
11th Biennial IFC Conference on “Post-pandemic landscape for central bank statistics”

BIS Basel, 25-26 August 2022

Making omelettes without new eggs: a story about a self-sufficient way of producing new statistic¹

Miguel Fonseca and Sonia Mota,
Banco de Portugal

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

Making omelettes without new eggs: a story about a self-sufficient way of producing new statistics¹

Sónia Mota and Miguel Fonseca

In this paper, Banco de Portugal presents its strategy to respond to the new requirements for statistical information on other financial intermediaries, financial auxiliaries and captive financial institutions and money lenders (OFIFA). The approach was fully anchored in the data management principles adopted by Banco de Portugal in 2018, which privilege the rationalization of data collection processes and the maximization of the usefulness of the data already available internally.

In this context, using a full range of microdata already available at Banco de Portugal – loans, securities, external transactions and individual financial statements (for supervisory purposes) – a set of information for each subsector of the OFIFA is already produced and published. The production of individual subsector statistics based on this method will allow to respond to the European Central Bank's new requirements in the scope of financial accounts statistics (breakdowns for each subsector of the OFIFA), in an autonomous way from the institutions concerned.

Keywords: microdata; other financial intermediaries, financial auxiliaries and captive financial institutions and money lenders; balance sheet; financial accounts

JEL classification: E51; G23.

¹ The opinions expressed here are those of the authors and not necessarily those of Banco de Portugal or the Eurosystem. Any errors and omissions are the sole responsibility of the authors. The authors are thankful to the comments and suggestions provided by Luís Teles Dias and Diogo Guerreiro.

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1. Introduction

In 2018, Banco de Portugal started an integrated information management program, which promoted a rationalization of data collection processes, and a greater sharing of internal information throughout all structures. The “report once” principle was at the forefront of this program, as one of the main goals was to avoid double reporting by institutions.

In this sense, internal task forces were constituted to catalogue available information and to identify the potential flows of data across units and departments, in order to break remaining information silos. It was through this process that Banco de Portugal was capable of retrieving the necessary information to compile the balance sheet items and financial accounts of the OFIFA sector, without requiring additional reporting from these institutions, thus, “making omelettes without new eggs”.

Previously to the European System of National and Regional Accounts 2010 (ESA 2010), OFIFA data was compiled mostly with basis on quarterly supervision information, reported to Banco de Portugal. With the manual, part of holding corporations were reclassified to the captive financial institutions and money lenders subsector (CFIML). These entities, however, did not qualify for supervisory reporting. This presented an added challenge, as no direct source of information was apparently available to guarantee the compilation of the entire OFIFA sector accounts.

To address this challenge, an administrative database with the balance sheet of all corporations operating in Portugal was used as source data. Nevertheless, the periodicity of information in this database is annual, presenting yet another challenge: How could Banco de Portugal fill the data gaps arising from the periodicity mismatch between the administrative data source (annual data) and the reporting requirements (quarterly data)?

The answer lied on a production method anchored on several complementing sources of information, which made use of a full range of microdata already available internally on loans, securities and external transactions. The production of individual OFIFA subsector statistics using this method allowed Banco de Portugal to timely respond to the European Central Bank’s new requirements for a breakdown of the OFIFA sector in terms of the financial accounts statistics.

In the remainder of the paper, we will firstly describe the sources of information used in the compilation of these statistics, explaining the needs each one aims to fulfil, and how they complement each other in order to produce the most accurate end-product possible. Then, using produced data stemming from those information sources, we characterize the OFIFA sector in the scope of the Portuguese financial system. The case of Banco de Portugal illustrates an example of how the “report once” principle was respected, while still being successful in meeting new statistical requirements.

2. The sources of information for the production of the OFIFA subsectors

Currently, Banco de Portugal produces and publishes balance sheet items information for each OFIFA subsector. This is possible through the combination of seven different sources of information. Each one aims to fill a specific need, complementing each other, in order to construct the most accurate picture of the balance sheet possible.

2.1. Balance sheet data

In order to compile the quarterly statistical balance sheet for each subsector, we use two primary sources of information: IES – *Informação Empresarial Simplificada* (census information approach) and FINREP (Financial Reporting).

IES is a mandatory annual survey to all corporations operating in Portugal, containing information mostly of accounting nature, including financial statements. After ESA 2010, and with the inclusion of holding corporations that were previously part of the non-financial corporations sector, IES became the main source of information for the production of the balance sheet of the OFIFA sector, with 99% of entities being currently retrieved from this source.

FINREP contains information of supervisory nature and is reported by credit institutions and investment firms. In the FINREP data, it is possible to find balance sheet information, with a higher level of granularity and a breakdown by counterpart sector, which IES does not offer. This allows a one for one correspondence with the statistical instruments, unlike IES, which has a lower level of detail.

Most importantly, FINREP is also consistent with the required quarterly periodicity of the data, while IES is only reported on an annual basis. Still, only 1% of total OFIFA entities currently report FINREP, and thus, to fill in for the data gaps arising for the remainder of the entities IES information is complemented with several other internal sources. This process is conducted while guaranteeing compatibility between the annual IES data, and the complementary quarterly information sources.

For the specific case of financial vehicle corporations engaged in lending (FVC), the main constituent of the other financial intermediaries subsector, there is a specific ECB regulation that allows for good information coverage. Through it, securitization corporations report loans conceded and debt securities issued, which are mandatorily reported to the ECB. The remainder of the balance sheet is compiled using available public financial statements and IES. In the case of securitization funds, Banco de Portugal receives an indirect report, shared by the Portuguese Securities Market Commission (CMVM).

2.2. How do we calculate the data gap for our quarterly commitments and present additional details for the financial accounts?

