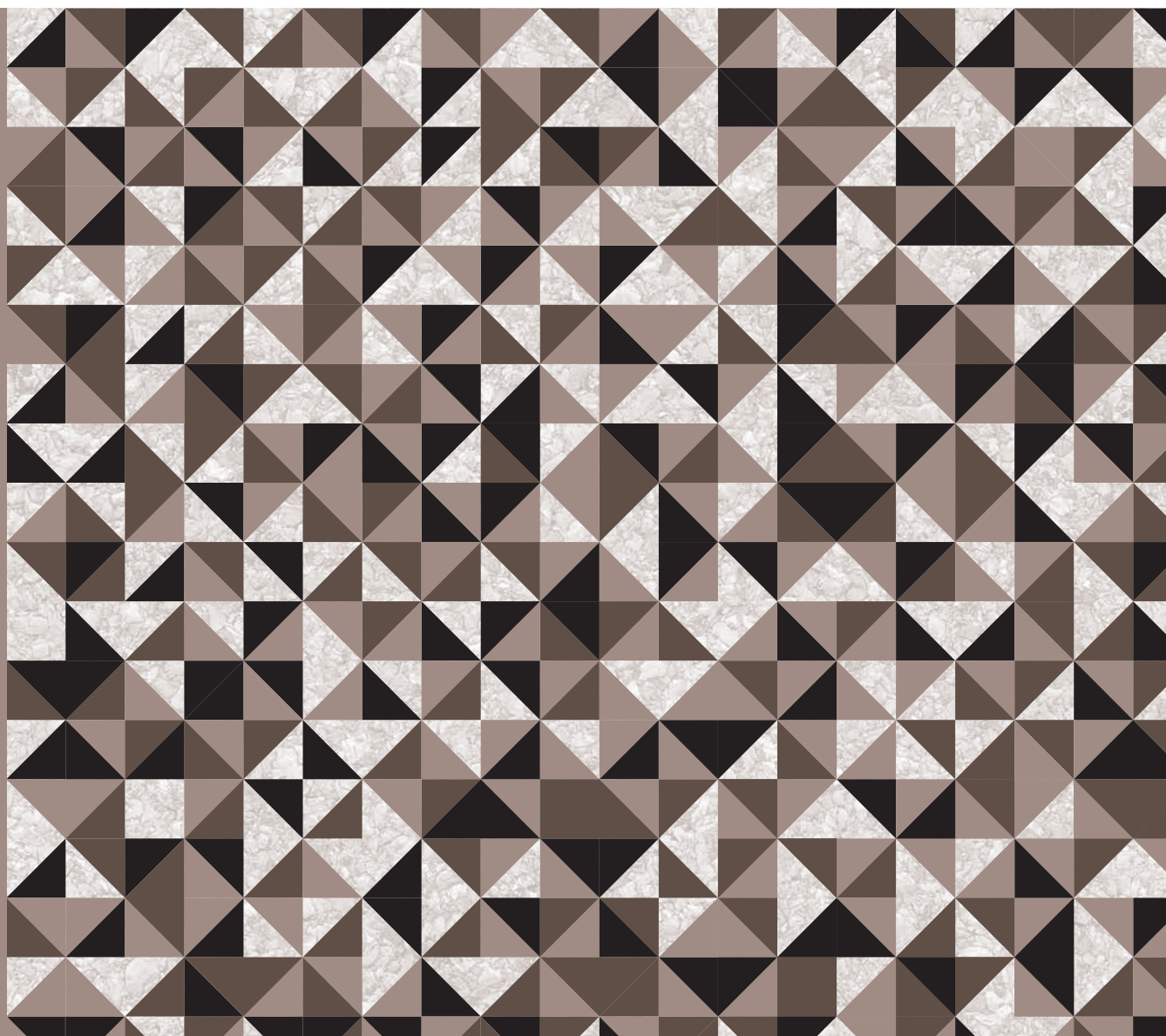




BANCO DE PORTUGAL
EUROSYSTEM

Financial Stability Report

November 2016



FINANCIAL STABILITY REPORT

November 2016



BANCO DE
PORTUGAL
EUROSYSTEM

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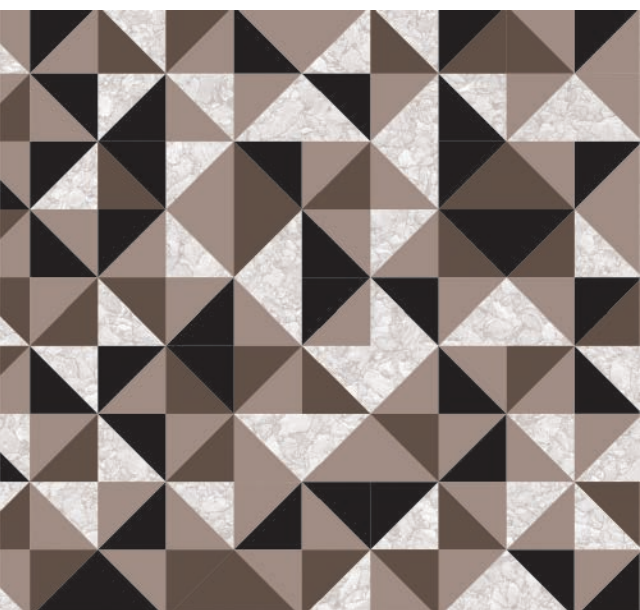
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I

Financial stability:
Vulnerabilities and risks

Summary

Macroprudential policy is based on identifying and assessing vulnerabilities and risks to financial stability, in order to introduce measures for their mitigation. A risk is a possible adverse shock that may harm financial stability if it materialises. After the risks are identified, there are various relevant aspects for their assessment: on one hand, the probability of the risk materialising, and on the other, the possible time horizon, intensity and duration of its effects. Regarding the so-called vulnerabilities or fragilities, these are pre-existing conditions that may interact with the risks, increasing their probability of materialising and/or amplifying their consequences.

The nature of the risks has remained virtually unchanged since the last Financial Stability Report, although some of them have materialised in part, including: (i) the risk of prolongation or aggravation of the low interest rate environment; (ii) the risk of the economic perspectives deteriorating in Portugal and in other geographies to which domestic agents are most exposed; (iii) the risk of sovereign debt risk premia increasing, in particular on Portuguese sovereign debt; and (iv) the risk of intensifying negative perception by the market towards banks with higher levels of non-productive assets.

Other important risks, although not materialising significantly in the last few months, arise from the possibility of reputational costs for the financial institutions related to the mis-selling of products to their retail customers, and the possibility of adverse developments in real estate prices. This reputational risk is particularly relevant given the current weak profitability of the "traditional" financial products and the regulatory pressures that require the banks to issue debt and capital instruments. With regard to residential and commercial real estate prices, these may drop if there is pressure on the markets from a deterioration in economic conditions, a change to taxation or an abrupt reduction of the financial sector's exposure to this kind of asset.

The probability of the identified risks materialising, as well as the impact of that, are adversely influenced by a set of vulnerabilities,

some general in scope and others specific to the financial system. One of the most important is the weak potential output growth of the European economy, and of the Portuguese economy in particular. Furthermore, in Portugal, high levels of public sector and non-financial private sector indebtedness remain, which highlights the need to pursue adjustment processes.

The specific vulnerabilities of the financial system, and in particular the banking sector, include: (i) the high stock of non-productive assets on the banks' balance sheet (mainly Non-Performing Loans (NPLs) (see Special issue 'IV.3 Concepts used in the analysis of credit quality'), but also real estate obtained in lieu of repayment, units in real estate investment funds and restructuring funds and deferred tax assets); (ii) the significant exposure to sovereign debt, in particular to domestic sovereign debt and also, in the case of the banks, to credit related to the real estate sector and companies strongly exposed to emerging market economies that have recently performed negatively; and (iii) the sustainability of the business models in the prevailing environment of low economic growth and interest rates.

These vulnerabilities hamper income generation and as a result internal capital, damaging investors' perception of the sector, both for the purposes of capital increase (by current and/or potential new private shareholders), and for the placement of debt in the wholesale financial markets. However, this has not prevented interest over the last few months among private shareholders in acquiring or increasing their holdings in Portuguese banking groups.

1. Vulnerabilities

The weak potential growth of the Portuguese economy and the high level of indebtedness in the public and private non-financial sectors are two important vulnerabilities

The recovery of the Portuguese economy, which began in 2013, has continued at a moderate pace, with the growth outlook revised downwards from mid-2015 (Chart 1). This has been driven by the lower expectations for external demand growth, due to moderate economic growth and low inflation in the euro area, and the continuation of the depressed performance of certain emerging market economies.

Certain recent political developments, particularly the outcome of the referendum in the United Kingdom and the US presidential election, have created high uncertainty levels, with potentially strong implications for international economic activity and the financial markets.

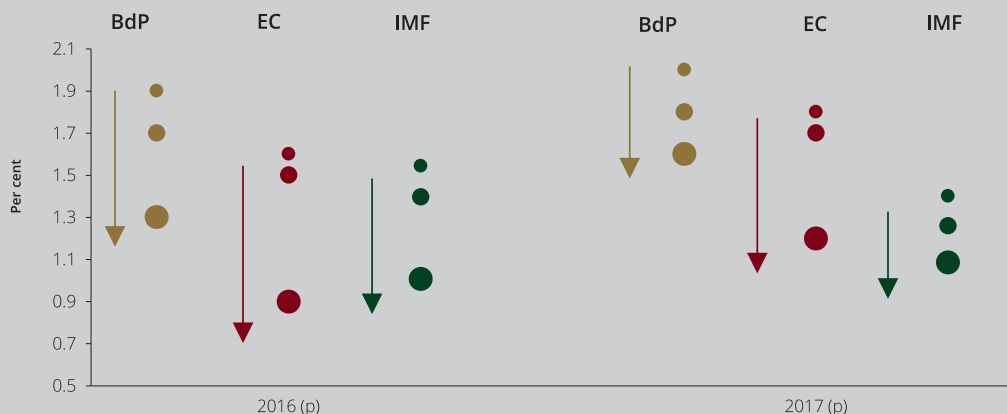
Other factors slow the pace of economic recovery in Portugal: (i) demographic developments due to emigration (including the young and qualified workforce) and population ageing (through the aforementioned emigration, the low birth rate and the increase in life expectancy); (ii) the

sharp and prolonged fall in corporate investment, which has continued even through the current recovery of the Portuguese economy; and (iii) the high level of long-term unemployment.

The current size of public sector indebtedness is also a significant vulnerability in the Portuguese economy, aggravated by the fact that public debt (as a percentage of GDP) has continued to increase in the latest period (Chart 2). It is therefore essential to maintain a fiscal consolidation trajectory which allows the sustained reduction in public indebtedness to start. The effective deleveraging of the public sector will allow the international financial markets' perception of the public finances to improve – contributing to better financing conditions and reducing the average cost of debt as a result – and will make public sector financing less vulnerable to changes in market conditions. This vulnerability and its associated risks were clearly reflected in the behaviour of Portuguese sovereign debt yields during 2016, in particular during periods of greater uncertainty and volatility in the international financial markets. While external developments are beyond the control of resident entities, it is important that the idiosyncratic factors, which do offer scope for action, develop favourably, to ensure that investor confidence is sustained in the developments of the Portuguese public finances.

Chart 1 •
Projections for the
GDP real rate of
change in Portugal

Source: Banco de Portugal
(BdP), the European
Commission (EC)
and the International
Monetary Fund (IMF).



Notes: (p) – projections. Larger circles relate to more recent projections. For BdP these are from the Economic Bulletin of June 2015, December 2015 and June 2016; for the EC these are from the European Economic Forecast of Winter 2015, Spring 2016 and Autumn 2016; for the IMF these are from the World Economic Outlook of October 2015, April 2016 and October 2016.

The non-financial private sector also features very high levels of indebtedness, although there has been a significant and ongoing deleveraging among households and non-financial corporations over the last few years. However, in the first half of 2016, the pace of adjustment has slowed. For non-financial corporations in particular, the most recent developments reflect in part the positive contribution from external financing, principally to large companies (as described in "II. Financing of the economy"). The drive to reduce debt levels must continue, especially for those with higher indebtedness levels, to ensure their resilience to potential adverse shocks affecting their debt service capability.

The financial system also has a set of specific vulnerabilities

As mentioned above, one of the vulnerabilities of the Portuguese banking system is its high volume of NPLs and other non-productive assets. This fragility does not only affect Portugal, but is shared by the banking systems of several other Member States. The existence of significant NPL levels is partly the result of crisis episodes in those countries and, in some of them, of economic and financial adjustment processes.

In Portugal, the importance of NPLs on the banks' balance sheet, despite some stabilisation in the latest period, increased significantly in the last few years, with a strong contribution from the non-financial corporations sector.

The resilience of the Portuguese banking system is also affected by significant exposures to certain asset classes, such as sovereign debt (Chart 3), assets related with the real estate sector and credit granted to companies strongly related to depressed emerging market economies.

The business models of many European banks, including the Portuguese banks, are another vulnerability, as they are particularly affected by the persistence of the low interest rate environment, with an impact across all maturities. Traditionally those models depend on maturity transformation as a source of income, along with providing credit at variable interest rates, offering benchmark interbank rates plus a fixed spread on longer term credit (such as housing credit). In a context of negative interbank interest rates and rates applied to deposits close to the zero lower bound, net interest income, and, as a result, profitability, are particularly affected. In the case of the Portuguese banks, while it is true that they have adjusted their operational cost structure, it is also the case that this adjustment is still insufficient to offset the fall in income sources that has taken place.

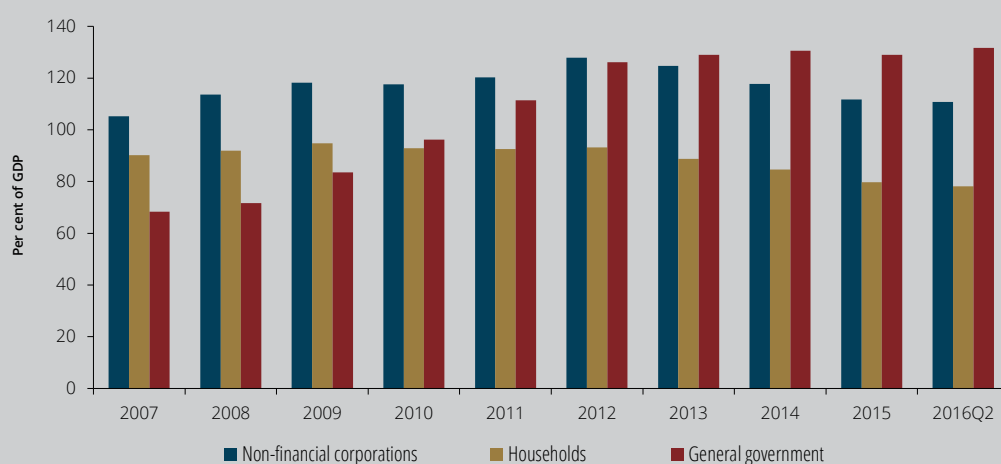


Chart 2 •
Non-financial
public and
private sector
indebtedness

Source: Banco de Portugal
Notes: Public debt calculated in accordance with the definition used in the Excessive Deficit Procedure (Regulation (EC) 479/2009, of 25 May 2009), i.e. consolidated general government gross debt at nominal or face value (so-called 'Maastricht debt').

Furthermore, the European banking sector, particularly in the case of Portugal, currently faces significant challenges to financing conditions in the wholesale market. However, over the last few years there has been a significant reduction in the loan-to-deposit ratios of the Portuguese banking sector, strongly reducing the need for market financing. The current conditions of Eurosystem financing, with longer-term liquidity-providing operations and low or even negative interest rates, also reduce the incentive to seek funding from the market. However, given that these particularly favourable conditions will necessarily be limited in time, and market funding is likely to be needed to comply with new regulatory requirements (including the Minimum Requirement for Own Funds and Eligible Liabilities – MREL), an improvement in market funding conditions with sustainable costs has become essential.

This set of vulnerabilities specific to the Portuguese banking sector, shared by other euro area countries' credit institutions to varying degrees, creates difficulties both in generating capital internally (through retained earnings), and in attracting capital. However, this has not prevented interest over the last few months among private shareholders in acquiring or increasing their holdings in Portuguese banking groups.

In the insurance and pension fund sector, the exposure concentration to sovereign debt,

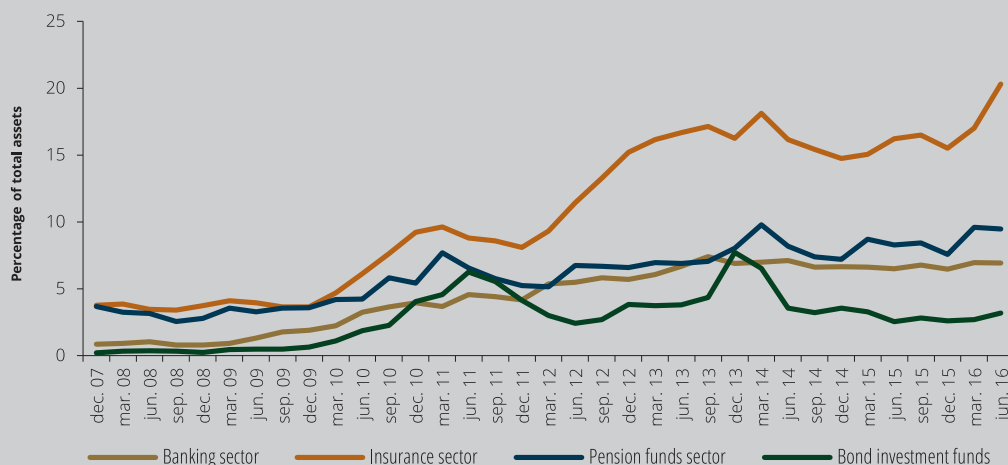
despite it arising from the business's specific characteristics (with demand for longer maturities, a typical feature of sovereign debt securities), is a significant vulnerability, due to sensitivity to possible reassessments of risk premia. The guaranteed return on many life insurance products and pension funds is also a vulnerability for the sector in the current context of extremely low interest rates, due to the difficulty in finding investment opportunities to match the liabilities taken on.¹

Regarding investment funds, the difference in liquidity between those funds' units and the assets in their investment portfolios is a vulnerability that appears at times of market stress, through the faster flow of redemptions, leading to potential spillover effects on other financial system subsectors (such as banks, which for reputational reasons, among others, provide financial support to investment funds beyond their contractual obligations, giving rise to so-called 'step-in risk').²

In the case of securities investment funds, the low interest rate environment has contributed to falling yields, a likely cause of the increase observed in net redemptions. In turn, real estate investment funds, besides the intrinsic illiquidity of their portfolios, are increasingly leveraged, with larger holdings taken by financial institutions, reflecting in part materialisation of this step-in risk.

Chart 3 •
Portuguese financial
sector exposure to
domestic public debt

Source: Banco de Portugal and
Autoridade de Supervisão de
Seguros e Fundos de pensões



Increased uncertainty at international level, resulting in greater volatility in the financial markets, interacts with the vulnerabilities in the Portuguese economy

Finally, the prevailing high uncertainty in the international financial markets facilitates high volatility episodes at global level and increased sensitivity to spillover effects, mainly affecting the risk premia of issuers perceived by the markets to be weaker. This situation interacts with some of the vulnerabilities

mentioned above, such as high indebtedness and exposure concentration to assets more sensitive to market price fluctuations.

For example, the sudden reassessment in the international financial markets following the referendum in the United Kingdom, although short-lived (due to mitigating measures from the Bank of England), produced a volatility spike with potential for spillover to issuers which, for different reasons, were already weaker. As in previous situations of major volatility, the spillover effect was seen in the devaluation of securities issued by European banks, with a heavier impact on institutions perceived as weaker in terms of NPLs and/or capital.

2. Risks

The following paragraphs describe the risks to financial stability identified, given the above vulnerabilities.

The prolongation or aggravation of the low interest rate environment continues to pose additional challenges to the financial sector

Recent developments suggest that monetary policy will remain extremely accommodative for a prolonged period, resulting in expectations that benchmark European interbank rates will remain negative for longer than initially expected (Chart 4).

