BANCO DE PORTUGAL
EUROSYSTEM

# FINANCIAL STABILITY REPORT

November 2015

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# Content

# Overview

The nature of the main risks to financial stability in Portugal didn't change in the recent months.

The Portuguese economy in general and the Portuguese financial system in particular have undergone a fairly significant adjustment process. In terms of macroeconomic balances, persistent and very marked external deficits have given way to a net lending capacity and a very substantial improvement in the general government structural balance. As regards the financial system, and the banking system in particular, progress was made in the structural liquidity position – reflecting very resilient performance of deposits and a contraction in credit – and solvency levels have improved considerably. However, the banking system's profitability levels continue to be very low, reflecting a relatively wide set of adverse factors: compression of the net interest income, against a background of historically low interest rates over a more protracted period than initially expected; contraction in credit, whose developments have reflected the deleveraging of the non-financial private sector; recognition of substantial impairment levels; and, finally, relatively limited progress in the reduction of operational costs by the banking sector.

In aggregate terms, improvements – chiefly in flows – should be seen as initial steps within a long correction path of deep imbalances, accumulated over a long period, which led to a vulnerable financial situation across the various institutional sectors.

The Portuguese financial system continues to be exposed to several substantial challenges and risks. In particular, the current environment of low nominal interest rates along the yield curve, reflecting an accommodative stance of monetary policy and the reduction in risk premia underlying market interest rates, despite its positive effects in price stability and economic growth, gives rise to a number of vulnerabilities in the financial system. This may have a potentially significant impact on: i) the deleveraging of the resident non-financial private sector, which could be slower in the aforementioned environment, ii) the risk-taking, and iii) the profitability of financial institutions, which has also been strongly affected by a background of muted economic growth, low inflation rates and high default levels. There are other risks to financial stability, such as the possibility of a sudden reassessment of risk premia and the maintenance of substantial exposures to certain asset classes and geographies.

The domestic economic agents' ability to reduce or neutralise some of these risk factors is small or non-existent. In such case, they must focus on measures to mitigate their impact, should they materialise.

The Portuguese economy continues to be particularly sensitive to international financial market developments – given its considerable economic and financial integration – in terms of both asset valuation and funding conditions. As is widely known, funding conditions are particularly important due to the Portuguese economy's high external indebtedness. From this perspective, the correction of macroeconomic imbalances must proceed at a steadfast pace.

A major vulnerability in the Portuguese economy is the high indebtedness of the non-financial private sector. The continued deleveraging process of households and firms as well as the maintenance of their net lending capacity are key to financial stability in Portugal. Over the most recent period, these agents have benefited from a reduction in interest rates, which has made it possible to contain credit defaults, most notably in the mortgage segment, and has created room for growth in private consumption and investment. However, the reversal of the current interest rate path – which should take place when the euro area economic activity is strengthened and the inflation path becomes in line with the ECB's price stability objective – will increase debt service burden. It is therefore essential to ensure that the current context of low interest rates does not jeopardise the gradual deleveraging of indebted agents, which is indispensable to the restoration of more balanced financial positions to address likely increases in debt charges.

Furthermore, the current macroeconomic environment may benefit: i) excessive risk-taking and, consequently, an allocation of resources that turns out not to be adequate/sustainable a posteriori, ii) the overvaluation of (financial and non-financial) assets, and iii) the narrowing in profitability of financial institutions.

It is therefore important that the reallocation of credit resources to more creditworthy borrowers continues, to the detriment of non-viable borrowers, whose credit relationship should be terminated, also allowing for an improvement in the quality of banks' balance sheets. It is essential that, when assessing new loans to households and firms prudent criteria be adopted, focusing on the ability to generate future cash-flows, including in scenarios different from that currently experienced, such as higher interest rates' scenarios.

Financial institutions should also be particularly prudent when managing their assets, as a change in the current monetary conditions is likely to affect the value of financial assets. Furthermore, they should also reassess their business models, streamline their cost structures and intensify their efforts to bring down the still high non-performing loan levels with the purpose of fostering a recovery in profitability in a sustained manner. The Portuguese banking system still has a long path ahead towards a sustainable position in terms of profitability and the ability to attract investment into the sector, given that the adjustment process is only partly complete.

The intensification of search-for-yield behaviour worldwide and the subsequent compression in risk premia are also backed by the very low interest rates over a more protracted period of time than initially expected. Consequently, risks to financial stability stemming from a reversal in this behaviour have risen, which will impact on asset valuation and funding conditions across all sectors of the economy. In the recent past, a number of factors, including a shortage of market liquidity, have evolved in such a way as to contribute to the amplification of the potential effects of the reversal of search-for-yield behaviour. Resident economic agents are particularly affected to the extent that their portfolios are more exposed to assets with greater idiosyncratic risk or with less favourable risk assessments. Therefore, to minimise the chance of the risk materialization and/or its impact, financial institutions must act so as to, on the one hand, improve their risk profile, including at the level of their financing structure and, on the other hand, diversify their asset portfolios. Reversal of search-for-yield may stem from a wide set of triggers, many of them completely exogenous to domestic economic agents, which makes the aforementioned measures even more important.

The vulnerability of the Portuguese financial system is exacerbated by the fact that it continues to be significantly exposed to certain asset classes, such as real estate, sovereign debt securities and specific countries or regions (most notably emerging market economies experiencing a substantial slowdown in their economic activity, such as Angola, Brazil and China). Financial institutions should act pro-actively to reduce/diversify their exposure to the aforementioned assets, taking advantage of market conditions when they are most favourable.

Turning to exposures to sovereign debt securities, foreseeable changes in the regulatory framework must be taken into account, in terms of both banking and insurance activity. In the case of the banking sector, in addition to the introduction of the leverage ratio (foreseen for 2018), changes to capital requirements and concentration limits per issuer are under assessment. In the case of the insurance sector, changes in the prudential treatment of sovereign debt risk when calculating the Solvency Capital Requirement are being considered. From a macro-prudential perspective, it is important to guarantee the consistency of regulations applicable to the various sectors (so as to mitigate regulatory arbitrage), an adequate portfolio diversification and the safeguarding of adequate funding conditions to the economy.

Financial stability – which is key to balanced and sustainable economic growth – is a public good benefiting all economic agents. The maintenance of financial stability calls upon authorities and the various economic agents to be proactive in the identification of challenges and risks and to pursue continuously measures towards their mitigation.

From this perspective, as national macro-prudential authority and as part of its duties, Banco de Portugal has implemented a series of measures over the past few years in an effort to foster financial stability. Through Notice No 1/2015, Banco de Portugal has decided to bring forward the setting up of a capital conservation buffer in its entirety, according to which, as of 1 January 2016, credit institutions and certain types of financial corporations will have to hold a capital conservation buffer of 2.5 per cent, pursuant to the Capital Requirements Directive (CRD IV) and the Legal Framework of Credit Institutions and Financial Companies. At the same time, Banco de Portugal will disclose, at the end of this year, the decision on the domestic systematically important institutions (O-SII). It will also disclose the underlying capital buffers for those institutions, which may range – from a date to be established by Banco de Portugal – between 0 and 2 per cent of risk-weighted assets. Finally, Banco de Portugal will establish a countercyclical capital buffer by the end of the year, on the basis of an assessment on credit developments. However, this buffer will be other than zero only when there is evidence of excessive credit growth, which has not been the case in the recent past. The adoption of such measures is based on a forward-looking approach to financial stability and on the premise that macro-prudential policy is key to prevent individual behaviour that, when assessed in aggregate terms, may bring costs to the overall economy.

# FINANCIAL STABILITY

# 1. Recent developments, vulnerabilities and challenges

## 1.1. Macroeconomic and financial environment of the Portuguese economy

### World economy has continued to grow moderately, slowing down somewhat in 2015

According to the October projections released by the International Monetary Fund (IMF), world Gross Domestic Product (GDP) will grow by 3.1 per cent in 2015, following 3.4 per cent growth in 2014. Growth projections for 2015 have been continuously revised downwards over the past few months. It is expected that activity in emerging market and developing economies will decelerate in 2015, to 4.0 per cent, and that advanced economies accelerate somewhat, to 2.0 per cent (Table 1).

**Table 1** • GDP – Real rate of change

| | Percentage | | | Difference from July 2015 (p.p.) | |
|---|---|---|---|---|---|
| | 2014 | 2015F | 2016F | 2015 | 2016 |
| **World economy** | **3.4** | **3.1** | **3.6** | **-0.2** | **-0.2** |
| **Advanced economies** | **1.8** | **2.0** | **2.2** | **-0.1** | **-0.2** |
| USA | 2.4 | 2.6 | 2.8 | 0.1 | -0.2 |
| Euro area | 0.9 | 1.5 | 1.6 | 0.0 | -0.1 |
| Germany | 1.6 | 1.5 | 1.6 | -0.1 | -0.1 |
| France | 0.2 | 1.2 | 1.5 | 0.0 | 0.0 |
| Italy | -0.4 | 0.8 | 1.3 | 0.1 | 0.1 |
| Spain | 1.4 | 3.1 | 2.5 | 0.0 | 0.0 |
| Japan | -0.1 | 0.6 | 1.0 | -0.2 | -0.2 |
| United Kingdom | 3.0 | 2.5 | 2.2 | 0.1 | 0.0 |
| Canada | 2.4 | 1.0 | 1.7 | -0.5 | -0.4 |
| **Emerging market and developing economies** | **4.6** | **4.0** | **4.5** | **-0.2** | **-0.2** |
| China | 7.3 | 6.8 | 6.3 | 0.0 | 0.0 |
| Brazil | 0.1 | -3.0 | -1.0 | -1.5 | -1.7 |
| Russia | 0.6 | -3.8 | -0.6 | -0.4 | -0.8 |

Source: IMF (*World Economic Outlook* – WEO, October 2015)
Notes: F – forecast | p.p. – percentage points

According to the IMF, world GDP grew by 2.9 per cent in the first half of 2015.[1] Activity in emerging market and developing economies decelerated in the first half of 2015. In turn, advanced economies continued to recover gradually, as has been the case since 2013.

A number of factors have contributed to such mixed developments. On the one hand, the shift of economic policies in China to a model more geared towards the domestic market has resulted in a gradual reduction of its economic growth, with an impact on the global demand for commodities. On the other hand, factors on the supply side, particularly in the oil market, have also contributed to a marked fall in commodity prices, which continued in the third quarter of 2015. Commodity price developments have led to a considerable redistribution of income between countries exporting and importing these goods. Other factors equally relevant to mixed developments in world growth include the maintenance of accommodative monetary policies and a loosening of fiscal policies in developed countries, as well as macroeconomic imbalances and political instability in a number of commodity exporting economies, in particular Brazil and Russia.

In this context, indicators of inflation expectations have followed a decreasing trend, at a global level.

### The recovery in economic activity has become more broad-based across euro area countries

In the first half of 2015, economic activity in the euro area was characterised by a continued acceleration, which has become more broad-based across Economic and Monetary Union countries. This took place against a background of uncertainty about the financial

situation in Greece, culminating in the conclusion of a third financial assistance programme on 14 August 2015.[2] As with other advanced economies, commodity price developments and the European Central Bank's (ECB) accommodative monetary policy have contributed to these more favourable developments in euro area activity. The implementation of the ECB's expanded asset purchase programme (APP) also played a relevant role in this context.

According to the European Commission projections, the euro area is expected to grow by 1.6 per cent in 2015 and 1.8 per cent in 2016, with the activity being expected to continue to accelerate for most countries using the single currency.

## Stock market indices have declined substantially at international level, within a context of low bond yields

Amid less favourable prospects for overall economic activity, stock market indices declined, at first only in emerging market and developing economies (most notably in China) and subsequently in advanced economies (Chart 1). Furthermore, volatility indicators for the stock market have peaked since 2011, while some risk aversion indicators reached levels nearing financial stress at the end of August, subsequently remaining at high levels (Chart 2). This increase in market tensions extended to the foreign exchange market, with a marked depreciation in emerging country currencies and an appreciation, in effective terms, in major currencies since April (US dollar, euro and yen) (Chart 3).

The slow pace of economic growth and low inflation, actual and expected, have contributed to the maintenance of very low bond yields, particularly in the case of the euro area. There were also periods of some volatility in these markets, amid a reduction in market liquidity (these developments are further analysed in Chapter 2).

The spread on sovereign debt yields between euro area countries most affected by the crisis and Germany was relatively stable during the year (Chart 4). There was a one-off widening of this spread during the course of the negotiations leading to a new adjustment programme for Greece. However, contagion to debt in other euro area countries was relatively subdued, benefiting from both the implementation of the ECB's expanded asset purchase programme and market perceptions of lower structural imbalances in such countries.

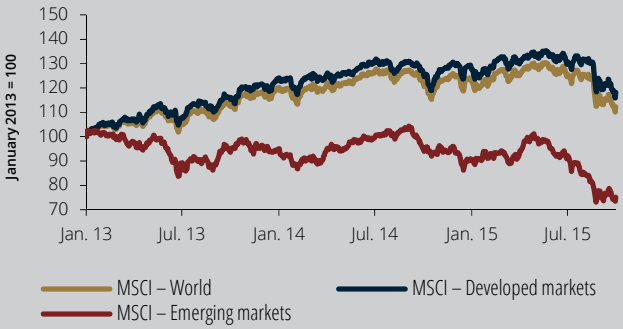
## Central banks in advanced economies have maintained accommodative monetary policies

In the euro area, the ECB has maintained the interest rate on refinancing operations at 0.05 per cent, the rate on the marginal lending facility at 0.3 per cent and the rate on the deposit facility at -0.2 per cent (Chart 5). Concurrently, the ECB proceeded with the implementation of the expanded asset purchase programme which started in March. Amid downside risks to the acceleration in economic activity and low inflation levels (actual and expected), expectations about a reinforcement of the aforementioned programme have risen.

In contrast, there have been expectations that a cycle of rising key interest rates will start soon in the United States and the United Kingdom, more immediately in the case of the US Federal Reserve. However, increased uncertainty about the global economic environment has contributed to a continued postponement of the expected timing of the first interest rate increase.

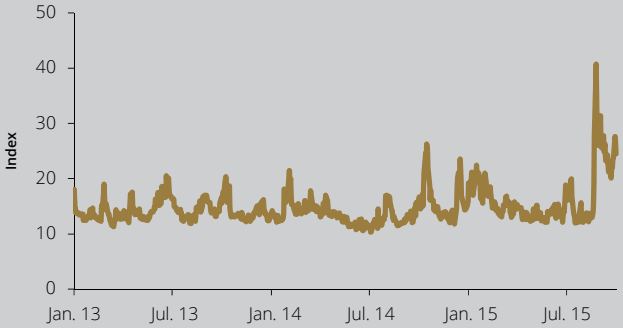
In China, amid a confirmed economic deceleration and stock market turmoil, the central bank lowered its key interest rates and rates on minimum reserve requirements. Furthermore, in August, the Chinese authorities introduced unexpected changes in their foreign exchange policy, with the renminbi depreciating significantly (Chart 6).

**Chart 1** • Stock market indices



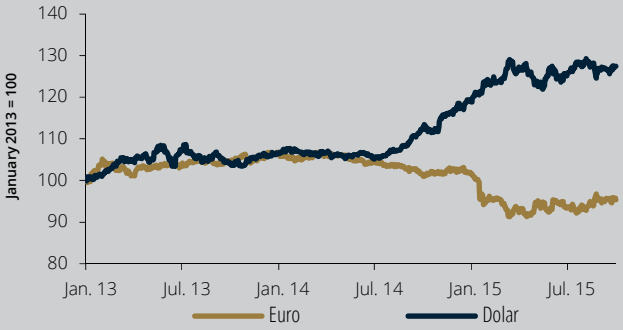

Source: Bloomberg.

**Chart 2** • Volatility index – VIX



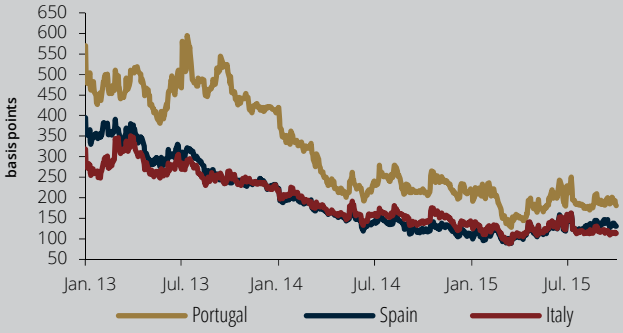

Source: Bloomberg.
Note: The volatility index (VIX) measures the volatility implied by the prices of eight S&P500 index put and call options.

**Chart 3** • Euro and US dollar effective exchange rates



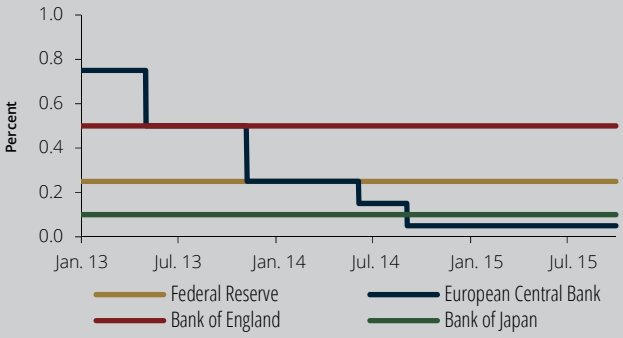

Source: Bloomberg.

**Chart 4** • 10 year sovereign bond yields | Spreads vis-à-vis Germany



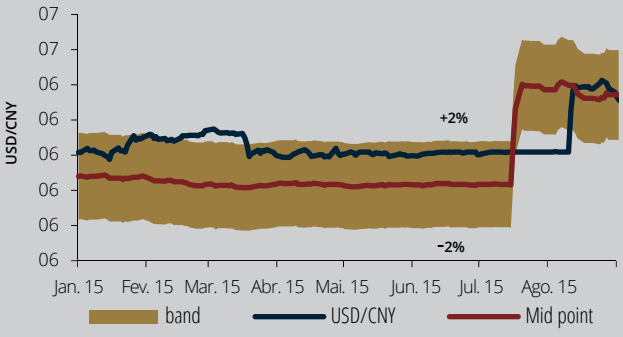

Source: Bloomberg.

**Chart 5** • Official central bank interest rates




Source: Bloomberg.

**Chart 6** • Renminbi exchange rate (CNY)




Source: Bloomberg.

## Chiefly sustained by external demand, the pace of growth in the Portuguese economy has increased, exceeding the euro area average

Since the second half of 2014, GDP in Portugal has converged in real terms towards the euro area average, with Portuguese GDP growth slightly exceeding the average for the euro area.

Following 0.9 per cent growth in 2014, the Portuguese economy was more buoyant in the first half of 2015, with GDP increasing by 1.6 per cent, year-on-year (Table 2).[3] Despite these positive developments, nominal GDP and GDP per capita remain at levels below those seen prior to the international financial crisis.

This acceleration in activity in the first half of the year was primarily due to developments in Portuguese exports, which increased by 7.2 per cent, year-on-year. Exports have largely benefited from developments in external demand for Portuguese goods and services, which increased by 5 per cent in the first six months of 2015 (compared with 4.7 per cent in 2014).[4] This momentum was associated with a substantial upturn in the economies of major trade partners of the euro area, particularly Spain, France and Italy. Conversely, the evolution of exports were conditioned by developments in the Angolan economy, which is expected to decelerate further in 2015, in a context of the fall in oil prices. However, exports to non-euro area countries have benefited from the euro depreciation, as well as increased external demand from a number of significant trade partners, particularly the United Kingdom and the United States. Domestic demand has also contributed to an increase in GDP growth, driven by private consumption and gross fixed capital formation.

Private consumption growth (2.8 year-on-year, compared with 2.2 per cent in 2014 as a whole) was associated with an improvement in the outlook for developments in permanent household income, in a context of favourable monetary and financial conditions. Against this background, household debt servicing has declined, stemming from a decrease in household debt and historically low interest rates. The momentum in private consumption has particularly benefited from labour market developments, which were characterised by a decrease in the unemployment rate, an increase in employment, and a slight improvement in wages. The unemployment rate stood at 12.8 per cent in the first half of 2015, that is, 1.7 percentage points less than in the first half of 2014, amid a reduction in the labour force. Despite this decrease, the share of unemployed persons remains historically high, compounded by the existence of high long-term unemployment.

Following a substantial fall in investment, against a background of the global and euro area sovereign debt crises, this aggregate grew further in 2014 and the first half of 2015. In the latter period, gross fixed capital formation (GFCF) grew by 6.9 per cent, compared with 2.8 per cent growth in 2014. This pace of GFCF growth reflects strong growth in machinery and equipment and in transport equipment and some recovery in construction investment, which had been falling since 2007.

In 2015 the Portuguese economy is expected to grow by 1.7 per cent, driven by exports, which will likely increase by 6.1 per cent, and GFCF, which is projected to grow by 6.2 per cent (October 2015 issue of Banco de Portugal's Economic Bulletin).[5] The current and capital account balance is expected to stand at 2.3 per cent of GDP in 2015.

**Table 2** • Projections of Banco de Portugal | Annual rate of change, per cent

| | Weights 2014 | 2014 | 2015[P] |
|---|---|---|---|
| Gross domestic product | 100.0 | 0.9 | 1.7 |
| Private Consumption | 65.9 | 2.2 | 2.6 |
| Public Consumption | 18.5 | -0.5 | 0.1 |
| Gross Fixed Capital Formation | 14.9 | 2.8 | 6.2 |
| Domestic Demand | 99.6 | 2.2 | 2.5 |
| Exports | 40.0 | 3.9 | 6.1 |
| Imports | 39.7 | 7.2 | 7.9 |
| Contribution to GDP growth (in p.p.) | | | |
| Domestic Demand | | 2.2 | 2.6 |
| Exports | | 1.6 | 2.5 |
| Imports | | -2.9 | -3.4 |
| Current plus Capital Account (% GDP) | | 2.0 | 2.3 |
| Trade Balance (% GDP) | | 1.3 | 1.7 |
| Harmonised Index of Consumer Prices | | -0.2 | 0.5 |

Sources: INE and Banco de Portugal.

Notes: p – projected. Annual figures correspond to average annual rates of change. For each aggregate, this table shows the projection corresponding to the most likely value, conditional on the set of assumptions considered.

## Financial market developments in Portugal were in line with other euro area countries

Since the beginning of the year, Portuguese financial markets have registered similar developments to other euro area countries most affected by the crisis, amid some temporary tensions associated with increased uncertainty about the financial situation in Greece (Chart 7).

