1. Introduction

In the wake of the financial crisis, the approach that has been adopted for measuring the service charges implicit in the financial intermediation activity (Financial intermediation services indirectly measured – FISIM) brought about some theoretically surprising outcomes, like the occurrence of negative FISIM and the high volatility of FISIM allocation with consequences on the GDP measures.

Considering these developments, in the context of the revised European System of Accounts (ESA 2010), steps are put forward in the FISIM computation in order to have a more reliable measure of financial activity. The most important being the need to have different reference rates according to the currency in which loans and deposits are denominated.

The method presently in use in the European Union (EU) follows the findings of the final report on the reliability of the results obtained during the trial period of 1995 to 1998. Nonetheless, some of the actual concerns were already latent at that time, specifically the instability of the FISIM output caused by the reference rates volatility and the need to improve statistical data sources. The dissimilarity being, in those days negative figures were punctual and mostly concentrated in non-resident FISIM between financial entities (exports and imports).

This investigation advocates the use of different interbank reference rates conferring the maturity and currency of the operations under evaluation. Alternatively, in the absence of income data by sector and maturity, this methodology could also be taken onwards via a weighted average of the interbank rates. This new approach is a step forward regarding the measuring of the financial services indirectly measured as it incorporates the issue of maturity and currency, which are elements influencing banks decisions. Even in periods of financial markets turbulence the proposed method led to economically explainable results for the Portuguese economy.

Securitisation operations by Portuguese monetary financial institutions (MFIs) made their first appearance in 1997, despite of the non-existing specific regulation applicable. At first, the securitisations deals made use of offshore structures and the range of asset classes to be sold by the originators was restricted to, e.g. consumers’ credit areas, cars acquisitions, leasing agreements and long-term rentals.

Between 2001 and 2005 the securitisations in Portugal were mostly done exclusively using securitisation funds as a vehicle, the securitised assets were derecognised from the originator’s balance sheet (off-balance) and the securities issued were mostly bought by non-residents.
As from 2005 onwards the securitisations were still mostly done using securitisation funds as a vehicle, but securitisation companies began to gain more and more importance, the securitised assets started to remain in the originator’s balance sheet (on-balance), as a consequence of regulatory changes. The securities issued either by securitisation funds or companies were still mostly bought by non-residents, but in 2007 the originators began to buy themselves the issued securities.

From 2010 to the present, the securitisations were done exclusively using securitisation companies as a vehicle and several operations previously done by securitisation funds were redeemed before the stipulated date. The securitised assets remained mostly in the originator’s balance sheet and the issued securities were also mainly bought by the originators. Most of these originators were MFIs which used these securities as collateral to obtain liquidity next to the European Central Bank (ECB).

2. FISIM

2.1 Methodological framework

FISIM may be defined as the difference between the income actually received/paid\(^3\) by the financial entities and the income that would have been received/paid if a reference rate were applied.

Regarding the FISIM methodology, the revised ESA already encompasses the following changes: discontinuation of the FISIM computation for the Central Bank and the restructuring of the Central Bank non financial account, setting the internal and the external reference rates by considering namely the maturity and the currency breakdowns in the computation and excluding FISIM between financial institutions.

As for the theory supporting the choice of the reference rate, our conviction is that the opportunity cost of the funds rather than the cost of financing should be considered, since a similar treatment irrespectively of the type of funding should exist. We should consider the opportunity cost of funds, i.e. an interest rate that reflects the same maturity, currency, and risk of the operations.

It is clear that the selection of the reference rate is crucial for the computation of FISIM. Therefore, considering that the reference rate should measure the opportunity cost of funds, which, in the framework of FISIM, should be the cost of reinvesting it in the same instrument (loans and deposits), we propose to concentrate on the interbank market rates as opposed to bonds rates. In particular, one should consider that government bonds market price can be driven by their relative illiquidity due to several regulations applicable to investors.

Thus, to consider the maturity and the currency mismatch of banks’ operations, our suggestion is to use the inter-bank borrowing and lending rates, specifically the Euribor interest rate for short term operations and the ISDAFIX rates for long term operations.