This puts pressure on banks' profitability, by reducing net interest income,³ potentially incentivising excessive risk-taking behaviours designed to boost profitability, despite the possible negative consequences for the asset

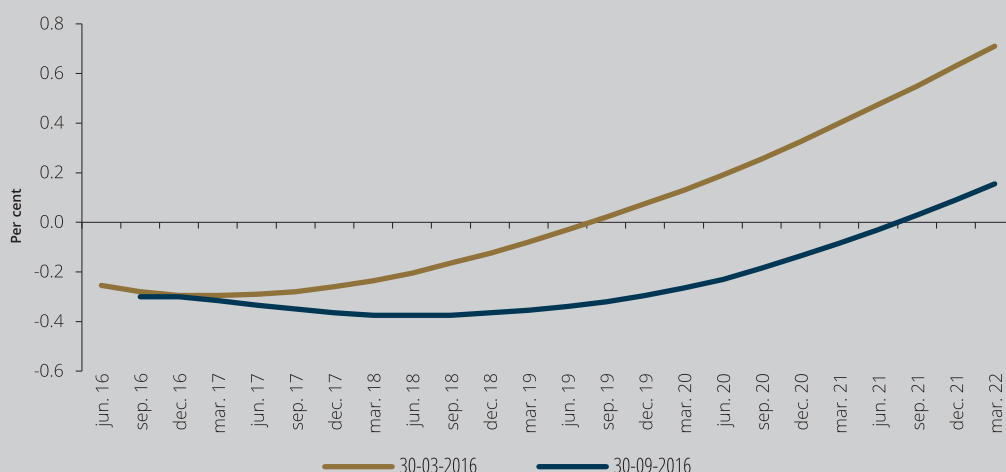


Chart 4 •
Interest rate implicit in three-month Euribor futures contracts

Source: Bloomberg

quality on the balance sheet. These search-for-yield behaviours may become particularly relevant given that the main factors contributing to some profitability improvements recently (e.g. the adjustment to the cost of deposits being higher than the fall in interest received and income from financial operations, mainly sovereign debt) will probably not have the same significance in the future as they have had in the past.

Regarding the insurance and pension fund sector, the prolongation or even aggravation of the low interest rate environment may result in further downward revisions of the discount rate for liabilities, resulting in the increase in the liabilities' current value. The adaptation of certain insurers' business models to a low interest rate environment has involved changes to the product offering, increasing the range of unit-linked products (or defined-contribution products, in the case of the pension funds), at the expense of guaranteed income products. This change raises very important issues, such as the suitability of these products to the customers targeted, or the ongoing role of financial intermediation, normally undertaken by the sector.

In the investment fund sector, the low interest rate environment reduces the scope for yields high enough to attract or retain investors, in particular in the case of investment funds with more conservative investment policies. Thus, as mentioned previously for the other financial sectors, the low interest rates may incentivise search-for-yield behaviour in this sector, such as the holding of assets with longer maturities and/or greater credit risk (even while respecting the investment policies previously established).

The low interest rate environment also creates incentives for the agents with high indebtedness levels to postpone their adjustment process, slowing the pace of deleveraging in the non-financial private sector. Despite the fact that low inflation leads to lower erosion of the nominal value of debt, the low interest rate context is favourable for economic agents with high levels of indebtedness, as they benefit

from reduced debt service through the interest savings. In this respect, the prolongation of the low interest rate environment should be seen as an opportunity for more leveraged agents to actively reduce their debt level, to promote the sustainability of their financial position should interest rates normalise.

The deterioration of the economic conditions in Portugal or in economies to which the financial intermediaries are exposed (directly or indirectly) is likely to have adverse consequences for the asset quality in the sector

Aggravation of the economic situation in Portugal may undermine the non-financial private sector's debt service capability due to, inter alia, falling disposable income or corporate profitability, and to the consequent increase in credit default, with a negative impact on the banks' asset quality.

In the insurance sector, any materialisation of this risk will have a negative impact on non-life insurance (e.g. accidents at work and motor insurance), whose direct business level is linked more closely to developments in macroeconomic conditions.

The asset quality on the banks' balance sheet has also been negatively affected by the deterioration in the macroeconomic conditions in third countries, Angola and Brazil in particular, with which domestic non-financial corporations have strong trade or foreign direct investment links. Despite the indirect exposure to these countries remaining relatively stable over the most recent quarters, default on credit to the companies most exposed to Angola and Brazil increased significantly in 2015, having stabilised since then. Any aggravation of the economic situation there will have even more adverse effects on the NPL levels of the Portuguese banks.

A reassessment of the risk premia, at global or only at domestic level, will lead to a devaluation of financial assets and increased financing costs for domestic agents

A reassessment of the risk premia, should it happen, would affect the financial system across the board, both through the devaluation effect on the exposures to financial assets, and through the increase in financing costs.

As mentioned above, the banks, insurance companies and pension funds in Portugal are significantly exposed to sovereign debt securities – a situation common to many other European countries – with the result that these institutions would be particularly affected by a further increase in risk premia and the corresponding devaluation of these assets.

At the same time, any aggravation in the risk premia will contribute to an increase in the financing costs of the sovereign and financial institutions and as a result the other economic sectors. This spillover effect will be particularly significant in the case of credit to the non-financial corporations, in which the spreads applied are revised with higher frequency. In the case of consumers, this effect is mitigated by the fact that housing credit, which forms the majority of the credit provided to the sector, has been provided at interbank interest rates plus a fixed spread.

An additional increase in the sovereign risk premia, should it happen, would spill over to issuers from the banking sector, which as stated previously have not issued in the wholesale market. This effect will be more material if the banks have to issue debt on the market in the next few years to comply with regulatory requirements, including the net stable funding ratio (NSFR) and the minimum requirement for own funds and eligible liabilities (MREL).

In the insurance sector, any increase in the sovereign risk premium could have a dual impact, devaluing the assets and increasing the

capital requirements. For investment funds, a sudden and significant increase in risk premia with negative effects on the valuation of their portfolios could potentially trigger an increase in redemptions, with a knock-on effect on the funds' liquidity.

Importantly, an increase in the sovereign risk premia could have an external origin, resulting from contagion effects, or be triggered by idiosyncratic factors. The domestic economic agents have relatively little room for manoeuvre to prevent a reassessment of risk premia on a European or global scale, reflecting a reversal of the recent search-for-yield behaviours. With regard to the reassessment of the domestic risk premia triggered by idiosyncratic causes, the chance of this occurring must be mitigated by continuing the fiscal consolidation efforts in Portugal.

Measures that strengthen the resilience of the financial sector will also help reduce the domestic risk premium. In this regard, there have been some positive recent developments: the plan announced to recapitalise CGD, the efforts undertaken by the financial institutions to reduce costs and increase operational efficiency, the solution to the impasse over the BPI ownership structure, the capital injection into BCP by new shareholders and the expected conclusion of the Novo Banco sale process. The impact on Portuguese banks of a potential cost to be assumed by the Resolution Fund following the resolution measure applied to BES has also been clarified. This impact will not take the form of extraordinary contributions for the resolution fund nor in immediate penalties on capital, as it will be diluted over a sufficiently long period.

The high stock of NPL aggravates the markets' perception of the banks' situation, in a European regulatory framework that hampers a solution to the problem

The limitations imposed by the Bank Recovery and Resolution Directive (BRRD)⁴ on recapitalising viable banks with public support for precautionary reasons, as well as the restrictions on this type of process resulting from the European Commission's application of specific rules on State aid to banking institutions,⁵ make it particularly difficult to formulate comprehensive and effective strategies to solve the problem of NPLs, with consequences in several European countries.

The prolongation of the current situation may exacerbate the difficulties in the banking sector, whether due to adverse consequences for profitability and/or capital, or due to the impact on perception of the institutions' robustness. This latter aspect restricts the banks' ability to obtain funding (debt or capital).

Some of the risk factors mentioned above would have an unfavourable effect on the already high NPL levels. On one hand, the macroeconomic environment, characterised by low economic growth and low interest rates, will reduce the banks' incentives to solve the problems of these kinds of assets, due to the lack of profitable alternatives (demand-side restrictions), and the difficulty in accommodating the increasing need to recognise losses in a low profitability context. A deterioration in economic conditions domestically or in economies to which the banking system has indirect exposures will also have adverse consequences on NPL levels, through the deterioration of the debt service capacity in the non-financial private sector. In turn, a reassessment of the risk premia will be transmitted to domestic issuers' spreads and will thereby affect the sustainability of non-financial corporations' debt.

The financial institutions may also incur reputational risks with a potentially significant impact on their profitability and liquidity

The sale of financial products is subject to demanding information disclosure requirements, designed to prevent mis-selling. However, in a low

profitability context in particular, with a lack of income-generating opportunities, there may be incentives to sell financial products without strictly observing these requirements. Compliance with new regulatory requirements, which provide for the need to issue financial instruments, may also incentivise the placement of those instruments with non-institutional investors, in particular by institutions with greater difficulty in accessing market financing (which includes Portuguese institutions).⁶

The materialisation of reputational risks, due to the mis-selling of financial products, involves significant costs for financial institutions, with an impact on their profitability and liquidity, or even on their solvency. Taking into account the financial sector's ownership structure in Portugal and the fact that the banking sector's retail network is a preferred channel for the distribution of financial products, any materialisation of reputational risks tends to particularly affect the banks.

Falling residential and commercial real estate prices would have repercussions on the financial sector

Recent developments in the real estate sector have been favourable overall, both in the residential and the commercial segments, although typified by marked regional heterogeneity. The buoyancy seen in certain upper segments of the residential market has been linked mainly to demand from foreign investors, with financing that does not flow through the Portuguese banking system.

However, there is a risk of prices falling due to a possible deterioration in economic conditions, fiscal changes or pressures on the financial sector to reduce more drastically their exposures to assets linked to the real estate sector. This situation may have a significant unfavourable impact on the financial sector, given the existing direct and indirect exposures that have a high share of total assets in the sector.

3. Macroprudential policy

Based on the above vulnerability and risk assessment, some macroprudential policy measures are presented in the following paragraphs.

In the current context of very low interest rates, the correct assessment of borrowers' credit capacity takes on particular importance, helping mitigate the provision of credit to less creditworthy debtors. For consumer credit, it is essential that the financial institutions respect the rules laid down in the Mortgage Credit Directive when they assess requests for credit. Among other provisions, this Directive establishes that credit capacity must be assessed by the credit institutions, taking a forward-looking approach, accounting for the effect of plausible increases in market interest rates and borrowers' overall indebtedness. Naturally, these principles must be applied by the institutions in providing credit in general.

In a context of persistent high indebtedness in the non-financial private sector, the net flow of total credit (new credit net of repayments) remains negative. Consistent with this negative flow and GDP's positive growth rate, the credit-to-GDP gap remains below its long-term trend. This variable is among the indicators used by Banco de Portugal to determine the countercyclical capital buffer. These indicators do not suggest excessive credit growth in 2016 (see Box 1 "Countercyclical capital buffer", which sets out the methodology used). For that reason, Banco de Portugal has decided to maintain the buffer unchanged at zero per cent of risk-weighted assets.

To ensure that the macroprudential policy measures are more effective, the European Systemic Risk Board recommends that the measures applied by a country's authority to the institutions under its jurisdiction are also adopted by the authorities of the other countries whose institutions have exposures to that jurisdiction. This process is called 'reciprocity' and applies to branches' exposures or direct exposures to residents in the country where the measures are

adopted. In this regard, Banco de Portugal decided to reciprocate the measure taken by the National Bank of Belgium regarding the exposures secured by residential property assets located in that country, despite the total exposures being negligible and the measure thus not having a material expected impact for resident institutions in Portugal. Also within the reciprocity of macroprudential measures recommended by the European Systemic Risk Board, Banco de Portugal decided to impose a systemic risk buffer on Portuguese credit institutions of one per cent on at-risk exposures located in Estonia, both directly or through branches operating in that Member State. The expected impact on banking institutions in Portugal is very low in this case also.

Regarding new regulatory requirements, Banco de Portugal decided to revise the decision to bring forward the capital conservation buffer, returning to the phase-in laid down in the European banking regulation, through the imposition of a capital conservation buffer of 0.625 per cent (of the total amount of risk-weighted assets) in 2016, of 1.25 per cent in 2017, of 1.875 per cent in 2018 and of 2.5 per cent in 2019. This decision was motivated by the need to ensure that Portuguese credit institutions operate under the same conditions as most institutions covered by the Single Supervisory Mechanism (SSM).

Banco de Portugal also decided to apply a phase-in of the other systemically important institution (O-SII) buffer between 2018 and 2019. Similarly to the case of the capital conservation buffer, this decision was mainly to ensure the conditions imposed in this regard on Portuguese institutions are aligned with those applied to their European counterparts that operate in similar macroeconomic environments.

In terms of the banking sector's sovereign exposures, unrealised losses and gains in this asset class now affect the capital calculated for compliance with regulatory ratios, given the partial removal of the prudential filter.

This change is only one of the effects arising from the entry into force in October 2016 of the SSM Regulation on the exercise of options and discretions available in European banking regulations⁷ and will affect from then the institutions directly supervised by the SSM. In the short or medium term, however, this will be extended to the other resident institutions (see Box 2 "Options and discretions in the context of the Single Supervisory Mechanism"). However, the probable implementation of IFRS 9 in 2018, which permits exposures currently classified as financial assets available for sale under IAS 39 to be measured at amortised cost in certain circumstances, will tend to reduce the sensitivity of own funds to volatility in assets' fair value, in particular for sovereign debt securities.

Given the constraints on income generation in a very low interest rate environment over a prolonged period, a comprehensive reassessment of financial institutions' business models and cost structure is indispensable. The need for greater operational efficiency must not however jeopardise the investments needed to maintain close internal risk control and appropriate governance. The reformulation of the business models must also take into account the challenges brought by demographic change, as well as the opportunities and challenges of the digitalisation of the business (see Special issue 'IV.2 Efficiency of the Portuguese banking system').

Regarding mitigation of reputational risk, as described in Box 5 of the May 2016 edition of the Financial Stability Report, the sale of savings and investment products must obey principles designed to prevent mis-selling. These principles are published on the Banco de Portugal website and result from joint action by the *Autoridade de Supervisão de Seguros e Fundos de Pensões – ASF* (the insurance and Pension Funds Supervisory Authority), the *Comissão do Mercado de Valores Mobiliários – CMVM* (the Securities Market Commission) and Banco de Portugal.

Finally, to address the inherent risks of the high NPL stock in certain European countries, including Portugal, measures must be defined

and adopted that allow reduction of that stock to accelerate. Examples are provided in the ECB document under public consultation up to 15 November ("Draft ECB guidance to banks on non-performing loans"), the recommendations made by various international institutions (for example the IMF and the European Commission), and the analyses arising from market operators and rating agencies. Given the scale of the problem, these measures must be multi-dimensional in design, addressing the institutional, legal and fiscal aspects, along with supervisory initiatives. Any solution must also take into account: (i) the nature of the NPLs (as in some countries, including Portugal, they are focused in significantly heterogeneous non-financial corporations in terms of size and activity sector); (ii) the restrictions currently faced by the banks in terms of profitability and capital; (iii) the potential sources of funding in a European regulatory context that is far more demanding than at the start of the financial crisis; and (iv) its potential systemic consequences, given the fact that there are NPLs associated with exposures shared by several institutions in the banking system.

BOX 1 • Countercyclical Capital Buffer

The countercyclical capital buffer (hereinafter referred to as 'buffer') is part of the set of instruments available for the implementation of macroprudential policy (the macroprudential toolkit) in Portugal and the European Union (EU) and consists of a capital buffer whose objective is to mitigate and prevent systemic risk due to excessive credit growth in the private non-financial sector.⁸ In the expansionary phase of the credit cycle, credit institutions are required to build up a capital buffer that can be used to absorb losses when risks materialise.⁹ This instrument, on the one hand, contributes to moderation of the credit supply, thus mitigating the expansion of the credit cycle, and on the other hand, ensures that credit continues to flow to the economy in periods of losses, allowing the financial system's deleveraging process to be slower.

This macroprudential instrument varies not only over the credit cycle, but also according to the geographical distribution of each credit institution's exposures to the private non-financial sector. The cross-border dimension of financial intermediation may result in losses associated with excessive credit growth emerging not only from exposures to the domestic private non-financial sector, but also from exposures to other countries, given the potential lack of synchronisation between the credit cycles of different countries. Thus, the buffer rate to be met by each credit institution is called the institution-specific countercyclical buffer rate and consists of the weighted average of the buffer rates applicable in the countries where the institution's relevant credit exposures are located.¹⁰

Banco de Portugal is responsible for setting, on a quarterly basis, the buffer rate for credit institutions' exposures to the domestic private non-financial sector.¹¹ The buffer rate must be set between a minimum level of 0 per cent and a maximum level of 2.5 per cent of the total risk exposure amount and is calibrated in multiples of 0.25 percentage points (p.p.). In exceptional cases, the buffer rate may be set above 2.5 per cent if the underlying risk assessment justifies such a decision. Banco de Portugal's decisions on

the buffer rate will be based on so-called guided discretion that combines the monitoring of a set of macroeconomic and financial indicators with expert judgment, with particular regard to the phases of the financial and economic cycles.

The indicators analysed in the decision-making process provide information on the evolution of the cyclical systemic risk and may be divided into two groups: (i) indicators that signal the accumulation of vulnerabilities associated with credit growth, used to support decisions to increase or maintain the buffer rate; and (ii) indicators that signal periods of risk materialisation, used to support decisions to reduce the buffer rate.

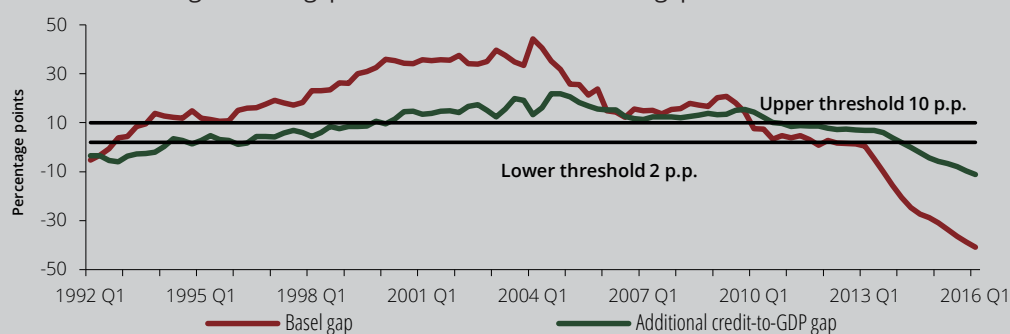
The first set of indicators was mainly selected based on the results obtained by Dekten et al. (2014) and Kalatie et al. (2015), but also took into consideration its adaptation to Portugal's specificities, results established by economic theory and regulatory requirements.¹² These two empirical studies explore the behaviour of a set of indicators in the period leading up to systemic banking crises triggered by excessive credit growth to the private non-financial sector, for a panel of European countries. The main indicator in this framework is the deviation of the credit-to-GDP ratio from its long-term trend, calculated in accordance with the Basel Committee on Banking Supervision (BCBS) guidelines, called the Basel gap.¹³ This gap provides an estimate for the credit cycle and is used to obtain the so-called benchmark buffer rate. If the Basel gap is less than or equal to 2 p.p., the benchmark buffer rate equals 0 per cent; but if the gap is between 2 and 10 p.p., the benchmark buffer rate increases linearly from 0 to 2.5 per cent; finally, if the gap is above 10 p.p., the benchmark buffer rate is 2.5 per cent. This benchmark buffer rate level is not binding and should be interpreted as a starting point for discussion of the final level of the buffer rate for exposures to domestic counterparties. However, this measure of the credit cycle is often criticised because the most recent values of the gap are substantially revised once new observations

of the credit-to-GDP ratio become available, and for that reason may lead to less accurate macroprudential policy decisions. For this reason, Banco de Portugal monitors in parallel an additional measure of the credit-to-GDP gap that is calculated in a similar way to the Basel gap, but using the ratio series augmented with forecasts.¹⁴ According to the literature on trend estimation using statistical filters, this measure will provide a more accurate estimate for the cyclical developments in the credit market when compared to the Basel gap. Chart 1 presents the evolution of the two measures of the credit-to-GDP gap for Portugal since the first quarter of 1992, as well as the upper and lower thresholds defined by the BCBS for the calculation of the benchmark buffer rate. Chart 2 presents the average Basel gap

for a set of EU countries before and after the onset of systemic banking crises.¹⁵ The average Basel gap exhibits an upward trend, with values well above the upper threshold of 10 p.p. in the period before the onset of a crisis, corroborating the idea that this indicator has signalling properties in regard to historical periods of systemic banking crises.

The other indicators included in the framework that supports the decisions to increase or maintain the buffer rate allow the information given by the two credit cycle measures to be put into perspective and are classified into one of six categories defined for the purpose in Recommendation ESRB/2014/1 of the European Systemic Risk Board. Table 1 presents the indicators monitored and some descriptive

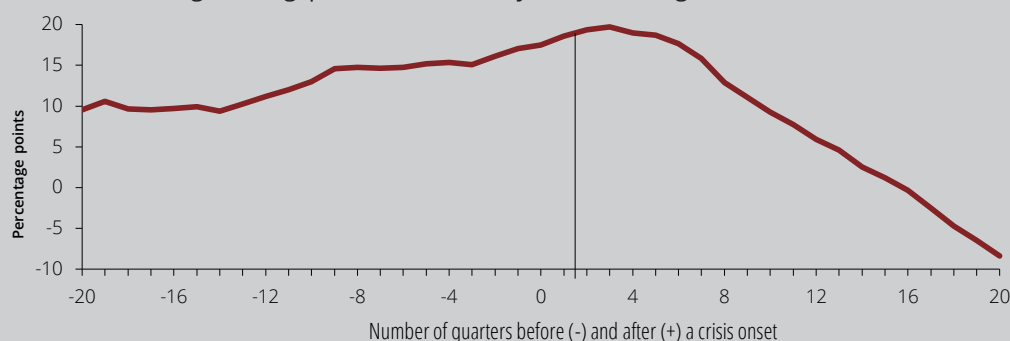
Chart 1 • Portugal – Basel gap and additional credit-to-GDP gap



Source: Bank for International Settlements, Statistics Portugal, Banco de Portugal and Banco de Portugal calculations.