PSI-20 recorded a marked loss from May 2015 onwards, chiefly due to external developments, particularly the economic and financial situation in China (Chart 8). Furthermore, the Portuguese financial sector was penalised by uncertainty about the sale by the Resolution Fund of the stake in Novo Banco, due to which the sector underperformed its European counterparts. More specifically, BPI shares also took a hit from the withdrawal of a takeover bid by CaixaBank for BPI, while BCP shares devalued, amid concerns over higher costs with Polish activity (Section 1.3.1).

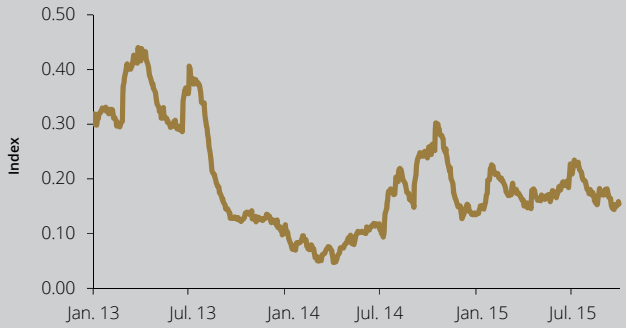
Portuguese government bond yields in the secondary market have remained relatively stable, posting a single and muted increase, stemming from the period of instability associated with Greece (Chart 9). It is worth noting that trading volumes declined, although the bid-offer spread has remained relatively low.

In terms of sovereign debt credit risk assessment, in September Standard & Poor's revised Portugal's rating up from 'BB' to 'BB+' with a stable outlook, while Fitch confirmed the rating 'BB+' with a positive outlook. Moody's continues to assign the rating 'Ba1' with a stable outlook. On 13 November, DBRS maintained the Portuguese Republic credit rating in 'BBBl', with a stable outlook.

Regarding the issuance of debt securities by resident entities, there was a broad-based decrease between the beginning of the year and August, both for financial and non-financial institutions, as well as general government (Chart 10). This reduction was particularly significant in the case of issuance by non-monetary financial institutions as of mid-2015, stemming from an increase in financing through debt securities for firms within the same group.

Government debt issues (via auctions or syndicated) have posted favourable results, and financing costs have decreased overall. Special mention should be made to the increase in longer-term issues (7, 10, 15 and 30 years). For syndicated issues, demand remained diversified, both by type of investor and region of origin. Between 80 and 90 per cent of issues were placed with foreign investors. Asset managers and banks bought, respectively, 45 to 50 per cent and 35 to 42 per cent of issues. In terms of public debt management, borrowing needs for 2015 were fully met, and the Portuguese Treasury and Debt Management Agency has already started pre-financing for 2016. Also noteworthy is the early repayment of instalments of the loan (8.4 billion euros, amounting to 28.7 per cent of the total) received from the IMF under the economic and financial assistance programme (EFAP).

**Chart 7** • Composite indicator of financial stress for Portugal




Source: Banco de Portugal.

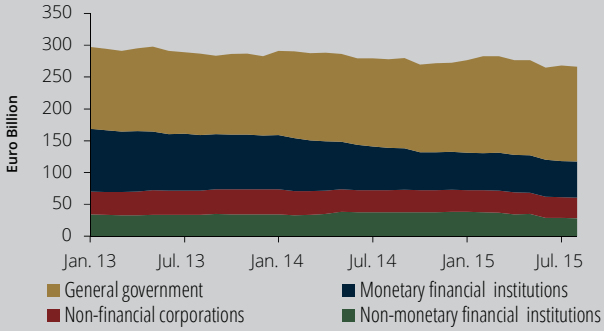
**Chart 8** • Portuguese equity indices


Source: Bloomberg.

**Chart 9** • Portuguese sovereign debt yields


Source: Bloomberg.

**Chart 10** • Securities issued by residents (outstanding amount)




Source: Banco de Portugal.

## 1.2. Financial position of non-financial sectors

### In the first half of 2015 household debt continued to decline

Net repayments of household debt continued over the first half of 2015, with debt level representing 85 per cent of GDP at the end of June (123 per cent of disposable income in the same period) (Charts 11 and 12). Since the deleverage process started in 2012, household debt has declined by around 9 percentage points of GDP. Nevertheless, it continues to be among the highest in the euro area, in spite of high heterogeneity at this level.

Despite the important reduction seen in past years, the high level of household debt continues to be a significant vulnerability for financial stability, as shown in previous issues of the Financial Stability Report. However, this debt is largely associated to home loans, chiefly intended for permanently owner-occupied housing, which is generally associated with a low default probability. These loans are mostly agreed at a variable rate (with fixed spreads). Against the background of a money market interest rate decline to very low levels, there has been a significant decrease in the interest burden of Portuguese households. This decline in loan payment amounts has also contributed to maintaining a low default rate in this market segment. In June 2015 the ratio

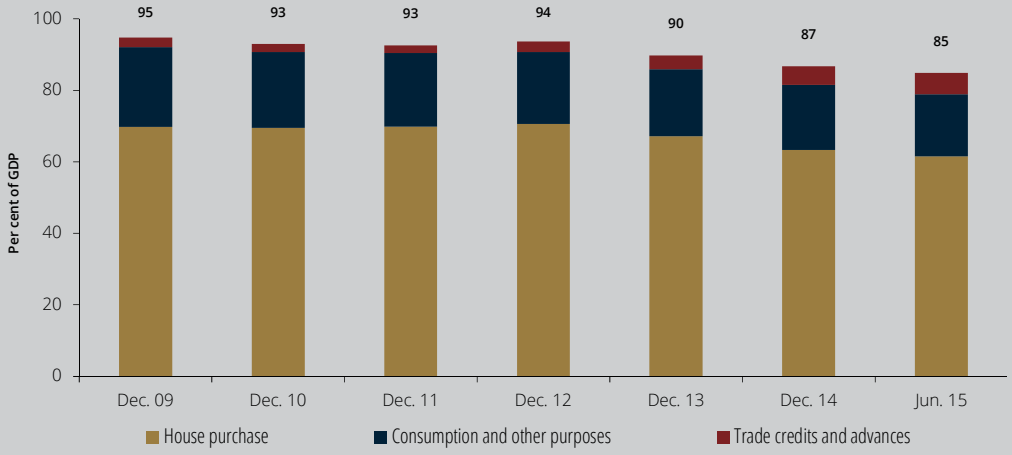



**Chart 11 •** Household debt | End of period outstanding amounts

Source: Statistics Portugal and Banco de Portugal.
Note: Consolidated figures.

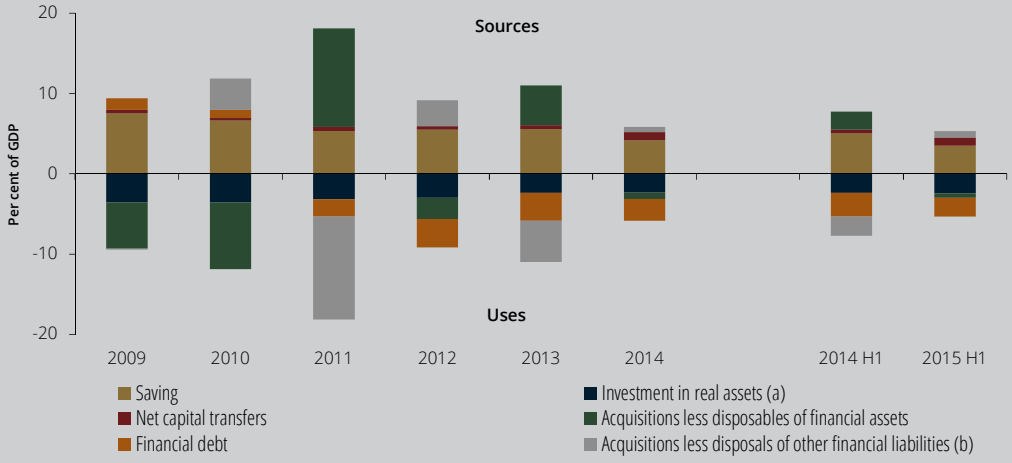



**Chart 12 •** Sources and uses of funds by households

Source: Statistics Portugal and Banco de Portugal.
Notes: Semiannual values equal year ending each June and are based on quarterly national accounts. (a) Corresponds to the sum of gross fixed capital formation, changes in inventories, acquisitions less disposals of valuables and acquisitions less disposals of non-produced non-financial assets. (b) Includes other debits and credits.

of non-performing loans stood at 2.9 per cent of total loans granted for house purchase. The percentage of debtors with instalments overdue was 6.6 per cent.[6]

A reversal of the current trend of interest rates will probably occur when economic recovery in the euro area strengthens and the inflation trend is consistent with the ECB's price stability objective, then affecting the debt burden supported by households. In view of the greater effort with the debt burden, the sustainability of household debt may imply higher pressure on households' decisions regarding the allocation of resources.[7] In this context, it is important that the downward trend of household debt continues.

## Household net lending position decreased in the first half of 2015, reflecting a decline in the savings rate

In the 12-month period to June 2015, household net lending was 2.1 per cent of GDP (3.0 per cent of disposable income), compared with 3.2 and 2.9 in June and December 2014 respectively. In a context of stabilising investment of the sector, these developments reflect the maintenance of a downward trend in the savings rate, which stood at 5.0 per cent of disposable income in the 12-month period ended in June. The level of the savings rate in Portugal is well below the euro area average, and has kept a fairly constant differential of around five percentage points of disposable income over the last decade.

Amid moderate growth of disposable income, the rise in consumer confidence has reflected a recovery of private consumption and, as a result, a decline in the savings rate. Particularly relevant was growth in consumption of durable goods, following a strong fall in previous years. This recovery has been accompanied by significant growth in the flow of new loans for consumption, with emphasis on those for car purchase. The annual rate of change of consumer credit, which had been recording negative values since the last quarter of 2010, reversed that trend in May 2015. In August 2015 the annual rate of change of the stock stood at 2.8 per cent, still well below that observed in the period prior to the financial crisis, in terms of both the amount outstanding and the rate of change.

During the Economic and Financial Assistance Programme (EFAP), the ratio of the flow of new bank loans for car purchase to consumption expenditure of durable goods decreased, and is gradually returning to its 2010 level, in tandem with the recovery of economic activity (Chart 13).

In this context, evidence seems to point to developments in consumer credit being consistent with the current environment. However, a sustainable trend must be maintained. For this purpose, developments in consumer credit must continue to be monitored, in the framework of financial stability, taking into account the continued high levels of household leverage.

Furthermore, non-performing loans in the segment of loans to households for consumption and other purposes represented 14.9 per cent of credit granted in June 2015, while 16.7 per cent corresponded to the percentage of debtors with non-performing loans, which corresponds to an increase from the end of 2014 (of 0.5 and 0.3 percentage points respectively).

## Net repayments of loans for house purchase continued in the first half of 2015, in spite of a recovery in new loans

The annual rate of change of the stock of bank loans for house purchase remained negative, at around 3.5 per cent (-3.8 per cent in December 2014), reflecting continued net repayments of those loans. The flow of new loans, however, increased significantly over the first half of the year. Against a background of improved consumer confidence, low interest rates and improved housing market prospects, demand for loans has also recovered in

this market segment. In the 12-month period to June 2015, housing prices grew by 2.7 per cent, and transactions rose by around 16 per cent, when compared with the same period of 2014.

According to the Bank Lending Survey, supply conditions, notably spreads for medium-risk loans for house purchase, have eased since mid-2013.[8] Demand has also increased, chiefly reflecting favourable prospects for the housing market.

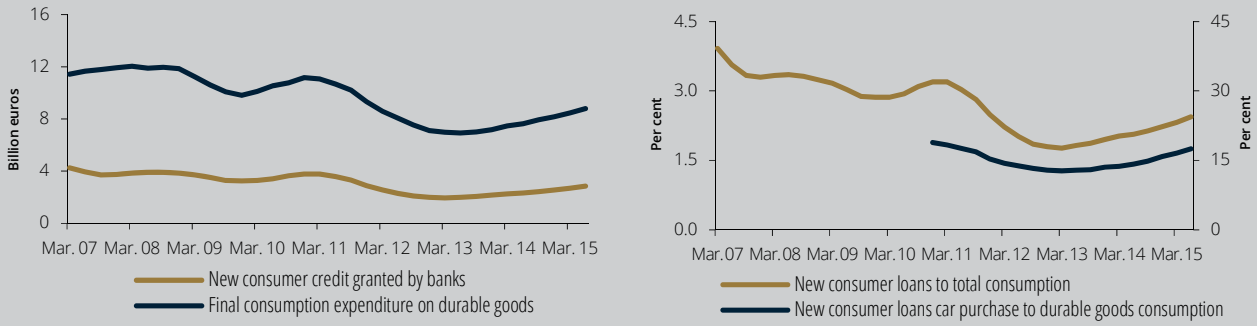
At least until the end of 2014, the loan-to-value (LTV) ratio evolved in the opposite direction, according to the sample results of outstanding housing loan agreements signed by the eight main banking groups at the end of 2014. According to the sample used,[9] the average LTV at the time of entering into the agreement has been declining since 1999, a trend that has been more marked in the context of the financial crisis. As regards contracts agreed in 2014, the average LTV was set at approximately 70 per cent. At the end of that year, almost 65 per cent of outstanding loans had an LTV lower than or equal to 80 per cent, whereas 25 per cent of the loans had an LTV between 90 and 100 per cent.

Likewise, the loan-to-income (LTI) ratio at the time of entering into the agreement has followed a downward path since its peak in 2005. In 2014 the average LTI in the sample considered was close to 3.5, while around 30 per cent of the loans had an LTI above 4.

## During the first half of 2015, the reorganisation of the household financial assets portfolio continued

The reorganisation of the household financial assets portfolio observed in 2014 (towards capital-guaranteed assets) continued in the first half of 2015. Net purchases of savings and Treasury certificates (3.3 per cent of GDP in the 12-month period ended in June) and the collection of deposits (2.0 per cent of GDP) continued, as well as disinvestment in debt securities issued by financial corporations (1.8 per cent of GDP), from abroad (1.5 per cent of GDP) and by non-financial corporations (0.5 per cent of GDP) (Chart 14). In this period, the value of net transactions of financial assets was virtually nil.

**Chart 13** • Private consumption and new bank lending to consumption




Source: Statistics Portugal and Banco de Portugal.
Notes: Quarterly values equal year ending on each month figures. The series on new loans for car purchase has been available since 2010.

## The deleveraging of non-financial corporations decelerated during the first half of 2015, chiefly reflecting GDP growth

Total debt of non-financial corporations declined by 1 percentage point to 115 per cent of GDP from end 2014, and continued to be among the highest in the euro area. This has chiefly reflected GDP growth, which has countered the positive marginal change of financing obtained by non-financial corporations. Net repayments of bank loans observed successively during 2014 did not continue in the first half of 2015, which has curtailed the reversal of the high leverage levels and their potential contribution to financial stability.

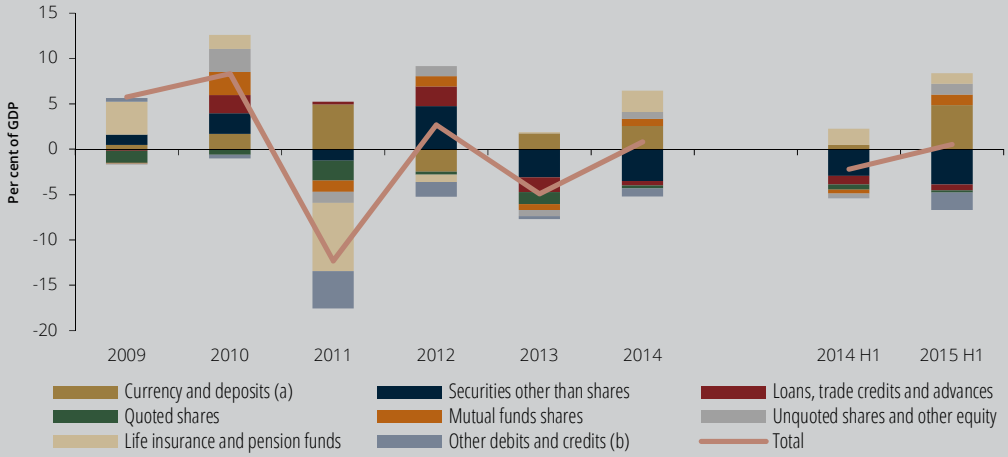
Nonetheless, compared to the peak reached in the first quarter of 2013, total debt of non-financial corporations declined by 14 percentage points of GDP (Chart 15). This has occurred in a framework of improved economic performance of non-financial corporations, favouring the gradual generation of resources by this sector.

The net lending position of non-financial corporations stood at 0.5 per cent of GDP in the 12-month period to June 2015, i.e. 0.6 percentage points below that observed in the same period of 2014. Savings by non-financial corporations remained stable, as well as the respective investment rate. The change in net lending was mainly due to the 0.7 percentage point of GDP decline in capital transfers received, in year-on-year terms.[10] In spite of the relative stability of the investment rate, it reflects investment values above the trough observed in late 2013. This recovery, although not yet enough to reach the investment values observed before 2012, is associated with higher economic buoyancy and growing expectations of stabilisation and / or recovery of corporate activity.

In the first half of 2015, net transactions of non-financial corporations' financial assets represented around 0.5 per cent of GDP (Chart 16). In June 2015, the stock of deposits was the same as that observed in early 2011 (approximately 19 per cent of GDP), loans granted by non-financial corporations were at their peak (19 per cent of GDP) and the value of unlisted shares held was higher than that observed before the financial crisis, but close to the level at the end of 2014 (around 17 per cent of GDP).

The use of corporations' financial resources to fund other corporations (inside or outside the group) increased during the EFAP. In effect, the channelling of funds by participating and participated corporations contributed, together with the rise in corporations' share capital, to a financing structure more based on shareholders[11].

**Chart 14 • Households' financial assets | Transactions**




Source : Statistics Portugal and Banco de Portugal.
Notes: Consolidated figures. Semiannual figures equal year ending each June and are based on quarterly national accounts.
(a) It includes saving and Treasury certificates.
(b) Includes non-life insurance technical reserves, provisions for standard activated guarantees and other accounts receivable / payable.

However, the growing contribution of shareholders' participation through direct financing to corporations, to the detriment of capital, does not make it possible, per se, to improve the strength of the financial structure of corporations whose own capital ratios continue to be low.

Efficient allocation of financial resources, in a context of easing access to credit, will be fundamental to an appropriate and still necessary deleveraging of non-financial corporations

In the first half of 2015, the annual rate of change of loans granted by resident financial institutions to non-financial corporations was virtually nil, reversing the cycle of negative changes started in 2011.[12] In turn, and considering also the contribution of non-resident entities, there was an increase in loans to non-financial corporations (1.6 percentage points), with a special reference to the positive change in large firms (1.6 per cent in June 2015, compared to 6.6 per cent in the same period the year before) and the smaller decline in loans to small and medium-sized enterprises.[13]

The easing in access to loans by non-financial corporations in the first half of 2015 is

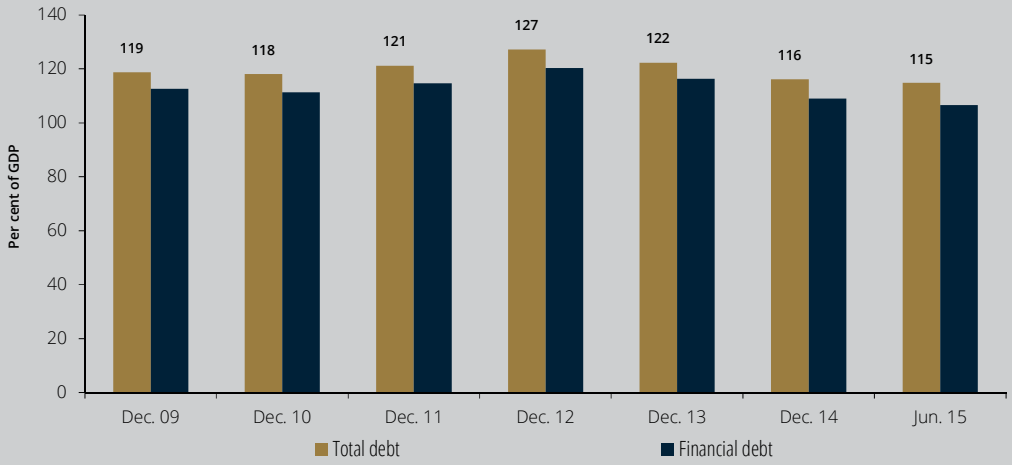



**Chart 15 •** Non financial corporations debt | End of period stocks

Source: Banco de Portugal.
Notes: Consolidated values. Financial debt = loans + securities other than shares. Total debt = loans + securities other than shares + trade credits and advances.

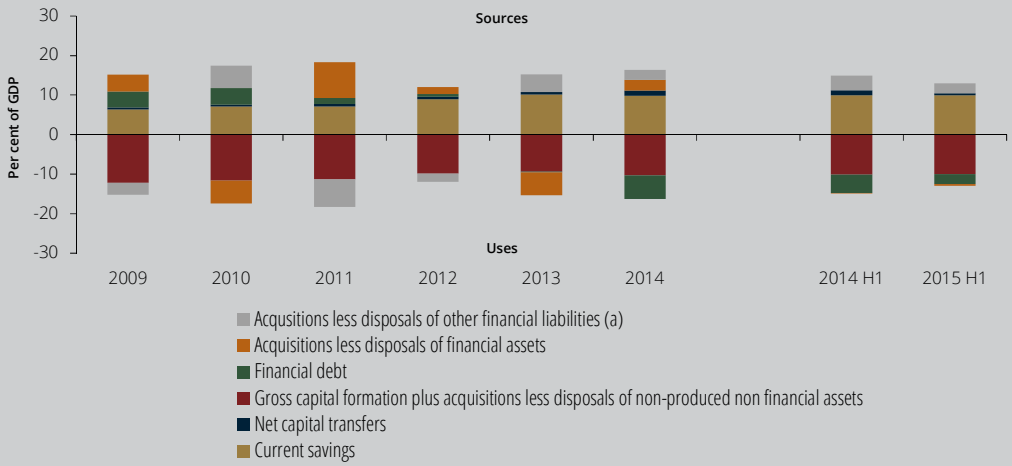



**Chart 16 •** Non-financial corporations' financial liabilities | Transactions

Source: INE and Banco de Portugal.
Notes: Consolidated values. Semiannual values equal year ending each June and are based on quarterly national accounts. (a) Adjusted from discrepancies arising in net lending from different methodological definitions in National financial and non-financial accounts.

reflected in the development of the interest rate in new loans, whose negative change is broadly based across the different enterprise sizes, as well as in most activity sectors. In parallel with the decline in interest rates for new businesses, there is a fall in the spreads of new loans, despite remaining at higher levels than those observed in the pre-EFAP period.