The proposal to use ISDAFIX rates as the reference rate for long term operations is based on the fact that those rates are considered a benchmark in interbank operations (incorporating credit premium inherent to the interbank market) and also because swap markets are rather liquid. ISDAFIX is a leading benchmark for fixed rates on interest rate swaps worldwide, providing average mid-market swap rates for the euro (EUR), the Hong Kong dollar (HKD), the Japanese yen (JPY), the British pound (GBP), the Swiss franc.

\(^3\) Interest rate times outstanding amount of loans/deposits at end of period.
(CHF) and the U.S. dollar (USD), at selected maturities on a daily basis. ISDAFIX rates are available on Thomson Reuters and Bloomberg.

The following sections evaluate the outcome of using different reference rates by maturity and currency comparing it with the approach that takes a single reference rate approached by the three months Euribor.

2.2 Effective rate – Data sources

The data source for stocks on loans and deposits was the Regulation (EC) No 25/2009 of the ECB, of 19 December 2008 (ECB/2008/32), concerning the consolidated balance sheet of the monetary financial institutions sector. With regard to data on interest rates, the Regulation (EC) No 290/2009 of the ECB, of 31 March 2009 (ECB/2009/7), concerning statistics on interest rates applied by monetary financial institutions to deposits and loans vis-à-vis households and non-financial corporations, was used.

Although realising that accounting flows diverge from statistical flows, the interest rate implicit in accounting data (flows/stocks) is compatible with monetary interest rate (MIR) statistics. Therefore, for the compilation of interest income receivable/payable by MFI, the exercise encompasses the MIR statistics on stocks outstanding. The MIR statistics only embrace the households and the non-financial corporations as counterpart sectors which however represent almost all of the FISIM consumption.

2.3 Reference rate - Multiple reference rates

In Portugal, the operations covered by the internal FISIM are mostly on a euro basis, which simplifies the computation of FISIM, since we only need to have the Euribor 3M months (short-term operations) and the EURFIX 3 and EURFIX 5 for operations, respectively, between one and five years and above five years.

2.4 Reference rate - Single weighted average of multiple rates

Alternatively, in the absence of interest income (or effective interest rate) data by sector, currency and maturity, we analysed the possibility of using a weighted average of the reference rates (RR). For the computation of a weighted average the information needed are the stocks' breakdowns by sector, maturity and currency. The reference rate could be computed according to the following formula:

\[
RR = \frac{\sum_m \sum_c r_{mc} \times S_{mc}}{\sum_m \sum_c S_{mc}}
\]

where \(S_{mc}\) stands for the outstanding amount of each operation within maturity band \(m\) denominated in currency \(c\). To each \(S_{mc}\) an individual market rate \(r_{mc}\) is assigned. Therefore, RR is a weighted average of the individual \(r_{mc}\), where the weights are given by the respective \(S_{mc}\).

2.5 Lagged reference rates

Considering that an attribute of this kind of operations is the time lag involved in the adjustment of loans and deposits interest, we explored the possibility of considering the reference rate of the previous quarter.
For the weighted average rate, this consideration could be foreseen by simply taking the reference rate of the previous period.

### 2.6 Main results

#### 2.6.1 Multiple reference rates

With the application of the multiple reference rates approach, we concluded that the total amount of FISIM produced on loans granted was overestimated, due to the fact that we were considering Euribor 3M irrespectively of the maturity of the operations concerned. Moreover, the FISIM outcome with this alternative approach of multiple reference rates is more stable.

Considering the time lag of these operations, visible in the peak of December 2008, we have replaced the reference rate for the one of the previous quarter. Therefore, in periods of interest rate inflexion, there is some stability in FISIM output. Moreover, the volatility of FISIM produced on loans, in the period covered by this analysis, decreases if we consider the lagged rate. This finding is visible in Figure 1.