To compile quarterly information for the entities that have basis IES information, we use a set of five additional information sources available at Banco de Portugal, shared in the scope of the integrated information management principles put in place. Together, these information sources complete the balance sheet “puzzle”, with compatibility with IES annual data also being ensured.

For deposits vis-à-vis non-residents, information is retrieved from balance of payments and international investment position data (BoP) and, for deposits with resident banks, data are obtained from the balance sheet items data (BSI). The current BSI regulation foresees the reporting of the institutional sector counterpart, with a breakdown between all the OFIFA subsectors.

In terms of securities, Banco de Portugal manages a micro-database with data on securities issues and portfolios, on a “security-by-security” and “investor-by-investor” basis, denominated Securities Statistics Integrated System (SSIS). With SSIS, it is possible to determine the portfolios of all OFIFA entities, in short-term and long-term debt securities, quoted shares and on investment fund shares/units, as well as all the short-term and long-term debt securities issued by them, along with issued capital.

Regarding loans, there are three sources of information used: the Central Credit Register (CCR), BoP and ITENF.

The CCR is another database administered by Banco de Portugal, and discloses “entity-by-entity” and “loan-by-loan” information, reported by banks and other financial intermediaries operating in the country. CCR loan data is used for the identification of the counterpart sector for loans granted by the other financial intermediaries, and to identify all the loans granted by banks to OFIFA entities. BoP data is used for external loans operations. From ITENF (Inquérito Trimestral às Empresas Não Financeiras), a quarterly survey, it is possible to obtain a picture of the remaining loans for the CFIML subsector, the only one covered by the survey.

For the remaining assets and liabilities, information is also sampled from ITENF.

Table 1 below summarizes, by showing how each quarterly information source is used in the balance sheet, in order to fill the gap created by the annual frequency of IES information:

Table 1 | Balance sheet items and the respective quarterly information source

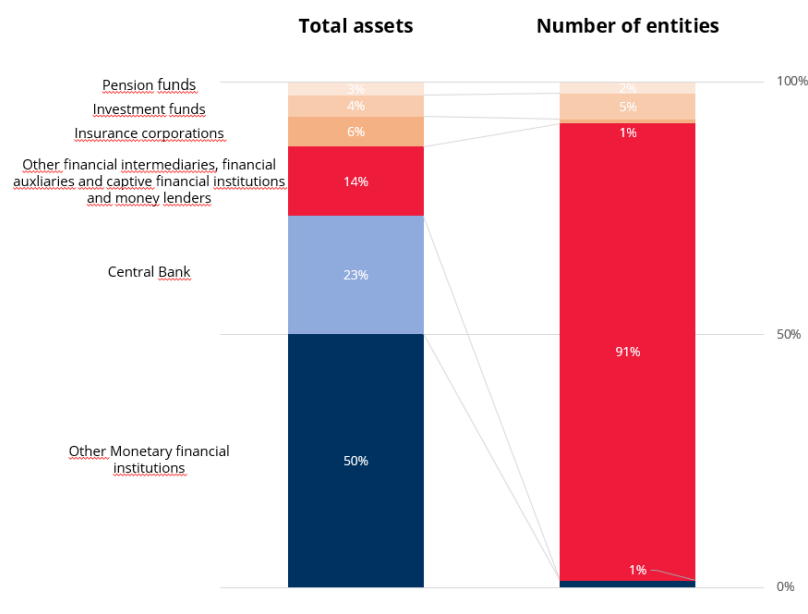
Assets	
Currency/deposits	BSI BoP
Debt securities	SSIS
Loans	ITENF CCR BoP
Equity	SSIS
Other assets	ITENF
Liabilities	
Debt securities	SSIS
Loans	ITENF CCR BoP
Equity	SSIS
Other liabilities	ITENF

By combining all these sources of information, it becomes possible to produce both monetary and financial statistics and financial accounts for each subsector of the OFIFA, while avoiding multiplicity of reporting by these institutions.

3. The OFIFA sector in numbers

At the end of 2021, the Other Monetary Financial Institutions (banks) and the Central Bank comprised 73% of the total assets of the Portuguese financial system and the non-monetary financial institutions represented the remaining 27%. A different reality is observed concerning the number of entities, where the non-banking financial sector included 99% of total entities (Graph 1). These entities, besides not being authorised to receive deposits or close substitutes for deposits, are relevant for the economy since they channel or help channelling funds from savers, to entities that need financing. Some of the most relevant subsectors of the non-banking financial sector are the OFIFA sector, which represent 91% of the total entities in the financial system and 14% of total assets.

