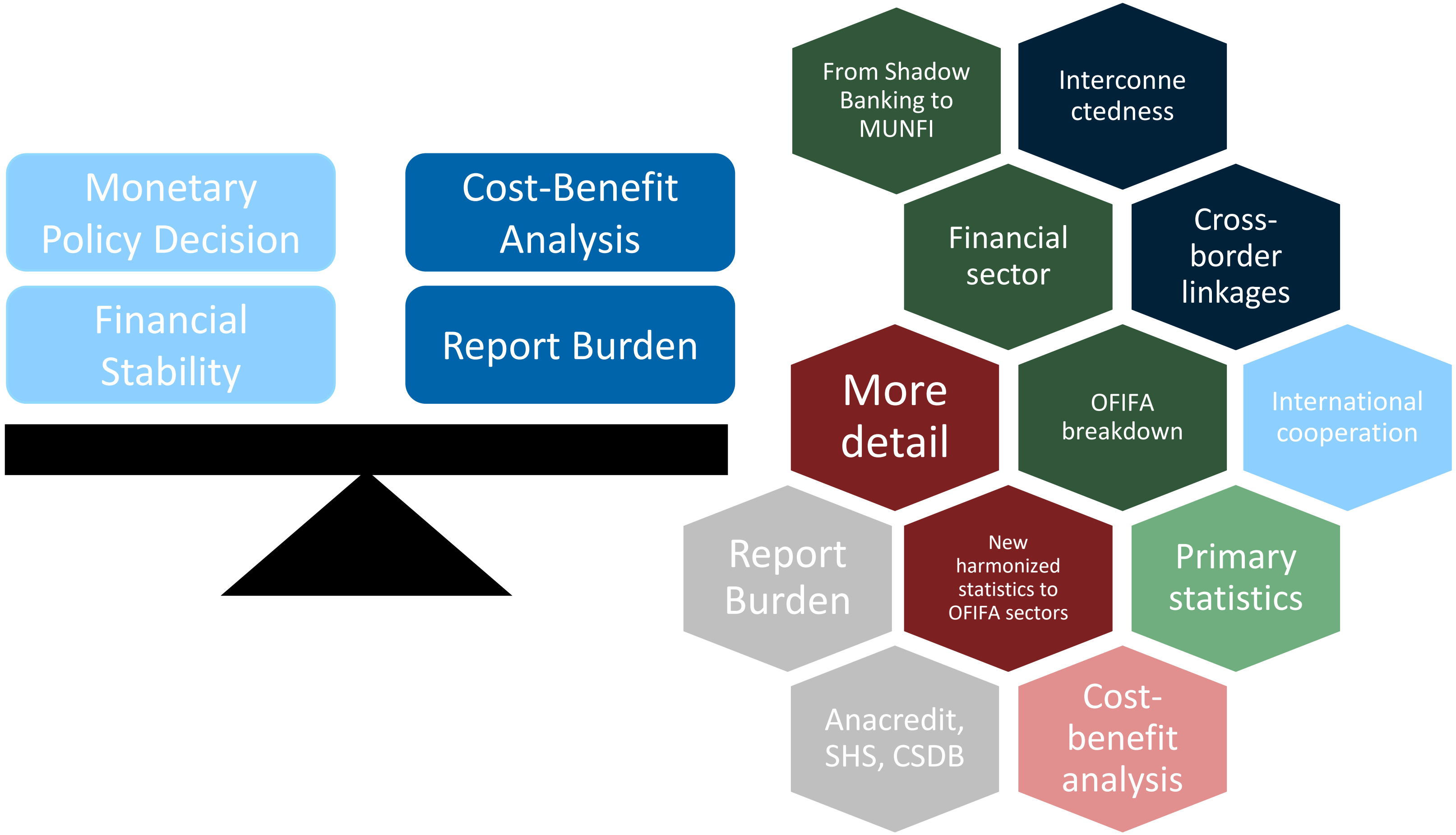
➢ Challenges


Monetary Policy Decision
Financial Stability
Cost-Benefit Analysis
Report Burden
From Shadow Banking to MUNFI
Interconnectedness
Financial sector
Cross-border linkages
More detail
OFIFA breakdown
International cooperation
Report Burden
New harmonized statistics to OFIFA sectors
Primary statistics
Anacredit, SHS, CSDB
Cost-benefit analysis

Thank you for your attention

Questions ?