![Figure 1 - Total FISIM - loans (Lagged RR)](image)

Regarding FISIM on deposits, on the basis of the same reasoning, we have the reverse conclusion given that in this case the amount of FISIM was underestimated, even reaching negative figures from the end of 2008 onwards. Therefore, this new approach could contribute to the elimination of the persistent negative FISIM in the aftermath of the financial crisis. Theoretically, it is conceivable that financial intermediaries face negative FISIM during a short period of time as a consequence of some price rigidity. Nevertheless, apart from turning points it is difficult to understand that negative FISIM sustain over a long period of time. Again by considering the reference rate of the previous quarter, we observe that the negative FISIM of March 2009 is eliminated and the volatility is reduced. At the end of 2011, FISIM on deposits became negative again reflecting the lack of access to funding by Portuguese banks, which led to increased competition in retail funding (Figure 2). In this context, the *Banco de Portugal* decided to set up maximum interest rates at the end of 2011. With this measure the return to positive FISIM is expected in 2012.
2.6.2 Single weighted average of reference rates

The total FISIM is exactly the same whether we apply the method with three reference rates or with one weighted average of reference rates. Nevertheless, the impact on GDP would not be the same since the FISIM by both consumption sector and purposes of consumption would diverge. This analysis will be detailed in the next section.

2.7 Allocation to main user sectors

A complete analysis of the impact of the proposed methods requires splitting the FISIM components by both consumption sector and purposes of consumption (intermediate and final consumption). It should be noted that, regardless of the consumption sector under analysis, the most significant deviations among methods occur in the aftermath of the financial crisis, specifically from 2009 onwards.

- Loans

In line with our general conclusion, in the current approach (Euribor approach) we have FISIM overestimated on loans allocated to households and non-financial corporations. Focusing on the effect of using a single reference rate (weighted average of interbank rates) instead of multiple interbank rates, our assessment was that both methods lead to similar outcomes in the case of loans for consumption purposes (Figure 3), which is the component with higher contribution to the GDP.
The use of multiple reference rates, instead of a single interbank rate, leads to lower FISIM on loans allocated to non financial corporations (Figure 4).

- **Deposits**

  Regarding deposits both the multiple reference rate and the weighted average method lead to the same outcome in terms of final consumption, nevertheless some differences occur on FISIM produced on deposits granted by non financial corporations. On the basis of the Euribor approach, the amount of FISIM produced on deposits was undervalued (Figure 5).
2.8 Volatility of loans and deposits

With this new approach of using different rates instead of a single one, the long-run volatility of FISIM on loans, measured through its standard deviation, decreases. However, the short-run volatility, proxied by the average of the four quarters moving volatility, increases. This occurs since the rate on loans is very elastic, as banks provide a variety of different loans to adapt to clients’ needs. Since loans are the main goal of banks’ profits, loans rate would more closely follow the dynamics of the interbank short-term reference rate. Therefore, the replacement of the reference rate by a new rate that incorporates longer maturity increases the volatility of the margin measured at short intervals.

Contrarily, regarding the FISIM on deposits, with this new approach both the long and the short run volatility decreases. The deposit rate is not very elastic and from this assessment it is clear that the rate on deposits does not follow the dynamics of the interbank short-term reference rate.

2.9 Impact on GDP

The contributions of the different components of FISIM output to GDP are visible in figures 6 and 7. In order to illustrate the external component, the intermediate and final consumption presented on figures 6 and 7 reflect only the FISIM produced by the resident financial intermediaries.

From figure 6 we observe, using the Euribor, a decrease of the final consumption contribution which became less significant from 2009 onwards.
Figure 7 shows, using the multiples rates, a higher contribution of the final consumption to GDP from 2009 onwards, when compared to the previous approach. To be noted that final consumption in December 2011 became negative because of FISIM on deposits which, as explained above, were also negative.

Finally, the adoption of this methodology, as an alternative to the one based solely on Euribor, led to the decrease of the FISIM produced internally, except for the 2008 period. This decrease is mainly driven by the production on loans since there is an increase of FISIM output on deposits. Nonetheless, it should be stressed that although total FISIM output is reduced, the new approach would have a positive impact on the GDP justified by the FISIM allocated to the final consumption of households. Therefore, the implementation of this new approach leads to an increase in the level of GDP by FISIM from 1.1% to 1.4% when compared to the one that uses a single reference rate (Euribor).
3. Securitisation

3.1 Legal framework

The legal framework for securitisation transactions carried out in Portugal (referred as the “Securitisation Law”), setting up the legal requirements applicable to loan securitisation and regulating the constitution and functioning of securitisation vehicles, was put in place by Decree-Law No. 453/99, of 5 November.