Graph 1 | Total assets and entities belonging to the Financial Sector in 2021

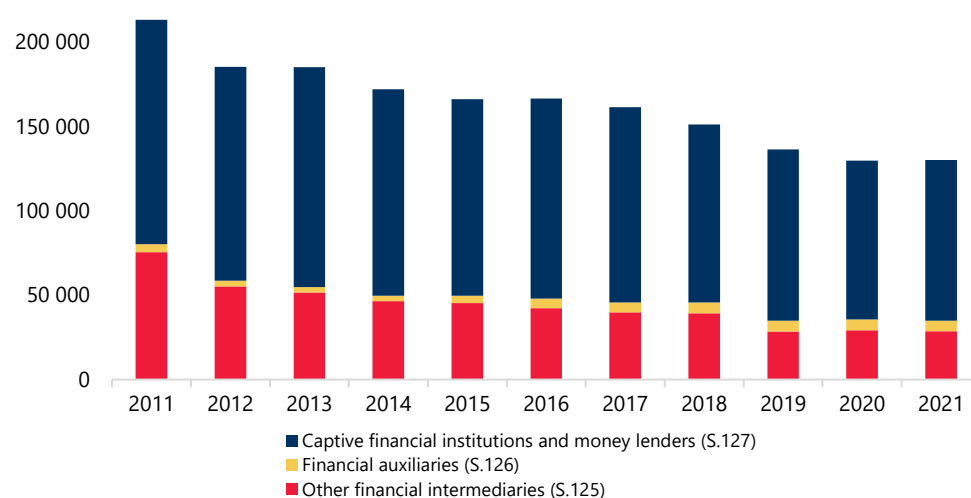


Source: European Central Bank; Banco de Portugal

Despite the magnitude of the OFIFA sector in Portugal, in the last decade, we have seen a clear downsizing of the sector (Graph 2). The downsizing has been led by the other financial intermediaries, which saw a reduction of more than 60%, in total assets, since 2011, due mostly to a decrease in securitization operations by financial vehicles corporations after the European sovereign debt crisis. CFIML subsector also suffered a balance sheet reduction of 29%, driven by a simplification of group structures, which led to a fall in holding corporation's assets, the most predominant type of institution of the subsector.

Although there has been a tendency for a reduction in the activity of the other financial intermediaries, financial auxiliaries and captive financial institutions and money lenders, in 2021 total assets rose by 344 million euros, ascending to 130.1 billion. This growth was fuelled by the captive financial institutions subsector.

Graph 2 | Total assets by OFIFA subsector (End of period, millions of euros)

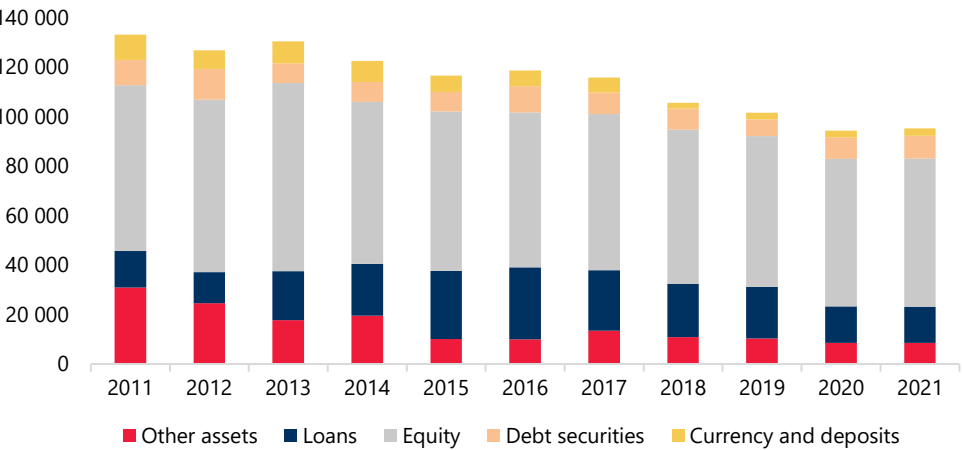


Source: Banco de Portugal

A particularity of the OFIFA sector is its heterogeneous decomposition between the three subsectors, with the captive financial institutions and money lenders encompassing 73% of total OFIFA assets, the other financial intermediaries 22%, and lastly, the financial auxiliaries with only 5%, at the end of 2021.

From available balance sheet items information, we can also obtain a picture of the activity developed by the institutions belonging to each of the subsectors.

Graph 3 | Breakdown of the balance sheet asset side of the captive financial institutions and money lenders subsector (End of period, millions of euros)



Source: Banco de Portugal

Currently, the most predominant instrument on the asset side of the captive financial institutions and money lenders (Graph 3) are equity securities held, followed by loans. This is a consequence of the activity of holding corporations, which currently account for 90% of the assets of the subsector. These entities own controlling levels of equity in subsidiary companies and often concede financing to them, without developing any type of management. Thus, as expected, securities and loans dominate the balance sheet of the subsector, being also noticeable that both instruments now hold a larger share of the balance sheet than a decade ago.

In what concerns the other financial intermediaries, the dominant instrument on the asset side are loans, which arise from the operations of financial vehicle corporations engaged in securitization transactions, which currently hold 68% of total assets of the sector. These institutions' main activity consists in acquiring loans from other institutions, while selling debt securities to finance these purchases.

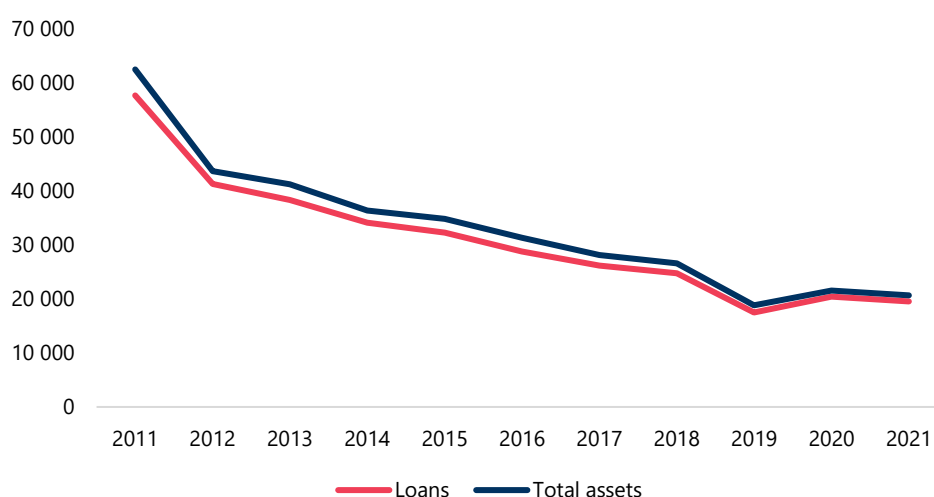
Graph 4 | Breakdown of the balance sheet asset side of the other financial intermediaries subsector (End of period, millions of euros)



Source: Banco de Portugal

While the composition of the balance sheet of the subsector has remained somewhat constant across time, the same cannot be said for its size, which as stated has decreased drastically due to a reduction in securitization activity (Graph 5). This reduction has been led by the fact that the European Central Bank started accepting the underlying loans (often non-performing) of these operations as collateral for monetary policy operations, and thus, banks lost one of the biggest incentives to take part in them. Before, banks would sell the loans to securitization entities, while buying the debt securities that the entity would use to finance the operations, with these securities in turn being eligible for monetary policy operations.