According to the October 2015 Bank Lending Survey, the factors that have contributed to the easing of loans to non-financial corporations are increased competition among the different financial institutions, more favourable banks' perception of some corporations or activity sectors, better prospects regarding the funding of financial institutions, and the ECB's non-standard policies.[14] These effects are considered especially relevant in loans granted to small and medium-sized enterprises, as well as loans with longer maturities.

Given the still high indebtedness of non-financial corporations, in order to preserve financial stability it is vital that the allocation of new loans is based on risk criteria related to projects' capability to generate sustainable future income, instead of just the collateral value.

As detailed in the October issue of the Economic Bulletin of Banco de Portugal, the provision of credit has favoured corporations with lower default risk: when considering a model to rank corporations' individual risk, it may be concluded that, in the recent period, the 50 per cent of the corporations with lower risk of non-performing loans are those that benefit from the rise in loans granted, as opposed to the decline in loans to the remaining corporations.[15]

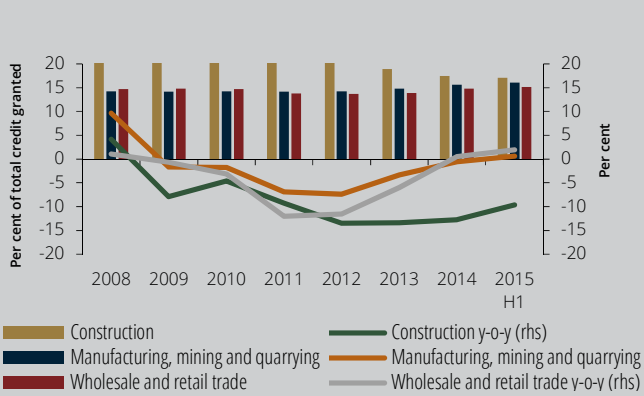
When considering the activity sectors to which the banking sector is most exposed,[16] the corporations in the sectors with current higher return are those receiving more loans (Chart 17 and 18): industry (annual rate of change of 2.6 per cent in June 2015) and trade (annual rate of change of 5.0 per cent). Credit to the construction sector has been evolving in the opposite direction (-4.1 per cent in June 2015).[17] Therefore, the shift in the financial institutions' credit portfolio seems to promote greater allocation of funds to corporations in activity sectors with a higher capacity to generate return. However, a growing number of corporations point to the (lack of) return of the projects as the main factor limiting investment in the different activity sectors.[18]

Also worthy of mention is the annual rate of change of loans to exporting enterprises, which reached 3.4 per cent in June 2015. These

**Chart 17** • Non financial corporations' differential on return on assets and implicit interest rate


Source: Banco de Portugal.
Notes: End of year figures and extrapolated half-year values. The differential presented is the difference between the return on assets (EBITDA / (equity + obtained funding)) and the implicit interest rate (interest expenses /obtained funding).

**Chart 18** • Weigh and year-on-year growth of credit granted by resident financial institutions to the construction, industry and wholesale and retail trade sectors




Source: Banco de Portugal.
Notes: Data available from Central credit register.

enterprises present, on average, better activity and non-performing loan indicators than non-exporting enterprises.[19]

## Non-performing loans of non-financial corporations continue to increase, with emphasis on the high share of exposures overdue for more than two years

Even though the total number of corporations with non-performing loans has declined in year-on-year terms, corporations' non-performing loan ratio rose by 1.6 percentage points between the first half of 2014 and the first half of 2015, reaching a peak and countering the drop observed at the end of 2014. In addition, and with the exception of accommodation and food service activities, the non-performing loan ratios in the activity sectors to which the banking sector is more exposed increased in year-on-year terms, in contrast with the more favourable development of the financial performance ratios in those sectors.

The persisting high levels of non-performing loans may reduce financial institutions' capacity to grant new loans to corporations. It is worth mentioning the high level of exposures overdue for more than two years as a proportion of total non-performing loans of credit institutions, which has increased since the start of the EFAP (Chart 19). Since the continued situation of default for longer periods imply, in general, that financial institutions are less able to recover credit, the swift resolution of these cases or the taking over of losses and their subsequent elimination from credit institutions' balance sheets would allow for an improvement in balance sheet quality (for further information, see the Box on non-performing loans, in this Report).

## The general government deficit reached 4.7 per cent of GDP in the first half of 2015, maintaining its objective for the year as a whole at 2.7 per cent of GDP

According to National Quarterly Accounts published by Statistics Portugal, the general government deficit was 4.7 per cent of GDP in the first half of 2015, below the value recorded in the same period of 2014 (6.2 per cent of GDP). These developments are affected by

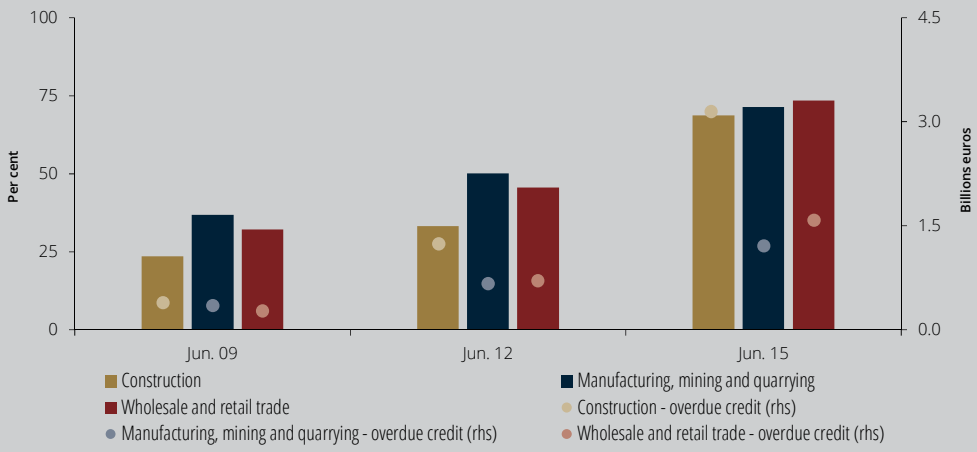



**Chart 19** • Credit in overdue status for more than 2 years to total overdue credit

Source: Banco de Portugal.
Notes: Data available from Central credit register. It does not include written-off loans.

temporary operations with a negative impact on the fiscal balance in both 2014 and 2015. Adjusted for these effects, the deficit would have improved from 4.7 to 4.4 per cent of GDP in the first half of 2015.[20]

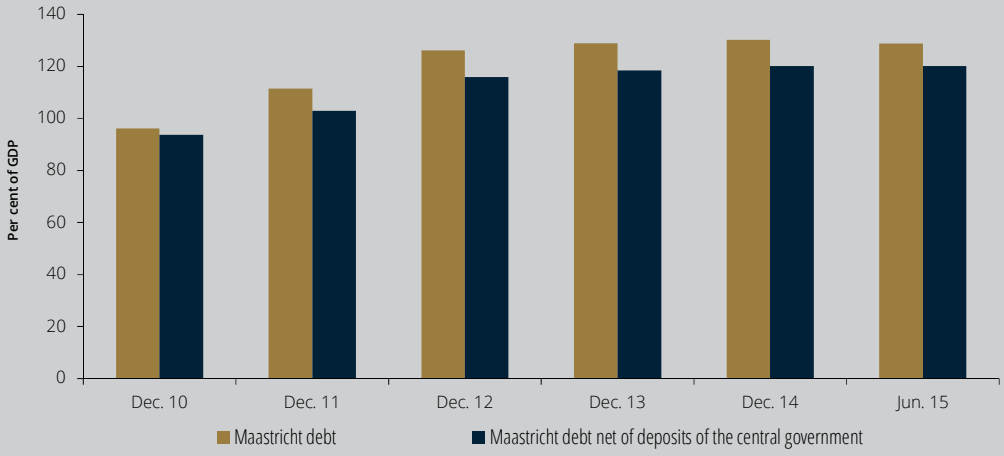
The slight improvement of the deficit was a result of rising general government revenue, which partly reflected the recovery of economic activity in this period. Total expenditure adjusted for the impact of temporary operations registered a 2.3 per cent increase in the first half of the year. In the year as a whole, official forecasts are of a 2.7 per cent of GDP deficit, as reiterated in the context of the September notification of the excessive deficit procedure. This result will be consistent with the closing of this procedure for Portugal. In the context of the European Union's fiscal rules, however, pursuing a sustained consolidation path of public finance consistent with convergence towards the medium-term objective still requires additional permanent fiscal measures in coming years.

In the first half of 2015, general government interest expenditure represented 4.6 per cent of GDP, i.e. slightly below the value for the same period of the previous year (4.8 per cent of GDP). Notwithstanding the high cost of Portuguese public debt as a percentage of GDP – among the highest in the euro area –, debt management by the Portuguese Treasury and Government Debt Agency has benefited from a context of historically low interest rates and has contributed to reducing the average cost and extending public debt maturities, while strengthening its sustainability.

At the end of June 2015, the public debt-GDP ratio attained 128.7 per cent, declining from the end of 2014 (130.2 per cent of GDP) (Chart 20). This was associated with a reduction in central government deposits. In effect, excluding central government deposits, general government debt stood at 120.0 per cent of GDP in June, remaining virtually unchanged from December 2014. Considering the high public debt stock, which is among the highest in the euro area, and the time profile of debt repayments, public debt refinancing capacity continued to be vulnerable in face of abrupt changes in market conditions. It is therefore essential that the fiscal consolidation process does not slow down and is supported by the adoption of structural reforms tending to increase general government efficiency.

**Chart 20 •** General government debt

Source: Statistics Portugal and Banco de Portugal.



## 1.3. Financial position of financial sectors

### 1.3.1. Banking sector

The deleveraging process in the banking sector continued over the first half of 2015, although at a slower pace

Banking sector's assets continued to follow a downward trend in the first half of 2015, although less markedly than in previous periods (semi-annual and year-on-year rates of change of -1.4 per cent and -5.8 per cent respectively) (Chart 21). This was observed in most of the sector's institutions, despite the contraction of assets being more considerable in medium-sized domestic banks and in the major non-domestic banks.[21] Since December 2010 the accumulated reduction in assets was approximately 20 per cent.

The evolution of net credit to customers (adjusted for securitisations) continued to make the highest contribution to the rate of change in assets, declining by around € 2.7 billion in the first half of the year (-1 per cent against December 2014 and -6.4 per cent year on year). This decline was more marked in net credit to residents, with credit to foreign counterparts increasing marginally. In year-on-year terms, there was a widespread reduction in the stock of credit in banks' balance sheets relating to the various segments of the resident private sector (Chart 22).

Although there was a negligible evolution in the portfolio of securities, derivatives and investments in the first half of 2015 (-1.9 per cent against December 2014), there was a 3.8 per cent decline (13.9 per cent year on year) in exposure to public debt securities and securities of other resident public issuers and a 15.3 per cent increase (year-on-year rate of change of 1.4 per cent) in the holding of public debt securities of non-residents (Chart 23). Overall, the Portuguese banking sector continued to be considerably exposed to (resident and non-resident) debt securities, with the portfolio accounting for 14 per cent of assets (of which around 74 per cent as public debt securities). In addition, average maturities in the public debt securities portfolio have been increasing, thus resulting in greater banking sector exposure to interest rate risk. Given low interest rates, a possible reversion in yields may have significant effects on the banking sector, as analysed in Chapter 2.

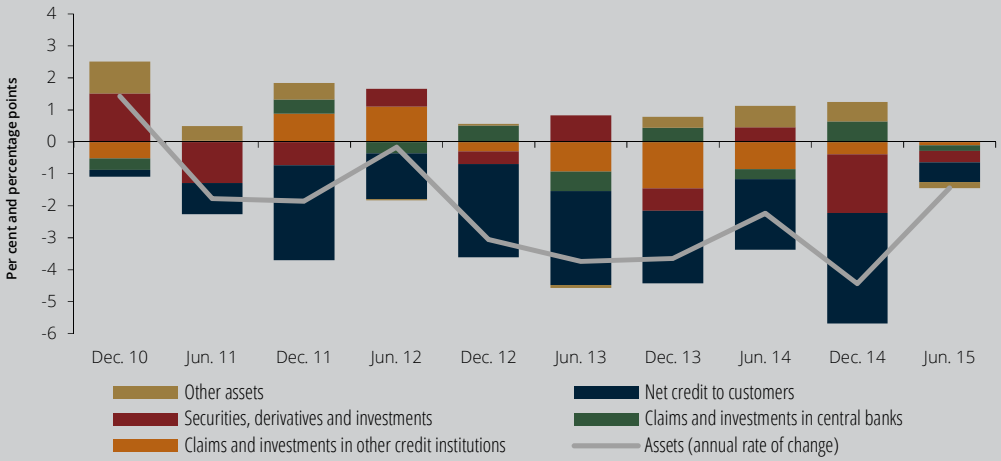



**Chart 21 •** Contributions to the annual change in assets

Source: Banco de Portugal.
Notes: Securities, derivatives and investments include financial assets at fair value through profit or loss, available for sale financial assets, investments held to maturity, investments in subsidiaries and hedge derivatives. Credit to customers is adjusted by securitisation operations.

## The banking sector's funding structure continued to adjust towards funding sources considered more stable, although a few challenges remain

In the first half of 2015 deposits (customer resources) continued to represent the main funding source of the banking system (around 60 per cent of liabilities in June 2015, compared to 56 per cent in June 2014). In domestic activity and in the same period, household deposits (including residents, non-residents and emigrants) increased markedly, by approximately € 4.1 billion, close to figures observed in 2011 (in parallel, there was a significant decline in holdings by households of debt securities issued by other monetary financial institutions; see Section 1.2.). In turn, deposits of non-monetary financial institutions declined by around € 2.2 billion. In total domestic activity, deposits rose by about € 800 million (Chart 24).

The loan-to-deposits ratio, measured by the net credit granted over customer resources in the banking sector, declined by 1.2 p.p. from December 2014, to 106 per cent (Chart 25). Similarly, the commercial gap (defined by the difference between these aggregates) narrowed

**Chart 22 •** Change in the credit portfolio (resident private sector)

Source: Banco de Portugal.
Note: Information from Instruction No 22/2011 of Banco de Portugal.

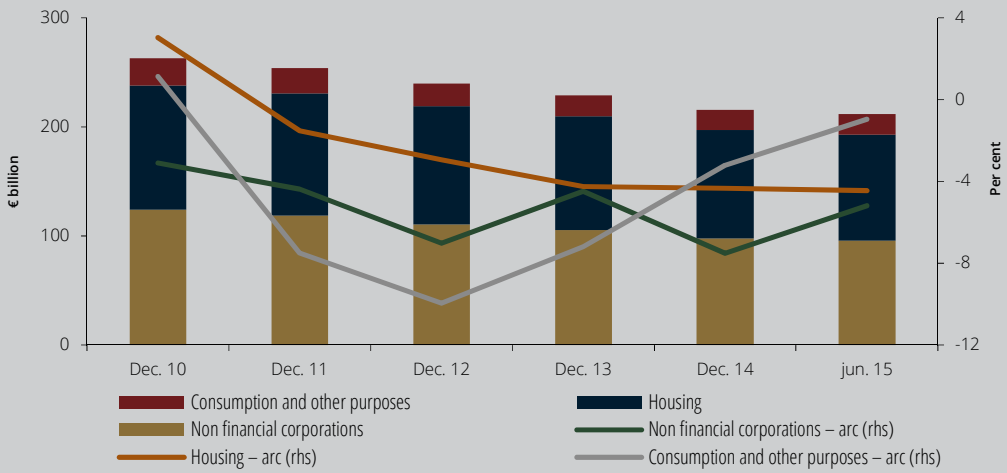
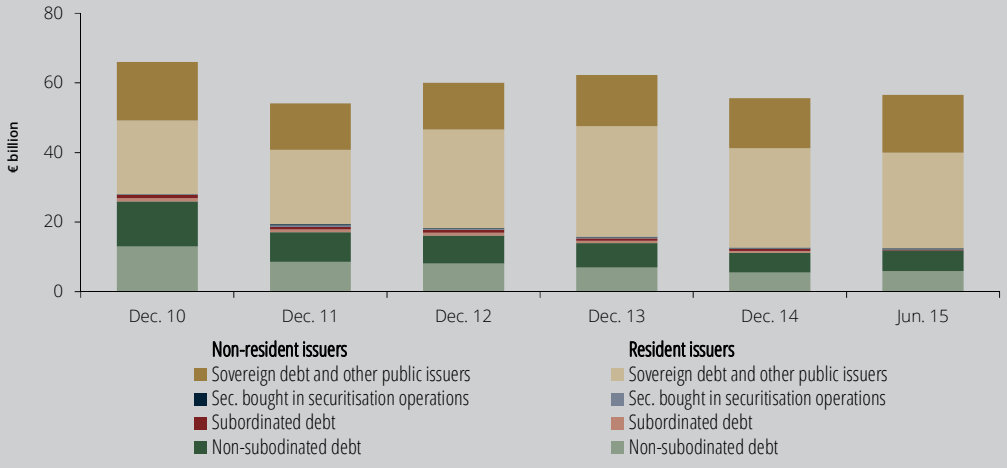



**Chart 23 •** Debt Securities Portfolio

Source: Banco de Portugal.
Note: Debt securities portfolio includes financial assets at fair value through profit or loss including derivatives for trading (net of financial liabilities held for trading), available for sale financial assets and investments held to maturity, net of hedge derivatives.



by € 2.9 billion, to stand at € 15.1 billion in June 2015 (9 per cent of GDP, compared to a historical high of about 80 per cent in 2010).

The banking sector's recourse to Eurosystem refinancing continued to follow a downward trend in the first half of 2015, declining by around € 3.5 billion over the semester (to € 27.7 billion). Since the peak observed in June 2012, of approximately € 60.5 billion, the accumulated reduction amounted to approximately € 32.8 billion.

In turn, funding through the interbank market (net of investments) increased in the same period by about € 900 million (2 per cent against December 2014). However, in year-on-year terms, the net balance of this funding source decreased, especially due to a decline in resources obtained from credit institutions abroad.

The weight of non-subordinated debt securities and subordinated liabilities in funding sources as a whole continued to decline. In June 2015 they stood at € 28.4 and € 5.5 billion respectively, falling by € 3.4 and € 0.4 billion over the semester and € 92.0 and € 5.5 billion since March 2010, when their joint balance reached a peak. This reduction may have been due to a series of factors, such as: the fragmentation of euro area financial markets, which significantly limited resident economic

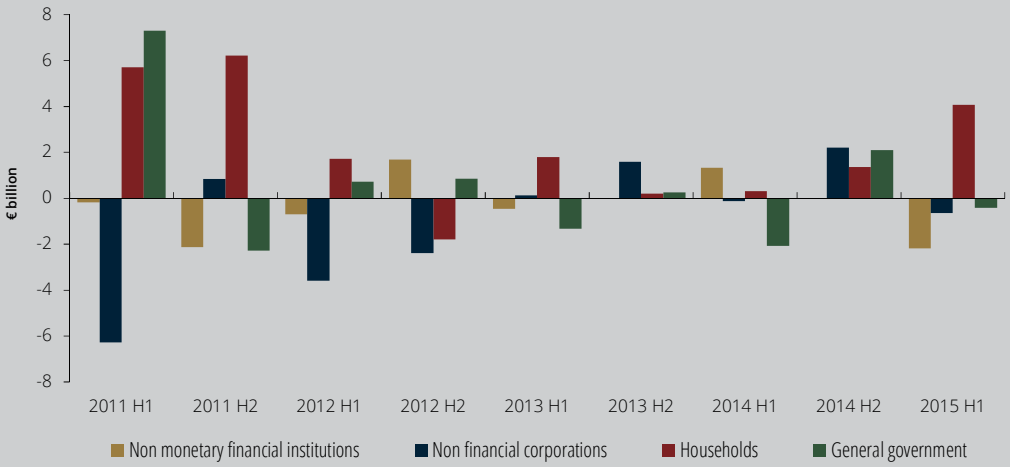
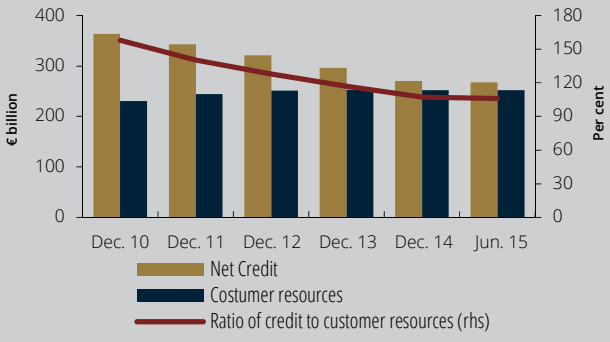



**Chart 24** • Customer resources taken in Portugal – semiannual change

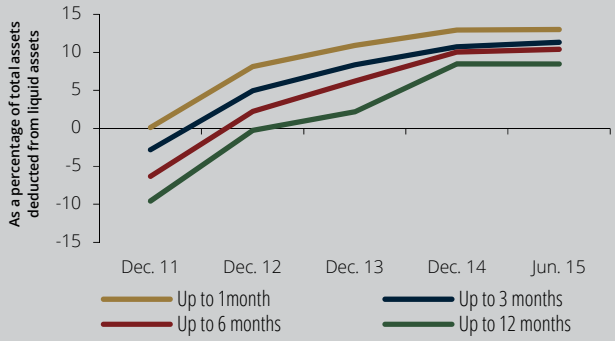
Source: Banco de Portugal.

**Chart 25** • Loan-to-deposits ratio




Source: Banco de Portugal.

**Chart 26** • Liquidity gaps in cumulative maturity ladders




Source: Banco de Portugal.
Note: Information from Instruction No 13/2009 of Banco de Portugal.

agents' access to external funding and still persists to some extent; the ensuing structural liquidity adjustment process, part of the EFAP's 'financial stability' pillar, reflected in the above-mentioned narrowing of the commercial gap; and the existence of other funding sources of a stable nature and with a comparatively more favourable cost, namely central bank funding.

The liquidity of banks can also be assessed by the liquidity gaps[22], which remained stable at comfortable levels in all maturities analysed, during the first half of 2015 (Chart 26). The trend of this indicator evidenced the sector's more balanced funding structure, considering the progressive adjustment between asset and liability maturities, notably in items with greater liquidity.

The evolution of the banks' funding structure has also been complying with prudential liquidity requirements. In particular, according to the results of the Bank Lending Survey released in October 2015, banks' participation in the ECB's non-standard measure programmes was chiefly motivated by the conditions offered and compliance with liquidity requirements.