The Securitisation Law offers issuers two kinds of such entities: FTCs (Fundos de Titularização de Créditos or securitisation funds) and STCs (Sociedades de Titularização de Créditos or securitisation companies). These two types of financial vehicles corporations (FVCs) are subject to the same supervisory body: the Comissão de Mercado de Valores Mobiliários (CMVM) — the Portuguese securities market commission - which is responsible for granting activity permission, as well as for regulating the securitisation activities.

The Portuguese government enacted Decree-Law No. 219/2001, of 4 August (the “Securitisation Tax Law”), setting up the tax regime applicable to the Portuguese securitisation transactions, and introducing several amendments to the Securitisation Law. As a result of these revisions, there was a significant increase in securitisations carried out through Portuguese financial vehicles.

3.2 The securitisation sector in Portugal

The two types of Portuguese FVCs are distinct not only in the legal sense but also in view of the different ways in which the related securitisation processes are structured. At the outset, the FTCs structures had capital prerequisites that were lower than the ones of STCs, which might help to explain the greater attractiveness of the former. However the difference in capital requirements has been losing importance along the way leading to an increased use of the latter.

STCs are single purpose companies that take the legal form of a limited liability company. In order to finance their activities, STCs issue equity and securitisation bonds. The issue of securitisation bonds, collateralized by securitised loans, is made by private or public placement in domestic and/or in foreign markets (Figure 8).

![Simplified scheme for a typical securitisation involving a resident STC](image)

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FTCs have a structure very similar to that of an investment fund — they issue securitisation units to finance the acquisition of loans. In Portugal, the units issued by resident FTCs are typically acquired by non-resident financial vehicles. In turn, the non-resident financial vehicles issue bonds in foreign securities markets (Figure 9).

![Diagram of a typical securitisation involving a resident FTC and a non-resident FVC](image)

**Figure 9 – Simplified scheme for a typical securitisation involving a resident FTC and a non-resident FVC**

Another distinct feature of FTCs is the fact that they act as closed entities, while STCs carry out several securitisation transactions over time.

In the early days, off-balance sheet securitisations were the most widespread type of securitisation deals. However, following the adoption of the revised versions of International Accounting Standards (IAS) 32 and 39, back in 2005, this situation started to change in favour of on-balance sheet securitisation. In fact, under IAS 39, originators in a securitisation transaction are not always able to derecognise asset transfers in their accounts, given that, in a typically structured securitisation transaction, they would normally retain some of the risks/rewards of the ownership of the asset. In such cases, IAS 39 provides for two different treatments depending upon whether the originator has retained control of the financial asset following transfer. Where control is retained (as will be the case in most securitisation transactions), the financial asset must be recognised to the extent of the reporting entity’s “continuing involvement”.

Conditional on the loans being derecognised or non-derecognised in the originator’s balance sheet, and to avoid double-counting, securitisation transactions are recorded as follows:

If the securitised loans are derecognised, the amount of “loans” outstanding in the assets side of the originator balance sheet is decreased, together with a matching increase in e.g. “cash”. In the FVC’s balance sheet, the loans are recorded vis-à-vis the original debtor sector.

If the securitised loans are not derecognised, the amount of “loans” outstanding is kept unchanged; to balance out the increase in “cash” on the assets side of the balance sheet, an additional liability to the FVC is recorded. In order to avoid affecting the monetary aggregates, the entry on the liabilities side is allocated, by convention, to the category “deposit-like instruments, vis-à-vis OFIs, over two years”. In the FVC’s balance sheet, the loans are recorded vis-à-vis the originator’s sector (MFIs) to circumvent double-counting.
3.3 Data flow: from raw data to statistical information

While the Portuguese FVCs are supervised by the CMVM, the Banco de Portugal has a formal agreement with CMVM for the regular remittance of (accounting) data reported by FVCs for prudential supervision purposes. These data have different periodicities, depending on the type of FVC: STCs submit quarterly balance sheet data and their audited balance sheets on an annual or semi-annual basis (if they issue securities through public subscription or have quoted securities); FTCs report monthly data.