Note: p.p. stands for percentage points.

Chart 2 • Average Basel gap before and after systemic banking crises in a set of EU countries



Source: Bank for International Settlements, Detken et al. (2014) and Banco de Portugal calculations.

Notes: The periods of systemic banking crises were defined in accordance with the information available in Detken et al. (2014).

Average based on crises identified in Denmark, Finland, France, Greece, Ireland, Italy, the Netherlands, Portugal, Spain and the United Kingdom.

statistics to characterise their evolution over time. It is important to emphasise that the decision on the buffer rate takes into consideration analyses and other indicators besides those presented here, and that discretion plays an important role, in particular, in the decisions to reduce the buffer rate. Thus, the set of indicators that signal periods of risk materialisation is considerably smaller and includes market indicators such as the difference between the

EURIBOR and EONIA rates and the composite indicator of financial stress for Portugal. For communicating the quarterly decisions on the countercyclical buffer rate for credit exposures to the domestic private non-financial sector, Banco de Portugal publishes on its website a brief analysis of the two credit cycle measures and the seven indicators that make up the set of indicators with signalling properties regarding the accumulation of vulnerabilities.

Table 1 • Indicators published on the website

	ESRB category	Quarter of the first observation	Quarter of the last observation	T ^(a)	T-1 ^(b)	4 quarters m.a.	Average	Maximum	Minimum	Risk tail ^(c)
Real house price index (y-o-y growth rate)	Potential overvaluation of property prices	1989 Q1	2016 Q1	5.9	4.2	3.7	-0.4	7.4	-9.8	→
Real bank credit to the private non-financial sector (y-o-y growth rate)	Credit developments	1978 Q1	2016 Q2	-4.2	-4.5	-5.1	4.4	26.8	-8.7	→
1y difference of bank credit as a percentage of 5y m.a. of GDP	Credit developments	1981 Q4	2016 Q1	-20.4	-20.5	-27.7	34.9	92.9	-42.3	→
Current account deficit as a percentage of GDP	External imbalances	1996 Q1	2016 Q1	-0.7	-0.8	-0.4	7.0	13.4	-2.3	→
Loan-to-deposit ratio	Strength of bank balance sheets	2000 Q4	2016 Q1	102.5	102.4	103.9	135.7	166.6	102.4	→
Debt-service-to income ratio (y-o-y growth rate)	Private sector debt burden	2000 Q1	2015 Q4	-7.3	-5.2	-6.2	1.5	16.8	-12.2	→
Bank spreads on new lending to non-financial corporations	Potential mispricing of risk	2003 Q1	2016 Q1	3.4	3.3	-	3.5	5.9	1.5	←

Sources: Bank for International Settlements, Statistics Portugal, Banco de Portugal and Banco de Portugal calculations

Notes: y-o-y stands for year-on-year rate of change, m.a. stands for moving average. (a) This column shows the indicator values in the most recent quarter of available information. (b) This column shows the indicator values in the penultimate quarter of available information. (c) The arrows indicate which side of the indicator's distribution signals the accumulation of risk (arrow to the right = right-hand tail of the distribution and arrow to the left = left-hand tail of the distribution).

With regard to the buffer rate for credit exposures to non-domestic counterparties, it is necessary to distinguish two cases: (i) reciprocity or recognition of a buffer rate set by an authority of an EU/EEA Member State or of a third country; and (ii) setting by Banco de Portugal of the buffer rate for exposures to a third country.¹⁶

With the aim of promoting a level playing field among EU credit institutions, buffer rates up to 2.5 per cent set by the authority of an EU/EEA Member State must be reciprocated, i.e., Banco de Portugal automatically recognises the buffer rate set by other EU/EEA Member States and credit institutions must immediately consider

this rate when calculating their institution-specific countercyclical buffer rate. The term 'reciprocity' indicates that there is a mechanism of mutual recognition of decisions on buffer rates between EU/EEA Member States. Where buffer rates are defined up to 2.5 per cent by third country authorities, recognition is mandatory. However, Recommendation ESRB/2015/1 recognises that certain cases may be ambiguous as to whether a particular measure adopted by the authority of a third country should be interpreted as the definition of a countercyclical buffer rate. In these cases, Banco de Portugal will examine the analytical framework underlying the setting of the countercyclical capital buffer in order to decide on

the equivalence of the measure adopted by the third country authority, whenever the exposures of the Portuguese banking system to the given third country are significant.¹⁷ For buffer rates set above 2.5 per cent by the authority of an EU/EEA Member State or of a third country, Banco de Portugal will decide on its recognition case-by-case and will publish this decision on its website.

Finally, Banco de Portugal may set the buffer rate for exposures to a third country in two situations: (i) if the authority of the third country has not set a buffer rate and there is evidence of risk accumulation; or (ii) if the buffer rate set is deemed insufficient to protect the domestic banking sector from risks arising from excessive credit growth in that third country. Given the large number of third countries to which the Portuguese banking system is exposed, often involving low amounts, Banco de Portugal will identify each year the relevant third countries

for the Portuguese banking system. The list of these third countries will be published each year, and for these countries Banco de Portugal will monitor a set of macroeconomic and financial indicators with signalling properties regarding the accumulation of imbalances in the credit market. These indicators will be used to communicate Banco de Portugal's decisions on the buffer rate for exposures to relevant third countries.

The information on countercyclical buffer rates set by authorities of EU/EEA Member States and of third countries is available on Banco de Portugal's website. Table 2 presents the countercyclical buffer rates that have already been set above 0 per cent and their respective implementation date. Finally, to illustrate the calculation of the institution-specific countercyclical buffer rate, Table 3 displays a hypothetical example for a credit institution operating in Portugal, taking into account the information in Table 2.

Table 2 • Countercyclical buffer rate in EU/EEA Member States and third countries

Country	Classification	Case	Applicable buffer rate	Implementation date
Hong Kong ^(a)	Third country	Mandatory recognition	0.625	27 Jan. 2016
			1.25	1 Jan. 2017
			1.875	1 Jan. 2018
Sweden	EU/EEA Member State	Mandatory reciprocity	1.5	27 Jun. 2016
			2	19 Mar. 2017
Norway	EU/EEA Member State	Mandatory reciprocity	1.5	30 Jun. 2016
			1.5	31 Mar. 2017
			1.5	30 Jun. 2017
			1.5	30 Sep. 2017
Czech Republic	EU/EEA Member State	Mandatory reciprocity	0.5	1 Jan. 2017
			0.5	1 Apr. 2017
			0.5	1 Jun. 2017
Iceland	EU/EEA Member State	Mandatory reciprocity	1	1 Mar. 2017
Slovakia	EU/EEA Member State	Mandatory reciprocity	0.5	1 Aug. 2017

Source: Bank for International Settlements, European Systemic Risk Board and the Financial Supervisory Authority, Iceland.

Note: Information available as of 19 October 2016. (a) The Portuguese banking sector's exposure to Hong Kong is not significant.

Table 3 • Example of calculating the institution-specific countercyclical buffer rate

Country	Credit exposure as a percentage of total credit ^(a)	Applicable buffer rate (as of 31 October 2016)	
	(1)	(2)	(3)=(1)x(2)
Portugal	80.0	0	0
Hong Kong	5.0	0.625	0.031
Sweden	2.5	1.5	0.038
Norway	2.2	1.5	0.033
Czech Republic	6.5	0	0
Iceland	3.3	0	0
Slovakia	0.5	0	0
Institution-specific countercyclical buffer rate			0.102

Note: (a) The exposures presented are fictitious.

BOX 2 • Options and discretions in the context of the Single Supervisory Mechanism

European Union prudential legislation for credit institutions and investment firms, particularly the Capital Requirements Regulation (CRR)¹⁸ and Capital Requirements Directive IV (CRD IV),¹⁹ lays down around 150 rules termed 'options' and 'discretions'.

Both options and discretions are special rules that allow the general rules laid down in the prudential framework to be adjusted, under certain circumstances, to the specific context of a given national market or situation, and differ from one another depending on who has the competence to exercise them and on their general or case-by-case nature.

Thus, European legislation may give options either to Member States, exercised by the national legislator through issuance of legislative acts, or to the competent authorities, exercised through their regulatory acts. From the moment they are exercised, options are applicable to all institutions, without the need for prior authorisation, unless determined otherwise. In turn, discretions are applied by the competent authorities on a case-by-case basis, once the institutions meet certain conditions.

Following publication of the *de Larosière report* in 2009,²⁰ which studied the regulatory and supervisory issues that contributed to the financial crisis starting in 2007, the European legislator has increasingly shown a preference for using maximum harmonisation or standardised instruments (examples of which respectively are the CRD IV and the CRR), i.e. acts which define a greater number of common rules applicable to the institutions of the European Union. These two Union legislative acts form the basis of the so-called 'single rulebook' for financial services.

The existence of options and discretions in a single rulebook context, and particularly in a context of the Single Supervisory Mechanism (SSM) and of increasing integration, poses significant challenges. However, allowing governments, parliaments and national regulators to define specific rules that are better suited to particular national characteristics, in prudential terms or for other reasons, namely financial stability, continues to be justifiable. The diversity of financial institutions has been seen as an important asset of the single market

and, consequently, specific situations must be foreseen and provided for in regulations, where justified, without prejudice to promoting a level playing field as desired.

With the Single Supervisory Mechanism entering into operation on 4 November 2014, the ECB prioritised the harmonisation of the options and discretions laid down in Union law and granted to competent authorities, with the aim of ensuring that prudential supervision is carried out coherently and effectively, and in conformity with the highest quality standards. To that end, from 1 October 2016 the significant institutions directly supervised by the ECB are subject to compliance with the options exercised through Regulation (EU) 2016/445 of the European Central Bank²¹ (henceforth 'ECB Regulation') and must observe the criteria for exercising the discretions established in the ECB Guide, published in March 2016.²² In particular, the ECB Regulation exercises certain options regarding own funds, liquidity, large exposures and transitional provisions.

In relation to options regarding large exposures, both significant and less significant institutions headquartered in Portugal must continue to comply with the rules laid down in Notice of Banco de Portugal No 9/2014, as the exemptions from compliance with the large exposures limits²³ were exercised under a competence delegated by the Member State.²⁴ In general, the ECB Regulation sets out a greater number of exemptions than the Portuguese regulation on the large exposures limits, and in that respect is less stringent than the latter. An exception is the treatment of exposures in the form of covered bonds collateralised by loans secured by mortgage on immovable properties, which, for the purposes of verifying compliance with these limits, have a 90 per cent exemption under Notice of Banco de Portugal No 9/2014 and an 80 per cent exemption under the ECB Regulation. An approximation of the Portuguese regulation to the ECB Regulation is being considered in this area, with convergence not expected to have a material impact on the institutions in Portugal from compliance with the large exposures limits.

The publication of the ECB Regulation and Guide introduces new permanent and transitional prudential rules for significant institutions. Regarding less significant institutions, the transitional rules established in Notice of Banco de Portugal No 6/2013²⁵ continue to hold force. The following options exercised by the ECB Regulation are particularly relevant:

- The option regarding transitional provisions allowing the gradual deduction from Common Equity Tier 1 (CET1) of certain deferred tax assets that rely on future profitability;²⁶
- The option regarding the prudential treatment of unrealised gains and losses on exposures to central governments classified in the 'Available for Sale' category of International Accounting Standard (IAS) 39, for the calculation of own funds.²⁷

Regarding deferred tax assets that rely on future profitability²⁸ created prior to 1 January 2014, the ECB Regulation lays down that significant institutions not subject to restructuring plans approved by the European Commission by 1 October 2016 gradually deduct them from CET1 over a five-year phase-out period.²⁹ This is an acceleration compared to the 10 years permitted under the CRR, which had been adopted by Banco de Portugal through the aforementioned Notice of Banco de Portugal No 6/2013, resulting in a greater effort for the institutions covered by this provision. Regarding less significant institutions, the ECB is holding a public consultation on the possibility of applying to them the same prudential treatment established in the ECB Regulation regarding the deferred tax assets that rely on future profitability.³⁰

As this option does not affect the significant institutions covered by the aforementioned restructuring plans and only affects the balance of deferred tax assets not covered by the special regime created by Law No 61/2014 of 26 August, no material impact is expected for most significant institutions. It should be noted that as this is a transitional provision, the immediate impact of this measure is only the bringing forward of part of the deductions

already reflected in the capital ratios calculated on a full implementation basis.

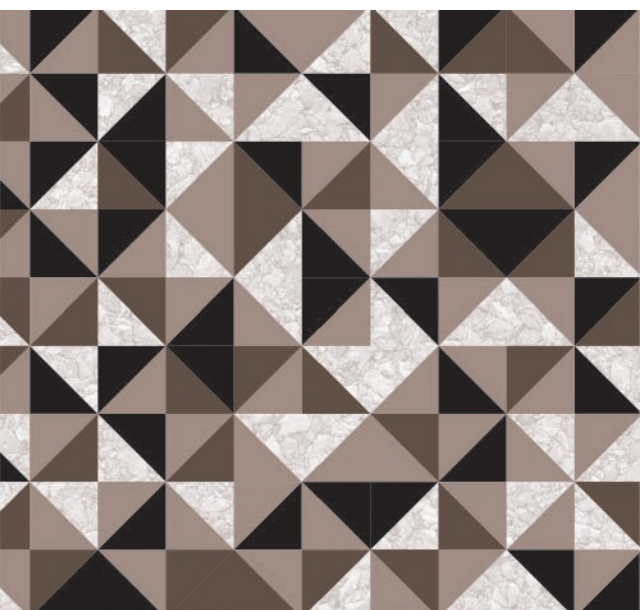
With regard to the prudential treatment of unrealised gains and losses on exposures to central governments classified in the 'Available for Sale' category of International Accounting Standard (IAS) 39, the ECB Regulation also establishes more stringent treatment for significant institutions, compared to the rules established in Notice of Banco de Portugal No 6/2013, as those unrealised gains and losses are no longer neutralised. Depending on whether these items are positive or negative, they will be added to or deducted from CET1 in accordance with the transitional

provisions defined in the ECB Regulation for the treatment of unrealised gains and losses of other assets at fair value. In the case of less significant institutions, as laid down in the aforementioned Notice and the CRR, the prudential neutralisation rule will hold force until the regulation endorsing accounting standard IFRS 9 is adopted by the European Commission, which may happen by the end of the current year.³¹

The removal of this prudential filter introduces additional volatility in the calculation of own funds which the aforementioned institutions must consider when planning their respective capitalisation levels.

Notes

1. The Risk Report of the *Autoridade de Supervisão de Seguros e Fundos de Pensões* (insurance and pension funds' supervision authority) (August 2016) indicates that, for the end of 2015, the yield on assets under management in life insurance was insufficient on average for the guaranteed rates on the contracts in force.
2. See, for example, <http://www.bis.org/bcbis/publ/d349.htm>.
3. See Box 3 on net interest income in the May 2016 Financial Stability Report.
4. Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014.
5. Expressed in particular in the Communications from the Commission of 30 July 2013 on the banking sector and 25 February 2009 on impaired assets.
6. The ESMA statement of 2 June 2016 on "MiFID practices for firms selling financial instruments subject to the BRRD resolution regime" addresses this, available at: https://www.esma.europa.eu/sites/default/files/library/2016-902_statement_brrd.pdf
7. In this regard, see: https://www.bankingsupervision.europa.eu/ecb/legal/pdf/oj_jol_2016_078_r_0011_en_txt.pdf
8. Banco de Portugal (2014), 'Strategy and instruments of macroprudential policy'.
9. Credit institutions include credit institutions and investment firms in Portugal that are subject to supervision by Banco de Portugal or the European Central Bank (ECB - Single Supervisory Mechanism), as applicable.
10. The implementation of the institution-specific countercyclical buffer rate is subject to a transitional period that ends in 2019. Between 1 January 2016 and 31 December 2019 the buffer rate must not exceed the following pre-defined limits: 0.625 per cent in 2016; 1.25 per cent in 2017; and 1.875 per cent in 2018.
11. Banco de Portugal (2015), 'Countercyclical capital buffer in Portugal: How will it work?', December 2015.
12. Detken et al. (2014), 'Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options', ESRB, Occasional Paper Series No. 5, July 2014 and Kalatie et al. (2015), 'Indicators used in setting the countercyclical capital buffer', Bank of Finland Research Discussion Papers, No. 8/2015.
13. The Basel gap is calculated as the percentage point difference between the credit-to-GDP ratio and its long-term trend, where the trend is estimated through a one-sided Hodrick-Prescott filter with a smoothing parameter set to 400,000 as defined in the Annex of Recommendation ESRB/2014/1 on guidance for setting countercyclical buffer rates.
14. The gap is calculated based on the credit-to-GDP ratio series augmented with 28 quarters of forecasts obtained from an autoregressive integrated model with a lag order of three quarters.
15. The periods of systemic banking crises were defined in accordance with the information available in Detken et al. (2014).
16. Third country refers to any jurisdiction outside the European Economic Area (EEA). The EEA includes the EU Member States, Iceland, Liechtenstein and Norway.
17. Recommendation ESRB/2015/1 on recognising and setting countercyclical buffer rates for exposures to third countries.
18. Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 (CRR).
19. Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 (CRD IV).
20. The de Larosi re report of 25 February 2009, available at: http://ec.europa.eu/internal_market/finances/docs/de_larosiere_report_en.pdf
21. Regulation (EU) No 2016/445 of the European Central Bank of 14 March 2016.
22. Cf. https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ecb_guide_options_discretions.en.pdf. The ECB Guide establishes a set of general criteria to be observed by the joint supervisory teams in applying discretions.
23. In accordance with the CRR, an institution shall not hold an exposure to a client or group of connected clients with a value exceeding 25 per cent of its eligible capital.
24. Options on large exposures may be exercised through the competent authority (which, for the countries in the Banking Union, is the ECB), under Article 400(2) of the CRR, or through the Member States, under Article 493(3) of the CRR. The ECB exercised the options in its Regulation through Article 400(2), while in Portugal the Government exercised them under Article 493(3), which delegated that power to Banco de Portugal through Decree-Law No 157/2014 of 24 October. In turn, Banco de Portugal exercised its option through Notice of Banco de Portugal No 9/2014, which applies both to significant and less significant institutions. Thus, the options for large exposures regulated by the ECB are not applicable in Portugal (nor in most SSM jurisdictions) because the Member State's competence prevails, i.e. in the case of Portugal, the aforementioned Decree-Law No 157/2014.
25. Notice of Banco de Portugal No 6/2013 exercises options on transitional provisions set out in the CRR regarding own funds (Articles 467, 468, 478, 479, 480, 481 and 486 of the CRR).
26. Cf. Article 19 of the ECB Regulation, which regulates the exercise of the option laid down in Article 478(3) of the CRR.
27. Cf. Articles 14 and 15 of the ECB Regulation, which regulates the exercise of the option laid down in Articles 467(3) and 468(3) of the CRR.
28. Note that this definition excludes deferred tax assets covered by the special regime created by Law No 61/2014 of 26 August 2014 as they no longer rely on future profitability.
29. The percentages applying to the deductions of deferred tax assets are 40 per cent in 2016, 60 per cent in 2017, 80 per cent in 2018 and 100 per cent in 2019.
30. Cf. the ECB website for the public consultation on the draft guideline, available at: https://www.bankingsupervision.europa.eu/legalframework/public-cons/html/ond_lsi.en.html.
31. According to the information provided by the European Financial Reporting Advisory Group at: <http://www.efrag.org/Endorsement>.



II Financing of the economy

Summary

In the first half of 2016, the Portuguese economy has continued to make a moderate recovery, decelerating versus the year before. Over this period, the growth rate of private consumption has stabilised, gross fixed capital formation has fallen, after recovering in 2015, and the deceleration profile of goods and services exports in place since the middle of 2015 has continued.

The high levels of indebtedness in the public and private sectors and the need to adjust their balance sheets have hampered economic growth, which in particular has seen low levels of domestic investment. In turn, the domestic saving rate has stabilised since 2013 at around 15 per cent of GDP, which is below the euro area average. However, in annual terms, the Portuguese economy has presented a net lending capacity since 2013, largely as a result of the positive performance of the goods and services account. In the first half of 2016, the economy presented a borrowing requirement, as it had in the first half of 2015, reflecting seasonal factors (Chart 1). The most recent projections continue to suggest an external surplus for 2016 as a whole.

The household saving rate has fallen to the lowest levels since 1999. By contrast, the improved profitability of non-financial corporations has led their saving rate to increase to the highest levels

since 1999. The developments of the various economic sectors' saving are interrelated, both because there is income that is particularly difficult to assign to a sector, mainly between households and non-financial corporations, and because there are transactions between sectors that directly influence the respective saving. Saving by households and the other economic sectors is an essential domestic source of investment financing, thereby affecting potential economic growth and the sustainability of external debt. Given the low level of the economy's net lending, foreign direct investment or domestic saving will have to increase to support sustainably the greater investment required for the desired increase in the economy's growth.