The entry into force of the liquidity coverage ratio (LCR) required that from October 2015 onwards banks would hold a buffer of high-quality liquid assets to address the amount of net outflows of funds calculated by taking into account a stress situation over a 30-day period.[23] The ratio to be observed between these two aggregates is 60 per cent, with a period of transition to 100 per cent in full implementation by 1 January 2018. According to the results of the Quantitative Impact Study (QIS) promoted by the European Banking Authority (EBA) and the Basel Committee on Banking Supervision (BCBS) jointly with national supervisory authorities, participating Portuguese institutions have been following a convergence trend for compliance with the above requirement.

In addition to reinforcing the resilience of institutions to short-term liquidity shocks, the new regulatory framework envisages the introduction by 2018 of the net stable funding ratio (NSFR). This requirement aims at ensuring that institutions hold a stable funding amount that is sufficient to support their activities for a period of up to one year, in a context of normality and stress. Although no final calibration has yet been defined and it is still not a regulatory requirement, this ratio is also being monitored through the QIS. According to the most recent data, the largest Portuguese banks are already in a position of compliance of or convergence towards a minimum level of 100 per cent.

## Banking system's profitability returned to positive levels

In the first half of 2015 the banking system resumed positive profitability levels, which had not occurred since 2010. This was broadly based across the main banking groups.[24]

The return to profitability in year-on-year terms benefited from the contribution of a rise in net interest income, income from financial operations and a reduction in the flow of impairments for credit (Chart 27). Hence, the gross operating income was sufficient to meet the costs associated with impairment recognition. However, the downward trend of the weight of core income items – net interest income and commissions – in the generation of gross income is maintained, as opposed to a greater importance of income from financial operations, which is typically more volatile and extraordinary.

Rise in the net interest income was due to a reduction in interest expenses, in particular the cost of deposits, which more than offset the decline in interest received

The very sharp reduction in the average cost of deposits has been offsetting a decline in the average lending rate, namely in domestic operations, making it possible to reverse the negative effect that a reduction in the reference interest rate would have on the net interest income for Portuguese banks.[25] The trend of the average cost of deposits is part of a path towards normalisation vis-à-vis the historical highs reached during the sovereign debt crisis in the euro area, as a result of the liquidity pressure felt by the system. This path has benefited from a decline in the interest rates on new business and the maturity of operations contracted over that period.

Hence, the price effect remained overall positive as regards the interest rate margin in operations with customers (i.e. the differential between the headline credit rate and the headline remuneration rate paid by banks on deposits). However, the ongoing reduction in the credit portfolio (volume effect) continued to significantly hinder the margin of these operations.

The reduction in interest expenses was also due to a continued decline in the implied cost of market funding sources, notably interbank funding and central bank resources. The reduction in interest paid was also due to a decline in non-subordinated debt securities and subordinated liabilities, including the repayment of hybrid instruments purchased by the Portuguese State in the context of the recapitalisation process of a number of Portuguese banks.

In turn, the reduction in interest received from the securities portfolio was lower, year on year, essentially due to a decline in these assets' rates of return. This was partly accounted for by a decline in the implied profitability of Portuguese public debt, which is passed through to banks' balance sheets via the maturity of debt securities in portfolio and sales with subsequent purchases at lower yields. Interest received also fell because of the decline in the public debt securities portfolio compared with the same period in 2014.

## Income from financial operations accounted for approximately 20 per cent of gross income

Income from financial operations was chiefly accounted for by gains in the sale of public debt, in particular Portuguese government bonds. Despite declining year on year, these gains remained at historically high and unsustainable levels.

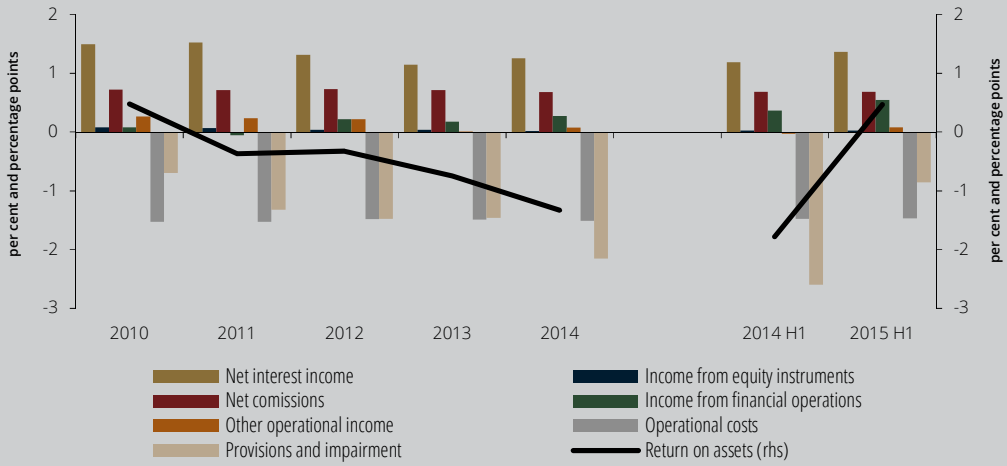



**Chart 27 • ROA decomposition**

Source: Banco de Portugal.
Note: Return on assets computed considering income before taxes and minority interests. Annualised figures.

The decrease in yields in the secondary market observed since mid-2013 has led to the accumulation of latent gains and the realisation of gains from the sale of public debt securities in the banks' portfolios. The persistence of yields at low levels will necessarily limit realisation of this type of income in the future.

## Impairment costs declined year on year, despite remaining at high levels

As already mentioned, the decline in the flow of impairments recognised by the banking system in the first half of the year, even excluding the impact of BES's results in June 2014, made a relevant contribution to the improvement in the system's profitability, reflecting a reduction in the loan loss charge (Chart 28). Nevertheless, the materialisation of the credit risk continued to hinder the banking sector's profitability, with impairment costs remaining at high levels.

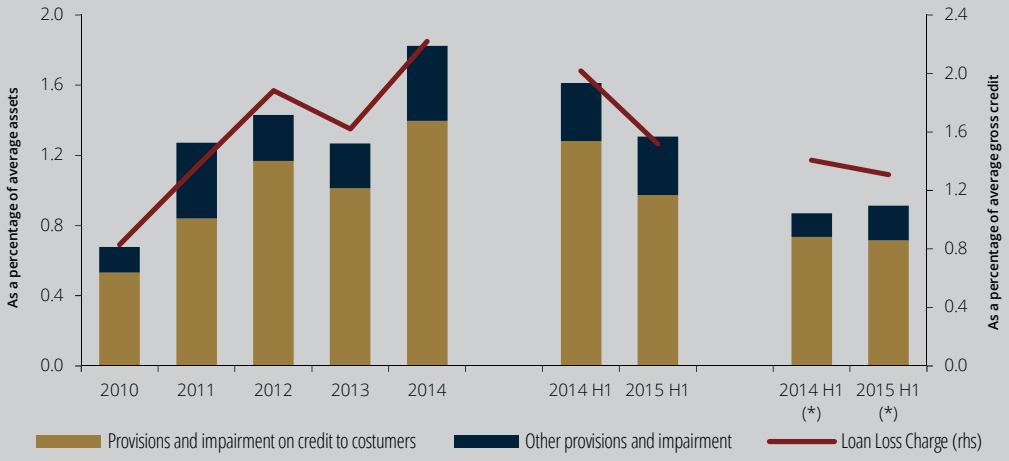
The impairment recognition process carried-out by the sector as a result of successive asset quality assessments by Banco de Portugal and the ECB is likely to contribute to a slowdown in the pace of provisioning needs in the future, insofar as expectations remain as to the macroeconomic scenario and other assumptions in the computation of expected losses.

## Developments in credit quality still do not reflect improvements in economic activity

The credit at risk ratio of the resident non-financial private sector worsened by about 1 percentage point compared with the end of 2014, standing at 13.8 per cent in June 2015. This was chiefly due to a rise in credit at risk, especially in the portfolio of credit to non-financial corporations (the considerable rise in default levels in banks' balance sheets and the respective determinants are analysed in detail in Box 1). The credit at risk coverage ratio for the same sector remained at levels similar to those of previous years (Chart 30).

Despite the improvement in economic activity, the evolution of the system's portfolio credit quality is expected to continue to be hindered by the still high indebtedness of the resident non-financial private sector and the typical lag of default levels vis-à-vis economic activity. In addition, the consolidation of the recovery of domestic economic activity is not yet broadly based nor is it significant to the various sectors

**Chart 28 • Impairment flow and loan loss charge**




Source: Banco de Portugal.
Note: The loan loss charge corresponds to credit impairments divided by average gross credit. Annualised figures.
(*) Excluding BES / Novo Banco.

of activity. As an illustration, reference should be made to the construction sector, given its share in the banks' credit portfolio: in the past few years this sector saw a considerable decline in activity, with gross value added (GVA) accounting at the end of 2014 for around half that recorded in 2008.

## The containment of costs by the Portuguese banking sector remains essential

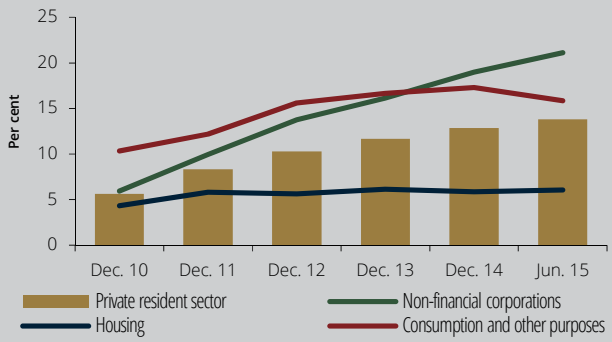
In view of the already described constraints to income generation and the instability of income from financial operations, banks have been seeking to raise operational efficiency in order to improve profitability levels in a sustainable manner. This notwithstanding, the improvement observed in the first half of this year in the cost-to-income ratio chiefly resulted from an increase in gross income. In domestic activity the main banks maintain a cost containment trend, persisting on an adjustment effort to boost income generated per unit of resources. In turn, the expansion of international activity translated into an increase in the associated operational costs.

In the current context, characterised, inter alia, by a slow recovery of economic activity and a gradual deleveraging process of the various economic sectors, it is key that the cost containment effort is reinforced, contributing to a sustained recovery of banking sector profitability.

## Recent developments in risk factors associated with international activity may have a negative and permanent impact on profitability

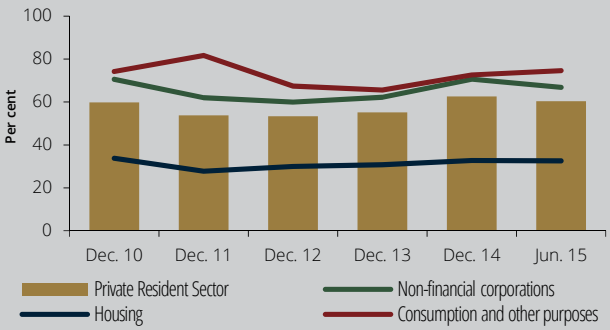
Some of the major banking groups continued to benefit from the contribution of international activity, especially as far as generation of net interest income and commissions is concerned. If, on the one hand, this corresponds to a geographical diversification of activity, on the other, it exposes banks to specific risks associated with economic activity in those regions. In this vein, the recent evolution of some of these risks – related to uncertainty in the legal framework – may have a negative and persisting impact on the future contribution of international activity to the Portuguese banking system's profitability, considering its present structure. An example of this is Banco BPI and the consequences on profitability of the measures needed to overcome

**Chart 29** • Credit at risk by segment




Source: Banco de Portugal.
Note: According to Instruction of Banco de Portugal No. 22/2011.

**Chart 30** • Credit at risk coverage ratio by segment




Source: Banco de Portugal.
Note: According to Instruction of Banco de Portugal No. 22/2011.

non-compliance with large exposure limits resulting from the exclusion of Angola from the list of third countries with supervisory and regulatory arrangements equivalent to those of the European Union. In the case of BCP's subsidiary in Poland, it is worth mentioning the consequences of a potential change in the legal framework stemming from the introduction of legislation governing the conversion of credit to households denominated in Swiss francs into domestic currency. This legislative proposal followed a decision by the Swiss central bank to discontinue the minimum exchange rate of the Swiss franc against the euro, which resulted in a significant appreciation of the Swiss currency against the Polish currency. The entry into force of the above-mentioned legislative amendment will imply the recognition of losses associated with loans to households granted in Swiss francs, with a consequent impact on solvency levels. However, the legal text has not yet been approved.

## The banking system reinforced solvency levels in the first half of 2015

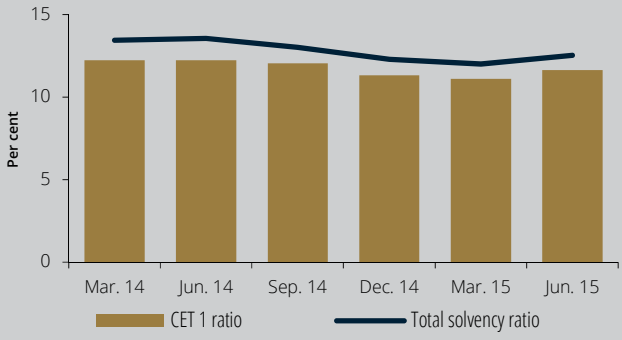
In the first six months of 2015 the banking system's Common Equity Tier 1 (*CET1*) ratio rose by around 0.3 percentage points to 11.6 per cent (Chart 31). The voluntary adoption by most large institutions of a special regime applicable to deferred tax assets (DTA) approved by Law No 61/2014 had a positive impact on the variation of own funds. This Law eliminated uncertainty regarding the recovery of certain DTA classes arising from temporary differences, these assets ceasing to depend on the future profitability of participating institutions. Hence, they are not deductible from Common Equity Tier 1 under European prudential regulation. In addition, capital increases by two larger institutions have also contributed to a rise in average regulatory capital ratios.

Risk-weighted assets (RWA) remained relatively stable due to a decline in exposures to credit risk, on the one hand, and the already mentioned exclusion of Angola from equivalence to European regulation and supervision, on the other.

Although there is some heterogeneity between solvency levels, all institutions reported a *CET1* ratio above 8 per cent (Chart 32).

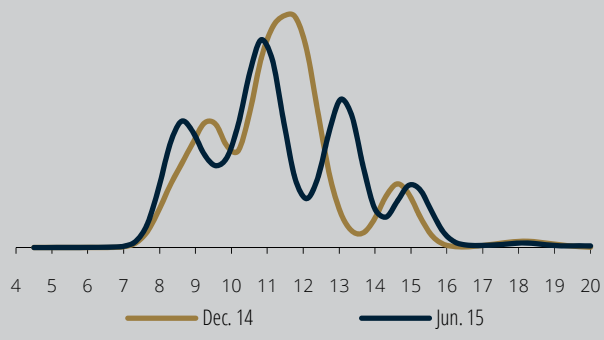
Currently, a series of transitional provisions laid down by CRD IV / CRR[26] allows banks to gradually adjust to the new requirements relating to the *CET1* ratio. However, its gradual elimination by 2018 will exert some pressure on credit institutions' solvency ratios. In this context, Banco de Portugal has been promoting a series of prudent management practices among supervised institutions, with a view

**Chart 31** • Capital adequacy ratios




Source: Banco de Portugal.
Note: Ratios computed in accordance with transitional provisions foreseen in CRD IV / CRR.

**Chart 32** • Distribution of *CET1* ratio




Source: Banco de Portugal.
Note: Ratio computed in accordance with transitional provisions foreseen in CRD IV / CRR. Empirical distribution using a gaussian kernel in which institutions are weighted by total assets.

to reinforcing capital ratios and preserving their financial soundness, as detailed in Box 4.

Evidence collected within the scope of QIS showed that, with the data available as at December 2014, the largest Portuguese banking groups fully complied with the minimum requirements for the *CET1* ratio set out by the Basel III framework, integrated into CRR and CRD IV, after the end of the transitional period.

The Banking Union's regulatory framework also included setting out a leverage ratio that has become compulsory to disclose by institutions under prudential supervision as of 1 January 2015. This ratio complements the solvency measures based on RWA, having as a main characteristic the fact that assets are not risk-weighted. The final calibration is envisaged for 2017, and may become a compulsory regulatory requirement in 2018. Data obtained through the QIS, referring to December 2014, show that Portuguese participating institutions have a leverage ratio of more than 3 per cent, which is the value currently accepted as the minimum reference, and in line with European average levels.

On 14 November 2015 the ECB released the results of the comprehensive assessment on nine European banks, Novo Banco among them. This exercise found a capital shortfall in this bank, in the adverse scenario, in 2017 (Box 3).

### 1.3.2. Insurance sector

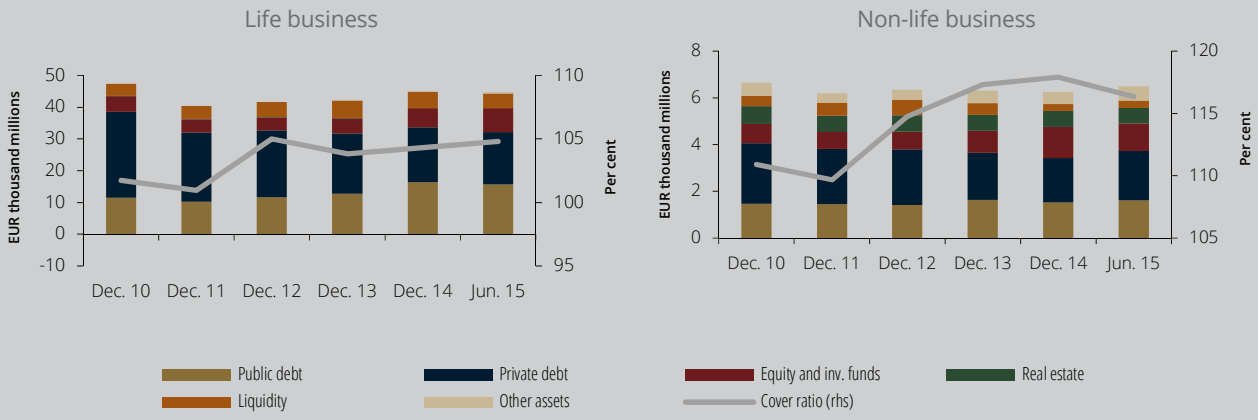
No significant changes occurred in the overall value of assets covering technical provisions during the first half of 2015

The overall value of assets covering technical provisions decreased by 0.1 per cent between December 2014 and June 2015. This performance reflected a 3.9 per cent rise in the non-life business and a 0.7 per cent fall in life business, in line with a reduction in production and an increase in claims in life business. Therefore, in the first half of the year, the total value of assets covering technical provisions dropped to € 51.2 billion, accounting for 29 per cent of GDP. After a sharp drop in 2011, this ratio has followed an upward trend, despite a slight decrease in the first half of 2015.

The structure of the investment portfolios has remained broadly unchanged since end-2014 (Chart 33).[27]

Despite the reduction in the value of the assets' portfolio allocated to the life business, the sharper reduction of technical provisions over the same period led to an improvement

**Chart 33** • Investment portfolio and cover ratio




Source: Autoridade de Supervisão de Seguros e Fundos de Pensões.

of the cover ratio to 104.8 per cent. Turning to non-life business, the rise in the investment portfolio was lower than that recorded by the technical provisions, warranting a reduction of the cover ratio to 116.4 per cent.

Despite the rise in non-life gross written premiums, the performance of the life business warrants a reduction in total production of the sector

The overall amount of gross written premiums (direct business) in the first half of 2015 reached approximately € 6.5 billion, accounting for a decrease of roughly 3 per cent from the corresponding period in 2014.[28] This performance is explained by the reduction in life business, as non-life business increased after several consecutive periods of decreasing production (Chart 34), probably influenced by the recovery in economic activity.

Following the concerns identified by the Autoridade de Supervisão de Seguros e Fundos de Pensões – ASF (Insurance and Pension Funds Supervisory Authority) regarding the sustainability of the technical results of the occupational insurance segment,[29] it is worth noticing its positive performance in the first half of the year, given the increase in production and the improvement in the claims ratio.[30]

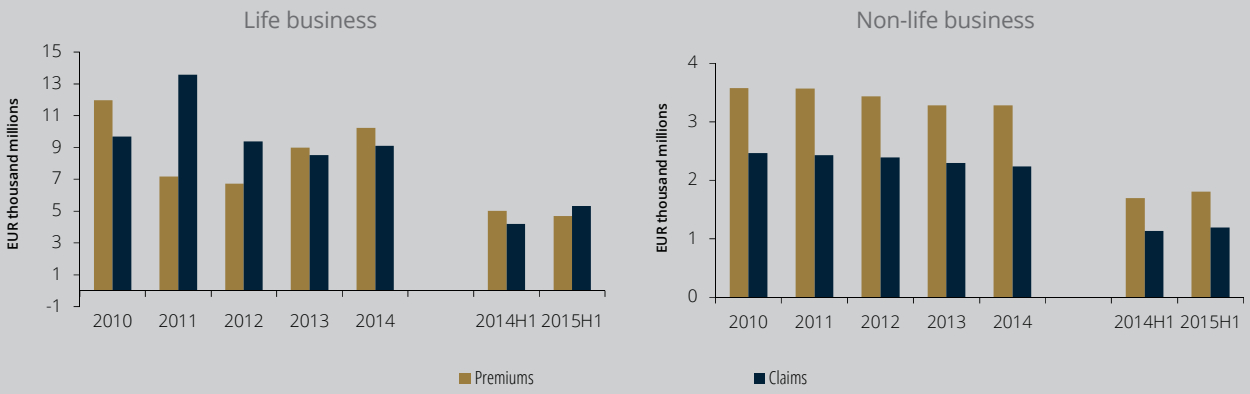
Cost of claims increased significantly in the period under review, chiefly due to a very significant rise in life business surrenders.

Although the cost of claims increased in the non-life business in the first half of 2015, excluding the effect of the establishment of the new operator, no significant changes occurred.

Net income for the sector improved significantly, but the adoption of the Solvency II regime continues to pose challenges, in particular regarding the solvency ratios

The aggregate net income of the insurance industry totalled € 432 million in the first half of the current year, rising roughly 68 per cent from the corresponding period in 2014. This rise cannot be decoupled from the positive developments in financial markets and their impact on financial income.

**Chart 34** • Gross written premiums and claims




Source: Autoridade de Supervisão de Seguros e Fundos de Pensões.

In this context, the overall solvency ratio increased by 10 percentage points from December 2014, standing at 216 per cent.

The results of the latest quantitative impact study on the adoption of the Solvency II regime indicated an aggregate solvency ratio of 111 per cent, as at the reference date of December 2014. However, on that date, nine insurance companies recorded ratios below the 100 per cent threshold, of which two did not meet the minimum capital requirement (MCR). Meanwhile, one of those corporations settled its situation at the beginning of 2015.