Another important source of information on securitisations concerns data collected from the originators. Credit institutions and other financial institutions (excluding investment funds, insurance companies and pension funds) have to report data to the Banco de Portugal for prudential supervision purposes. Therefore, whenever these institutions act as originators in a securitisation deal, the Banco de Portugal has the means to identify the nature of the securitisations being carried out. In the particular case of resident MFIs, institutions that are also subject to direct reporting obligations for statistical purposes, their balance sheets provide additional statistical information on the securitisation deals.

Where the originators are non-financial entities, the Banco de Portugal has to make use of alternative sources of information, such as issuance prospectus, rating agencies’ pre-sales information and FTCs management rules and regulations.

Also the gathering official accounting data on non financial corporations, like the one found in the Central Balance Sheet Database, plays an important role as a data source for securitisations. At any rate, the available statistical information on securitisations is, to a great extent, derived from accounting data which fall short of the required standard for high quality statistics (inter alia, for lack of detail). To cope with this issue, complementary statistical data sources are used that allow for breaking down the accounting data into the envisaged categories and for checking the quality of primary data.

Another key source of information is the Securities Statistics Integrated System (SSIS), a security-by-security and investor-by-investor database. SSIS has the advantage of gathering, in a single database, all the information concerning securities issued in Portugal and securities held by Portuguese and foreign investors that are kept in custody with resident financial institutions. Therefore, the SSIS makes it feasible, to a large extent, the identification of the holders of the debt securities and other equity issued by the Portuguese FVCs.

Balance of payments data, for instance, offer helpful information for the STC structures, allowing for the identification of possible anticipated amortizations of the securities issued and placed abroad.

All these data sources combined allow for the compilation and dissemination of high quality securitisation statistics, including those reported to the ECB (Figure 10).
3.4 Portuguese securitisation in numbers

Table 1 shows the FVCs’ aggregate balance sheet, broken down by financial instrument. Total assets amounted to about 62 billion euros, by end-2011, as compared to 20 billion euros in 2004. In the assets side, “Securitised assets” are, by far, the most significant entry, averaging about 95% of total assets in the period concerned. Liabilities are basically split between “Securities other than shares” and “Shares and other equity”, accounting for the paper issued by STCs (59%) and FTCs (39%), respectively.

Table 1 – Aggregate balance sheet of Portuguese FVCs

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency and deposits</td>
<td>19 977</td>
<td>25 236</td>
<td>28 772</td>
<td>33 426</td>
<td>42 974</td>
<td>50 381</td>
<td>61 915</td>
<td>61 934</td>
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<tr>
<td>Securities other than shares</td>
<td>770</td>
<td>890</td>
<td>910</td>
<td>1 487</td>
<td>2 156</td>
<td>1 775</td>
<td>2 981</td>
<td>2 891</td>
</tr>
<tr>
<td>Securitised assets</td>
<td>19 119</td>
<td>24 273</td>
<td>27 678</td>
<td>31 564</td>
<td>40 400</td>
<td>48 280</td>
<td>58 656</td>
<td>58 743</td>
</tr>
<tr>
<td>Shares and other equity</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Financial derivatives</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>15</td>
<td>8</td>
<td>7</td>
<td>35</td>
<td>79</td>
</tr>
<tr>
<td>Other assets</td>
<td>88</td>
<td>72</td>
<td>177</td>
<td>356</td>
<td>405</td>
<td>314</td>
<td>238</td>
<td>217</td>
</tr>
<tr>
<td>LIABILITIES</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deposits</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Securities other than shares</td>
<td>1 943</td>
<td>3 700</td>
<td>5 677</td>
<td>7 485</td>
<td>8 883</td>
<td>14 060</td>
<td>28 703</td>
<td>36 783</td>
</tr>
<tr>
<td>Loans</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>171</td>
</tr>
<tr>
<td>Shares and other equity</td>
<td>16 791</td>
<td>20 765</td>
<td>22 331</td>
<td>25 099</td>
<td>33 224</td>
<td>35 547</td>
<td>32 534</td>
<td>24 162</td>
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<tr>
<td>Financial derivatives</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>12</td>
<td>37</td>
<td>43</td>
<td>116</td>
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<tr>
<td>Other liabilities</td>
<td>1 242</td>
<td>770</td>
<td>762</td>
<td>842</td>
<td>856</td>
<td>737</td>
<td>635</td>
<td>701</td>
</tr>
</tbody>
</table>