Regarding the public accounts, the budget outturn for the first half of 2016 led to a borrowing requirement below that of the first half of the previous year. Given this development and the values observed up to September, compliance with the deficit objective in 2016, as defined by the Council of the European Union (EU) – of 2.5 per cent of GDP excluding any support to the financial system – is feasible, although subject to non-negligible risk factors.

Portugal's public debt as a percentage of GDP rose in the first six months of the year, but taken net of central government deposits

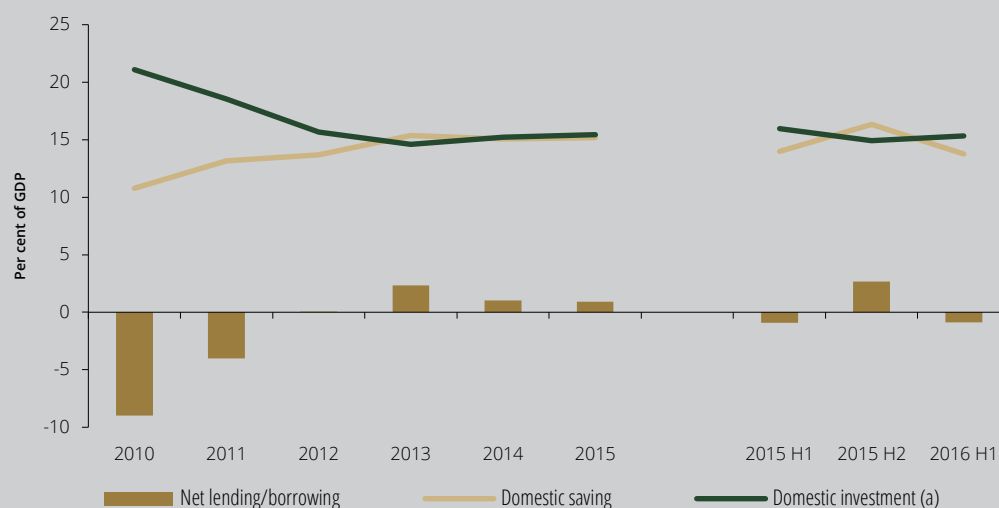


Chart 1 • Domestic investment, saving and net lending/borrowing

Source: Statistics Portugal.

Notes: The half-year figures are based on quarterly data from the national accounts. (a) Corresponding to the sum of gross fixed capital formation, change in inventories, acquisitions less disposals of valuables and acquisitions less disposals of non-financial non-produced assets.

was stable. Over this period, the Portuguese State made a new partial repayment of the loan from the IMF, under the Economic and Financial Assistance Programme, and continued the issuance programme of securities with different maturities in the sovereign debt markets, although at higher average rates than in 2015. In parallel, over the same period, Portuguese sovereign bond yields grew, increasing the spread against German sovereign bond yields and countercyclical to the movement observed in Spain or Italy. In most euro area countries, sovereign bond yields have trended downwards, influenced by the Eurosystem's activity in secondary debt markets. To this end, in March the Governing Council of the European Central Bank took additional monetary stimulus measures, given the deterioration of economic and financial conditions and the increased risk of falling inflation. These measures include an expansion of the asset purchase programme's monthly purchase amount and its extension to March 2017.

The reduction of the Portuguese economy's external borrowing has essentially reflected the reduced leverage of the non-financial private sector, despite it remaining among the highest in the euro area. However, that falling trend lost momentum in the first half of 2016. Despite the net repayment of loans from the resident financial segment to the non-financial private sector, new loan provision accelerated, both for households and for smaller-sized non-financial corporations. This acceleration went hand-in-hand with a narrowing of spreads applied to lower-risk customers, in a context of increased banking competition.

In the case of households, the acceleration mentioned was seen mostly in the consumer credit segment, with the flow of new car purchase loans in strong growth. The ratio of new consumer credit flows to private consumption has followed an upward trend, reaching levels close to those observed before the sovereign debt crisis (see Special issue 'IV. 1 Recent developments in consumer lending: A macroprudential approach'). In the housing credit segment, the flow of new loans also grew strongly. However, the annual

rate of change in the outstanding amounts of these loans remained negative and the ratio of households' total debt to GDP fell versus December 2015, although to a lesser degree than from 2009 onwards.

Although the net repayment of loans by non-financial corporations to the resident financial sector has continued, total lending to this sector have increased overall. This is principally due to loans provided by non-residents, both by companies of the same economic group, and by banks, probably affecting larger-size companies for the most part. The sector's total debt-to-GDP ratio remained virtually unchanged versus the end of 2015.

In parallel with the fall in households' and non-financial corporations' debt, the resident financial system has moved towards providing credit to segments with a better risk profile, mainly in the case of companies. However, despite the low level of interest rates contributing to a substantial fall in the debt service burden for indebted economic agents, the level of credit in default on the banking system's balance sheet remains high, originating principally from the corporate segment (see "I. Financial stability: Vulnerabilities and risks").

The activity of the subsectors operating in financial intermediation continued to contract, reflecting, on one hand, the deleveraging of the domestic non-financial segments and, on the other, portfolio recomposition by investors, penalising the non-banking financial segments mostly. This includes the reduction of households' investments in life insurance and in investment fund units. Deposits of the non-financial private sector in resident banks increased, helping the banking system continue to reduce its financing from the ECB.

In the first half of 2016, the financial flows between the resident and non-resident sectors translated into a net inflow of funds from abroad. The international investment position of the Portuguese economy improved over the period, reflecting above all the falling price of public debt securities and shares quoted in the non-resident portfolio, as well as the effect of the rising gold price on Banco de Portugal's assets.

1. Financial markets

The first half of 2016 saw spikes in volatility and different behaviours across the main stock indices

In the first half of the year, monetary and financial conditions improved in the Portuguese economy, driven mainly by the monetary policy measures adopted by the Governing Council of the ECB. These measures were accompanied by decreasing sovereign interest rates across nearly all euro area countries.

Over the same period, European stock indices lost value sharply, due to fears over the growth outlook for various parts of the world, the falling share prices of financial and energy sector enterprises and the appearance of lasting destabilising factors, such as the referendum in the United Kingdom over remaining in the EU, amongst others. Indices fell more sharply in Europe than in the USA, where they were supported by more favourable economic data in the second quarter and the postponement of the Federal Reserve's next expected interest rate increase. This led the main US indices to historic highs, after recovering

from the fall of the start of the year. In Europe, the downward price adjustment in the stock market was felt more sharply in the financial sector, with the price-to-book ratio decreasing for a considerable set of institutions (and falling below one). This seems to reflect high levels of uncertainty in the banking sector, which continues to show vulnerabilities, namely regarding the high level of non-performing loans (NPLs) on the balance sheet and low profitability in a low-interest-rate environment, as described in 'I. Financial stability: Vulnerabilities and risks'.

After the volatility spikes and devaluation seen in the period immediately after the United Kingdom referendum, the main European stock markets rallied latterly (although to levels still below those of the end of the previous year) and volatility fell also. These developments were linked to the gradual reduction in uncertainty in the markets, as the most adverse scenarios in the British economy and their major commercial partners did not materialise.

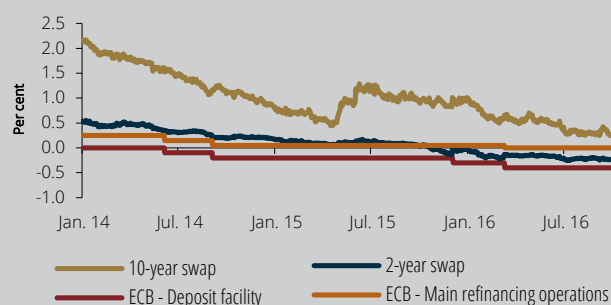
The Portuguese stock market reflected the performance of the European indices, except the devaluation was slightly sharper than the benchmark index for Europe (Eurostoxx

Chart 2 • Stock market indices



Source: Bloomberg.

Chart 3 • Interest rates in the euro area



Source: Bloomberg.

50) and the financial sector was particularly affected (Chart 2). The PSI Financeiro index fell approximately 36 per cent, between the end of 2015 and the end of June 2016, compared to a roughly 16 per cent fall in the overall index (PSI-20). In contrast to the latter, which recovered slightly in the most recent period, the Portuguese financial sector's index stabilised at levels slightly below those reached at the end of June.

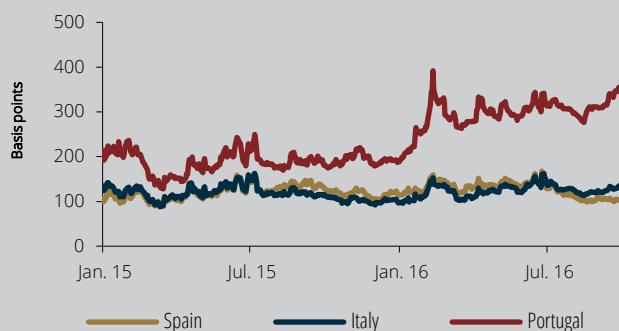
Although interest rates continued to fall in general, the cost of market financing increased for the Portuguese public and banking sectors

The ECB's additional monetary stimulus measures contributed to an overall improvement in monetary and financial conditions, particularly for economic agents in the non-financial sector. Conversely, the prolongation of the historically low interest rate environment limited the capacity for generating net interest income in the banking sector, their main source of income. Importantly in this regard, interest rates have continued to fall, in the short, medium and long term, in line with inflation expectations, also at all-time lows, and the moderate economic growth in the main economies (Chart 3).

Despite the general decline in interest rates in the euro area in 2016, the sovereign bond yield spreads of Spain and Italy versus Germany remained relatively stable. In the case of Portuguese sovereign debt, there was a sharp increase in yields, which remain at levels considerably above those observed in 2015, particularly for longer maturities. Furthermore, the Portuguese sovereign yield spread against Germany (Chart 4), Spain and Italy widened. This increased risk perception is also visible in the credit default swap (CDS) premia (Chart 5).

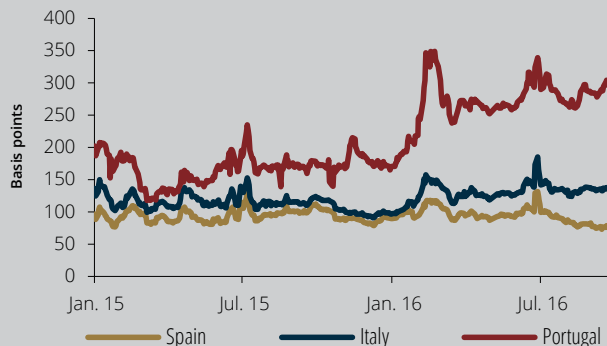
The path of the cost of financing reflects the continuation of structural weaknesses in the Portuguese economy, both in terms of public indebtedness and in the banking system, with high levels of credit at risk. Furthermore, the small size of the Portuguese capital market tends to amplify the effects of a generalised increase in risk premia. Nevertheless, the interest rates on Portuguese sovereign debt remain at low levels in historical terms, influenced by implementation of the Eurosystem's bond purchase programme. In turn, Portuguese banks have not made use of the wholesale debt markets, and, as a result, the rates applied to domestic loans have remained relatively immune to the increase in sovereign risk premia.

Chart 4 • 10-year sovereign bond yields | Spreads versus Germany



Source: Bloomberg.

Chart 5 • CDS premia | 5-year sovereign bonds



Source: Bloomberg.

2. Households

The net repayment of household debt continued, although less intensely than in previous years

The net repayment of household debt continued in the first half of 2016. At the end of June, household debt stood at 78 per cent of GDP (115 per cent of disposable income) (Chart 6). Despite the fall seen in the debt ratio for this sector since its 2009 peak of 95 per cent of GDP (about 132 per cent of disposable income), it continues to be among the highest

in the euro area, being a significant vulnerability for financial stability¹ (Chart 7).

In the first six months of the year, household net lending as a percentage of GDP² was zero (0.4 per cent for the same period of 2015), with the corresponding saving rate and investment rate reaching historical lows since 1999 (2.0 and 2.2 per cent of GDP respectively) (Charts 8 and 9). Compared with the same six months of 2015, there was a reduction in the saving rate and a reduction in the gross capital formation as a percentage of GDP.



Chart 6 •
Household debt |
End-of-period
outstanding
amounts

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

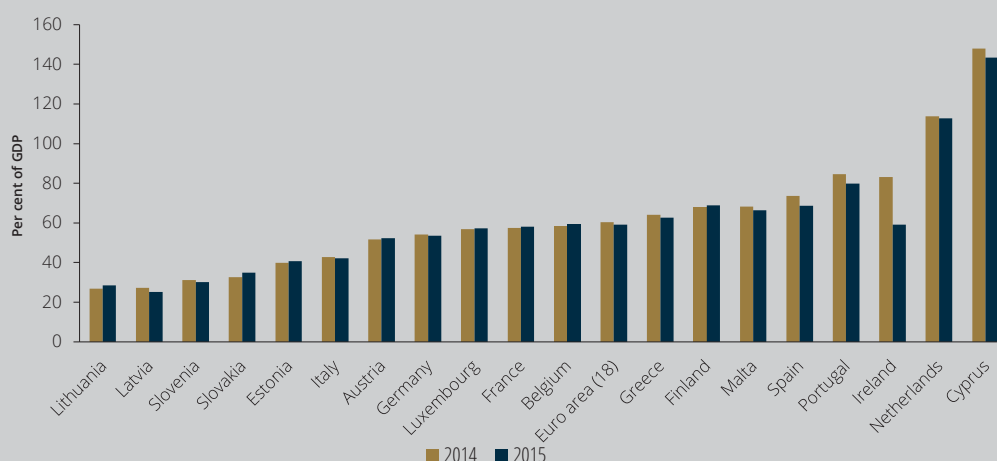


Chart 7 •
Household debt |
International
comparison

Source: Eurostat.
Note: End-of-period
outstanding amounts.

The household saving rate continued downwards, chiefly reflecting the improvement of households' expectations

Household net lending has been decreasing since the end of the EFAP, in a context in which the sector's investment continues without significant alterations. These developments chiefly reflect the falling trend of the saving rate, driven essentially by the improvement in households' expectations, which had led to the postponement of spending decisions in previous years. With real disposable income growing, supported by the positive contribution of net interest and the increase in employee compensation, private consumption has recovered over the last two years, particularly in the durable goods component, which has high income elasticity (Charts 10 and 11). The improvement in the labour market, the increase in the minimum wage and the budgetary measures of 2016 intended to restore households' income, have led to an increase in compensation, above all in lower-income strata where the average saving ratio is low.

Given that households are traditionally the economy's savers, a very low saving rate could have a particularly negative impact on potential growth and, consequently, on

financial stability, restricting domestic financing of investment and the reduction of external indebtedness. However, developments in household saving cannot be separated from that of the other institutional sectors.³ On one hand, some income is particularly difficult to allocate, between households and companies for example, such as is the case with households' property income or small-sized companies' gross operating surplus. On the other hand, there are transactions between sectors that affect one sector's saving at the expense of another's, as is the case for employee compensation, distribution of dividends by companies or tax increases. Between 2011 and 2013 this is likely to have been the case, when the reduction of household income was closely linked to the fall in compensation paid by the public and private sectors and the increase in direct taxes.

Despite the downward path of the household saving rate, domestic saving has stabilised since 2013 at about 15 per cent of GDP. This is below the euro area average and coincides with very low domestic investment levels. Nevertheless, the repayment of external debt accumulated in the past, achieved through the economy's net lending, has been limited. This poses additional challenges to the viability of increasing the Portuguese economy's low potential growth without a

Chart 8 •
Households' saving, investment and net lending

Source: Statistics Portugal.
Notes: The half-year figures are based on quarterly data from the national accounts.
(a) Corresponding 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.



significant adjustment in domestic saving, namely by households, which sustainably supports growth in domestic investment.

Despite the progress in households' deleveraging, loan provision accelerated, both for consumption and for house purchase

The household net lending of zero in the first half of 2016 was reflected in the continuation of net repayment of financial debt (representing 1.1 per cent of GDP) and low-value transactions on financial assets (0.5 per cent of GDP). Despite the progress

in households' deleveraging in the first half of the year, its pace slowed. The annual rate of change of loan provision to this sector by resident financial institutions changed from -2.2 per cent in December 2015 to -1.8 per cent in June 2016 (-1.6 per cent in September). This slowing of the decline was accompanied by a slight narrowing of spreads applied to new loan operations, both for house purchase and for consumption.

The results of the Bank Lending Survey of July 2016 indicate relative stability in the criteria for loan provision in this market segment, despite some factors having contributed to fewer restrictions. These factors include competitive pressure among banking institutions, more favourable assessment of the housing market and

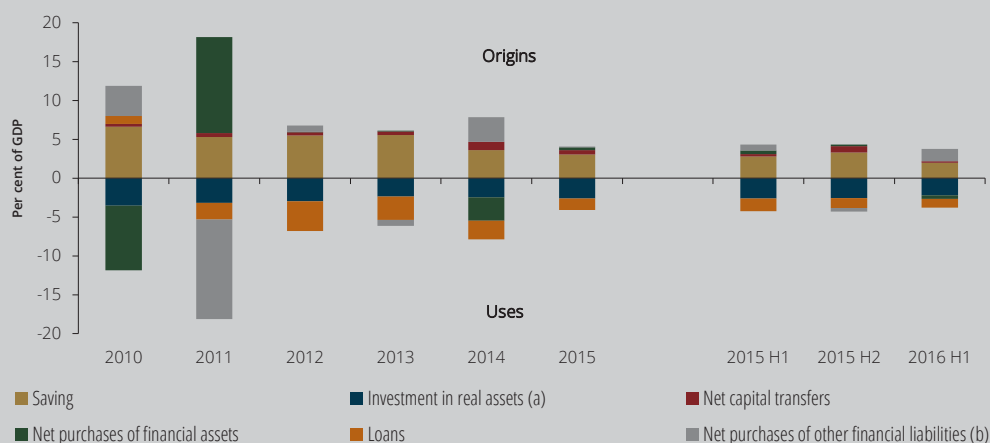


Chart 10 • Interest payable and receivable by households

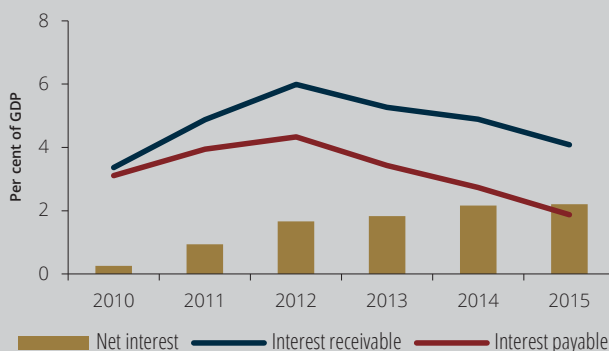
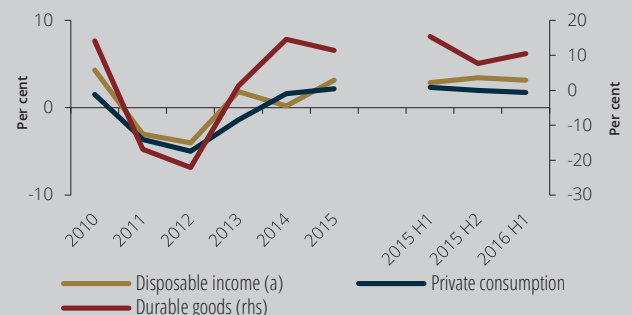


Chart 11 • Private consumption (y.o.y., volume)



of the risk relating to the economic situation, as well as the favourable trend of costs of financing. The narrowing of spreads applied to medium-risk housing loans to households was also mentioned. Regarding households' demand for loans, most credit institutions mentioned a slight increase, due mainly to the overall level of interest rates, the need for debt refinancing/restructuring and renegotiation, increased consumer confidence and a small increase in spending on durables.