The capital requirements for market risks continue to play a predominant role. Against this background, the introduction of the Solvency II regime will likely help to mitigate these risks through diversification of investment portfolios, in particular considering the capital requirement for concentration risk.

### 1.3.3. Pension funds

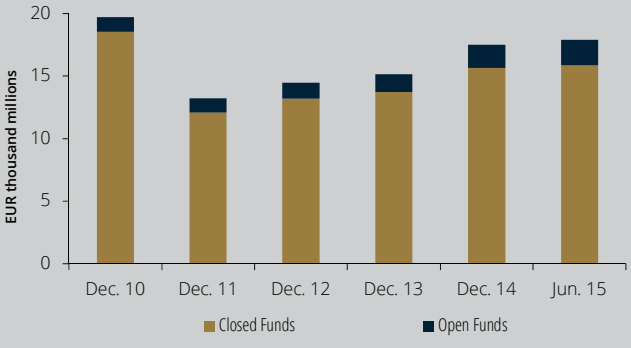
In the first half of 2015, the value of assets under management increased marginally

The value of assets managed by pension funds increased by 2.2 per cent in the first half of 2015, as a result of a small increase of 1.3 per cent in closed-ended pension funds (which account for 89 per cent of total assets managed by pension funds) (Chart 35). In turn, the assets allocated to open-ended pension funds increased by 10 per cent during the same period. As of June 2015 total assets managed by pension funds accounted for 10 per cent of GDP. After recording a considerable drop in 2011 (as a result of the transfer of the banking sector's pension funds to Social Security), this indicator recorded subsequent increases.

The composition of the pension funds' investment portfolio remained relatively stable. Nevertheless, exposure to debt securities (both sovereign and private) and shares and investment funds has increased. In June 2015 these items accounted for around 46 and 35 per cent of the portfolios' total, respectively (Chart 36).

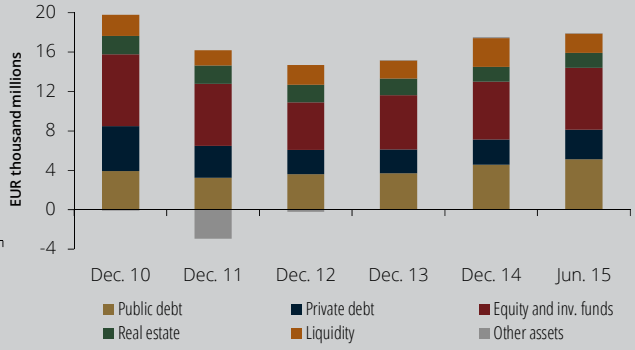
Sovereign debt securities continue to account for a significant share of pension funds' investments (representing around 29 per cent of the total portfolio). However, the exposure to Portuguese sovereign debt has been decreasing, while the share of debt securities from other euro area economies most affected by the crisis has been increasing.

**Chart 35** • Assets under management




Source: Autoridade de Supervisão de Seguros e Fundos de Pensões.

**Chart 36** • Portfolio allocation




Source: Autoridade de Supervisão de Seguros e Fundos de Pensões.

## Pension funds continued to benefit from the effect of an increase in the value of assets, although to a lesser extent than in the first half of 2014

In the first half of 2015, total assets managed by closed-ended pension funds recorded a very small positive change, due to an increase in the assets' value (Chart 37). The decrease in benefits paid was influenced by the extinction of a closed-ended pension fund with significant weight in this variable. Although contributions increased by 20 per cent compared with the same period in 2014 (owing to a change in actuarial assumptions by a number of banking groups), they made a relatively stable contribution to changes in assets.

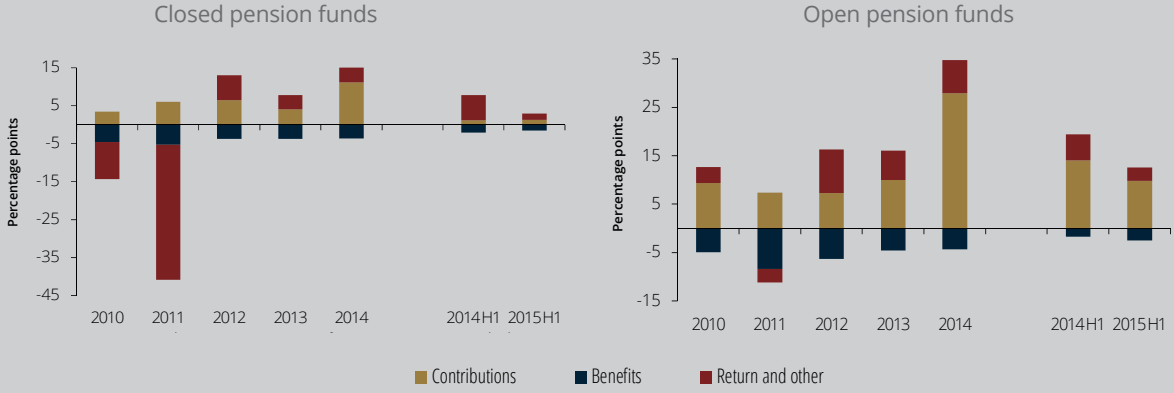
Despite being to a lesser extent than in the first half of 2014, assets managed by open-ended pension funds continued to increase markedly in the first half of 2015 (by around 10 per cent), mainly due to the behaviour of contributions paid and, to a lesser extent, portfolio valuation effects (Chart 37).

## Maintaining a return on assets above that of liabilities remains the main challenge faced by the pension fund sector

The pension fund sector continues to face the need to obtain a return on assets sufficient to cover its liabilities. This is particularly important for defined benefit schemes, which continue to have a very significant weight in the pension fund sector in Portugal.

Persistently low interest rates for a protracted period may favour search for yield (as detailed in Chapter 2), although these are limited by regulatory and legislative restrictions applicable to the composition of the asset portfolio. Consequently, where assets are not sufficient to cover liabilities (calculated by applying the discount rate and other actuarial assumptions), sponsors of defined benefit pension funds will have to address this difference by paying "extraordinary" contributions, which will have a negative impact on the financial condition of the sponsor. In Portugal, considering that the main defined benefit schemes are sponsored by larger banking groups, this may affect this sector's profitability and solvency (as was observed at the end of 2014, following a revision of the discount rate).

**Chart 37** • Contributions to value change




Source: Autoridade de Supervisão de Seguros e Fundos de Pensões.

Concerns about the sustainability of the pension fund sector have led supervisors and regulators to pay close attention to the assessment of its risks and vulnerabilities. In this respect, the European Insurance and Occupational Pensions Authority (EIOPA) will disclose (in December 2015) the results of the first stress test for this sector. The aim of this exercise is to test the resilience of defined benefit and hybrid pension schemes as well as to identify potential vulnerabilities of defined contribution schemes.

### 1.3.4. Investment funds

In the first half of 2015, the activity of investment funds recorded a decrease, to a large extent as a result of closures, redemptions and mergers

The net value of investment funds' assets under management decreased by 2 per cent in the first half of 2015, mainly as a result of a decrease in the activities of real estate investment funds, which declined by 4 per cent (Chart 38). In June the total value of investment funds' assets under management stood at € 27 billion (15 per cent of GDP).

Although, in terms of net assets under management, mutual funds[31] have been relatively stable during the period under review, an analysis by type of fund shows two countervailing effects: on the one hand, an increase in the value of equity fund portfolios and, on the other, a decrease in the activities of both bond and mixed funds (as a result of closures, redemptions and cross-border mergers) (Chart 39).

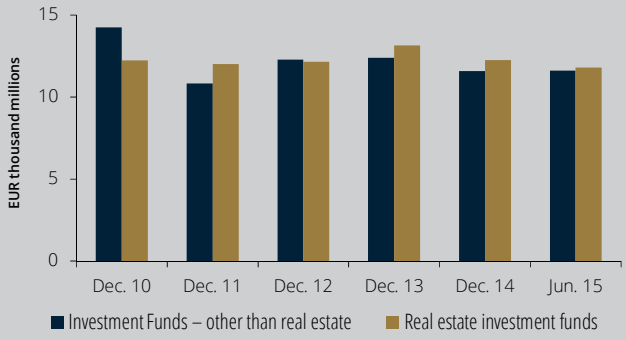
As a consequence, in June 2015, debt securities, and shares and other equity accounted for around 35 and 34 per cent respectively of net assets under management, compared with 40 and 29 per cent in December 2014.

The decrease in the amount of debt securities in mutual fund portfolios is explained by the sale of government debt securities (both Portuguese and of other euro area countries) and debt issued by banks (mostly Portuguese banks). By contrast, investment in other investment funds of euro area countries increased.

As regards mutual fund holders, in spite of the closure of closed-ended bond funds held by private individuals, during the first half of 2015 private individuals increased their net investment in units both in terms of price and volume, partially offsetting the disinvestment by insurance companies (Chart 40).

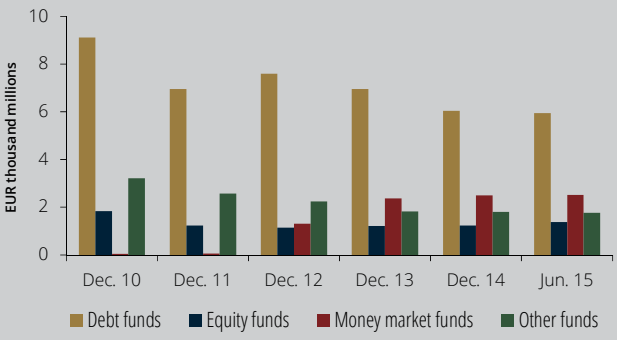
The downward path of real estate investment funds in the first half of 2015 is mainly the

**Chart 38** • Investment funds: net assets under management




Source: Banco de Portugal.

**Chart 39** • Mutual funds: net assets under management by type of fund




Source: Banco de Portugal.

result of redemptions (Chart 41). As regards closed-ended funds, the sale of real estate addressed redemptions and helped decrease funds' indebtedness to resident banks.

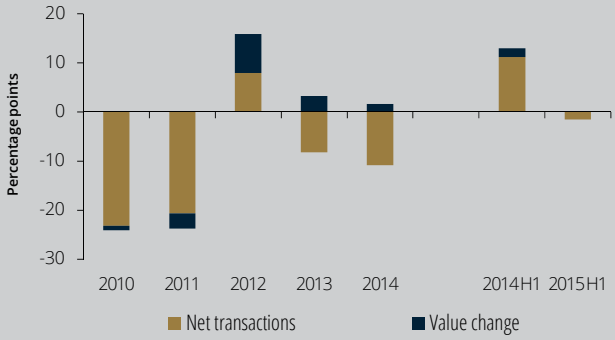
Similarly to previous years, the importance of banks as holders of real estate investment funds continued to increase in the first half of 2015, with banks holding around 48 per cent of the total held by residents in June 2015 (41 per cent at the end of 2014). This increase was largely the result of the investment in units previously held by insurance companies (which reduced their holdings of real estate investment fund units by two percentage points).

> In more recent years, mutual fund portfolios shifted towards a greater exposure to sovereign debt securities of euro area economies most affected by the crisis and to international investment funds

A comparison of the composition of mutual fund portfolios between December 2010 and June 2015 shows that the portfolios' concentration in securities of non-resident issuers increased, particularly in sovereign debt securities of euro area countries most affected by the crisis and in investment funds of euro area countries.

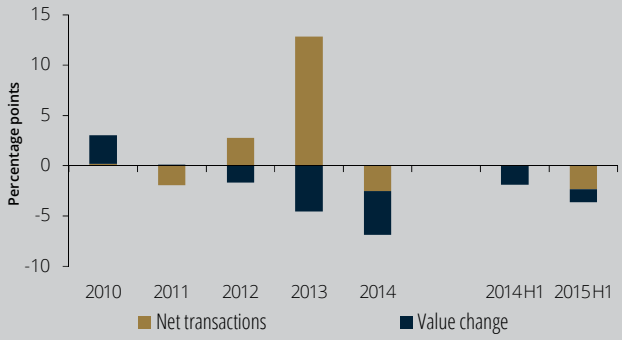
The high exposure of Portuguese mutual funds to non-resident issuers may reflect diversification motives, although it increases the sector's sensitivity to external shocks. In effect, in June 2015, 77 per cent of the securities held by the Portuguese mutual funds were issued by non-resident issuers. This, in association with the financial market turbulence, explains the devaluation of mutual funds' portfolios in August and September 2015.

**Chart 40** • Bond funds: contributions to changes in the value of funds




Source: Banco de Portugal.

**Chart 41** • Real estate investment funds: contributions to changes in the value of funds




Source: Banco de Portugal.

## Box 1 • Strategy to deal with non-performing bank loans of non-financial corporations: challenges and priorities

### Background

In Portugal, as in most euro area countries, the current level of non-performing loans (NPLs) in the banking sector's balance sheet is substantial, which could have a negative impact on the economy's financing and growth.

Related literature mentions three channels through which high NPL levels influence bank lending: profitability, capital and funding costs. Profitability is put under pressure given that NPLs generate lower effective return than performing loans; capital availability is affected by the fact that NPLs are associated with higher capital requirements, given that they are associated with greater risks; finally, to the extent that NPLs generate expectations of lower profitability and increased risk among investors, it may result in higher funding costs (Aiyar *et al.*, 2015, Bending *et al.*, 2014). However, the link between NPLs and bank lending is not straightforward, depending on factors such as the regulatory capital ratio, the credit risk on the banking sector's balance sheet, indebtedness of the non-financial private sector, the public sector's leeway, and the phase of the business cycle (Hou and Dickinson, 2007).

The high NPL level of non-financial corporations is typically associated with their excessive leverage, which also has a negative impact on the prospects of credit demand (Goretti and Souto, 2013, and Bending *et al.*, 2014). Against this background, the benefits of reducing restrictions on credit supply may not have an immediate effect, particularly in countries where non-financial corporations' solvency is hampered, thereby impairing their ability to use the greater availability of credit in productive investments.

Given the levels reached, a substantial reduction in NPL stock will have to be based on a holistic approach comprising a series of complementary strategies, as detailed further below, which act in a differentiated manner, and engage several national and international institutions.

In this context, the prior distinction between financially viable and non-viable firms is key when choosing a strategy: NPLs of a non-viable firm should be addressed through the liquidation of the firm and write-offs, while the resolution of NPLs of a viable firm should be based on credit and corporate restructuring, directly by the bank or through specialised intermediaries. The pace of NPL resolution is also a relevant issue: although it is generally agreed that there is a need for a swift resolution, so as to foster the availability and channelling of funds to the most productive sectors, it is necessary to safeguard a correct assessment of the debtor's and the creditor's situation so as to avoid unnecessary destruction of the firm's economic value and the bank capital.

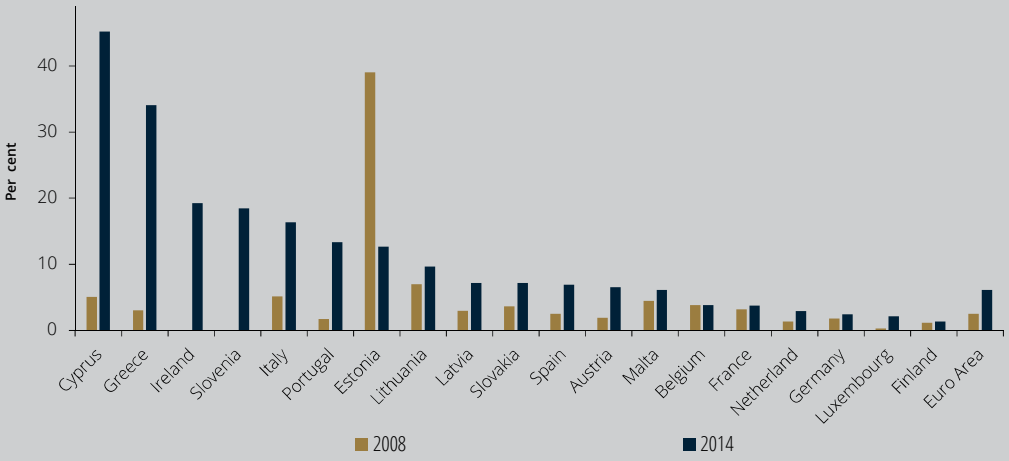
### Non-performing loans in Portugal and in the euro area: a 'legacy' of the crisis[32]

For a number of European countries, the global financial crisis and subsequent economic recession emerged in a framework of an overleveraged non-financial private sector, which fostered a rapid materialisation of high NPL levels among non-financial corporations.

In the euro area aggregate, the banking system's NPL portfolio doubled between 2008 and 2014, both as a percentage of own funds and as a percentage of total bank credit (standing close to 42 and 6 per cent, respectively, at the end of 2014).[33] Portugal is one of the most affected countries within the euro area, together with Cyprus, Greece, Ireland and Italy (Chart 42).

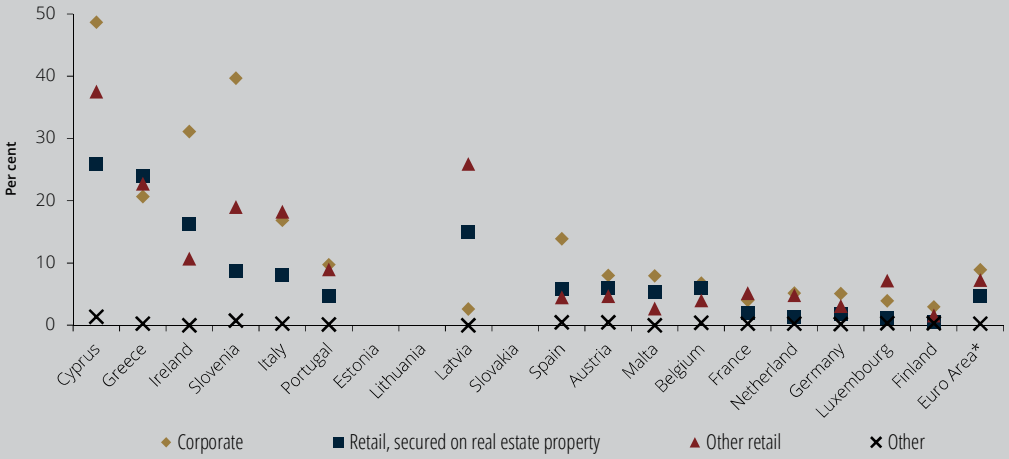
Credit to non-financial corporations has merited particular attention, given that it is the main segment in terms of NPL stocks in several euro area Member States (Chart 43).

**Chart 42** • Non-performing loans (gross of impairments, as a percentage of total credit)



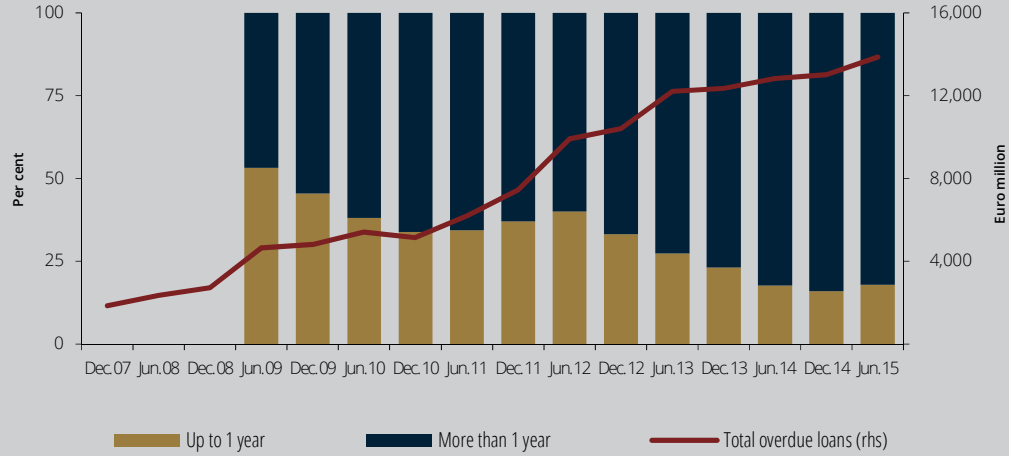

Source: ECB, Consolidated Banking Data.

**Chart 43** • Non-performing loans (as a percentage of total credit, Dec. 2013, sample of banks*)




Source: EBA.
*Sample of banks that participated in the EBA's 2014 stress test, which account for at least 50 per cent of each country's banking sector.

**Chart 44** • Non-performing loans, by overdue period (Portugal)




Source: Banco de Portugal.

The high NPL levels stem from the flow of defaults, which was particularly strong between late 2010 and mid-2013, and slow NPL resolution. Concurrently, the NPL structure by overdue period in Portugal has changed significantly: at the end of 2014, NPLs due for over 1 year accounted for approximately 80 per cent of total NPLs, well above that seen at the beginning of the crisis (Chart 44).

**Main challenges and areas of intervention in NPL resolution**

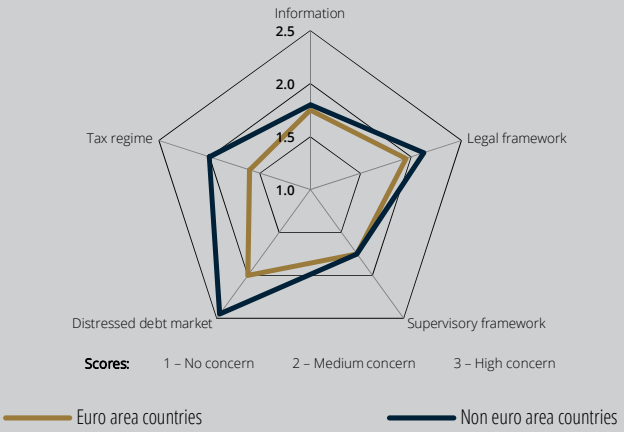
On the basis of a survey among national authorities and the banking sector, Aiyar *et al.* (2015) concluded that the biggest obstacles to NPL resolution, in euro area countries with a high level of such loans, are associated with the legal framework and underdeveloped distressed debt market[34] (Chart 45).

However, it should be noted that these obstacles may have multiple concomitant origins, which implies a holistic approach to their removal. This approach should comprise a set of complementary strategies in areas such as: (i) supervision of the banking sector, (ii) the legal framework and judicial system, (iii) the tax regime, (iv) the functioning of the distressed debt market, and (v) the information availability on non-financial corporations (which, as shown by Chart 4, is relatively less important).

Compared with the previous framework, capital requirements under the CRR / CRD IV entail higher regulatory capital, which, in the short run, could limit the ability to recognise losses. In turn, the possibility of recording interest on NPLs, under certain circumstances, is a misaligned incentive to loss recognition, given that the interest on these loans is typically higher, and its recording could result in an artificial profitability enhancement (that would be adjusted a posteriori). Furthermore, the uncertainty inherent to collateral valuation hampers the market pricing of NPLs. Finally, the fact that NPL resolution may involve a high number of creditors (banks) raises coordination issues that are not always easily addressed.