Graph 5 | Financial vehicle corporations, total assets and loans (End of period, millions of euros)

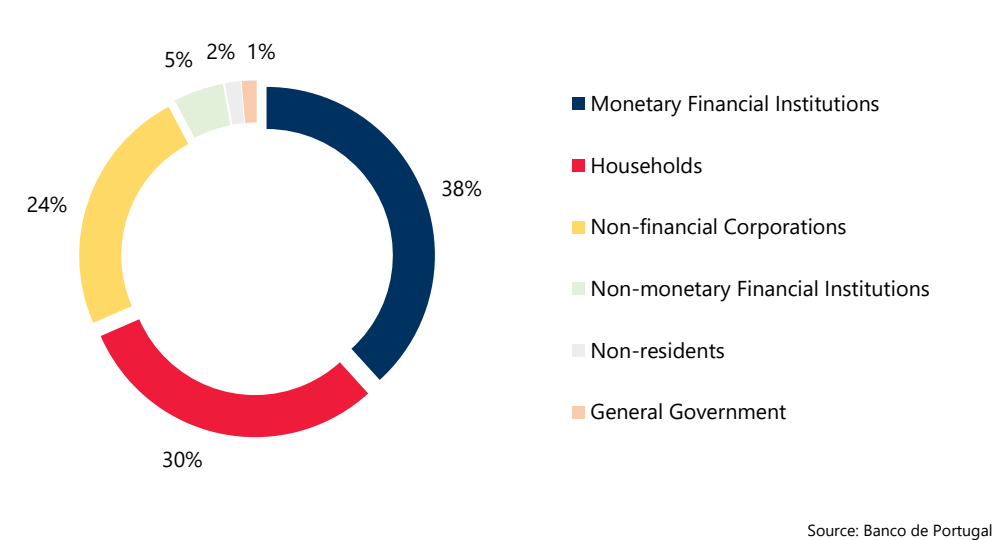


Source: Banco de Portugal

For loans conceded by the other financial intermediaries subsector, there is currently a higher level of breakdown available in the Central Credit Register, such as the debtor's counterpart sector (Graph 6). Currently, Monetary Financial Institutions are the main counterpart of the lending with 38% of total loans, mostly due to non-

derecognized securitization operations. Then, households and non-financial corporations represent 30% and 24% respectively, due to derecognized securitization operations and also to the activity of financial corporations engaged in lending.

Graph 6 | Loans granted by other financial intermediaries, by counterpart sector (End of 2021, percentages)



4. Conclusion

A bigger shift towards microdata and a rationalization of existing information are important tools to allow for a higher flexibility in the response to evolving statistical standards, which have continuously demanded higher levels of disaggregation.

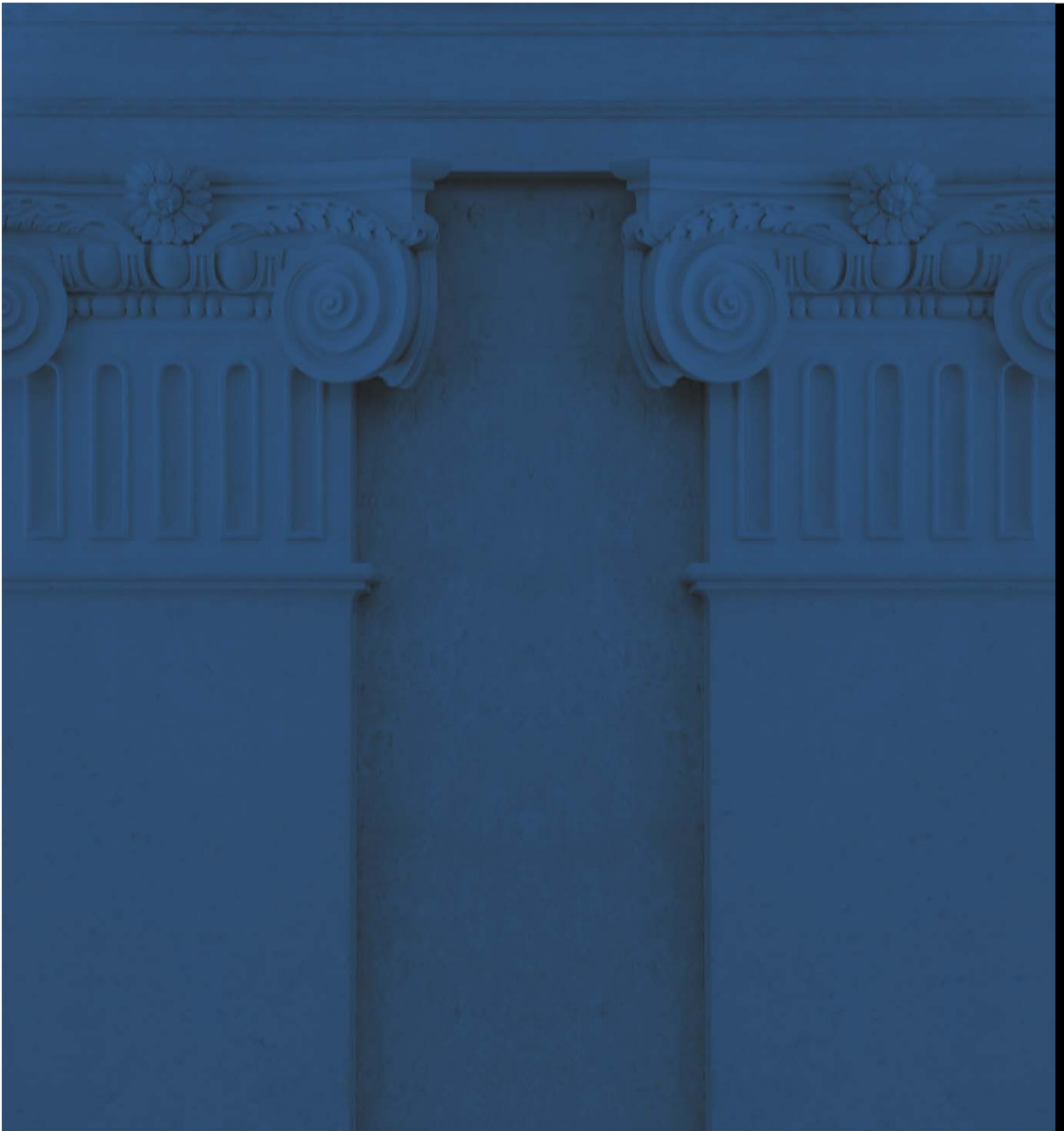
Even if the collection of information based on microdata does not have as its initial objective the compilation of statistics, it allows the producer to be well equipped to respond to new reporting requirements requested by international organizations without additional costs for reporting institutions, would these come to arise.