In terms of credit to households, the annual rate of change of housing loans remained close to that observed at the end of 2015 (moving from -2.9 per cent to -2.7 per cent) despite the strong increase in the gross flow of new loans with this purpose. Even taking this increase into account (62 per cent up year-on-year), the flow of new housing loans to households reached levels close to those of 2011, well below those observed before the financial crisis (Chart 12). This segment has experienced high levels of total or partial early repayments, representing in 2015 about 2.5 per cent of the outstanding amount at the end of the year before. These repayments, affecting contracts agreed after 2011 in particular, related mainly to credit initially taken with above-average spreads as compared to outstanding contracts agreed in that same year.⁴

Consumer and other loans also accelerated significantly in the first half of 2016, with the annual rate of change increasing to 2.4 per cent, after 0.9 per cent in December 2015 (3.5 per cent in September). The flow of new consumer

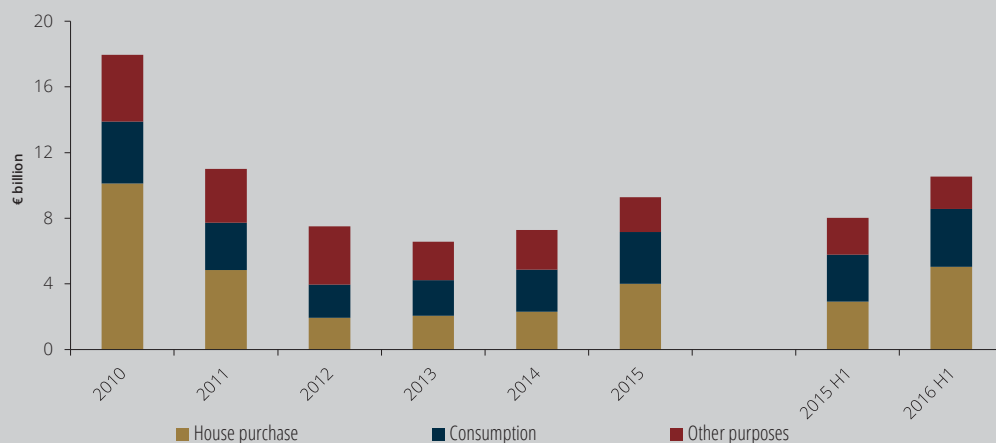
loans has increased since 2013, growing 24 per cent year-on-year in the first six months of 2016. The recent expansion was driven by the car loan segment and is linked to developments in consumption of durables. Indeed, this growth in credit is associated with a significant increase in car purchases, partly reflecting renewal of the fleet that had been postponed during the crisis period. Furthermore, in the first quarter of 2016, the increase in car loans was related to early purchasing due to the announcement of the tax increase on vehicles that came into force in April. The main contribution to the increase in consumer credit was made by banks specialising in this credit, targeting individuals with low indebtedness and loan contracts with intermediate spread (see Special issue 'IV. 1 Recent developments in consumer lending: A macroprudential approach').

Households' financial asset portfolios continued to be adjusted towards low-capital-risk instruments

In the first half of 2016, transactions in households' financial asset portfolios reflected the persistence of adjustment towards low-capital-risk instruments, including deposits held in resident monetary financial institutions (3.1 per cent of GDP), Treasury certificates (1.9 per cent of GDP) and savings certificates (0.1 per cent of GDP). Over the period under review, high-value

Chart 12 •
Flow of new loans
to households

Source: Banco de Portugal.
Note: The half-year figures
correspond to the annual flow
ending at the end of the period.



investments were also made in variable-income Treasury bonds, issued in the second quarter (0.8 per cent of GDP). Contrastingly, households divested, in net terms, in life insurance products (1.9 per cent of GDP), debt securities issued by financial corporations (0.7 per cent of GDP), by non-financial corporations (0.5 per cent of GDP) and by non-residents (0.4 per cent of GDP), equity (0.7 per cent of GDP) and investment fund shares (0.4 per cent of GDP) (Chart 13). In a context of greater risk aversion, negative or very low profitability in unit-linked insurance and most investment funds has contributed greatly to the divestment in those products. In the period under review, household wealth has also been affected by other volume and price changes (reaching 1.6 per cent of GDP), related above all to the devaluation of debt securities and quoted shares. In June 2016, net household wealth represented

121 per cent of GDP (178 per cent of disposable income), which is close to the euro area average (Chart 14).

However, the Household Finance and Consumption Survey of 2013 suggests that most of Portuguese households' overall wealth is invested in non-financial assets, particularly the main residence. According to the Survey, about 75 per cent of Portuguese households own their main residence and about 30 per cent are owners of other properties. These kinds of assets have median values of around EUR 90,000 and EUR 60,000 respectively for the set of households owning them. The Survey also suggests that around a third of households had debts collateralised by the main residence, which is the main kind of debt, both in numbers of households and in value.

3. Non-financial corporations

... The debt-to-GDP ratio for non-financial corporations remained unchanged from the end of 2015

Deleveraging among non-financial corporations began later than among households and progressed more gradually too. Since its peak in 2012, total debt-to-GDP for non-financial corporations fell around 17 p.p. (Chart 15). In June 2016, this sector's debt was 111 per cent of GDP, practically the same as at the end of 2015.

In the first half of 2016, non-financial corporations had a net borrowing of 0.1 per cent of GDP, contrasting with the net lending of the same six months of 2015 (0.7 per cent of GDP). This reflected a greater investment amount, used mainly to build up inventories, and lower net capital transfers. Meanwhile, saving by non-financial corporations remained at the same level as in the first six months of 2015, despite compensation paid increasing, which reflected the (low) growth of gross value added in the sector.

Financial transactions by non-financial corporations resulted in a larger financial balance

sheet for the sector as a whole, with positive net purchases, both of financial assets and of liabilities in similar amounts (about 3.2 per cent of GDP). In the same period of 2015, the financial balance sheet for this sector had contracted, as a result of net sales of financial assets and net repayment of liabilities. Developments in the half-year under review were probably driven by positive (but moderate) economic activity and the financial position of this sector, which has been net lending since 2013. The maintenance of historically high saving levels (since 1999), in a context in which investment remains modest, has allowed the self-financing capacity and the liquidity of some non-financial corporations to increase (Chart 16). These developments are in line with the euro area average, despite the net lending levels as a percentage of GDP being lower in Portugal (Charts 17 and 18).⁵

In the first half of 2016, non-financial corporations' financial asset transactions grew significantly versus the same period the year before, reflecting the increase in liquid assets, in particular deposits held with resident banks (0.9 per cent of GDP), and loans and trade credits (0.7 per cent and 2.4 per cent of GDP respectively) provided mainly to non-residents.

Non-financial corporations' net repayment of debt was interrupted in the first half of 2016, with increased borrowing from abroad, mainly from companies of the same economic group

On the liabilities side, non-financial corporations' net repayment of debt was interrupted, reflecting above all borrowing from abroad, as loans from the resident financial sector continued to be repaid in net terms. The net flow of loans received from abroad reached 2.7 per cent of GDP and derived from group companies and non-resident banks to similar extents.⁶ Regarding

loans provided by resident credit institutions, their annual rate of change turned more negative in June 2016, moving from -1.9 per cent in December 2015 (-1.3 per cent when adjusted for sales of credit portfolios) to -2.5 per cent (-1.9 per cent, adjusted for sales of credit portfolios), with performance varying according to company size.⁷ Despite growth rates continuing to be negative in the case of smaller companies, in the most recent period they have been seen to approach those of the medium-sized and large companies. Large companies access the capital markets and foreign credit markets more easily than smaller companies, as the fixed costs of issuing debt tend to be diluted more easily and the asymmetry of information between counterparties is usually lower. Furthermore, there are large Portuguese

Chart 13 •
Households' financial assets | Transactions

Source: Statistics Portugal and Banco de Portugal.
Notes: Consolidated figures. The half-year figures are based on quarterly data from the national accounts. (a) Includes savings and Treasury certificates. (b) Includes non-life insurance technical reserves, loans, trade credits and advances and other debits and credits.

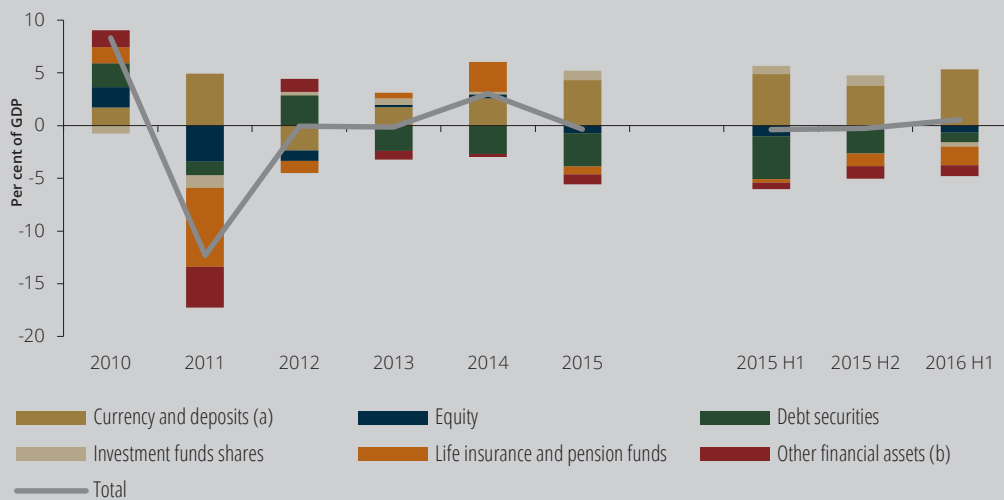
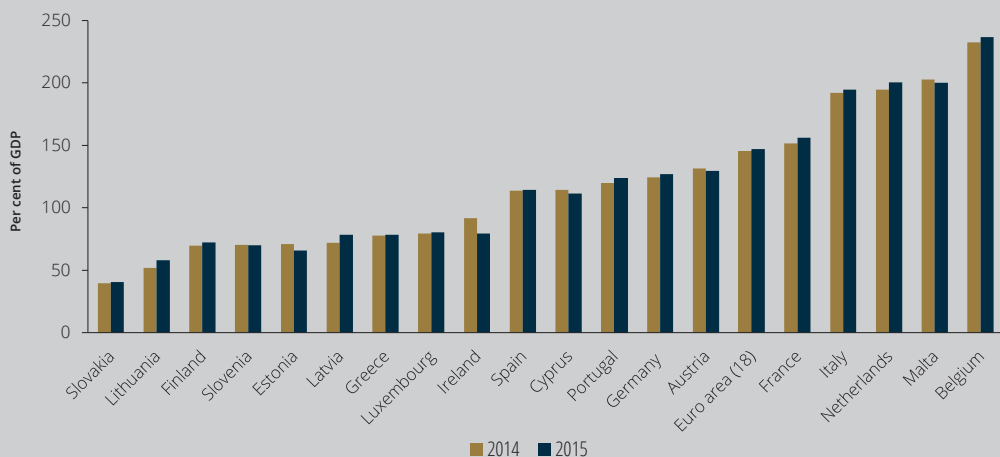


Chart 14 •
Households' financial assets | International comparison

Source: Eurostat.
Notes: End-of-period outstanding amounts.



companies in the ECB's Expanded Asset Purchase Programme (EAPP) whose securities were already purchased by the Eurosystem in the secondary markets. In the period under review, the net issue of debt securities represented 0.2 per cent of GDP, purchased primarily by non-residents.⁸

Also over this period, shareholders' and partners' loans, which had been particularly important in financing the sector between 2011 and 2014, were also in net repayment.

According to the results of the Bank Lending Survey of July 2016, the main Portuguese banks indicated a narrowing of spreads on medium-risk loans, above all to small and medium-sized enterprises, and a stabilisation of demand for loans by companies in general.

Loans provided by the resident financial sector continued to move towards non-financial corporations with a better risk profile

The resident financial sector loan portfolio continued to be adjusted towards companies with a better risk profile. This has led to a reduced proportion of loans for the construction and real estate activities sectors and an increased proportion for manufacturing and trade. In June 2016, the former two sectors together accounted for 27 per cent of the total (33 per cent in December 2013) while the latter two sectors accounted for 33 per cent (29 per cent at the end of 2013). Manufacturing and trade have profitability ratios

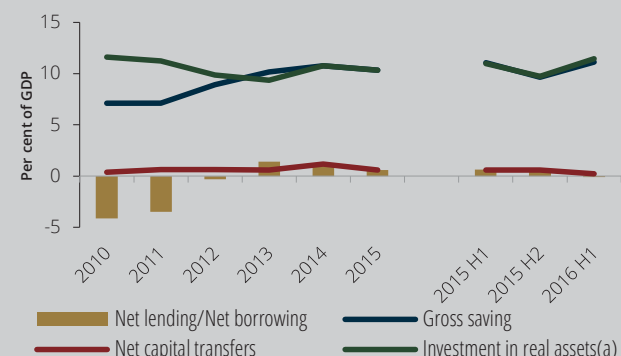
Chart 15 • Non-financial corporations' debt | End-of-period outstanding amounts



Source: Banco de Portugal.

Notes: Consolidated figures. (a) Includes loans provided by households, general government, other monetary financial institutions, other financial intermediaries and auxiliaries and the rest of the world.

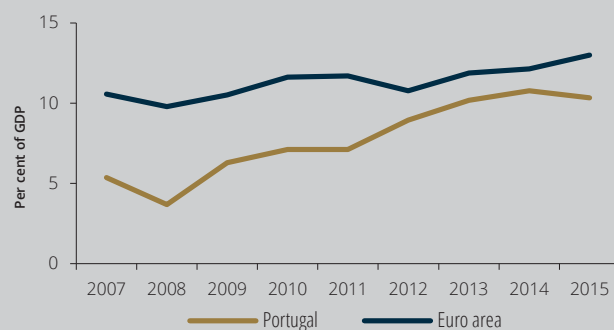
Chart 16 • Non-financial corporations' saving, investment and net lending/net borrowing



Source: Statistics Portugal.

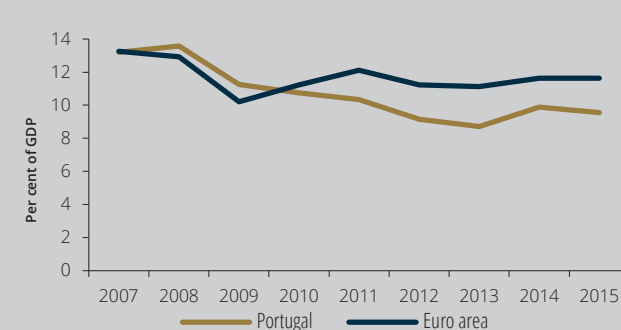
Notes: The half-year figures are based on quarterly data from the national accounts. (a) Corresponding to the sum of gross fixed capital formation, changes in inventories, acquisitions less disposals of valuables and acquisitions less disposals of non-produced non-financial assets.

Chart 17 • Non-financial corporations' saving | Comparison with euro area



Source: Eurostat.

Chart 18 • Non-financial corporations' gross capital formation | Comparison with euro area



Source: Eurostat.

that are more favourable on average than those of total private companies.⁹

Analysis of the individual characteristics of the companies receiving credit in the first half of 2016 shows that the resident financial sector continued to favour lending to companies that were more profitable, less indebted and with greater capacity to satisfy their financial commitments. A composite credit risk indicator, the z-score,¹⁰ shows that credit provision has been channelled to lower risk companies. Indeed, the analysis of bank lending to non-financial corporations by z-score quartile reveals that loans to companies in lower risk quartiles have higher rates of change, while the overall reduction in the financial sector's exposure to this segment was driven mainly by lending to the higher risk companies. However, the proportion of the exposure to companies belonging to the greater risk quartiles is still significant.

Loan provision to exporting companies¹¹ has systematically exceeded that channelled to non-exporting companies, registering positive rates of change in certain periods (in 2015 the annual rate of change was 1.8 per cent). Exporting companies on average have better economic/financial indicators and a lower non-performing loan ratio than non-exporting companies,¹² showing also a lower correlation with domestic economic activity. The exporting characteristic of the companies could thus be a useful indicator

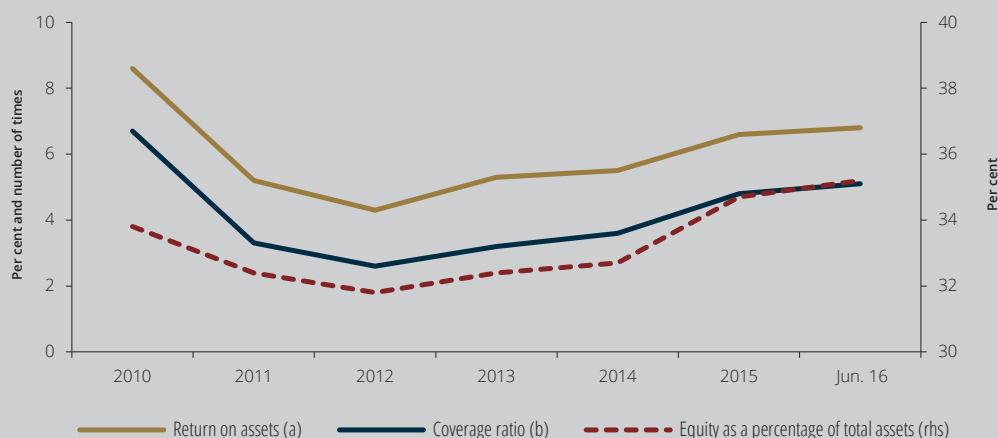
for measuring the adequacy of movements in the financial institutions' credit portfolio.

According to information from the Central Balance-Sheet Database, the equity ratios have improved somewhat, reaching 35.4 per cent of total assets in June 2016, in the case of private companies (34.9 per cent in 2015) (Chart 19). Better capitalisation and deleveraging of companies contributes to financial stability and sustained economic growth, through allocation of financial resources to more productive sectors. More capitalised companies are less vulnerable to possible changes in the macroeconomic environment which limit their ability to repay debt.

Despite the positive developments in non-financial corporations' financial position, the risk to financial stability from the financial sector's exposure to these companies remains high, given the non-performing loan levels. In June 2016, the non-performing loan ratio on total loans provided by the resident financial sector to non-financial corporations came to 16.5 per cent (5.2 per cent in March 2011), while the percentage of debtors with non-performing loans reached almost 30 per cent (22 per cent at the end of the first quarter of 2011).¹³ The deterioration of these ratios since the start of the EFAP cut across company size and activity branch.¹⁴

Chart 19 •
Performance
indicators of
non-financial
corporations

Source: Banco de Portugal.
Notes: Values for the year
ending at the end of the period.
(a) Return on assets=EBITDA/
Assets (per cent). (b) Coverage
ratio=EBITDA/Interest expenses
(number of times).



4. General government

The annual target for the general government deficit established by the Council of the European Union is achievable, although subject to non-negligible risk factors

Given the budget outturn for 2015, which was strongly influenced by support to Banif, the Council of the European Union extended the deadline for closing the excessive deficit procedure to which Portugal is subject to for the year 2016, in August 2016. According to the Council's decision, the budget deficit in 2016 must not exceed 2.5 per cent of GDP excluding any support to the financial system. This objective can be met based on the budget outturn in the first half, according to the national accounts, and up to September, according to the public accounts. Importantly, however, there are still non-negligible risk factors.

From the national accounts point of view, the general government deficit was 2.8 per cent of GDP for the first half of 2016, which compares to 4.6 per cent for the same period the year before (4.3 per cent if extraordinary operations are excluded) (Chart 20). In this

period, total revenue growth fell significantly below that projected for the year as a whole, while total expenditure fell more sharply than the annual projection, largely due to the reduction in gross capital formation.¹⁵

General government's financial transactions in the first half of 2016 resulted in an increase in net flows, above all on the liabilities side. On the asset side, deposits accumulated in Banco de Portugal (5.8 per cent of GDP), essentially in the second quarter, contrasted with the use of these financial assets in the same period of 2015 (-2.1 per cent of GDP).