A more rigorous management of credit risk and assessment of the firms' risk profile would help to channel funds to the best projects and, consequently, to reduce the flow of new NPLs, but is insufficient to address the stock of NPLs. In this context, the measures taken by supervisory authorities in terms of impairment recognition and the conservative valuation of assets and the associated collateral are key to the recognition of losses by banks. It is also important that banks have credit recovery structures in place to cope with the high NPL stock in their portfolios. According to literature, in order to reinforce technical capacity and the availability

**Chart 45** • Obstacles to NPL resolution | IMF-survey based scores




Source: IMF.

of resources committed to NPL resolution, a possible solution is to hire specialised firms, which may work with one bank or a group of banks (in the latter case, benefiting from economies of scale and a wider, more integrated perspective of debtors, and mitigating the aforementioned coordination issues between creditors). Supervisory authorities may also introduce penalties involving the imposition of additional capital requirements under Pillar II or set maximum periods for NPL resolution (Aiyar *et al.*, 2015).

As mentioned above, the legal framework is generally considered to be one of the main obstacles to the resolution of the current NPL levels, due to its complexity and slow pace. In spite of potential political barriers to the adoption of the necessary changes, it is essential to develop a restructuring and insolvency scheme that distributes risks among stakeholders in a proportional and transparent manner, being able to adequately address the restructuring of financially viable firms and the liquidation of non-viable firms (Liu and Rosenberg, 2013). As regards the restructuring of viable firms, it is essential to set up mechanisms to: (i) submit all creditors to an agreement established by a representative group of creditors, (ii) support debt to equity conversion schemes, and (iii) ensure that creditors have a greater ability to intervene in the firm's management. Furthermore, the judicial procedures' swiftness is crucial to safeguard the value of assets and collateral and, as such, it is equally important to have a judicial system able to swiftly respond to the various situations.

In Portugal, and despite the reforms that occurred in this field, lengthy procedures continue to be one of the main limitations to restructuring and insolvency of non-financial corporations, together with the limited ability of creditors to intervene in firms' management.

The tax regime may also be associated with negative incentives to NPL resolution. Barriers to grant (partial or total) debt forgiveness by public sector creditors, as well as tax disincentives associated with write-offs and collateral sales are among the main barriers at European level (Aiyar *et al.*, 2015). The latter is particularly relevant in the case of Portugal, given the interpretation of the accounting rules, according to which write-offs are recognised only when all contractual rights associated with the credit cash flows are truly extinguished (Tax and Customs Authority, 2014).

Finally, it is also important to foster the smooth functioning of the distressed debt market, given the benefits associated with their sale. In addition to contributing to a reduction in the NPL stock in the banking system's balance sheet, the sale of NPLs promotes the access to expertise on the corporate sector from outside the banking system, the achievement of economies of scale and scope – which potentially increases the recovery rate – and the mitigation of moral hazard associated with restructuring procedures that entail a debt forgiveness, even when only partial. The sale may take various forms, such as the direct sale to third parties (typically, institutions specialised in debt collection), securitisation and the setting up of asset management companies (AMCs).

However, the type of solution described above poses a number of challenges, such as establishing a transfer price – assets are usually transferred with a haircut over the registered value, which implies a potentially substantial cost to the banking sector – and the fact that it may not be easily implemented when loans are very heterogeneous or are associated to small and medium-sized enterprises, about which there is typically less information available (ECB, 2015).

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## Box 2 • Minimum Requirement for Own Funds and Eligible Liabilities under the new resolution regime

Portugal has had a banking resolution regime that endows Banco de Portugal with a set of instruments to deal with failing credit institutions since 2012. This resolution regime is set down in the Legal Framework of Credit Institutions and Financial Companies (*Regime Geral das Instituições de Crédito e Sociedades Financeiras*, henceforth RGICSF)[35] and aims to minimise the negative repercussions of difficulties experienced by credit institutions, ensuring the continuity of the critical financial services provided by these institutions and safeguarding confidence in the financial system, while at the same time protecting depositors, taxpayers' interests and public funds.

The Portuguese resolution regime was recently amended due to the publication of the BRRD,[36] a Directive aiming to address the absence of Europe-wide instruments capable of dealing effectively and efficiently with unsound or failing credit institutions and investment firms. As a result of the transposition of the BRRD into national law, Banco de Portugal was attributed new resolution tools and powers in order to intervene in credit institutions which are failing or are likely to fail. The purpose of this Box is to describe one of the requirements of the new resolution framework: the Minimum Requirement for Own Funds and Eligible Liabilities (henceforth '*MREL*').

### Bail-in and its connection with the *MREL*

The transposition of the BRRD provided the Portuguese banking resolution regime with a new tool to be applied to credit institutions that are failing or likely to fail in the short term: the bail-in tool. This tool ensures that losses arising from a credit institution's failure are borne by the shareholders and creditors of that institution through the reduction of the nominal value of their credit or through its conversion into equity.

Through the application of this tool, Banco de Portugal can now reduce own funds instruments and eligible liabilities of the credit institution or convert them into equity, so that the institution in question continues to comply with the conditions for authorisation to carry out its activities and to obtain funding autonomously and under sustainable conditions from the financial markets.[37,38]

However, as the bail-in tool under the RGICSF cannot affect all the types of liabilities of the institution under resolution, this tool is only a credible option if, at the time of its application, the institution has liabilities eligible for bail-in that in total are high enough to: (i) absorb the losses (i.e. to restore the net asset value of the institution to a level equal to zero) and (ii) recapitalise the institution (so that it continues to comply with the applicable capital ratios and to carry out its business). In other words, the institutions must comply at all times with the *MREL*, expressed as a percentage of the total liabilities and own funds of each institution.[39]

### Eligible instruments for the *MREL*

The *MREL* is calculated by Banco de Portugal[40] for all the entities to which a resolution measure may be applied, taking into account their individual financial situation (or, where the institution is a parent company of a group, taking into account its consolidated financial situation).[41]

Own funds instruments are eligible for compliance with the *MREL*, as these are the first instruments that absorb losses arising from a credit institution's activity. The calculation of that requirement must also include liabilities eligible for bail-in, i.e. the liabilities of the institution that do not qualify as own funds instruments and that are also not compulsorily excluded from the bail-in's scope.[42] However, due to the reasons underlying the creation of the *MREL*, and given that this requirement is revised each year, the liabilities eligible for bail-in and counting towards the *MREL* must give Banco de Portugal the assurance that they will remain on the institution's balance sheet from one *MREL* reassessment process to the next and will also be available to contribute towards loss absorption and recapitalisation in a credible way. For an institution's liabilities to count towards the *MREL*, they must satisfy the following set of complementary requirements:[43]

- The agreement from which the liability arises must be valid and effective, i.e. the financial instruments must be fully paid up;
- The liability must not be owed to or guaranteed by the credit institution itself;
- The liability must not have been entered into through direct or indirect financing by the credit institution;
- The liability must have a remaining maturity of over one year;
- The liability must not arise from a derivative;
- The liability must not arise from a deposit which benefits from a preferential claim.

### Calculation methodology for the *MREL*

The BRRD and therefore the RGICSF do not go into detail on the calculation method of the *MREL*, providing only general criteria to bear in mind.[44] However, the BRRD foresees the adoption by the European Commission of regulatory technical standards that specify those criteria, with the EBA responsible for drafting those standards. Although the European Commission has not yet adopted the delegated act that will contain those regulatory technical standards, the EBA has already published its draft in July of this year.[45] According to this draft, which may be endorsed by the European Commission in full, in part or with amendments, the *MREL* will essentially be the sum of (i) the amounts that the resolution authority deems necessary for each credit institution to be able to absorb its losses, and (ii) the amounts that allow its adequate recapitalisation (Figure 1).

The default loss absorption amount consists of the sum of the following capital requirements applicable to the institution:[46]

(i) Own funds requirements pursuant to Article 92 of Regulation (EU) No 575/2013 (Pillar I requirements);

(ii) Additional own funds requirements (commonly referred to as Pillar II requirements), laid down in Article 104(1)(a) of Directive 2013/36/EU;

(iii) The combined buffer requirement laid down in Article 128 of Directive 2013/36/EU (corresponding to reserves for macro-prudential purposes).

The resolution authority may set a loss absorption amount equal to, higher or lower than the default amount. On one hand, if the resolution authority decides that the default amount does not sufficiently reflect the loss absorption needs, given the institution's business model, funding model and its risk profile, or if it is necessary to reduce or remove impediments to resolvability, it can set a higher requirement. On the other hand, if the resolution authority decides that the additional own funds requirements or part of the combined buffer requirements are not relevant to the need to ensure the loss absorption capacity it may set a lower requirement.

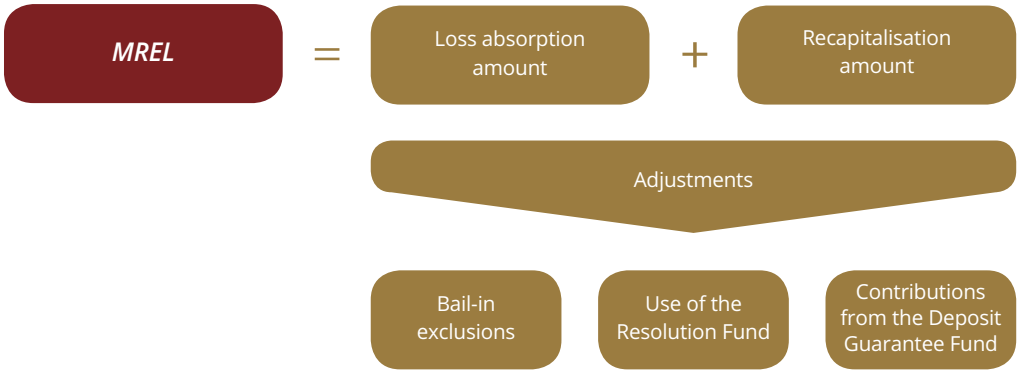
The default recapitalisation amount results from the sum of two amounts:

(i) The amount necessary for the institution to comply with conditions for authorisation, following the application of the resolution tool identified in the resolution plan, which must include the capital requirements referred to above, the Basel I floor and any applicable leverage ratio requirement;

(ii) The amount needed to sustain market confidence after resolution (i.e. that allows the institution to obtain funding autonomously and under sustainable conditions from the financial markets), which must be equal to the combined buffer requirement which would apply to the institution after the application of the resolution tool. However, this amount may be set at a lower level than the combined buffer requirement if the resolution authority decides that this would be sufficient to sustain market confidence and ensure the provision of critical functions and access to funding, without recourse to extraordinary public financial support.

The recapitalisation amount may be lower than the default amount, calculated in this way, if the resolution authority decides that all or part of the additional own funds requirements and the combined buffer requirements currently applicable to the institution would no longer apply after resolution.

**Figure 1** • Calculation methodology for the *MREL*



Further, the EBA's draft regulatory technical standards provide that, when setting the *MREL*, the resolution authority may adjust the result of the sum of the loss absorption amount and the recapitalisation amount, in observance of the following criteria:

– Bail-in exclusions: when the resolution authority identifies in the resolution planning phase that certain eligible liabilities should be fully or partially excluded from bail-in,[47] the *MREL* must be adjusted to ensure that the institution has sufficient loss absorption and recapitalisation capacity and that the application of the bail-in tool to the liabilities that were not excluded will not breach the 'no creditor worse off' principle;

– Use of the Resolution Fund: the *MREL* of institutions or groups that have been designated as globally systemically important institutions (G-SIIs) or other systemically important institutions (O-SIIs) at domestic level, must be adjusted if necessary to ensure that the institution's loss absorption capacity is sufficient to allow the use of the Resolution Fund.

According to the RGICSF,[48] the Resolution Fund's intervention must observe the following criteria:

(i) The Resolution Fund may only be called upon to provide financial support to the application of the bail-in tool in lieu of creditors that have been excluded from bail-in by decision of the resolution authority and where it has not been possible to fully pass on the losses they would have borne to other creditors without breaching the 'no creditor worse off' principle (under which no creditor shall incur greater losses from the application of a resolution tool than those that would have been incurred if the institution had gone into liquidation);

(ii) Holders of own funds instruments and eligible liabilities of the credit institution under resolution must bear the losses and contribute to the recapitalisation to an amount not less than eight per cent of the institution's total liabilities, including own funds;

(iii) The financial support to be provided must not exceed five per cent of the institution's total liabilities, including own funds.

– Contributions from the Deposit Guarantee Fund: if in the resolution planning phase it seems likely that the Deposit Guarantee Fund will have to contribute to the funding of a resolution measure, the *MREL* may be reduced by an amount equal to that expected contribution, with the following limits: (i) it must be less than the amount of losses that the Fund would have had to bear if the institution were liquidated instead of resolved; (ii) it must be less than the Fund's contribution limit for funding the application of a resolution tool as laid down in Article 167 of the RGICSF.

## Box 3 • Stress test on Novo Banco

The comprehensive assessment is a pre-requisite for all banks which become subject to supervision by the European Central Bank (ECB). Against this background, in 2014 the ECB carried out a comprehensive assessment of 130 European banks, prior to assuming direct supervision of the largest banking groups under the Single Supervisory Mechanism on November 2014. In 2015 the ECB conducted a similar test on nine European banks, which had not been subject to this type of assessment in 2014, including Novo Banco.[49]

As in 2014, the comprehensive assessment in 2015 comprised two components: an asset quality review and a stress test. Based on the assessments and special audits performed in 2014, the ECB considered that Novo Banco had already successfully completed the asset quality review. Novo Banco was therefore only subject to the stress test.

### The macroeconomic and financial scenarios

The stress test was developed under two different macroeconomic scenarios for the period from 2015 to 2017: the baseline scenario and the adverse scenario. The baseline scenario was drawn up by the European Commission and reflected the official macroeconomic projections as of end-2014. The adverse scenario was built by modelling deviations from the baseline scenario, resulting from negative shocks of low probability (Table 3). Those shocks have been defined with reference to the main systemic risks identified for the European Union at the time of the 2014 comprehensive assessment, including: (i) a reversal of investors' attitude to risk, leading to a significant increase in government debt yields in most economies; (ii) a sharp deterioration in credit quality in European Union economies with low domestic aggregate demand and with more vulnerable banking systems; (iii) the postponement of reforms, raising doubts over the sustainability of the public finances in many European Union economies; and (iv) the insufficient adjustment of banks' balance sheets, restricting their ability to obtain market financing at a reasonable cost.

The adverse scenario assumed the same level of severity as the scenario calibrated in the 2014 stress test, when assessed from the magnitude of the deviations from the baseline scenario.

### The scenarios for Portugal

In the baseline scenario, economic activity is expected to recover gradually in Portugal, with the GDP growth rate projected at levels slightly below the European Union's average, throughout the projection horizon. In turn, the adverse scenario is characterised by the following projections for the same projection horizon (2015-2017):

- Cumulative reduction in economic activity of 2.8 percentage points;
- Unemployment rate above 14 per cent from 2016 onwards;
- Significant increase in long-term interest rates, which are expected to stand at around 3.5 to 4.0 per cent, with an impact on the economy's financing and the valuation of banks' debt security portfolios; and
- Cumulative reduction in residential property prices of around 13 per cent.

It should be noted that the latest projections for Portugal are slightly more favourable than the projections underlying the baseline scenario. In the light of these developments it is fair to conclude that the adverse scenario, defined by deviations from the baseline scenario and being less likely, incorporates projections which, at this stage, have an even lower probability of occurring.

**Table 3** • Main variables of the macroeconomic and financial scenarios

| | Portugal | | | European Union | | |
|---|---|---|---|---|---|---|
| Baseline scenario | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| GDP at constant prices (arc) | 1.6 | 1.7 | 1.9 | 1.7 | 2.1 | 2 |
| Unemployment (as a percentage of labour force) | 13.4 | 12.6 | 11.8 | 9.8 | 9.3 | 8.6 |
| Long-term interest rate (10-year Treasury bonds) | 1.9 | 2 | 2.2 | 1.2 | 1.3 | 1.5 |
| Residential property prices (arc) | -1 | -1.3 | -0.5 | 2.1 | 3.5 | 4.5 |
| Adverse scenario | 2015 | 2016 | 2017 | 2015 | 2016 | 2017 |
| GDP at constant prices (arc) | 0.1 | -2.1 | -0.8 | -0.5 | -1.3 | 0.3 |
| Unemployment (as a percentage of labour force) | 13.8 | 14.3 | 14.6 | 10.4 | 11.2 | 11.5 |
| Long-term interest rate (10-year Treasury bonds) | 4.2 | 3.7 | 3.9 | 2.7 | 2.4 | 2.7 |
| Residential property prices (arc) | -4.7 | -4.9 | -3.8 | -6.6 | -5.4 | -1.3 |

Notes: percentage figures; 'arc' stands for annual rate of change.

**Methodology**

The starting point for the exercise was 31 December 2014. The financial and prudential results were projected over a three-year period (i.e. 2015-2017). The relevant variable for the analysis is the Common Equity Tier 1 (*CET1*) ratio and the threshold set for this indicator is 8.0 per cent for the baseline scenario and 5.5 per cent for the adverse scenario, as in the 2014 stress test.

The stress test was performed under the static balance sheet assumption, under which balance sheet items remain constant (as at 31 December 2014) and the financial instruments are replaced at maturity, keeping the same characteristics. Management measures that may be adopted by institutions in order to improve their performance are therefore not taken into account.

Due to the static balance sheet methodology, the projections are particularly restricted by the values recorded at the exercise's starting point. The result of Novo Banco's stress test was therefore affected by the difficulties faced by this bank during its first months of activity, following the resolution measure applied to BES.

**Main results of the stress test**

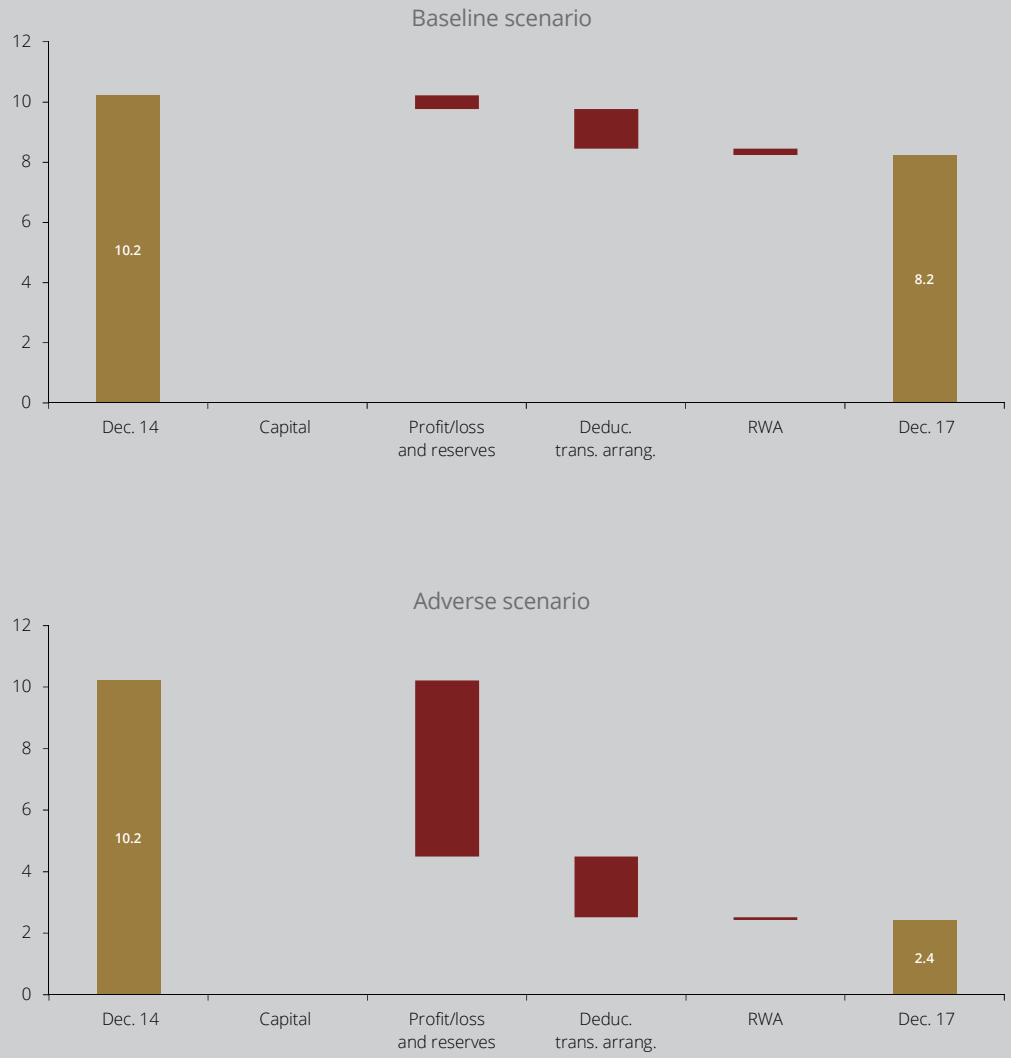
The results show that Novo Banco has passed the stress test under the baseline scenario, with an estimated *CET1* ratio of 8.2 per cent in 2017, above the 8 per cent threshold (Chart 46). It did however fall short under the adverse scenario, with an estimated *CET1* ratio of 2.4 per cent in 2017, below the 5.5 per cent threshold established in the stress test. This capital shortfall corresponds to around EUR 1.4 billion.

The shortfall recorded by Novo Banco under the adverse scenario is linked to the bank's specific nature as the bridge bank that resulted from the resolution measure applied to Banco Espírito Santo, S. A. This shortfall will be covered by the adoption of a strategic plan, which Novo Banco is preparing, as well as by proceeding with the sale process of the Resolution Fund's shareholding.

The strategic plan, which will be debated with the ECB and the European Commission, will include measures to be implemented within an appropriate time frame. These measures will be planned and executed with the cooperation and support of Banco de Portugal,

in its capacity as resolution authority, and the Resolution Fund, and will complement the strengthening of Novo Banco's capital that will come from the sale process of the Resolution Fund's shareholding.

**Chart 46** • Developments in the *CET1* ratio of Novo Banco | per cent




Source: Banco de Portugal.

Notes: Columns in yellow correspond to the *CET1* ratio as at December 2014 and December 2017. Reported data corresponds to Novo Banco, on a consolidated basis, excluding BESI. Negative contributions to developments in the ratio are shown in red. The column "Capital" refers to capital increases and/or reimbursement of hybrid instruments; the column "Profit/loss and Reserves" refers to cumulative profit and loss and changes in reserves; the column "Deduc. and trans. arrang." refers to deductions from own funds in accordance with the CRD IV/CRR and respective transitional arrangements; the column "RWA" shows the impact on the ratio of changes in capital requirements.