This strategy was applied at Banco de Portugal, making it possible to respond to the new requisites for the production of financial accounts, which, from June 2022 onwards, required a breakdown between the OFIFA subsectors. In this sense, by combining information from micro-databases, such as loans and securities, and through a broader sharing of information, it was possible to produce the required sets of information, even without a guideline that mandated a direct reporting of the balance sheet by these institutions.

The outputs of the production process allowed for a characterization of the OFIFA sector in the scope of the Portuguese financial sector, including individual subsector balance sheets, and even a disaggregation of loans by counterpart sector, in the case of the other financial intermediaries.

5. References

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- [4] Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union.
- [5] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms.
- [6] Regulation (EU) No 1075/2013 of the European Central Bank of 18 October 2013 concerning statistics on the assets and liabilities of financial vehicle corporations engaged in securitisation transactions (recast) (ECB/2013/40).
- [7] Instruction No 31/2005 of Banco de Portugal of 17 of September on the regulation of the reporting of statistical information to Banco de Portugal, for the compilation of securities statistics.
- [8] Instruction No 27/2012 of Banco de Portugal of 17 of September on the regulation of the statistical reporting to Banco de Portugal, with the main objective of compiling statistics on external transactions and positions recorded in the balance of payments and the international investment position of Portugal.
- [9] Instruction No 17/2018 of Banco de Portugal of 27 of August on the regulation of the communication to Banco de Portugal of actual or potential liabilities arising from credit operations, in any form or modality.
- [10] Instruction No 14/2021 of Banco de Portugal of 18 November on the regulation of the reporting of balance sheet and interest rate statistics of monetary financial institutions.



MAKING OMELETTES WITHOUT NEW EGGS: A STORY ABOUT A SELF- SUFFICIENT WAY OF PRODUCING NEW STATISTICS

AUGUST 2022 | BASEL

SÓNIA MOTA | HEAD OF MONETARY AND
FINANCIAL STATISTICS PRODUCTION UNIT



BANCO DE
PORTUGAL
EUROSISTEMA

MORE NUMBERS, NO MORE EGGS



THE OFIFA SECTOR

1

Lot of entities but **few impact** on the **total assets** of the financial sector

2

We do not want to overwhelm with new reporting requirements

How to compile the OFIFA sector without new eggs?

MORE NUMBERS, NO MORE EGGS

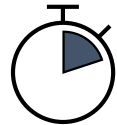


2018

Change of Banco de Portugal mindset

Greater knowledge of the available information throughout Banco de Portugal

Information more visible and useful



Catalog all available information



Identify potential flows of data across departments

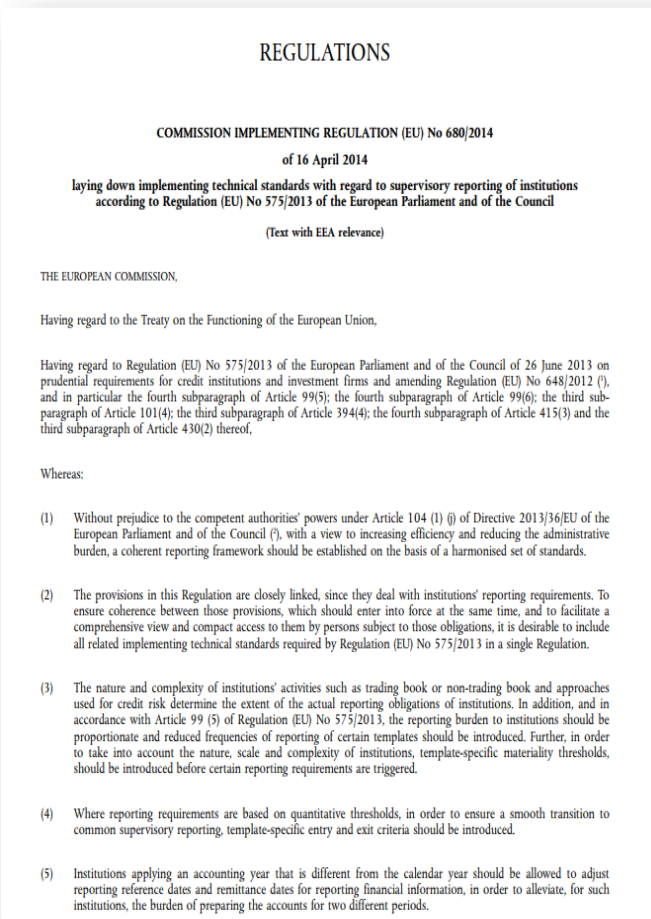


Make information methodologically clear for internal users

This is the key to compile the OFIFA sector, without requiring additional reporting from these institutions

IF WE DO NOT RECEIVE INFORMATION DIRECTLY FROM ENTITIES, WHERE DOES THE EGGS COME FROM?