The Portuguese Government continued to issue debt with different maturities, at higher interest rates than in the year before

Over the first half of 2016, the Portuguese Government continued to issue debt with different maturities in the sovereign debt markets. Fixed-rate 10-year Treasury Bonds were the main financing instrument over this period, at an average rate of 3.2 per cent, 0.7 p.p. more than in 2015. Despite these

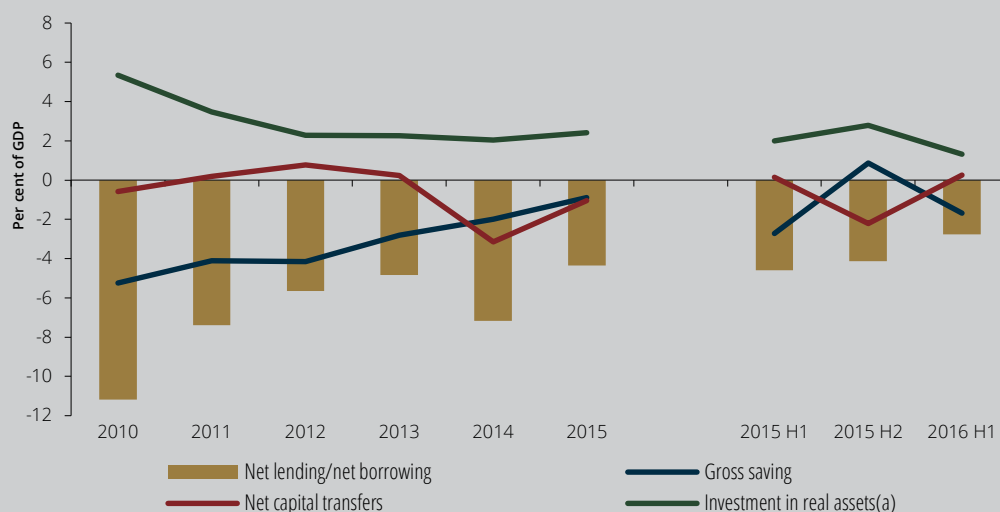


Chart 20 •
General government's saving, investment and net borrowing

Source: Statistics Portugal.
Notes: The half-year figures are based on quarterly data from the national accounts. (a) Corresponding 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.

developments, the implicit interest rate for public debt fell versus the same period a year before,¹⁶ reflecting better refinancing conditions than those achieved with the reimbursed debt. Aside from the purchases made in the secondary market by Banco de Portugal under the public sector asset purchase programme, net purchasing was mainly by insurance companies (3.2 per cent of GDP) and resident banks (2.3 per cent of GDP) in the period under review. The non-resident sector registered a net reduction for Portuguese sovereign debt securities, reaching 5.4 per cent of GDP (Chart 21). There was also net purchasing of Treasury certificates by households, which represented 1.9 per cent of GDP in the first half, at a lower level than that of the same six months a year previously. Contributing to these developments was the placement of variable-income Treasury Bonds, introduced in the second quarter of 2016 and targeted at retail investors, with greater expected gross return than savings and Treasury certificates.¹⁷ Over this period, there was also a net repayment of loans, namely to the IMF (2.2 per cent of GDP).¹⁸

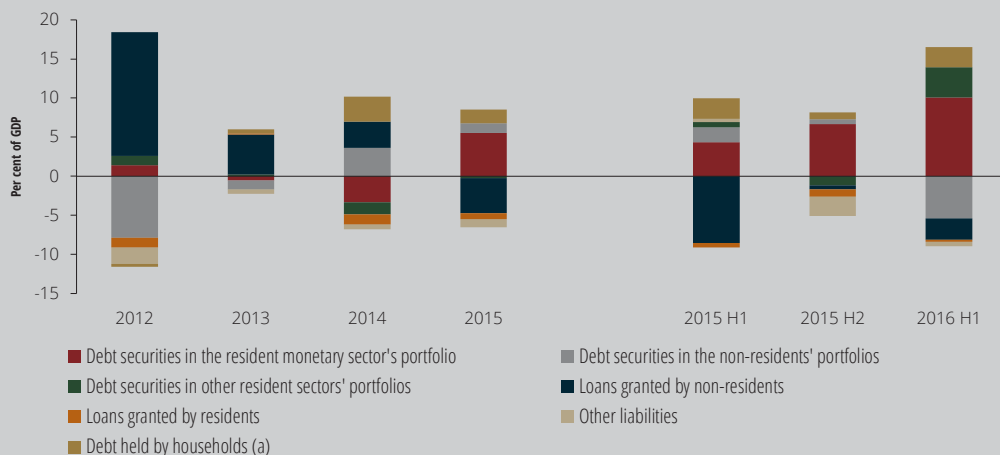
Public debt increased, although it has remained stable compared to the end of 2015 as a percentage of GDP and net of central government deposits

At the end of June 2016, Maastricht general government debt reached 131.9 per cent of GDP. Most (60 per cent of the total) was held by non-residents, while the resident banking system (excluding Banco de Portugal) held around 16 per cent of the total (Charts 22 and 23). Developments in the debt ratio up to the end of the year will be affected, among other things, by the possible impact in 2016 of the recapitalisation measures for Caixa Geral de Depósitos. As a consequence, the debt ratio should not fall, in contrast to previous expectations.

Furthermore, the most recent IMF Article IV Consultation Report emphasises the importance of maintaining a level of deposits that allows any negative developments in market conditions to be addressed. When considered net of central government deposits, the public-debt-to-GDP ratio remained unchanged from December 2015.

Chart 21 •
General
government
financing

Source: Banco de Portugal.
Notes: The half-year figures are based on quarterly data from the national accounts. (a) Includes saving and Treasury certificates and debt securities in households' portfolios.



The Portuguese public-debt-to-GDP ratio is among the highest in the euro area. Thus, setting this indicator on a downward path is key for the sustainability of the public finances. Taking into account the time profile of debt

repayments, the ability to refinance public debt is particularly vulnerable to sudden changes in market conditions, which makes retaining investor confidence fundamentally important.

5. Financial corporations

The fall in financial corporations' saving rate partly reflected the contraction of financial intermediation activity

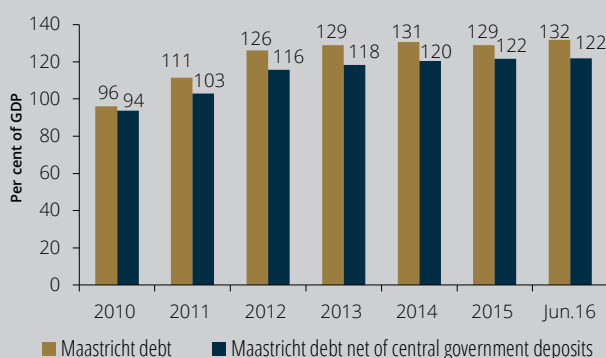
Over the first six months of 2016, the net lending of financial corporations as a whole came to 2.0 per cent of GDP, a year-on-year decline (2.6 per cent of GDP). These developments resulted from a reduction in the sector's saving (passing from 2.9 per cent to 2.4 per cent of GDP) with investment remaining virtually at zero (Chart 24). The reduction in the saving rate was due above all to the sector's falling gross value added as a percentage of GDP, which may have resulted from a contraction of financial intermediation activity, in a context of low savings by traditional savers, deleveraging of the non-financial sectors and weak investment by the

business sector. Also, net property income fell, driven essentially by developments in resident banks. Excluding capital transfers made to the banking sector in 2014 and 2015 for the BES and BANIF resolutions, financial corporations' net lending has followed the path of the sector's gross value added, reflecting its financial intermediation role (Chart 25).

Almost all the financial system's subsectors presented positive financial saving

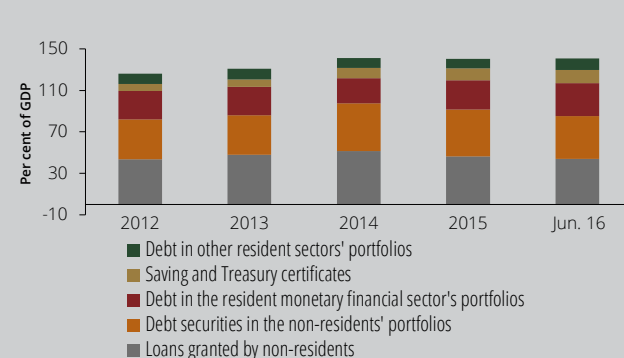
In the six months under review, practically all the financial system's subsectors presented positive financial saving¹⁹ (Chart 26). Compared to the first half of 2015, there was an increase in financial corporations' financial transactions, with net purchases of financial assets representing 11.8 per cent of GDP, while the

Chart 22 • General government debt | End-of-period outstanding amounts



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

Chart 23 • Composition of general government financial debt | End-of-period outstanding amounts



Source: Banco de Portugal.
Note: General government's consolidated financial debt.

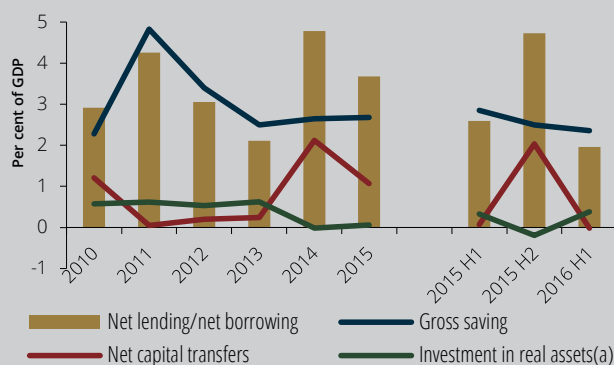
increase in financial liabilities represented 10.0 per cent of GDP.²⁰ This increase in financial flows was related mainly to Banco de Portugal's purchases (on the secondary market) of sovereign debt securities and securities issued by supranational entities under the Eurosystem's Expanded Asset Purchase Programme.²¹ Also affecting the Central Bank's financial balance sheet were the effect of the rise in the gold price (which made the stock increase around 22 per cent versus the end of 2015) and, on the liabilities side, the increase in central government deposits mentioned previously.

In the case of financial corporations excluding the central bank, financial balance sheets continued to fall, consistent with the reduction in the financial intermediation activity and the modest economic growth, with falls across all subsectors, both in financial assets and financial liabilities. An important subsector due to its size is the other monetary financial institutions (OMFI), which contracted less sharply however than in the same six months of 2015,²² reflecting the slowdown in private non-financial sector deleveraging. This subsector's exposure to sovereign debt, not only Portuguese but also Italian and Spanish, continued to increase.²³ In terms of the OMFI's funding, ECB financing fell, while deposits from the private non-financial sector (mainly households) continued to increase. These deposits' share in total OMFI liabilities was

48 per cent in June 2016 (46 per cent at the end of 2015) (Chart 28).

Credit provided by non-monetary financial intermediaries, excluding investment funds, and financial auxiliaries (which includes securitisation funds and financial holding companies) also recorded a net repayment, relating largely to both scheduled and early repayments of securitisation operations. In parallel with these operations, there were repayments of debt securities and the cessation of a non-resident securitisation fund. Mainly before the financial crisis, loans originally provided by OMFI's to the private non-financial sector were sold through securitisation operations to resident and non-resident non-monetary financial institutions (securitisation funds and companies). These loans were no longer accounted for in the balance sheets of the OMFI's, and were included in the balance sheets of the acquiring institutions, which issued shares (in the case of the funds) and debt securities (in the case of the securitisation companies) which were often bought by the provider banking groups. The repayment of the original loans taking place in the meantime resulted in a reduction in the credit provided by the securitisation funds and companies and in their liabilities relating to debt securities and participation shares.

Chart 24 • Financial corporations' saving, investment and net lending

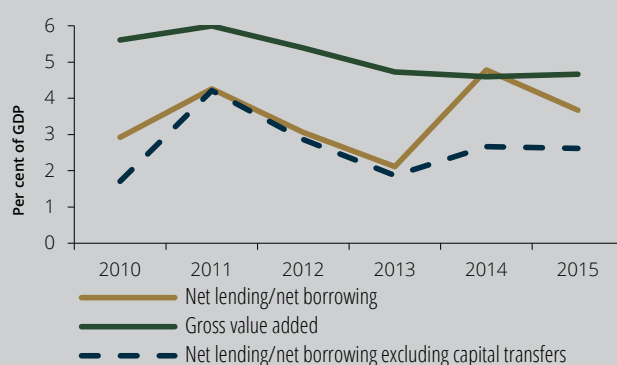


Source: Statistics Portugal.

Notes: The half-year figures are based on quarterly data from the national accounts.

(a) Corresponding 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.

Chart 25 • Financial corporations' gross value added and net lending



Source: Statistics Portugal.

The contraction in insurance corporations' and investment funds' activity reflected the low return on the products that they issue

Insurance corporations' activity also contracted, with a marked reduction in premia issued for life insurance and an increase in non-life insurance, particularly accidents at work and motor insurance. In life insurance, a substantial increase in net redemptions continued, above all in investment products, which may be related to the weak returns on those products, particularly in the case of unit-linked products. Developments in non-life insurance,

which depend largely on the performance of the economy, recovered somewhat in the most recent period. The fall in the insurance corporations' activity was reflected above all in the fall in deposits held by this sector, with a significant increase in their exposure to Portuguese public debt offsetting the reduction in securities issued by non-residents, above all public debt of other euro area countries (Chart 29).

Regarding pension funds, there was a slight increase in households' claims over pensions in the six months under review. In terms of financial asset transactions, there was an increase in exposure to Portuguese public debt, which at the end of June 2016

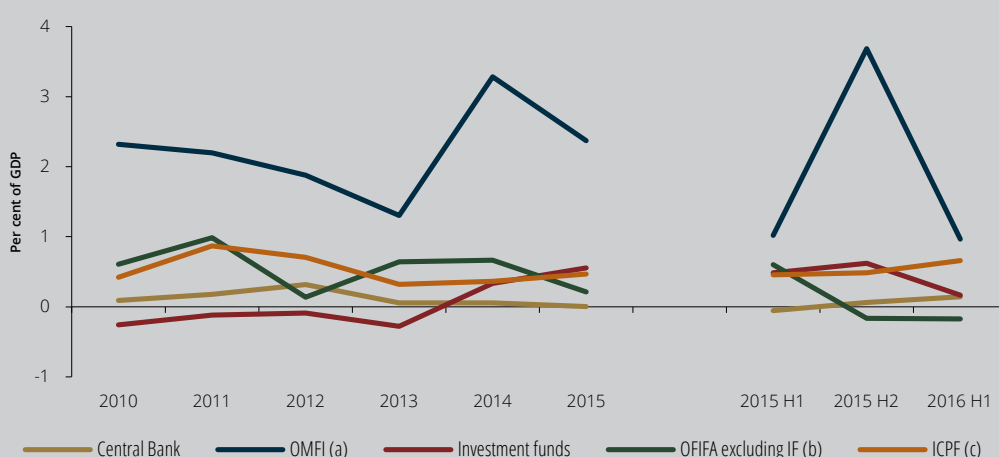
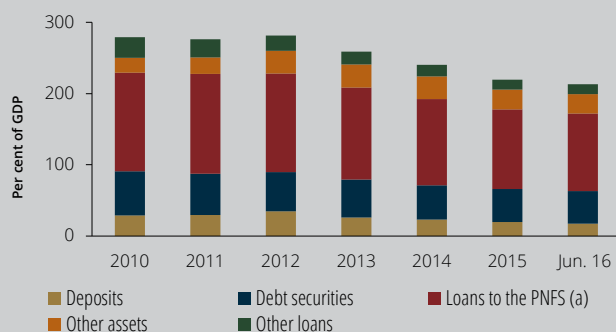


Chart 26 • Financial saving of the financial subsectors

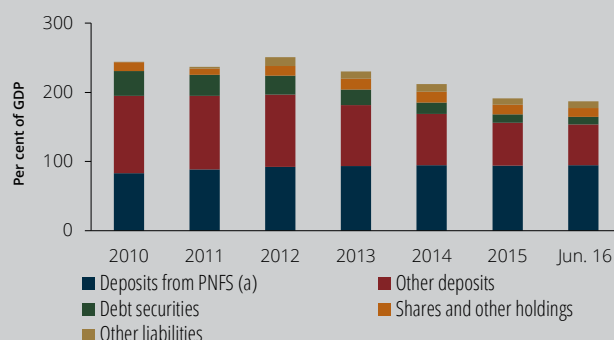
Source: Banco de Portugal.
Notes: The half-year figures are based on data from the national accounts. (a) Other Monetary Financial Institutions. (b) Other Financial Intermediaries and Financial Auxiliaries, excluding Investment Funds. (c) Insurance Corporations and Pension Funds.

Chart 27 • OMFI portfolio | End-of-period outstanding amounts



Source: Banco de Portugal.
Note: (a) Loans to the private non-financial sector.

Chart 28 • OMFI funding | End-of-period outstanding amounts



Source: Banco de Portugal.
Note: (a) Deposits of the private non-financial sector.

represented 10 per cent of total assets (8 per cent at the end of 2015) (Chart 29).

With regard to investment funds, their financial saving was slightly positive. However, net redemptions and divestments have increased, which reduced the value of their participation shares to a historic low. The fall cut across all fund types, affecting particularly bond and real estate funds. In the sector's total portfolio, these redemptions were reflected chiefly in a reduction of debt securities issued

by non-residents (Chart 30). Also the value of the property in the real estate investment funds' portfolio fell (Chart 31). In general, the investment funds have presented low or even negative returns, which has led to divestment by holders of the respective participation shares. In the first half of 2016, all the resident institutional sectors reduced their holdings in investment funds, with positive net purchases observed among non-residents, although at a low level.

6. External sector

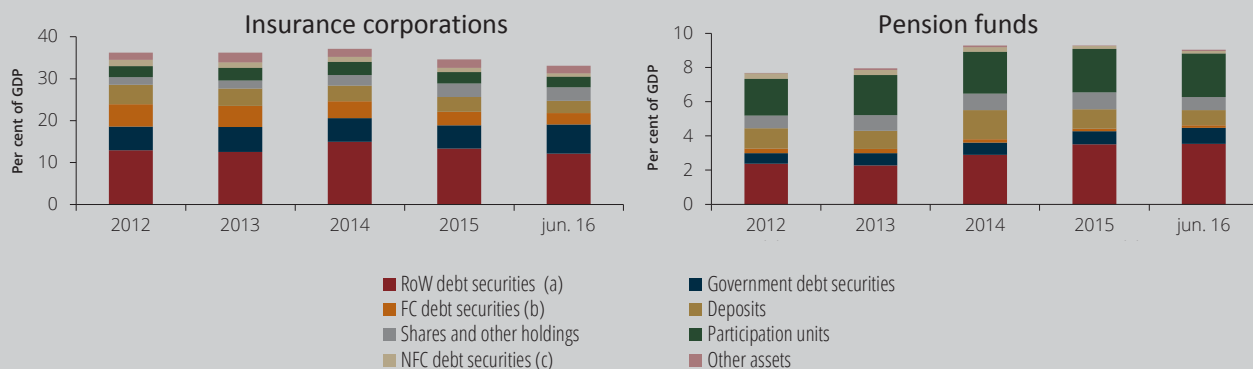
Group relationships, both in the non-financial and the financial sectors, largely explain the net inflow of funds from abroad

In the first half of 2016, the Portuguese economy recorded a net borrowing of 0.9 per cent of GDP, equal to that of the same period of 2015.²⁴ Over this period, the current account deficit, which is the difference between domestic investment and domestic saving, was less than that recorded for the first six months of 2015. This development was due to the reduction in the goods and

services deficit, which largely reflected an improvement in the terms of trade in goods.²⁵ In turn, capital transfers reached a level below that of the year before, which may be related to delays in the allocation of EU funds to the ultimate beneficiaries, due to the transition between EU framework programmes.

In the six months under review, financial transactions with the rest of the world resulted in a net inflow of funds from abroad, representing 1.0 per cent of GDP, which compares to zero for the same six months of 2015.²⁶ This inflow of funds largely corresponded to a net increase in deposits held with resident monetary financial institutions, relating to intra-group

Chart 29 • Insurance corporations and pension funds' financial asset portfolio | End-of-period outstanding amounts



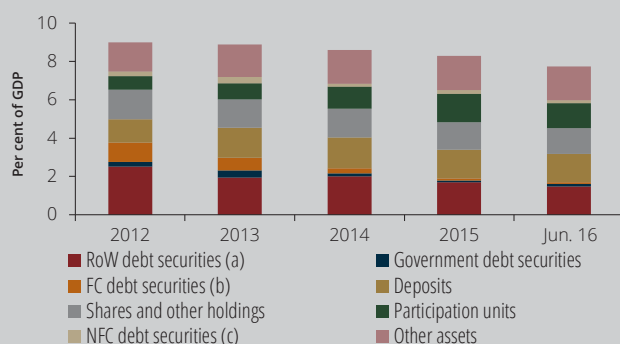
Source: Banco de Portugal.

Notes: (a) Debt securities issued by non-residents. (b) Debt securities issued by financial corporations. (c) Debt securities issued by non-financial corporations.

financing. The change in non-residents' assets also reflected the transactions undertaken under TARGET (which correspond to central bank liabilities).²⁷ There was also an increase in foreign direct investment in Portugal, in the form both of capitalisation and loans provided to resident non-financial corporations. Loans were also provided by non-resident banks to a large Portuguese company. In terms of outflows, loans from the IMF under the EFAP were partly repaid before maturity. Public debt securities on the non-resident portfolio were also repaid, securities issued by resident banks were sold by non-residents and short-term loans provided by non-financial corporations to companies of the same economic group located abroad increased.

The international investment position improved over the first half of 2016, with the net borrower position of the Portuguese economy vis-à-vis the rest of the world standing at 105.6 per cent of GDP, which compares to 109.3 per cent at the end of 2015. This improvement was due above all to changes in the price of securities issued by residents, particularly the sharp fall in prices of public debt, in the first quarter for the most part, and in listed shares, as well as the effect of the rise in the gold price on the central bank's assets.

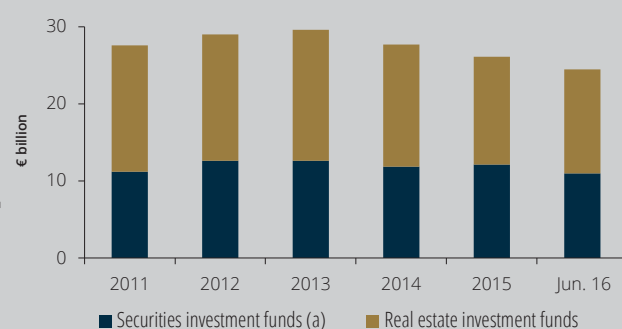
Chart 30 • Investment funds' financial asset portfolio
| End-of-period outstanding amounts



Source: Banco de Portugal.

Notes: (a) Debt securities issued by the non-residents. (b) Debt securities issued by financial corporations. (c) Debt securities issued by non-financial corporations.