# 2. Risks to financial stability

## The nature of the main risks to the Portuguese financial system has remained virtually unchanged

The moderate pace of the economic recovery and, above all, the prolonged low interest rate environment continue to negatively affect the financial sector's profitability, particularly in the banking sector. In the midst of gradual economic and financial adjustment, the interplay of a progressive reduction in economic agents' indebtedness, warranted by the still-high levels of public and private debt, and the desirable strengthening of the financial sector's capacity to absorb shocks of various kinds, is conditioning the pace of economic recovery in the short to medium term.

The prolonged low interest rate environment profoundly affects the financial sector's profitability and may lead to risk-taking behaviours. An abrupt reversal of global search for yield may have consequences for financial stability, potentially magnified by the low market liquidity. Finally, the financial system's excessive direct and indirect exposure to certain assets and geographies is also a significant source of systemic risk, as it exposes financial institutions to the same risk factors.

## A prolonged low interest rate environment poses several challenges for financial stability

Aside from the desirable effects on price stability and economic growth, accommodative monetary policy and the consequent maintenance of interest rates at low levels for a prolonged period has implications for the way that financial institutions operate and, as a result, may have effects on financial stability that are important to monitor.

**On the indebtedness of the non-financial private sector**

The current low interest rate environment has allowed households' debt service costs to remain at very low levels, contributing to more favourable developments in disposable income in the case of indebted households and allowing faster growth in consumption as a result. This has also helped non-financial corporations' investment to recover (for more information, see Section 1.2.). However, by improving conditions for credit demand, this price effect may restrict the deleveraging process needed in the non-financial private sector, despite the stock of credit granted to this sector currently continuing to decline.

On the supply side of credit, the current context of low interest rates combines with other factors to lead to less tight credit standards, which increase the probability of financing borrowers with lower ability to pay, with particular regard to projects that become unviable should interest rates normalise.[50] This tends to undermine appropriate credit allocation, based on efficiency, productivity and sustainability criteria.

The deleveraging process in the non-financial private sector continued in the first half of 2015, although at a slower pace in the case of non-financial corporations. In turn, there is evidence that, at least with regard to non-financial corporations, the new credit is being granted to borrowers with greater credit quality and in more profitable sectors (see Section 1.2.2), with banks actively competing for clients in these segments. Furthermore, in the case of lending to households for house purchase, the LTV and LTI ratios have fallen in the period after the start of the financial crisis, according to survey results on the eight main banks. These developments point to the adoption of more prudent criteria by the banks surveyed when approving loans of this kind.

In the current context of low interest rates, it is particularly important that credit institutions

apply rigorous criteria in assessing the counterparty's capacity to generate income. In assessing the borrower's solvency, its debt-service capacity should be made a priority, looking also at other scenarios than the current situation, namely with rising interest rates. Collateral must be assessed prudently given its important role in mitigating institutions' losses.

Banco de Portugal will continue to monitor credit, with particular regard to its quality and the impact that its growth may have during the deleveraging process needed among households and non-financial corporations.

**On risk-taking and asset valuation**

Generally speaking, the low interest rate environment is conducive to changes in financial institutions' risk profile, in that it raises demand for financial assets that offer higher expected returns, with a higher risk level.

As highlighted by the IMF in the October 2015 Global Financial Stability Report, accommodative monetary policy has contributed to the compression of the risk premia in various markets, including the public and private debt markets. In particular in the euro area, the ECB's asset purchase programmes have led to increasing prices in eligible assets, along with others indirectly affected by portfolio reallocations. Furthermore, the environment of ample monetary liquidity and low interest rates continues to intensify search for yield as investors look for alternatives that offer higher returns, whether by increasing credit risk, or duration. The combination of these factors has contributed to increasing financial asset prices, above all in the euro area countries most affected by the financial crisis.

This behaviour also promotes the increase of non-financial asset prices to levels inconsistent with their fundamentals (for example in the real estate market), which may be amplified by herding behaviour. However it should be said that in Portugal's case, the recent trend in real estate prices does not suggest there is an excessive price increase in most segments of this market.

**On credit institutions' profitability**

The persistence of low interest rates affects banks' capacity to generate income by exploiting traditional financial intermediation activity, i.e. through the spread between lending and deposit rates (net interest income). Thus, despite the positive trend of net interest income over the last few quarters, its share of this sector's revenue structure remains low in historical terms, as set out in Section 1.3.1.

Furthermore, the current context involves other factors, cyclical and structural, that condition banks' profitability, including: i) the regulatory framework, which has become more stringent in terms of capital and liquidity requirements; ii) the reduction of activity related to the economy's deleveraging process; and iii) high levels of impairments resulting from the materialisation of credit risk.

The recent recovery of the banks' profitability was positively influenced by factors that will tend not to continue over the medium and long term, such as income from trading financial instruments (Section 1.3.1). The macroeconomic outlook, characterised by weak economic growth and low inflation and interest rates, dampens the possibility of improved profitability through increased revenues, particularly in a sector characterised by competitive pressures. In this context, challenging the banks' business model and cost structure is a priority. However, that reassessment must not overlook the relevance of controlling the institutions' financial and operational risks, in particular through the continuous assessment of the respective risk models (particularly credit risk, given the sector's business). The adaptation of the business model must also consider other challenges, such as those resulting from the demographic trends and the new digital distribution channels.

Thus, as highlighted in Section 1.3.1, banks must strengthen the cost reduction trend shown in the recent past, namely concerning domestic activity. The necessary capacity adjustment in the resident banking sector should lead to an increase in efficiency and profitability, and as a result, to the strengthening of own funds.

This strengthening is essential for the promotion of financial stability, as it will contribute to increased resilience in the sector and greater ability to absorb future losses.

As macro-prudential authority and in order to ensure the adequacy of capital levels in credit institutions, Banco de Portugal decided to bring forward the application of the conservation buffer on own funds, which must correspond to 2.5 per cent of risk-weighted assets from 1 January 2016 onwards. Furthermore, Banco de Portugal will disclose, before the end of 2014, the set of other systemically important institutions (O-SIIs) and their respective additional capital requirements (Box 4).

**On the profitability of the insurance and pension funds sector**

The insurance and pension funds sector is also affected by the prolonged low interest rate environment, as the return on its assets decreases, which is particularly important when this sector issues products with long-term financial guarantees.

In terms of the balance sheet of these entities, the historically low interest rates – which are reflected in discount rates – tend to increase the present value of liabilities, negatively impacting the own funds level in the case of insurance companies and the level of financing of defined-benefit pension funds. This will become even clearer when the Solvency II regime enters into force, since it envisages a more direct link between the discount rate and market conditions, despite the existence of certain countercyclical mechanisms designed for long-term liabilities.[51]

According to information released by the Insurance and Pension Funds Supervisory Authority, the average yield of insurance companies' assets continues to exceed the average rates guaranteed in the financial products issued, although there are certain situations of lag between asset and liability yields, namely for the older products with high guarantees. In regard to new products, mechanisms are in use allowing contracted guarantees to be adjusted according to the prevailing interest rates, reducing the sector's risk by transferring it to policyholders.

## The possible abrupt reversal of search for yield is a significant risk to financial stability

As mentioned above, the prolonged low interest rate environment may lead to the accumulation of vulnerabilities in the global financial system, through the intensification of search for yield and the consequent reduction in risk premia. As a result, a potential abrupt reversal of the search for yield and consequently of risk premia, would have the following main consequences for the financial system: (i) increased funding costs for sovereigns and financial institutions, and consequently for all other economic sectors; and (ii) a devaluation of investment portfolios, with negative effects on financial institutions' total assets.

The liquidity and funding situation of the Portuguese banking system has continued to improve, reducing the impact of an abrupt reversal of global search for yield on funding costs. However, it is also important to note that the current market conditions also reflect the ECB's intervention, which is, by nature, limited in time.

Furthermore, the current regulatory context, including the introduction of minimum requirements for liabilities with loss absorbing capacity and of the net stable funding ratio,[52] may make it necessary to issue debt with maturity above one year (Box 2). It is therefore important for banks to make the most of this context to adjust their funding structure to include liabilities with longer maturities. However, no significant debt issuance with these characteristics has been observed.

Regarding banks' assets, the reversal of search for yield may have a significant impact on securities portfolios, where sovereign debt securities are prominent (as discussed at the end of this chapter).

The traditional business model of insurance companies and pension funds is not as dependent on market funding as the banking sector. However, this sector is also exposed to an abrupt reversal of search for yield, in particular if associated with the so-called double-hit scenario (in which low interest rates and the abrupt reduction in asset prices occur at the same time), as securities represent a more significant share of its assets and the value of its liabilities is linked to market conditions.

Also, in the investment funds sector, a reversal of that behaviour will have a direct impact on the valuation of the respective portfolios. In addition, due to its nature and regulatory framework, the investment funds sector has a set of vulnerabilities that amplify disturbances in financial stress situations.[53] Indeed, material devaluation of portfolios or extraordinary events may lead to significant redemptions, which in turn result in the need to sell securities that may lead to further assets' devaluation. This vicious circle may be particularly critical due to the increasing global relevance of investment funds as investors in financial markets, aggravated further by correlated investment strategies and the increase of the share of less liquid securities in portfolios.[54]

Domestically, investment funds have become more exposed to securities from non-resident issuers, particularly to debt securities with higher risk. Between 2010 and 2015, as was observed across the financial system, there was an increase in the weight of securities from sovereigns of economies most affected by the crisis. Also in this period, exposure to non-resident investment funds increased.

Although the importance of the investment funds sector in the domestic financial sector is relatively low, a potential international contagion effect must not be ignored. Should significant disturbances occur in international funds (in valuations and/or redemptions), the effects on the Portuguese financial system may be felt through two channels: (i) devaluation of the investment funds' portfolios; and (ii) reputational effects on the financial groups in which the investment funds are integrated.[55]

Various adverse shocks may give rise to the reversal of search for yield, leading to increased risk premia:

- Loss of confidence in the sovereign debt of certain euro area countries. Delays in the implementation of fiscal and structural reforms may lead to a reassessment of market sentiment towards euro area economies most affected by the crisis. Despite the progress made on the Banking Union, these developments may revive the bank-sovereign nexus, leading to an increase in the funding costs of these economies.
- Significant deterioration in the outlook for global economic growth. This includes the adverse developments in China and the slowing down of growth prospects for other emerging market economies (mainly those more dependent on commodities exports and/or facing considerable macroeconomic imbalances).
- Increased uncertainty over the future path of monetary policy. Despite the forward guidance from some authorities, this uncertainty itself can cause an increase in risk premia and volatility.
- Deterioration in geopolitical tensions. This can lead to disruptions in international trade flows and financial transactions. An increase in these tensions affect the international confidence indicators by themselves.

Several factors, including low market liquidity, may contribute to the amplification of the potential effects of the reversal in search for yield.

As indicated by the IMF in the latest edition of the Global Financial Stability Report, there are vulnerabilities in global markets that could amplify the impact of shocks and the scope for financial contagion, including: (i) the growing correlation of prices across asset classes; (ii)

the increase in the share of less liquid assets (namely corporate bonds) in investment funds portfolios, which creates liquidity gaps, with considerable consequences if redemptions occur; and (iii) the leverage of investment funds, in particular in the United States, increasing the risk and the potential losses and creating the conditions for a spiral of redemptions, asset sales and decreasing prices.

Another increasing concern at global level regards the low levels of liquidity in financial markets, namely secondary bond markets, which may lead to larger price fluctuations (volatility) and increased scope for contagion among markets. The recent volatility spikes in typically quite liquid markets, such as the sovereign bond markets of the United States and Germany, are examples of how disturbances in the secondary markets' liquidity may have a significant impact.

Despite the current environment of ample monetary liquidity (arising from the central banks' accommodative policies) and the funding liquidity conditions at international level (related to the ease with which financial intermediaries can borrow), market liquidity – i.e. the ability to execute sizable securities transactions in secondary markets quickly, at low cost and with limited price impact – has been falling in some segments.

At the global level, liquidity in secondary markets is being affected by structural changes, including competitive pressures, regulatory changes and developments in technology, contributing to a liquidity dichotomy across asset classes. On one hand, since 2007, the increase in competition across trading systems has contributed to an increase in the liquidity of equity and some bonds markets, which were traditionally more liquid. On the other, various regulatory developments increased financial institutions' costs for holding securities, leading to a reduction in the supply of immediacy services by market makers. Furthermore, risks from correlated trading strategies have increased, due to (i) the transfer of securities portfolios from banks and market makers to institutional investors, in particular investment funds; and (ii) the increase of high-frequency trading and algorithm-based transactions.

Finally, asset purchase programmes associated with accommodative monetary policies are also contributing to the reduction of the stock of debt securities available in secondary markets, including in the (traditionally liquid) sovereign bond markets.

The lack of market liquidity may amplify market disturbances, since if market sentiment reverses abruptly, the imbalance between supply and demand will be higher, hampering the price adjustment process. This effect may be stronger in smaller debt markets, such as Portugal's, also given the paucity of derivative instruments that could facilitate this adjustment.

Thus, it is important for financial institutions to adjust their investment portfolio management strategies to the above-mentioned market circumstances.

A reversal of global search for yield or an idiosyncratic increase in the risk premium of Portuguese sovereign debt (or that of the euro area economies most affected by the crisis) will have a significant impact on the Portuguese financial sector. Assuming it is an international phenomenon, one may conclude that domestic economic agents will have relatively little room for manoeuvre to avoid the reversal of the search for yield. Notwithstanding, it is vital to pursue structural and fiscal consolidation policies in Portugal, in order to reduce the probability of an increase in the risk premium associated with domestic economic agents. In any case, financial institutions must promote prudent diversification strategies to reduce the impact of the risk, should it materialise.

The Portuguese financial system is still significantly exposed to specific asset classes and geographic regions

The May 2015 Financial Stability Report identified significant concentration of the Portuguese financial sector in three asset classes: (i) real estate assets; (ii) assets related to specific geographic regions / countries; and (iii) Portuguese sovereign debt. From the financial stability point of view, these exposures must be monitored closely, given their relevance to the resident financial sector.

The financial sector's exposure to real estate assets is high, which makes it particularly sensitive to fluctuations in these assets' value. Should devaluations occur, they will have negative repercussions on the institutions' profitability and capital, which may compromise financial stability.

In the case of the banks, the exposure to real estate risk takes various forms. Directly, by holding real estate, such as that received in lieu of credit repayment, and by investing in real estate investment funds and restructuring funds. Indirectly, as a result of the credit granted to sectors related to construction and real estate and the real estate collateral received. Overall, as of June 2015 this exposure represented about 40 per cent of the banking sector's total assets, remaining virtually unchanged compared to December 2014.

It is important that banks make an effort to reduce their exposure to these assets, in particular in a context in which market conditions are more favourable. As part of its tasks and as a member of the National Council of Financial Supervisors, Banco de Portugal will continue to monitor the financial sector's assets and promote the adequate valuation of exposures. Real estate risk is also monitored in the supervision process that assesses each banking institution's specific risk. This assessment may give rise to decisions regarding the strengthening of own funds (Pillar 2) or the adoption of specific measures to mitigate this risk, including the presentation of a divestment plan in these kinds of assets.

The exposure to specific countries or regions may also represent risks to financial stability if it has the potential to cause significant losses to financial institutions. Recent examples include exposure to emerging market economies, including countries especially affected by the lower oil price. This exposure resulted in part from Portuguese companies' international diversification, particularly in the case of Angola. Following the sharp drop in oil prices, the Angolan economy has slowed down. This development poses a risk for Portuguese banks, both due to their direct exposures and to the indirect exposures through Portuguese companies with trade or investment links with that economy.

Furthermore, the slowdown observed in other emerging market economies is an additional risk factor, not only due to its repercussion on global economic activity, but also due to the direct and indirect exposures of the Portuguese financial sector to these economies, namely Brazil and China. As of June 2015, the resident banking sector's indirect exposure to the Angolan, Brazilian and Chinese economies represented 19, 14 and 5 per cent respectively of total credit granted to resident non-financial corporations.[56] Furthermore, there are increasing links between the resident financial sector and the Chinese economy, both in terms of shareholder structure and investment portfolios.

Finally, the financial system's exposure to sovereign debt securities, in particular to Portuguese sovereign debt, remains high. The Portuguese financial sector's increased exposure to these securities arose since the euro area sovereign debt crisis, in a context of a general increase in international markets' fragmentation and of concentrated exposure to securities issued by resident issuers.

A sensitivity analysis shows that, in aggregate terms for the eight major resident banking groups, an increase of 1 percentage point in the yields to maturity of sovereign debt issued by the euro area economies most affected by

the crisis, across all maturities, results in a fall of approximately 0.4 percentage points of the *CET1* ratio, in a scenario of full implementation of the CRD IV/CRR.[57] Given that the impact varies according to the composition of the portfolio, it is advisable that each institution considers the potential effect on its respective capital position, ensuring prudent levels of diversification of the portfolio.

The current regulatory treatment of sovereign debt grants preferential conditions for this asset class. However, regulations for the banking sector lay down the adoption of the leverage ratio as a prudential requirement in 2018, which will not encompass a differentiated treatment for sovereign debt. Furthermore, the possibility of changing the above-mentioned regulatory treatment has been discussed in international forums, with particular regard to capital requirements and concentration limits per issuer, as well as the respective implementation calendar (for greater detail see Box 5).

Also the European Banking Authority (EBA) is conducting an EU-wide transparency exercise, under which the major banks' main exposures will be published, including their exposure to sovereign debt.[58] Its release at the end of 2015 may evidence the need for portfolios' appropriate diversification.

In the insurance sector, the Solvency II prudential regime also gives preferential treatment to sovereign debt issued by European Union Member States, attaching a zero per cent risk factor to these exposures for the purposes of calculating the capital requirements for spread and concentration risk. However, changing this treatment is under consideration.[59] From the macro-prudential point of view, the regulations applying to the different sectors must be consistent, in order to mitigate situations of regulatory arbitrage.

Despite the positive developments over the last few years, the Portuguese financial system is exposed to a set of challenges and risks that are still significant. These relate to various kinds of risk factors: (i) the macroeconomic outlook, characterised by a limited activity rebound, at international and domestic level, and by low inflation rates; (ii) the low nominal interest rates, resulting from an accommodative monetary policy, with effects across the yield curve and with a potentially significant impact on the assets' returns; (iii) changes in financial markets' conditions, as well as the possibility of a sudden reassessment of risk premia, with a potential negative impact on assets' value and on the return required from liabilities; (iv) the still high indebtedness of the public and private resident sectors; and (v) the significant exposures to certain asset classes and geographies.

These factors are interlinked and may mutually reinforce each other, amplifying the potential negative impact on the financial sector's capacity to play its role effectively. They also represent an additional challenge at a time when the financial sector is in the process of adopting new regulations. While undisputably positive from the viewpoint of financial stability and the strengthened resilience of each institution, this process raises challenges in terms of the transition processes during the implementation phase. It is thus critical for financial institutions to adopt a proactive behaviour, which prepares them prudently for the challenges they face. However, it is important to emphasise that financial stability is an objective that must be pursued by the majority of economic agents, from the financial and the non-financial sector, in particular by those whose behaviour may create more significant externalities for the others.

## Box 4 • Initiatives to strengthen capital buffers

### Regulatory initiatives by Banco de Portugal during the financial crisis

The international financial crisis has shown the need to ensure that financial institutions improve their capacity to absorb unexpected losses. Against this background, several regulatory initiatives were taken at both national and international levels.

In 2008, Banco de Portugal, to strengthen the confidence in the soundness of the banking system, recommended that credit institutions (hereinafter 'institutions') reinforce the regulatory capital in order to ensure they maintain a minimum Tier 1 ratio of 8 per cent on a consolidated basis from September 2009 onwards.

Subsequently, as the sovereign crisis unfolded and taking into account the need to strengthen the financial system's ability to withstand adverse situations as well as the advantage of bringing forward the convergence with the new (and more stringent) international standards proposed under a new regulatory and prudential framework (Basel III), Banco de Portugal decided to establish a minimum Core Tier 1 ratio[60] at a level that was no less than 9 per cent in 2011 and 10 per cent from 2012 onwards.

At the start of 2014, the adoption of the CRD IV/CRR regulatory framework was accompanied by the entry into force of Notice of Banco de Portugal No 6/2013, which established how the transitional provisions of the CRR would apply to minimum capital requirements and their calculation. However, this Notice also laid down the rules for the preservation of credit institutions' own funds. Specifically, it established that institutions should permanently maintain a minimum Common Equity Tier 1 ratio (hereinafter '*CET1*') of 7 per cent, i.e. above the regulatory minimum of 4.5 per cent.[61] At the same time, it established that institutions should abstain from conducting operations that might result in a substantial reduction in the nominal value of one or more components of their own funds before providing proof of full compliance with the provisions of CRR and CRD IV (i.e. the requirements applying at the end of the period during which the transitional provisions apply).

With the entry into force of Decree-Law No 157/2014, which transposed CRD IV into Portuguese law, on 23 November 2014, the provision that established a minimum *CET1* ratio of 7 per cent was tacitly repealed, but the rule on the preservation of own funds that limits the conduct of operations which might result in a substantial reduction in the nominal value of own funds was maintained.

### New requirements as macroprudential authority

At the same time, Banco de Portugal, as macroprudential authority, now had the possibility of requiring institutions to build up a set of capital buffers in addition to the Pillar 1 and Pillar 2 regulatory minimums.[62] These buffers include (i) a capital conservation buffer, (ii) a countercyclical capital buffer, (iii) a G-SII buffer (for global systemically important institutions), (iv) an O-SII buffer (for other systemically important institutions at a national level) and (v) a systemic risk buffer.

The capital conservation buffer aims to accommodate losses from a potential adverse scenario, allowing institutions to maintain a stable flow of funding to the economy. CRD IV establishes that this requirement should be gradually implemented from 1 January 2016 onwards through the imposition of a buffer of 0.625 per cent (of the total risk exposure amount) in 2016, 1.25 per cent in 2017, 1.875 per cent in 2018, and finally 2.5 per cent in 2019. However, the national macroprudential authority may impose a shorter transitional period or even frontload the total buffer.