The first Portuguese FTC started its activity in December 2001, by securitising a pool of mortgage loans amounting to 1 billion euros. By the end of 2011, thirty nine FTCs were in activity. The total outstanding amount of loans securitised by this type of FVCs was of 24 billion euros. About 74% of the loans securitised by FTCs corresponded to mortgages originated by MFIs, and 16% to non-financial corporations’ loans.

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End-of-year figures. 10^6 Euros
As regards STCs, the first one started its activity in December 2003, by securitising fiscal credits of the Central Government. As of December 2011, there were four STCs in activity, with securitised assets amounting to 35 billion euros, 54% of which were mortgages originated by MFIs and 28% corresponded to commercial loans originated by non-financial corporations.

In Tables 2 and 3, Portuguese FVCs show sharp increases in loans vis-à-vis MFIs in the last four years, reflecting the growing importance of non-derecognised securitisations since 2005, and the importance of mortgage loans in the whole of securitised assets granted by MFIs.

Table 2 – Securitised assets’ counterparts, by institutional sector

<table>
<thead>
<tr>
<th>Year</th>
<th>SECURITISED ASSETS</th>
<th>MFIs</th>
<th>OFIs</th>
<th>Non-Financial Corporations</th>
<th>General Government</th>
<th>Non-resident entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>19 119</td>
<td>15 487</td>
<td>734</td>
<td>1 521</td>
<td>1 377</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>24 273</td>
<td>21 312</td>
<td>894</td>
<td>1 014</td>
<td>1 053</td>
<td>0</td>
</tr>
<tr>
<td>2006</td>
<td>27 678</td>
<td>25 399</td>
<td>893</td>
<td>844</td>
<td>542</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>31 564</td>
<td>29 316</td>
<td>937</td>
<td>1 156</td>
<td>155</td>
<td>0</td>
</tr>
<tr>
<td>2008</td>
<td>40 400</td>
<td>38 577</td>
<td>1 002</td>
<td>822</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>48 280</td>
<td>43 761</td>
<td>2 151</td>
<td>2 367</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>58 656</td>
<td>54 701</td>
<td>1 818</td>
<td>1 237</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>58 743</td>
<td>56 429</td>
<td>316</td>
<td>1 892</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

End-of-year figures. 10⁶ Euros

Table 3 – MFI securitised assets’ original debtor, by institutional sector and residency

<table>
<thead>
<tr>
<th>Year</th>
<th>MFI SECURITISED ASSETS</th>
<th>Resident counterpart</th>
<th>Non-resident counterpart</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>15 487</td>
<td>MFIs 0 0 0 0 55 55 22 2</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>21 312</td>
<td>OFIs 0 0 23 23 65 65 33 147</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>25 399</td>
<td>Non-Financial Corporations 99 588 1 990 2 492 4 699 4 488 9 941 14 873</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>29 316</td>
<td>General Government 0 0 0 0 137 137 137 154 215</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>38 577</td>
<td>Households 15 271 20 582 23 043 26 393 33 105 38 439 43 958 40 572</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>40 400</td>
<td>o/w: Mortgage loans 14 050 19 439 21 950 24 904 31 763 36 787 41 550 36 311</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>48 280</td>
<td>General Government 0 0 0 0 137 137 137 154 215</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>58 656</td>
<td>Households 15 271 20 582 23 043 26 393 33 105 38 439 43 958 40 572</td>
<td></td>
</tr>
</tbody>
</table>

End-of-year figures. 10⁶ Euros

By the end of 2011, the total of securitised mortgage loans was of about 36 billion euros, corresponding to nearly 30% of the total outstanding amount of mortgage loans granted by all the Portuguese financial institutions (see Table 3).