Chart 31 • Investment funds: total asset value
| End-of-period outstanding amounts

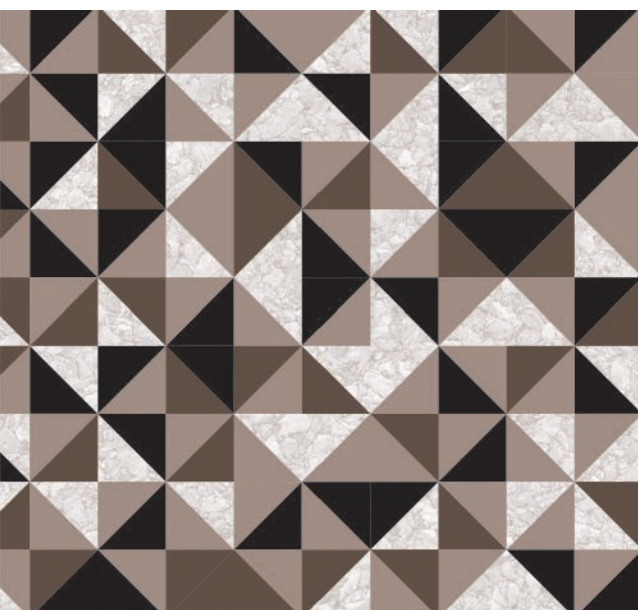


Source: Banco de Portugal.

Notes: Securities investment funds include money market funds and exclude venture capital funds.

Notes

1. See "I. Financial stability: Vulnerabilities and risks", in this Report.
2. The half-year figures for flows as a percentage of GDP are calculated based on the GDP half-year value.
3. For a detailed analysis of the developments and drivers of the saving rate, see 'An interpretation of household saving rate developments in Portugal', Special issue, Banco de Portugal, Economic Bulletin, May 2016.
4. On this topic see Box 3.2, 'Early repayment of housing credit in 2015', Banco de Portugal, Economic Bulletin, October 2016. See also Banco de Portugal, Retail Banking Markets Monitoring Report, 2015.
5. A sector's net lending is the difference between that sector's saving (plus net capital transfers) and its investment.
6. Over the same months of 2015, the net flow of loans received from abroad represented 1.1 per cent of GDP, comprised essentially of intra-group loans.
7. The net repayment of domestic loans by microenterprises and small enterprises fell, with the opposite the case for medium-sized enterprises and large enterprises. Annual rates of change of the former two went from -2.9 per cent and -2.7 per cent respectively in December 2015, to -2.1 per cent and -2.5 per cent in June 2016. Annual rates of change of the latter two fell from -1.1 per cent and -2.4 per cent respectively in December 2015, to -2.6 per cent and -5.1 per cent in June 2016.
8. In the first half of 2015, the net repayment of debt securities issued by non-financial corporations reached 1.4 per cent of GDP.
9. For EBITDA/Interest expenses and EBITDA/Total assets, the 2015 figures for total private enterprises, manufacturing and trade are 4.7, 8.1 and 7.6 in the first case, and 6.6, 8.6 and 7.1 in the second.
10. On the z-score methodology, see Antunes & Martinho (2012), 'A scoring model for Portuguese non-financial enterprises', Banco de Portugal, Financial Stability Report, November 2012.
11. According to the definition adopted by the Central Balance-Sheet Database, companies with at least 50 per cent of their turnover deriving from exports of goods and services are exporters; or, at least 10 per cent of their turnover coming from exports of goods and services when these are worth over €150,000.
12. The non-performing loan ratio for exporting companies at the end of the second quarter came to 6.6 per cent, well below the average for non-financial corporations.
13. See also, Special issue 'IV.3 Concepts used in the analysis of credit quality'.
14. On the risks associated with non-performing loans, see 'I. Financial stability: Vulnerabilities and risks', in this Report.
15. For more detail on the budget policy and position in the first half of 2016, see Banco de Portugal, Economic Bulletin, October 2016.
16. According to Banco de Portugal estimates based on consolidated financial debt, this went from 3.3 per cent in 2015 to 3.0 per cent in the first half of 2016.
17. The fees applying to variable-income Treasury Bonds may substantially affect net return from this product.
18. Over the same period of the year before, there was an early repayment to the IMF of part of the loan (EUR 8.4 billion, corresponding to 28.7 per cent of the total) obtained under the EFAP.
19. Financial saving is the difference between the net change in financial assets and the net change in financial liabilities. This differs from net lending/net borrowing through the statistical discrepancy between the capital account and the financial account.
20. In the same six months of 2015, financial corporations' financial balance sheet had fallen, with the net reduction in financial assets representing 2.7 per cent of GDP and the net reduction in liabilities corresponding to 5.2 per cent of GDP.
21. For further details on the initial conditions of this programme, see Box 1, 'Expanded Asset Purchase Programme', Financial Stability Report, May 2015. It should be noted however that there have been important adjustments since the programme started.
22. For further details on developments in the banking system on a consolidated basis, see 'III. Banking Sector', in this Report.
23. On this topic, see 'I. Financial stability: Vulnerabilities and risks', in this Report.
24. The abovementioned net lending/net borrowing position of the economy is that reported in the quarterly accounts by institutional sector, released by Statistics Portugal. It differs from the joint current and capital account surplus/deficit calculated for the balance of payments through differences in the methodologies used.
25. For further details, see Banco de Portugal, Economic Bulletin, October 2016.
26. The balance of financial transactions with the rest of the world differs from the economy's net lending/net borrowing through methodological differences and statistical discrepancies.
27. TARGET is the European interbank settlement system, designed mainly to settle operations linked to the single monetary policy and transnational transfers between institutions of member countries of the European Union.



Banking sector

Summary

As a result of the Economic and Financial Assistance Programme (EFAP), the Portuguese banking system underwent profound adjustments, both in terms of size and composition of its balance sheet, and in terms of its cost structure.

The steep decline in assets occurred in a context of a reorientation of credit to the tradable goods and services sector to the detriment of the non-tradable sector, namely construction and property development, in line with the adjustment of the Portuguese economy. The aforementioned asset contraction was accompanied by a significant change in the funding structure, with a reduction in the dependence on wholesale funding (securities), in favour of more stable funding sources, namely customer deposits. This development enabled an increase in Portuguese banks' resilience to changes in international financial markets' sentiment.

In the first half of 2016, the decrease in total assets proceeded, albeit at a slower pace, with a continuing fall in credit to customers. In turn, the growth of the debt securities portfolio was reflected in an increase in the exposure of the banking system to the domestic public sector. The weight of customer resources continued to grow, with the collection of retail deposits in the domestic market remaining robust. The liquidity position of Portuguese banks remains comfortable, with an increasing coverage by liquid assets of short-term funding requirements.

The profitability of the banking system fell significantly in the first half of 2016 in year-on-year terms, due to a reduction in the results of financial operations and an increase in impairments and provisions for non-credit assets. However, the gradual recovery in banking profitability of a more recurrent nature continued. The improvement in net interest income, benefiting from the reduction in funding costs, contributed to this recovery. The flow of credit impairments also fell slightly.

Levels of non-performing loans are high, despite showing signs of stabilisation. The coverage of

NPLs increased substantially, reflecting the significant build-up of impairment flows.

Solvency levels fell marginally, as a result of weak profitability in the sector and the gradual elimination of transitional provisions for eligibility of own funds, within the scope of the CRR/CRD IV implementation process.

Despite the progress achieved, the banking sector faces diverse challenges, at a time of transition to a more demanding regulatory framework and adverse economic conditions. In a context of persisting low interest rates, without a sustained recovery in economic activity, as well as uncertainty surrounding the contribution of international activity, the recovery of Portuguese banks' profitability will necessarily require an adequate credit risk control and additional cost rationalisation efforts. Encouraging greater operational efficiency should not, however, compromise the integrity of risk assessment and internal control procedures. Therefore, it is considered indispensable to continue the process of business model adjustment, which should take into account the demands and opportunities associated with the development of 'digital banking'. In fact, the successful adaptation of the banking system to this new paradigm requires a high level of initial investment in technological infrastructures, although it also represents an opportunity for banks to reduce their operational costs in a structural way.

Banks will also have to reduce their high levels of non-income-generating assets, especially NPLs associated with non-financial corporations, which have been penalising their profitability and solvency, thus limiting their capacity to attract funding and capital from international investors. The systemic potential associated with continued high levels of NPLs, the fact that overcoming them requires a multidimensional approach and is a problem common to other European countries, means that this question should be a priority to a wide range of credit institutions and authorities, both at domestic and European level.

The banking system's assets continued to decrease in the first half of 2016, in line with the trend observed in previous periods

In the first half of 2016, the Portuguese banking system's total assets maintained its contraction trend, with a fall of 2.1 per cent compared to the end of 2015 and of 4.4 per cent in year-on-year terms. This contraction in total assets was observed in the majority of the institutions in the sector. However, developments in total assets and some balance sheet items also reflect the impact of the conclusion of the sale of domestic and international operations by

two institutions. On a comparable basis, assets fell by 1.5 per cent in the first half of 2016.¹ The cumulative reduction in total assets since the end of 2010 was approximately 24 per cent.

The reduction in credit to customers (adjusted for securitisations) continued to contribute strongly to the evolution observed in the first half of 2016 (Chart 1). There has been a fall in credit in all resident private sector segments, with the exception of credit to households for consumption and other purposes (see Special issue 'IV.1 Recent developments in consumer lending: A macroprudential approach') that grew by 3.6 per cent compared to the end of 2015 (9.2 per cent in year-on-year terms) (Chart 2). Unfavourable exchange rate fluctuations in international activity also contributed to the

Chart 1 •
Contributions to half-yearly 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 for securitisation operations.

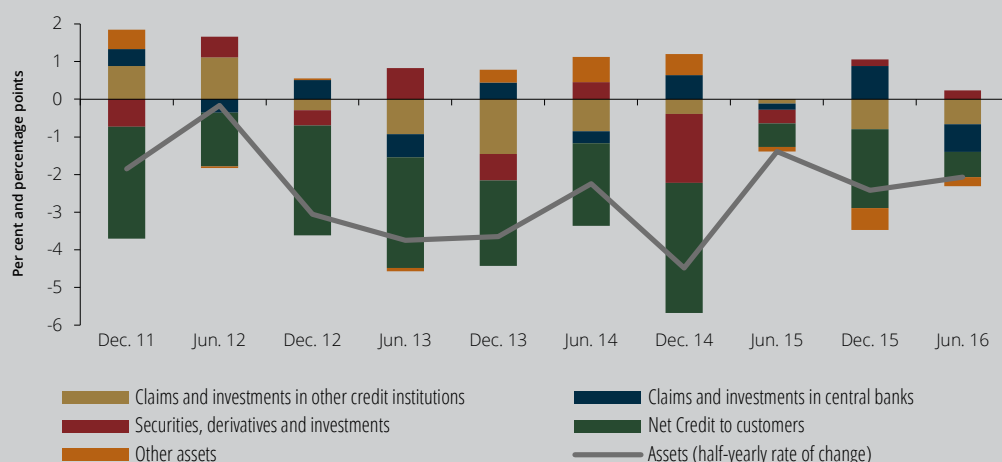
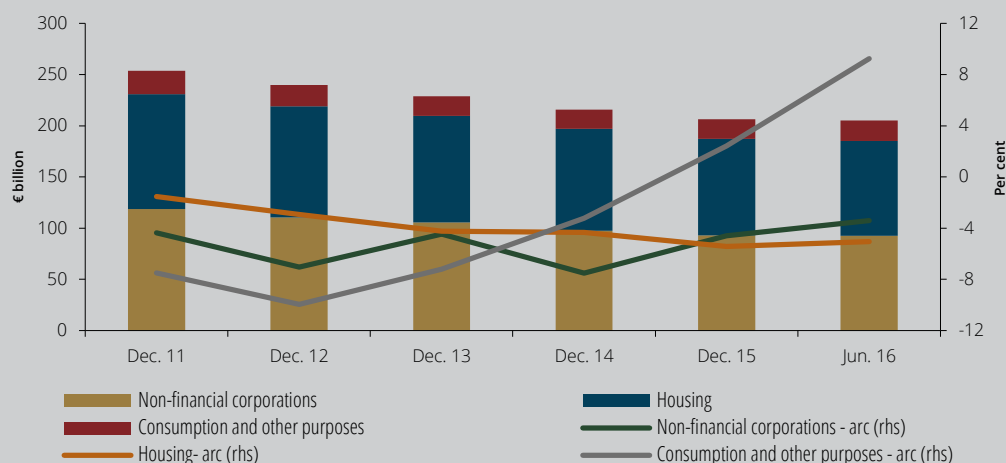


Chart 2 •
Credit portfolio developments (resident private sector)

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



reduction in the credit portfolio. On a comparable basis, credit to customers fell by 2.1 per cent in the first half of 2016.

The securities, derivatives and investments portfolio increased by approximately one billion euros in the first half of 2016 (half-yearly and year-on-year rates of change of 1.2 per cent and 2.2 per cent respectively). In terms of its breakdown, the developments over the first half of the year are mainly explained by the increase in exposure to Portuguese public debt securities (increase of 7.5 per cent), as well as to foreign public debt securities (increase of 6.6 per cent), particularly Italy. On the other hand, exposure to non-subordinated debt of non-resident issuers fell (rate of change of -25.9 per cent) (Chart 3).

At the end of the first half of 2016, the public debt portfolio represented 12.2 per cent of the banking system's assets (0.9 percentage points – p.p. – more than at the end of December 2015), with Portuguese public debt securities corresponding to 55.7 per cent of the total portfolio (1 p.p. more than at the end of 2015). Banks' total exposure to the Portuguese public debt sector corresponded to approximately 9 per cent of assets, including not only Portuguese public debt securities (about 7 per cent of assets), but also credit granted to the sector (about 2 per cent of assets). Exposure to equity securities, including investments in subsidiaries, was 1.7 per cent of assets.

The weight of customer deposits in the banking sector's funding continued to increase, while recourse to Eurosystem financing continued to decline

In the first half of 2016, the weight of customer resources increased in the sector's funding structure, accounting for approximately 62 per cent of assets. At the same time, there was an increase in the interbank market's weight on the funding structure and a fall in the weight of central bank funding and securities liabilities.

As regards domestic activity, household deposits (including emigrants) non-financial corporations deposits registered increases of 3.8 and 0.4 billion euros respectively, whilst the deposits of non-monetary financial institutions and general government fell by 1.2 and 1.8 billion euros respectively (Chart 4) – see 'II Financing of the economy'.

The banking system's loan-to-deposits ratio, measured by the ratio of net credit to customer resources, was 102.5 per cent at the end of the first half of 2016, similar to that registered in December 2015 (Chart 5). This development reflected similar reductions in credit and resources from customers. The figure recorded compares to the historic maximum of 167 per cent observed at the end of the first half of 2010. Similarly, the commercial gap

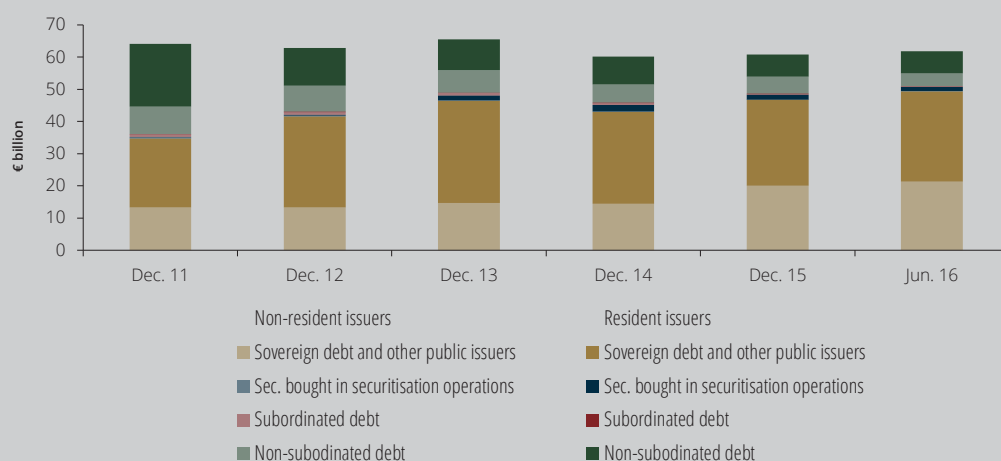


Chart 3 •
Breakdown of the debt securities portfolio

Source: Banco de Portugal.
Note: Debt securities portfolio includes financial assets at fair value through profit or loss, available for sale financial assets and investments held to maturity.

(defined by the difference between net credit and customer resources) decreased slightly, moving from 6.6 billion euros at the end of 2015 to 6.3 billion in June 2016. In comparison with the peak observed in June 2010, the gap diminished by 140 billion euros to June 2016 (about 80 per cent of GDP).

The Portuguese banking system's recourse to central bank funding continued to decline in the first half of 2016, although less markedly than in the previous semesters, reaching 26.9 billion euros (6.6 per cent of assets). This represents a fall of 1.4 billion euros compared to the end of 2015 and 37.3 billion euros compared to the maximum recorded in June 2012, resulting essentially from the reduction in recourse to the Eurosystem.

In turn, recourse to interbank market funding, net of claims and investments, grew by about 4 billion euros relative to December 2015, to 23 billion euros. This development chiefly resulted from a decline in claims and investments in other credit institutions, as well as an increase in resources obtained from them, namely abroad. Interbank market financing, net of claims and investments, for the subset of domestic institutions, increased by approximately 5.5 billion euros in the same period.

Debt securities funding declined by 2.8 billion euros compared to the end of 2015, representing 8.3 per cent of assets (with a semi-annual change of -0.5 p.p.). This was due to a significant fall in

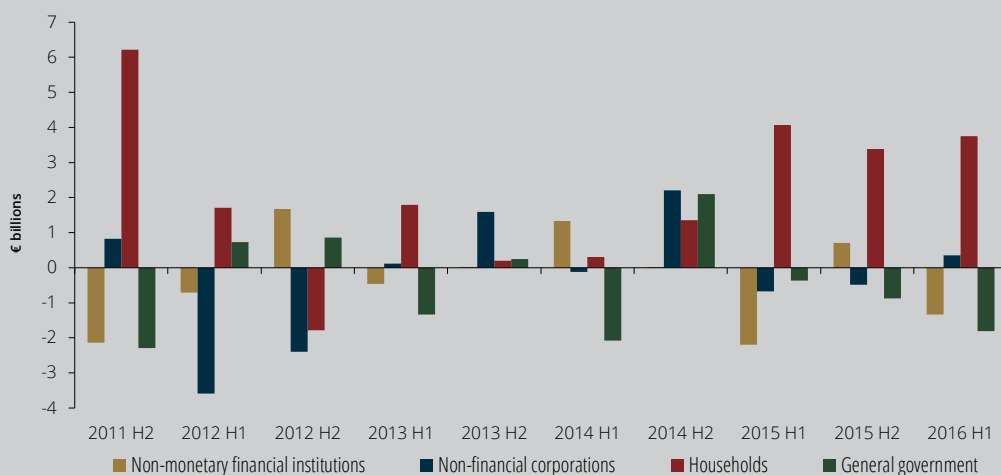
non-subordinated debt securities (change of -3.5 billion euros). In June 2016, debt securities issued were approximately 114 billion euros lower in comparison to the peak recorded in March 2010. This change reflects the structural adjustment of Portuguese banks' liquidity position, illustrated by the evolution of the commercial gap, showing banks' lower sensitivity to fluctuations in wholesale funding markets. The persisting fragmentation of euro area financial markets, which limits access to external sources of finance, and the existence of less expensive alternatives (such as recourse to Eurosystem financing, in particular long-term refinancing operations) also explains the low recourse to the wholesale market.

The liquidity position of domestic banks, assessed through the liquidity gaps², remained at comfortable levels, having improved since June 2015 in all maturities analysed (Chart 6), which demonstrates the adjustment between assets' and liabilities' maturities seen in the past year.

The banking system's liquidity position has been evolving consistently with the sector's adjustment to the increasing European regulatory requirements in terms of liquidity, especially in terms of compliance with the liquidity coverage ratio (LCR), in force since October 2015. In June 2016, in compliance with the regulation, banks held a buffer of high or extremely high liquidity and credit quality assets³, equal to at least 70 per cent of net cash outflows for a 30-day stress period.⁴ As from

Chart 4 •
Half-yearly
developments in
customer deposits
– Domestic activity

Source: Banco de Portugal.



1 January 2018, following the transition period in course, banks will be required to maintain an LCR of at least 100 per cent.⁵

In this context, it should be noted that compliance with regulatory liquidity requirements has also benefited from the ECB's non-standard monetary policy. In fact, according to the results of the Bank Lending Survey published in July 2016, the participation of Portuguese institutions in the ECB's longer-term refinancing operations was motivated, not only by their attractive conditions, but also by the adequate compliance with the regulatory liquidity requirements.