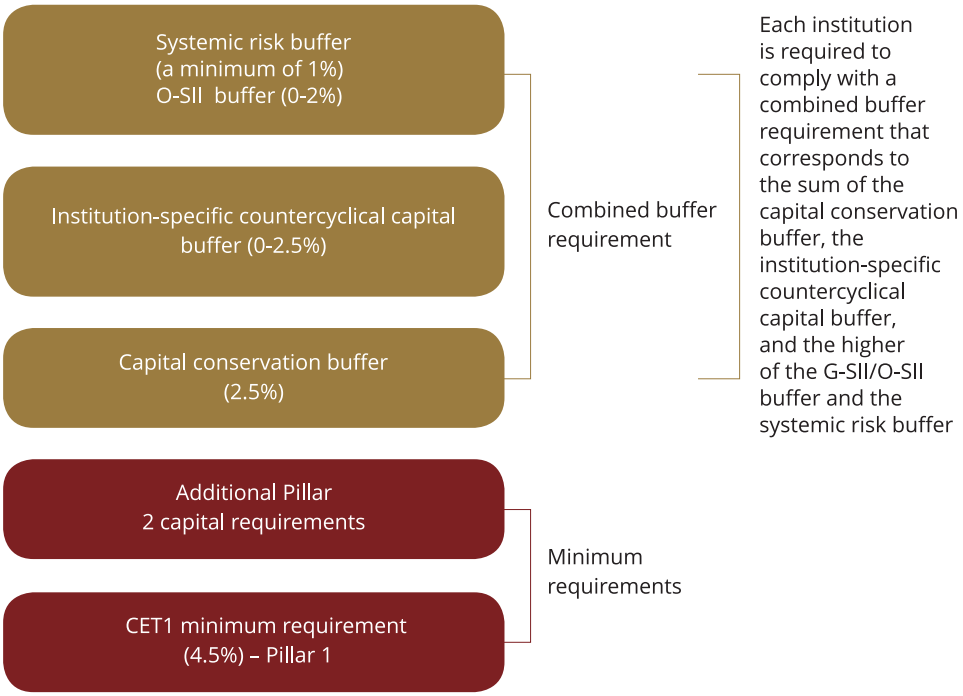
The countercyclical capital buffer is one of the main macroprudential instruments introduced

by the new regulatory framework, aiming to improve the banking system's resilience to periods of excessive credit growth. The establishment of variable capital requirements over the cycle is expected to contribute to mitigating the usual pro-cyclicality of banks' credit policies. In periods of excessive credit expansion, the establishment of more stringent capital requirements is expected to contribute to reducing credit supply, in order to avoid an excessive build up of systemic risk. In turn, this buffer is expected to be released in periods of sharp credit contraction, thereby reducing restrictions on the activities of banks which help amplify the credit cycle. From 1 January 2016 onwards, Banco de Portugal will calibrate this instrument between a minimum of 0 per cent and a maximum which will increase over time (of 0.625 per cent in 2016, 1.25 per cent in 2017, 1.875 per cent in 2018, 2.5 per cent in 2019 and is undefined from this date forward).

Authorities may also impose higher capital requirements on global systemically important institutions and other systemically important institutions at a national level (G-SIIs and O-SIIs respectively) in order to compensate for (1) the higher risk that these institutions represent for the financial system, (2) the implicit support provided by the sovereign, as these institutions have characteristics that make them systemically relevant and (3) the potential impact of their failure on the smooth functioning of the institutional sectors. Activating this instrument is expected to help increase the resilience of the banking system and mitigate the risk of contagion, thereby increasing the capacity of systemically important institutions to absorb losses. These ratios fall within a range of 1 to 3.5 per cent and 0 to 2 per cent for G-SIIs and O-SIIs respectively.

Finally, the systemic risk buffer is the result of additional capital requirements applicable to all or one or more subsectors of the banking system, aimed at increasing their capacity to absorb risks of a structural nature. Once activated, this buffer has a minimum level of

**Figure 2** • Capital requirements under CRD IV / CRR



1 per cent of the total risk exposure amount and no maximum level.

The combined buffer requirement each institution is required to comply with corresponds to the sum of the capital conservation buffer, the institution-specific countercyclical capital buffer, and the higher of the G-SII/O-SII buffer and the systemic risk buffer (except where the latter only applies to risk exposures in the Member State which activated the measure, in which case it is additive).

In accordance with the legal framework, all aforementioned capital buffers shall be covered by *CET1* and be cumulative with the minimum requirements laid down in CRR. Non-compliance with these buffers does not mean institutions may not continue to carry out their business. It does however imply restrictions on dividend payments and share buybacks, as well as the submission to Banco de Portugal, by the institutions concerned, of a capital conservation plan establishing a timeframe with the objective of meeting fully the combined buffer requirement. The supervisory authority shall be responsible for establishing the timeframe for the implementation of the plan.

**Macroprudential measures adopted by Banco de Portugal**

In Portugal, with the publication of Notice of Banco de Portugal No 1/2015, the Bank decided to frontload the capital conservation buffer. Consequently, credit institutions and some financial companies shall be subject to the build up of a capital conservation buffer of 2.5 per cent from 1 January 2016 onwards, under CRD IV and the Legal Framework of Credit Institutions and Financial Companies. Frontloading the capital conservation buffer is mainly aimed at making financial institutions more resilient by increasing their capacity to absorb unexpected losses, thus contributing to promoting the stability of the Portuguese financial system, in line with the aforementioned action by Banco de Portugal. With the transposition of CRD IV into Portuguese law, the provision laid down in Notice of Banco de Portugal No 6/2013, establishing a minimum CET1 ratio of 7 per cent, was tacitly repealed, but the rule on maintaining own funds that limits the conduct of operations which might result in a substantial reduction in their value was maintained. Frontloading the build up of the capital conservation buffer formally restores the minimum *CET1* ratio of 7 per cent.[63]

No Portuguese institution was identified as a global systemically important institution (G-SII). However, Banco de Portugal has already identified other systemically important institutions (O-SII) at a national level, and the procedure to calibrate capital requirements is currently underway. As mentioned beforehand, these may reach a maximum of 2 per cent of the total risk exposure amount.

As regards the countercyclical capital buffer, Banco de Portugal is monitoring developments in indicators which may signal excessive credit growth. The establishment of this buffer's level is expected to be communicated by the end of the year. The values of this buffer shall be different from zero only where there are indicators pointing to excessive credit growth in Portugal.

## Box 5 • Prudential treatment of banking sector exposure to sovereign debt

Sovereign debt has traditionally been considered a risk-free asset at various levels, whether in terms of credit or liquidity. This is essentially based on two assumptions: (i) if the debt is denominated in the issuer's currency then it can issue the amount of currency necessary to repay its debts; and (ii) States are able to increase taxation and, using that revenue, pay their debts. Furthermore, central banks accept public debt securities as collateral for monetary policy operations, assigning a reduced or inexistent liquidity risk to them.

In terms of prudential requirements, a minimum risk weight of zero can be attributed to the sovereign debt of any country, unlike the other exposures. Furthermore, European regulation provides for the exemption of minimum capital requirements for the sovereign debt of European Union Member States expressed and financed in the national currency of the issuing state. This exemption has been in place since the Basel I agreement.[64] This regulatory treatment is, all other things being equal, an incentive to investment in government bonds rather than in other financial assets.

However, the sovereign debt crises, which occurred in Latin America (in the 1980s) and more recently in the euro area (after 2010), led to the questioning of the risk free hypothesis regarding government debt. On the one hand, issuing currency without any restrictions is not always viable, especially in the context of a monetary union. On the other hand, increases in taxation are limited by the elasticity of taxable income, translating into the adverse effects which successive increases in the tax burden can have on tax revenue. Therefore, the sudden increase in uncertainty and risk aversion by investors during the aforementioned crises had significant consequences on the level of availability of financing to the State and private sector.

Furthermore, the sovereign debt crisis in the euro area came to prove the existence of a situation of mutual dependence between sovereign debt and the banking system, with the corresponding risks of contagion: (i) of sovereign debt to the banks through the latter's exposure to public debt, the reduction in the value of collaterals of this nature used in repo operations and the dependence of the banks' ratings on the ratings of the State, and (ii) of the banks to sovereign debt, through the impact of the State's backing of the banking sector during the crises, namely at the public debt level. The materialization of sovereign debt risk meant that some banks were confronted with material losses and demanded State intervention, with consequent effects on the public accounts. More recently, the creation of the Banking Union mitigated this relationship of mutual dependence between sovereign debt and the banking system.

In this context, the European Systemic Risk Board (ESRB) published a report in March 2015 that describes potential measures relating to the prudential treatment of sovereign debt.[65] From among the measures aimed at the banking sector, the following possibilities are noteworthy:

- In terms of minimum capital requirements relating to sovereign debt exposure:

In the standardised approach

  - Introducing a non-zero risk-weighting floor for sovereign debt exposures;
  - Removing the exemption from minimum capital requirements for sovereign debt of European Union Member States, denominated and funded in the country's own currency;
  - Reducing the reliance on external ratings when calculating minimum capital requirements.

In the internal ratings-based approach

  - Imposing minimum capital requirements for this type of asset.

- In terms of diversification requirements:
  - Fully or partially removing the exemption of sovereign exposures from the large exposures regime;
  - Introducing a minimum capital requirement for concentration risk.
- The adoption of macro-prudential regulation, namely by allowing changes in capital requirements or variable limits over the cycle.
- Within the scope of enhanced Pillar 2 capital requirements, the implementation of improvements in handling this type of assets, namely through recommendations for stress tests and/or guidance on diversification.
- The introduction of enhanced disclosure requirements for this type of assets by implementing, for example, mandatory templates for disclosure. The EBA has been developing exercises in transparency and/or stress tests which include various balance sheet items, especially the sovereign debt portfolios of each institution.
- The analysis of alternative approaches to handling this type of assets within the scope of liquidity requirements.

As can be inferred from the aforementioned list, the measures under discussion aim to, on the one hand, recognize the credit risk associated to this type of assets, translating into greater capital requirements and, on the other hand, encourage the adoption of investment strategies which reduce excessive concentration, both direct and indirect, minimising the impact of a shock that could affect a significant part of the banking system's balance sheets.

Whilst there is no doubt that all the proposals aim to promote financial stability, it is necessary to guarantee that any regulatory changes in this area coincide with those of the remaining regulatory framework (such as liquidity management). It is also desirable that a range of measures are adopted at international level which avoid potential regulatory arbitrage between regulated financial sectors (banking, insurance, and pension and investment funds). Considering the impacts the measures could provoke in terms of portfolio shifts, it is vital that the financial agents evaluate the potential repercussions of their implementation.

## Notes

1. *World Economic Outlook*, International Monetary Fund, October 2015.

2. For more information, see Box 1 *The third bailout programme for Greece*, in the October 2015 issue of Banco de Portugal's Economic Bulletin.

3. On 13 November 2015, Instituto Nacional de Estatística (Statistics Portugal) released the GDP growth rate for the third quarter of 2015, according to which GDP grew 1.4 per cent year-on-year.

4. October 2015 issue of Banco de Portugal's Economic Bulletin.

5. These projections will be revised in the December 2015 issue of Banco de Portugal's Economic Bulletin.

6. Considering Monetary and Financial Statistics data, the non-performing loan ratio of credit to households for house purchase rose from 1,2 per cent in August 2007 (before the start of the financial crisis), to 2,6 per cent in August 2015. This contrasts with the trend observed in the same period in loans for consumption (from 3.3 per cent to 10.6 per cent), loans to households for other purposes (from 4.7 per cent to 15.9 per cent) and loans to non-financial corporations (from 1.8 per cent to 16.3 per cent).

7. The sustainability of floating rate debt is a concern included in the *Guidelines on creditworthiness assessment* defined by EBA in June 2015 to support EU Member States in the implementation of the Mortgage Credit Directive (which will enter into force on 21 March 2016). The Guidelines expressly mention that, when assessing the consumer's ability to meet his / her obligations under the credit agreement, the creditor should take account of potential negative scenarios, namely an increase in reference interest rates in the case of floating rate credit.

8. For a full discussion on this result see Complete Series (*since January 2003*), Bank Lending Survey, *Banco de Portugal*, on http://www.bportugal.pt/en-US/EstudosEconomicos/Publicacoes/IBMC/Pages/InqueritoaosBancossobreoMercadodeCredito.aspx

9. The samples used represented, as at December 2014, around one fifth of outstanding agreements of home loans and related loans (i.e. loan guaranteed with the same property used as collateral in a home loan) in the case of loan-to-value, and around 50 per cent of the total in the case of loan-to-income.

10. As indicated by Statistics Portugal (see Statistics Portugal's Press release – Quarterly National Sector Accounts, 23 September 2015), the decrease in capital transfers received reflects a base effect associated with the funding carried by the General Government to the public transportation companies, classified in the non-financial corporations institutional sector, in the second quarter of 2014, which stopped impacting the balance of the sector in the same quarter of 2015.

11. Between 2009 and the first half of 2015 the weight of the financing of participants and subsidiaries increased from 11 to 14 percent of total assets, whereas the weight of the equity rose from 31 to 34 percent of total assets.

12. In August 2015, annual rate of change of loans to non-financial corporations by resident financial institutions was 0.7 per cent.

13. -2.2 per cent in June 2015 for small enterprises, compared with -1.1 per cent in June 2014, and -2.6 per cent in June 2015 for medium-sized enterprises, compared with -2.4 per cent in June 2014.

14. For a full discussion of these results, see Bank Lending Survey, Banco de Portugal, October 2015, on http://www.bportugal.pt/en-US/EstudosEconomicos/Publicacoes/IBMC/Publications/Results_Oct2015_e.pdf

15. The risk evaluation of non-performing loans by corporations followed Martinho and Antunes' methodology, *A scoring model for Portuguese non-financial enterprises*, Banco de Portugal, Financial Stability Report, November 2012. For further details, see Banco de Portugal, Economic Bulletin, October 2015, pp. 28.

16. In June 2015, the activity sectors to which the banking sector is most exposed, ordered by their exposure size, are: construction, manufacturing, mining and quarrying and trade.

17. Data on loans granted by the resident and non-resident financial sector.

18. See Statistics Portugal, Investment survey – 2015.

19. Data on loans granted by the resident financial sector. For further details on the development of the average indicators of exporting enterprises, compared to non-exporting enterprises, see Banco de Portugal, Central Balance-Sheet Study No 22 – *Analysis of enterprises in the export sector in Portugal*.

20. For a more thorough analysis, see Banco de Portugal, Economic Bulletin, October 2015.

21. Larger domestic banks include BCP, CGD, BPI and Novo Banco; medium-sized domestic banks include Montepio, Banif, SICAM, Banco BIC and Finantia; the main non-domestic banks include Santander Totta, BBVA, Banco Popular, Barclays and Deutsche Bank.

22. Defined as the difference of net assets and volatile liabilities as a percentage of the difference between total assets and liquid assets, for each maturity scale. Indicators were calculated based on data and concepts set out in Instruction of Banco de Portugal No 13/2009. This indicator allows for an encompassing characterisation of the banks' liquidity position, by considering a wide group of assets and liabilities and their residual maturities.

23. The Commission Delegated Regulation (EU) with regard to liquidity coverage requirement defines stress as a "sudden or severe deterioration in the solvency or liquidity position of a credit institution due to changes in market conditions or idiosyncratic factors as a result of which there may be a significant risk that the credit institution becomes unable to meet its commitments as they fall due within the next 30 calendar days". For more detail, see: http://ec.europa.eu/finance/bank/docs/regcapital/acts/delegated/141010_delegated-act-liquidity-coverage_en.pdf.

24. In the first nine months of 2015, the results of the main banking groups have recovered mainly due to the developments in net interest income and impairments.

25. The reduction in reference interest rates and their maintenance at very low levels tends to have a negative impact on the Portuguese banks' net interest income given how it restrains lending and deposit rates. Lending operations are mostly entered into at variable rates and with short re-fixing periods. In addition, the re-pricing of housing loans, which have a considerable weight, is slow due to fixed spreads, very long maturities and a very low flow of new business compared with total credit granted to this segment. As regards deposits, the reduction in rates and their maintenance at very low

levels reduces the benefit stemming from a non-remunerated, or remunerated at a very low rate, component of liabilities (demand deposits, which are an important part of banking system deposits).

26. Since 1 January 2014, a new European Union legal framework has been in place: Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 (CRD IV) and Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 (CRR). This package transposed Basel III into the European framework.

27. It should be noted that in the first half of 2015 one non-life insurance company entered the universe of insurance companies supervised by the Autoridade de Supervisão de Seguros e Fundos de Pensões (ASF). Before this change this corporation carried out its activity in Portugal as a branch. As such, the figures presented in this report take into account this change in the universe considered.

28. Considering the overall activity in Portugal of insurance companies supervised by the ASF. Excluding the effect of the non-life operator that carried out its activity as a branch, the change in production would be negative by roughly 4 per cent.

29. For more information, see the reports on Análise de Riscos do Setor Segurador e dos Fundos de Pensões (risk analysis of the insurance sector and pension funds), published by the ASF.

30. Claims ratio = Cost of claims / Gross premiums written.

31. This classification of mutual funds is in line with note B.8.1.1.2.a. of the Statistical Bulletin, according to which the breakdown by investment policy is generally based on the types of assets in which the investment funds primarily invest, usually on the basis of a stated strategy indicated in the management rules and regulations (this classification includes other retirement-savings open-ended funds reviewed in section 1.3.3 of this report).

32. This analysis is based on information on non-performing loans using data from several sources. Although the underlying concepts are not fully harmonised, this does not undermine the analysis put forward. For more information on the lack of harmonisation between concepts, see Aiyar *et al.* (2015).

33. Figures extracted from the ECB's Consolidated Banking Data. For more detailed information on this database, see the ECB's website (http://www.ecb.europa.eu/stats/money/consolidated/html/index.en.html). Developments between 2008 and 2014 may also have been influenced by the Asset Quality Review exercise developed by the ECB/SSM in 2014.

34. These results should be considered merely indicative, given that they are partly based on a qualitative assessment (and, as such, subjective) by national authorities, and due to the fact that the various factors are naturally interdependent.

35. Approved by Decree-Law No 298/92 of 31 December 1992.

36. Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014, establishing a framework for the recovery and resolution of credit institutions and investment firms, given the acronym BRRD (Banking Recovery and Resolution Directive).

37. Article 145-U of the RGICSF.

38. The bail-in may also complement the application of the other resolution tools laid down in the RGICSF (sale of business or transfer of business to a bridge bank or to an asset management vehicle).

39. The *MREL* is a comparable requirement to the Total Loss Absorbency Capacity (TLAC) proposed by the Financial Stability Board for the globally systemically important banks (G-SIBs). Aside from the entities that are subject to the TLAC requirement, it differs from the *MREL* in regard to eligible instruments, the calculation methodology and the consequences of non-compliance.

40. As resolution authority for all the credit institutions having their head office in euro area countries, the Single Resolution Board will have the legal power from 2016 under Regulation (EU) No 806/2014 of the European Parliament and of the Council to specify the *MREL* for credit institutions under its direct responsibility.

41. Cf. Article 145-Y (1) and (7) and Article 145-Z (1) and (8) of the RGICSF.

42. Under Article 145-U (6) of the RGICSF. Liabilities that are always excluded from a bail-in include deposits guaranteed by the Deposit Guarantee Fund and the Mutual Agricultural Credit Guarantee Fund up to the limit of those guarantees, and those backed by real collateral.

43. Under Article 145-Y (4) of the RGICSF.

44. Cf. Article 145-Y (6) of the RGICSF.

45. EBA/RTS/2015/05, available at https://www.eba.europa.eu/documents/10180/1132900/EBA-RTS-2015-05+RTS+on+*MREL*+Criteria.pdf

46. This default amount may also be equal to the Basel I floor according to Article 500 of Regulation (EU) No 575/2013, or to any applicable leverage ratio requirement, when either of these two amounts is higher than the sum of those capital requirements.

47. A prerogative conferred on Banco de Portugal by Article 145-U (7) of the RGICSF, where duly justified based on a set of requirements laid down in the same provision.

48. Article 145-U (11) to (13) of the RGICSF.

49. In 2014, following the resolution measure applied to Banco Espírito Santo, it was decided not to include Novo Banco in the comprehensive assessment, given that it would not be possible to conclude it in time.

50. According to the October 2015 Bank Lending Survey – Results for Portugal, aside from the narrowing of spreads, there are indications of less tight credit standards for loans to households and large non-financial corporations.

51. See Box 2 of the May 2015 Financial Stability Report.

52. As mentioned in Box 2, for a liability to be eligible for the Minimum Requirement for Own Funds and Eligible Liabilities (*MREL*), it has to have a residual maturity of over one year. Similarly, the net stable funding ratio (NSFR) weights liabilities with this characteristic more favourably.

53. See "Box: Delimitation of the shadow banking perimeter (from the entity perspective)", Financial Stability Report, May 2014, Banco de Portugal.

54. Following the financial crisis, banks deleveraged around the world, with two effects on the capital market: (i) the issuers (in particular the large

companies) increased borrowing from the capital markets due to the lower supply of credit from the banks; and (ii) the banks were replaced by large institutional investors, namely investment funds, as holders of securities.

55. Given the strong integration between investment funds and banking groups, banks may be obliged to buy participation units in investment funds experiencing high redemptions to avoid reputational problems.

56. Indirect exposure defined as credit and off-balance-sheet exposures to resident non-financial corporations with trade relations (exports) or direct investment relations with these economies.

57. Calculated by Banco de Portugal. The full implementation scenario involves considering the prudential regime established by the CRD IV/CRR in full, which will come into force from 1 January 2019. From January 2014 to that date, a set of transitional provisions will be in force, corresponding to the gradual adoption of the new provisions.

58. For further details, see http://www.eba.europa.eu/-/eba-updates-on-upcoming-transparency-exercise-and-on-key-features-of-2016-eu-wide--stress-test.

59. The Insurance and Pension Funds Supervisory Authority (Portuguese acronym: ASF) has published an analysis of the potential impact of introducing sovereign debt risk into the calculation of the Solvency Capital Requirement (SCR), determining that the overall SCR coverage ratio would fall between 19.5 and 44.4 percentage points, according to the scenarios considered in the analysis. See July 2015 report, Analysis of Insurance and Pension Funds Sector Risks.

60. Own funds in this ratio were mostly comprised of items considered to be of better quality (including paid-up capital, reserves, retained earnings and net income for the year).

61. This ratio corresponds to the capital component with the highest loss-absorbing capacity. The concept of *CET1* is more stringent than that of Core Tier 1, mainly owing to the introduction of a new set of deductions to be considered in its calculation.

62. In accordance with CRD IV, competent authorities establish additional capital requirements in addition to the regulatory minimums on the basis of a risk assessment procedure (usually called Pillar 2).

63. Without taking into account additional Pillar 2 requirements.

64. Regulation (EU) No 575/2013 of the European Parliament and of the Council on 26 June 2013 (CRR) maintains the exemptions mentioned.

65. Available at: https://www.esrb.europa.eu/pub/pdf/other/esrbreportregulatorytreatmentsovereignexposures032015.en.pdf?ffb3d856b7bf1453d5a7035c5a0cec84