Since 2009 the MFI sector substituted the Rest of the world sector as the main holder of securities issued by Portuguese FVCs (as seen in Table 4).
Table 4 – Holders of securities issued by FVCs, by institutional sector

<table>
<thead>
<tr>
<th>SECURITIES OTHER THAN SHARES</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFI s</td>
<td>1 943</td>
<td>3 700</td>
<td>5 677</td>
<td>7 485</td>
<td>8 883</td>
<td>14 060</td>
<td>28 703</td>
<td>36 783</td>
</tr>
<tr>
<td>OFIs</td>
<td>8</td>
<td>51</td>
<td>100</td>
<td>259</td>
<td>2 735</td>
<td>9 414</td>
<td>24 461</td>
<td>31 030</td>
</tr>
<tr>
<td>Non-Financial Corporations</td>
<td>120</td>
<td>184</td>
<td>132</td>
<td>205</td>
<td>233</td>
<td>411</td>
<td>386</td>
<td>561</td>
</tr>
<tr>
<td>General Government</td>
<td>0</td>
<td>0</td>
<td>68</td>
<td>165</td>
<td>141</td>
<td>86</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Households</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Non-residents</td>
<td>1 815</td>
<td>3 465</td>
<td>5 445</td>
<td>6 951</td>
<td>5 744</td>
<td>4 087</td>
<td>3 731</td>
<td>5 123</td>
</tr>
</tbody>
</table>

Figure 11 illustrates the growing visibility of FVCs in the financial sector as a whole, representing about 8% of the sector’s total assets by the end of 2011.

3.5 Outputs: dissemination and institutional reporting

The Banco de Portugal publishes quarterly data on securitisation in its monthly Statistical Bulletin, covering data since 2001. The presented information refers to the aggregate balance sheets of Portuguese FVCs (both STCs and FTCs), broken down by instrument, in line with the breakdown reported to the ECB.

Data are also available on “BPstat|Estatísticas online|”, an Internet online access to the Statistical Interactive Database of the Banco de Portugal.

As regards the fulfilment of the reporting requirements set forth in Regulation ECB/2008/30, the Banco de Portugal has been submitting to the European Central Bank, since February 2010, harmonized data on the FVCs’ balance sheets. Data refer to end-of-quarter outstanding amounts and financial transactions are provided on a quarterly basis.

The ECB has recently began to disseminate in its website information collected through the Regulation above mentioned, referring to the euro area as a whole and to each single country.
References:


- Decree – Law nº 453/1999, of 5 November – The Securitisation Law

- Decree – Law nº 219/2001, of 4 August – The Securitisation Tax Law

- Decree – Law nº 303/2003, of 5 December – “Enlargement of the type of assets that can be securitized”


- European Central Bank working paper nº 1204 / June 2010, “Banking sector output measurement in the euro area – a modified approach”, Antonio Colangelo and Robert Inklaar


- Guideline ECB/2007/9, of 1 August 2007, on monetary, financial institutions and market statistics, as amended


- Martín-Oliver, Alfredo, Salas-Fumás, Vicente and Saurina, Jesús, “A test of the law of one price in retail banking 2005”, Documentos de Trabajo Nº 0530, Banco de España

- Martín-Oliver, Alfredo, Salas-Fumás, Vicente and Saurina, Jesús, “Search Cost and Price dispersion in vertically related markets: the case of bank loans and deposits”, Documentos de Trabajo Nº 0825, Banco de España


. Regulation (EC) No 290/2009 of the ECB, of 31 March 2009, concerning statistics on interest rates applied by monetary financial institutions to deposits and loans vis-à-vis households and non-financial corporations (ECB/2009/7)