FINREP - FINancial REPorting Standards



Lost importance with ESA2010



Mandatory supervision information reported by credit institutions



Contain quarterly balance sheet information



Several important breakdowns

1% of total OFIFA entities currently report FINREP

Coverage: **supervised institutions by Banco de Portugal**

IF WE DO NOT RECEIVE INFORMATION DIRECTLY FROM ENTITIES, WHERE DOES THE EGGS COME FROM?

Simplified business information survey

Modelo para o maior prazo de entrega de 2019 e seguintes

IES
Informação Empresarial Simplificada
DECLARAÇÃO ANUAL

01 PERÍODO DE TRIBUTAÇÃO ANO
1 2
De / / a / /

02 ÁREA DA SEDE, DIREÇÃO EFETIVA OU ESTAB. ESTÁVEL
SERVIÇO DE FINANÇAS 1 CÓDIGO

AT
Autoridade Tributária e Aduaneira
IRN
Instituto dos Registos e do Notariado
INE
Instituto Nacional de Estatística
BP
Banco de Portugal
DGAE
Direção Geral das Atividades Económicas

03 IDENTIFICAÇÃO DO SUJEITO PASSIVO
1 NOME NÚMERO DE IDENTIFICAÇÃO FISCAL
2

04 DESIGNAÇÃO DA ATIVIDADE ECONÓMICA E ESTABELECIMENTOS
ATIVIDADE PRINCIPAL CÓDIGO CAE - REV 3 VOL. DE NEGÓCIOS
1 2 % CÓDIGO DA TABELA DE ATIVIDADES 3 N.º ESTABELECIMENTOS (incluindo a sede) 4

05 ANEXOS QUE DEVEM ACOMPANHAR A DECLARAÇÃO

ANEXO	INDIQUE NÚMERO	INDIQUE NÚMERO
Anexo A - Entidades residentes que exercem, a título principal, atividade comercial, industrial ou agrícola e entidades não residentes com estabelecimento estável	1	IRS
Anexo A1 - Entidades residentes que exercem, a título principal, atividade comercial, industrial ou agrícola - contas consolidadas (Modelo não oficial)	20	
Anexo A2 - Entidades residentes que exercem, a título principal, atividade comercial - Fundos e outras entidades (Modelo não oficial)	23	
Anexo B - Entidades do setor financeiro	2	IVA
Anexo B1 - Entidades do setor financeiro - contas consolidadas (Modelo não oficial)	21	
Anexo C - Entidades do setor segurador	3	
Anexo C1 - Entidades do setor segurador - contas consolidadas (Modelo não oficial)	22	
Anexo D - Entidades residentes que não exercem, a título principal, atividade comercial, industrial ou agrícola	4	IS
Anexo E - Elementos contabilísticos e fiscais (entidades não residentes sem estabelecimento estável)	5	
Anexo F - Regimes especiais	7	
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Anexo R - Entidades residentes que exercem, a título principal, atividade comercial, industrial ou agrícola, entidades não residentes com estabelecimento estável e EIRL	17	
Anexo S - Entidades do setor financeiro	18	
Anexo T - Entidades do setor segurador	19	

06 DECLARAÇÕES ESPECIAIS
DECLARAÇÃO COM PERÍODO ESPECIAL DE TRIBUTAÇÃO
DECLARAÇÃO DE CONSOLIDAÇÃO 1 DECLARAÇÃO DE CESSAÇÃO 2 INTES DA ALTERAÇÃO 3 APÓS ALTERAÇÃO 4 DECLARAÇÃO DO EXERCÍCIO DO REGIMEN DE TRIBUTAÇÃO 5

07 TIPO DE DECLARAÇÃO 08 SITUAÇÃO DA ENTIDADE

ANTES DE PREENCHER A FOLHA DE DADOS, LEIA COM ATENÇÃO AS INSTRUÇÕES QUE ACOMPANHAM



Mandatory survey to all corporations operating in Portugal



Contain financial statements



Annual information

99% of the information of the OFIFA sector comes from this survey

Main entities covered: **holdings corporations**

CHALLENGE

How to guarantee the consistency between annual and quarterly data?

IF WE DO NOT RECEIVE INFORMATION DIRECTLY FROM ENTITIES, WHERE DOES THE EGGS COME FROM?

THE QUARTERLY “EGGS”

Assets

Currency/deposits

BSI

BoP

Debt securities

SSIS

Loans

ITENF

CCR

BoP

Equity

SSIS

Other assets

ITENF

Liabilities

Debt securities

SSIS

Loans

ITENF

CCR

BoP

Equity

SSIS

Other liabilities

ITENF

BSI

Monetary and financial institutions balance sheet items

BoP

Balance of Payment and International investment position data

SSIS

Securities Statistics Integrated System

ITENF

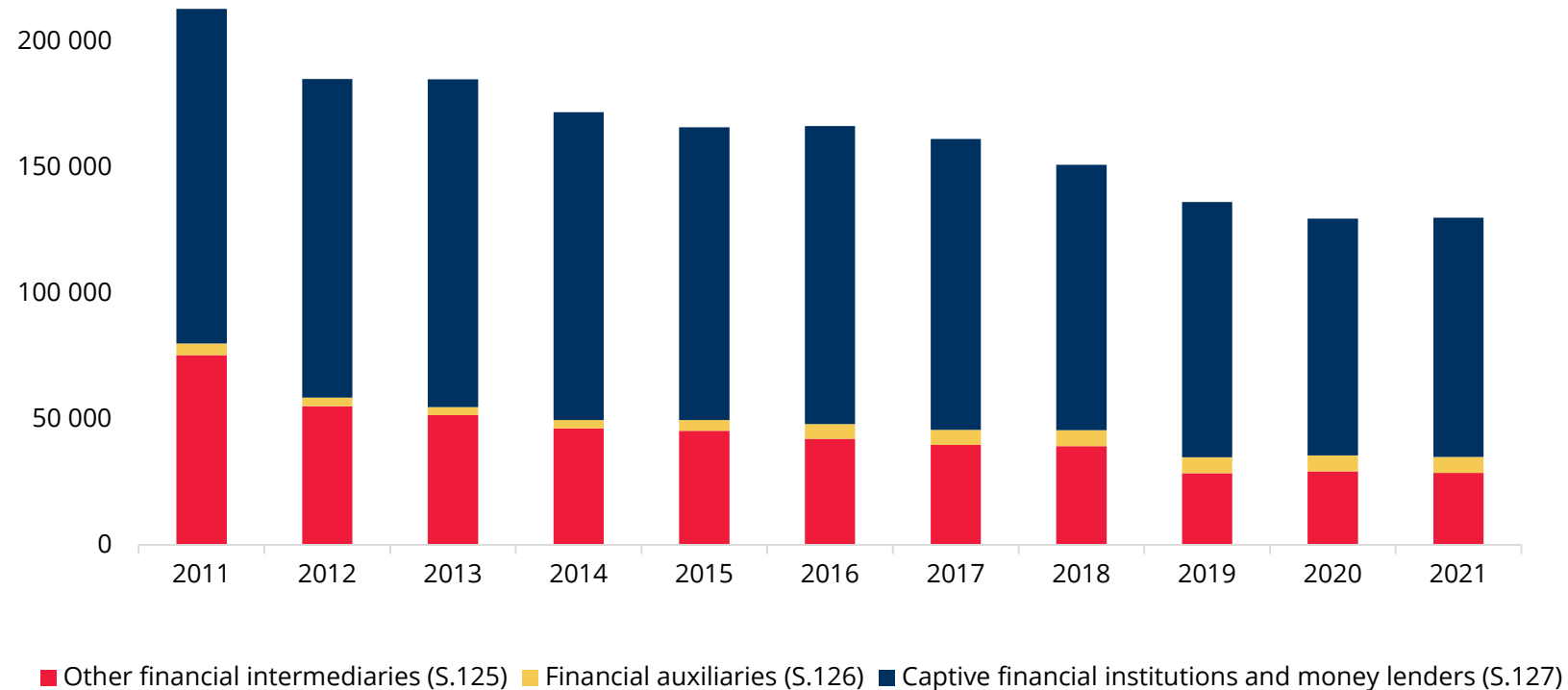
Quarterly corporate survey

CCR

Central Credit Register

THE OFIFA SECTOR IN NUMBERS

Total assets by OFIFA subsector (End of period, millions of euros)

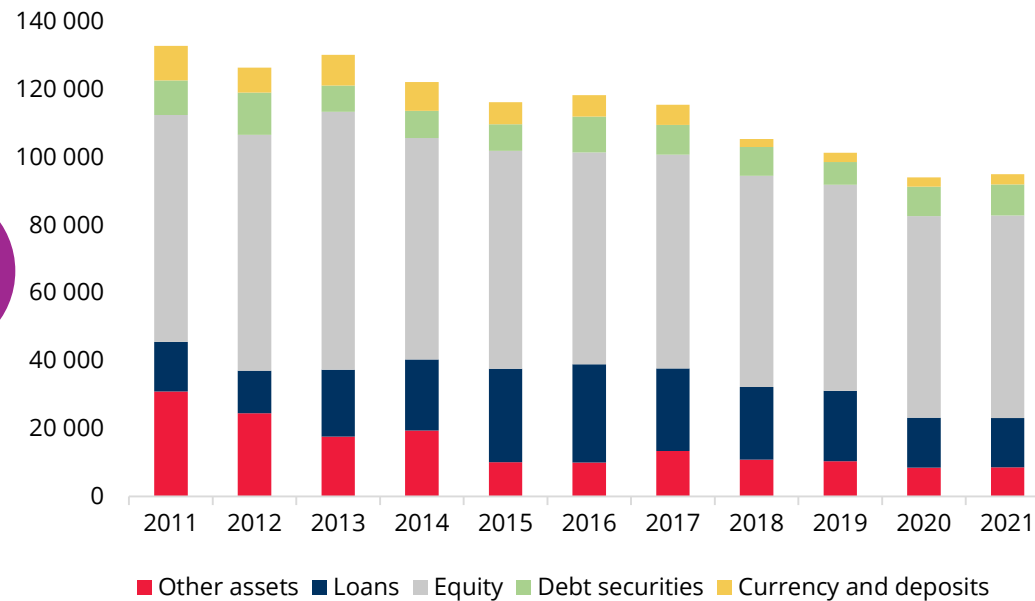


Balance sheet **reduction** over the years

Heterogeneous decomposition between the three subsectors

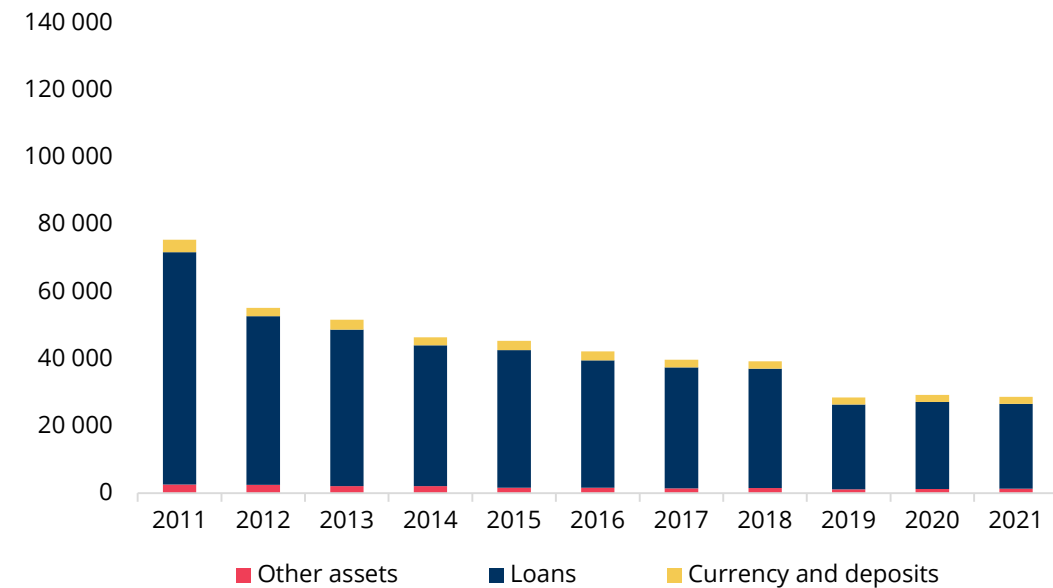
THE OFIFA SECTOR IN NUMBERS

Captive financial institutions and money lenders subsector – Assets (End of period, millions of euros)



Equity securities are the predominant instrument on the asset side

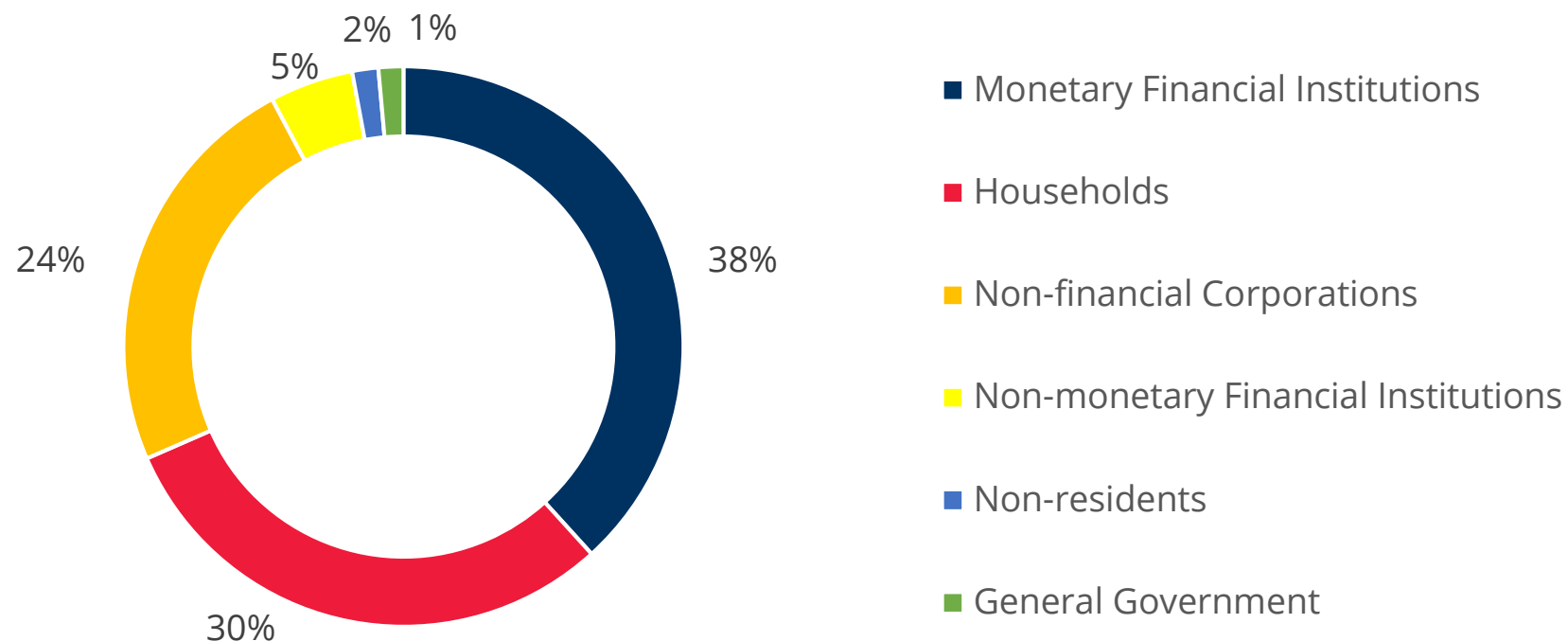
Other financial intermediaries - Assets (End of period, millions of euros)



Loans are the predominant instrument on the asset side

THE OFIFA SECTOR IN NUMBERS

Loans granted by other financial intermediaries, by counterpart sector (End of 2021)



- **Monetary Financial Institutions** are the main counterpart due to **non-derecognized securitization** operations
- **Households and non-financial corporations** represent 30% and 24% respectively, due to **derecognized securitization** operations and due to the **other lending activity**

CONCLUSIONS

Rationalization and **sharing** of all available information, breaking down silos

Enhance the use of **micro databases** to respond to **new reporting requirements without new cost** for reporting agents

Banco de Portugal combine information from micro databases to produce the required sets of information with all the details and breakdowns