The Portuguese banking system's return on assets fell significantly

The Portuguese banking system's return on assets fell significantly in the first half of 2016, in year-on-year terms. This was due to the decline in the results of financial operations, which reached particularly high levels in the first half of 2015 (and unlikely to be repeated), as already mentioned in the Financial Stability Report of May 2016, and the increase in impairments and provisions for non-credit assets. The combined effect of these changes exceeded the positive contribution made by the improvement in net interest income (Chart 7). In relation to the first half of 2015, there was a

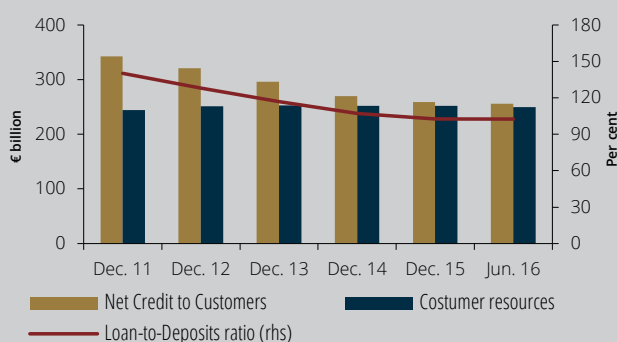
deterioration in the distribution of Portuguese banks' return on assets ratios (Chart 8). Persisting low profitability levels continue to affect the Portuguese banking system, as well as a significant number of European banking systems (Chart 9).

However, when considering an aggregate of results of a more recurring nature, including in terms of income, net interest income and commissions, and, in terms of expenditure, operational costs and credit impairments, developments were positive, despite remaining at negative levels.

Net interest income maintained its recovery path

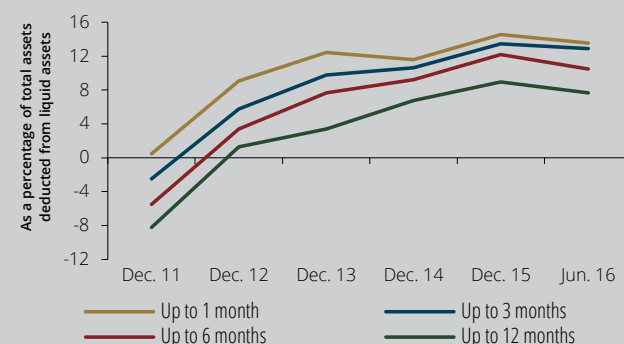
Net interest income continued to increase in the first half of 2016 as a consequence of the reduction in interest expenses, which more than offset the fall in interest received. The increase in the net interest income is almost fully explained by developments in implicit interest rates in borrowing and lending operations (Chart 10). Developments in balance sheet volumes, unlike those observed since 2012, have not penalised net interest income, and have in fact contributed, albeit marginally, to its improvement. This recent evolution gives continuity to the recovery path underpinned by the reduction in funding costs observed since 2014. This has been the result

Chart 5 • Loan-to-deposits ratio



Source: Banco de Portugal.

Chart 6 • Domestic institutions' liquidity gaps in cumulative maturity ladder



Source: Banco de Portugal.

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

of adjustments in the sector's funding structure, with a substitution of market funding for deposits, and the normalisation of the cost of deposits compared to the peak reached during the financial crisis. Also noteworthy are the contributions made by the redemption of subordinated debt securities underwritten by the State at the time of the recapitalisation of the banks in 2012 and the reduction in Eurosystem refinancing costs.

In year-on-year terms, the implied interest rate spread in the balance sheet (difference between the implied interest rates on interest generating assets and liabilities) widened by 18 basis points (b.p.) to 1.56 per cent. This widening is explained by the implied rates in operations with customers, whose spread increased by 15 b.p. in year-on-year terms, to 2.1 per cent, as a result

of falls of 45 b.p. and 30 b.p. in implied interest rates on deposits and implied interest rates charged on credit to customers respectively (Chart 11). The latter has accompanied the fall in market interest rates, namely the three-month Euribor, reflecting the heavy weight of housing loans, with Euribor-indexed rates, longer maturities and relatively low spreads, granted prior to the financial crisis.

Regarding the interest rates associated with other assets and liabilities, emphasis is given to the reduction of 20 b.p. in the implied interest rate on government debt securities. This development could be due to the maturity and sale of these securities, followed by subsequent purchase of securities of a similar nature but which tend to have lower rates of return, because of the

Chart 7 •
Contribution to ROA

Source: Banco de Portugal.
Notes: Return on assets is computed considering income before taxes and minority interests. Recurring return on assets corresponds to net interest income and commissions deducted from operational costs and credit impairments.

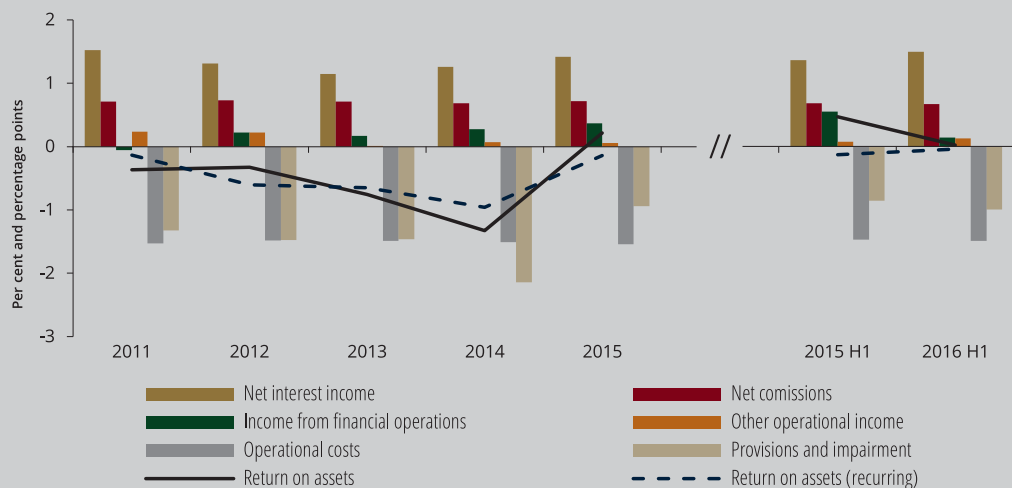
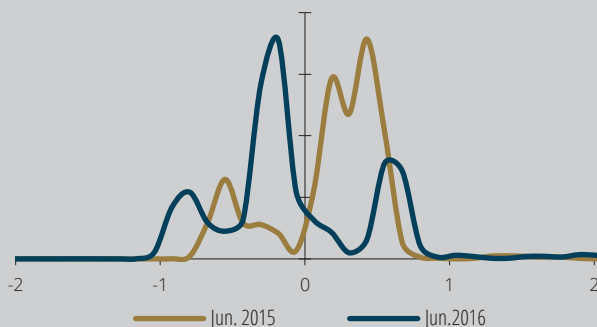
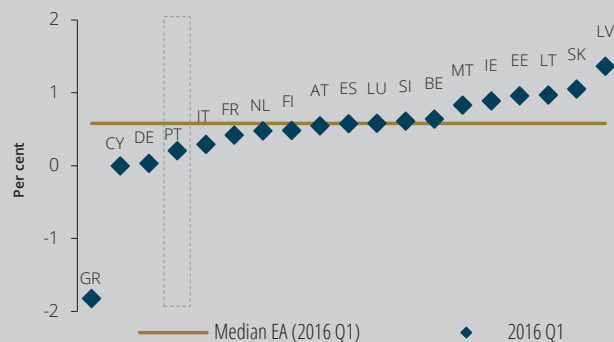


Chart 8 • ROA distribution



Source: Banco de Portugal.
Note: Empirical distribution using a Gaussian kernel in which institutions are weighted by total assets.

Chart 9 • International comparison of ROA



Source: European Central Bank (Consolidated Banking Data).
Note: Figures refer to the year ending in the first quarter of 2016.

developments observed in Portuguese public debt yields in recent years. Also noteworthy is the drop of 80 b.p. in the cost of non-subordinated debt securities issued, the weight of which continues to fall on the funding structure.

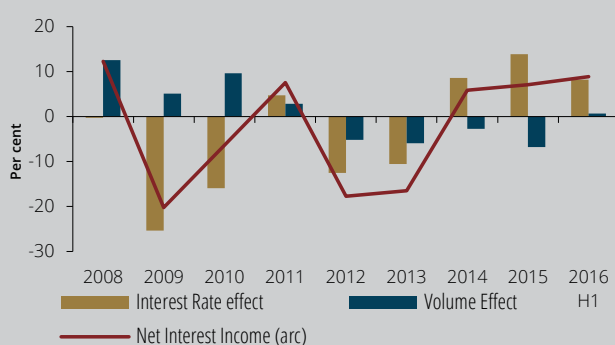
Looking ahead, some factors have been identified that should have a positive influence on net interest income. The first of these factors is the probable dynamic in funding costs. On the one hand, the cost of deposits should continue to decline, as, especially for some banks, interest rates on new operations are significantly lower than the implied rates on balance sheet deposits. However, this reduction will naturally be limited by the already very low level of interest rates. On the other hand, the cost of Eurosystem funding, within the context of the participation in targeted longer-term refinancing operations (TLTRO II), depending on volumes of credit granted to the economy, may reach the interest rate applicable in the deposit facility.

A second favourable factor in terms of prospects for net interest income is related with the easing over time of the negative impact of the current environment of low interest rates in implied interest rates for housing loans, associated with the considerable weight of this portfolio. This will occur as older operations reach maturity and those operations contracted in recent years, with more appropriate pricing conditions in terms of risk and funding costs gain weight in the portfolio.

Furthermore, a third favourable factor is related with the trend for other loan segments, other than housing loans, to make a positive contribution to implied interest rates: (i) by the growth in consumer credit, with higher associated rates of return, and (ii) by the fact that the adjustment in the price of credit to non-financial corporations has been relatively faster, reflecting shorter maturities and repricing periods. It is especially important, also in this context that the spreads charged reflect borrowers' risk profiles.

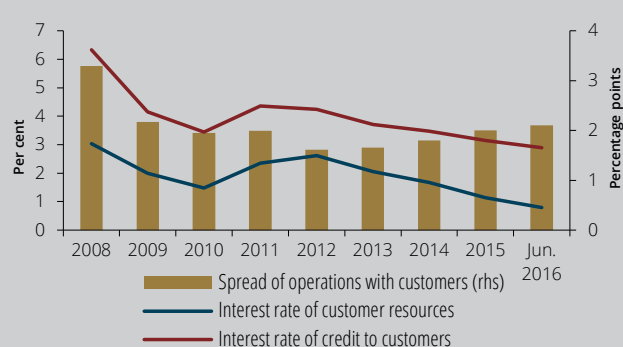
In contrast, other factors could penalise net interest income generation. Firstly, the global context of very low, or even negative, interest rates should continue to push it downwards on the one hand, and as mentioned previously, by the effect on Euribor-indexed interest rates for housing loans and, on the other, by the reduction in the returns of the debt securities portfolio (particularly of Portuguese public debt, demonstrating the materialisation of reinvestment risk across the whole financial system). Additionally, as mentioned in previous editions of the Financial Stability Report, the need to access the wholesale funding market could have a negative impact on funding costs, considering that the debt issued on this market would tend to have a higher cost associated. In effect, in the medium to long term, it will be necessary to issue subordinated instruments to comply with the new regulatory requirements, including the net stable funding ratio (NSFR)

Chart 10 • Breakdown of net interest income developments: price effect and volume effect



Source: Banco de Portugal.

Chart 11 • Developments in implied interest rates on credit to customers and customer resources



Source: Banco de Portugal.

and the minimum requirement for own funds and eligible liabilities (MREL).

Finally, given the need for resident economic agents to proceed with their deleveraging process, the growth potential of the net interest income by way of an increase in credit volumes would be very dependent on the scale of the recovery in economic activity and the reallocation of resources between the various sectors of the economy.

Income from financial operations hampered profitability for the semester

Income from financial operations fell significantly over the first half of the year, partly due to the reduction in net gains on the sale of Portuguese public debt in year-on-year terms. The decrease in gains is related with the increase in the yields of these securities during the first half of the year, the effect of which is greater due to the banking sector balance sheet's high exposure to these assets. In this context, it should be mentioned that in the first half of 2016, the contribution made by income from financial operations to the return on assets was close to the levels prior to the financial crisis, representing approximately 0.15 per cent of assets, which shows that the reduction seen is a result of the very high value reached in 2015. Also notable is that in the global

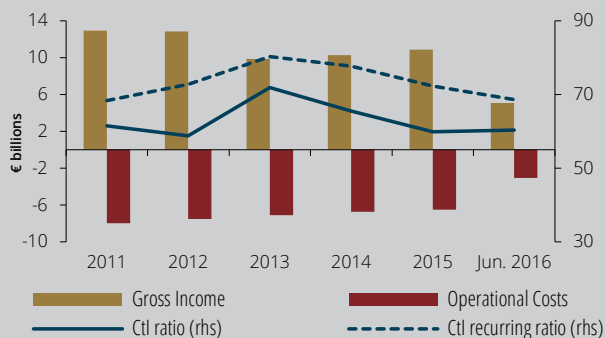
low interest rate environment, the realisation of capital gains associated with the active management of the Portuguese public debt portfolio will be dependent on a reduction in credit risk premia.

The deterioration in operational efficiency levels was due to negative developments in gross income

In the first half of 2016, levels of operational efficiency in the Portuguese banking sector (assessed by the cost-to-income indicator) fell in year-on-year terms as a result of negative developments in gross income. However, considering a ratio which includes gross income components of a more recurring nature, that is, net interest income and net commissions, there was an improvement in efficiency levels compared to the first half of the previous year (Chart 12).

The contribution of operating costs to return on assets remained stable, reflecting the effort made by the sector to reduce its branch network, cut other operational and administrative costs and sell non-core assets. It is worth highlighting that the impact of these restructuring processes does not have immediate repercussions on developments in operating costs, as they require the immediate recognition of a number of

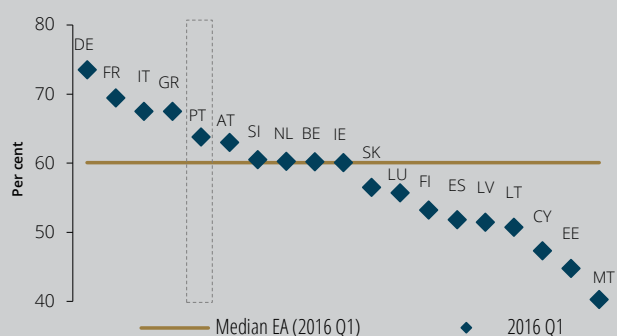
Chart 12 • Cost-to-income



Source: Banco de Portugal.

Note: The recurring cost-to-income ratio corresponds to operational costs as a percentage of the aggregate of net interest income and net commissions.

Chart 13 • International comparison of the cost-to-income ratio



Source: European Central Bank (Consolidated Banking Data).

Note: Figures refer to the year ending in the first quarter of 2016.

additional costs associated with staff reduction – see ‘IV.2 Efficiency of the Portuguese Banking System’. Note that the Portuguese banking sector has a cost-to-income ratio a little above the euro area median for this indicator (Chart 13).

Despite a slight reduction in flow of impairments for credit in aggregated terms, there is some heterogeneity between institutions

In the first half, total costs with impairments contributed negatively to developments in aggregate profitability, with a recorded increase of about 10 per cent, explained by the increase in impairments and provisions not associated with credit. However, there was a slight reduction in the flow of impairments for credit that, associated with the fall in gross credit, translated into a stable loan loss charge of approximately 1.1 per cent (Chart 14). Yet the heterogeneity in the impairment recognition process should be highlighted, with some of the biggest banks increasing significantly, in year-on-year terms, the recognised losses amount.

International activity continues to make a positive contribution to the sector's profitability

The international activity of Portuguese banks continued to make a very positive contribution to the sector's profitability, allowing to offset the weak results from domestic activity. However, and as noted in previous editions of this Report, the contribution of international activity to future income generation remains uncertain. In the case of BPI, in accordance with the most recent developments, the solution to be implemented to reduce exposure to the Angolan State – as this jurisdiction ceased to have the status of equivalence with the European Union in terms of regulation and supervision – involves the deconsolidation of Banco de Fomento Angola (BFA) by marginally reducing its shareholding. In the case of BCP, the deconsolidation of the Angolan subsidiary was accompanied by the recognition, using the equity equivalence method, of a shareholding in the entity resulting from the merger of the aforementioned subsidiary with another Angolan bank. Still in the case of BCP, the final decision as to the allocation of the effects of exchanging Swiss franc-denominated loans into the local currency will condition income generation in Poland.

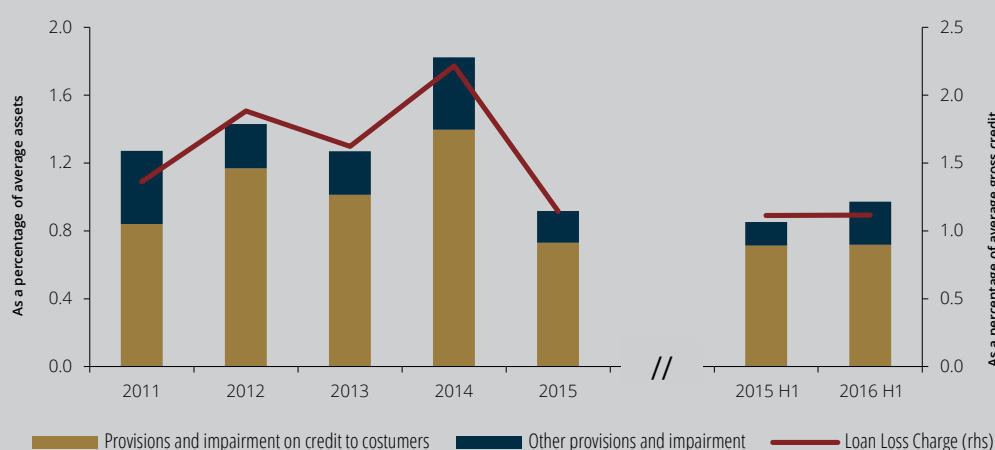


Chart 14 •
Flow of impairments and provisions and the loan loss charge

Source: Banco de Portugal.
Note: The loan loss charge corresponds to flow of credit impairments and provisions as a percentage of total average gross credit granted to customers. Annualised figures.

Levels of NPLs in banks' balance sheets remains high

The NPLs in the balance sheet of banks operating in Portugal remain very high as a result of the significant materialisation of credit risk in recent years, especially since the beginning of the Economic and Financial Assistance Programme (EFAP). At the end of the first half of 2016, the NPL ratio, calculated in accordance with Instruction of Banco de Portugal No 22/2011 (credit at risk), reached about 13.7 per cent for the resident private sector, slightly below the figure recorded in June 2015.

Among the resident private sector segments, non-financial corporations present the highest credit at risk ratio (approximately 21 per cent), despite being relatively stable in relation to the end of 2015 (Chart 15). In the segment of loans for house purchase, this indicator has remained stable since 2011, at about 6 per cent, whilst in the segment of loans for consumption and other purposes, with a lower weight in the credit portfolio of most banks operating in Portugal, it reached 14.7 per cent in June 2016, and has been on a downward trend since the beginning of 2015, largely owing to the increase in credit granted in this segment.

The effort of impairment recognition undertaken by the banks continued in the first half, in line with that observed in recent years. This increase was particularly significant in the non-financial corporation segment, where the levels of credit risk materialisation are higher, with the coverage ratio reaching 73.6 per cent of credit at risk. In the segment of loans for house purchase, impairment coverage rose to 36.6 per cent of credit at risk. Accumulated credit impairments on the balance sheet represented about 9.1 per cent of gross credit granted to the resident private sector at the end of the first half.

With a view to harmonising NPL measures at European level, the European Commission adopted, at the beginning of 2015, the implementing technical standards issued by the

European Banking Authority (EBA) in relation to the reporting for supervisory purposes of forborne exposures and non-performing exposures. These standards have resulted in a more comprehensive measure of NPLs in comparison to the credit at risk concept. Its technicalities are described in detail in the Special issue 'IV.3 Concepts used in the analysis of credit quality', which also presents a comparable quantification of the various concepts.

Current levels of NPLs are a risk to financial stability, given their adverse impact on profitability, solvency and market access conditions of the most affected institutions.

In terms of profitability, the fact that these credits generate a significantly lower income than that agreed in the original contract, or even nil, as well as the need to recognise impairment losses associated with these exposures due to the decrease in expectations of recovery of outstanding debts, constitute an obstacle to generating earnings. At this level, special attention should also be given to the impact of the introduction, at the beginning of 2018, of IFRS 9 in the calculation of impairments.

In terms of solvency, the high credit risk associated with these exposures has an unfavourable impact on risk weights and leads to an increase in the regulatory own funds requirements as part of the Supervisory Review and Evaluation Process (SREP). In the sector's low profitability environment, compliance with additional capital requirements associated with NPLs becomes particularly demanding.

Reflecting both factors, a strong positive correlation between levels of NPLs on banks' balance sheets and the size of the risk premiums demanded by potential investors tends to exist, as described in detail in 'I. Financial stability: Vulnerabilities and risks'.

Solvency levels fell slightly in the semester

At the end of the first half of 2016, the common equity tier 1 (CET 1) ratio of the banking sector,

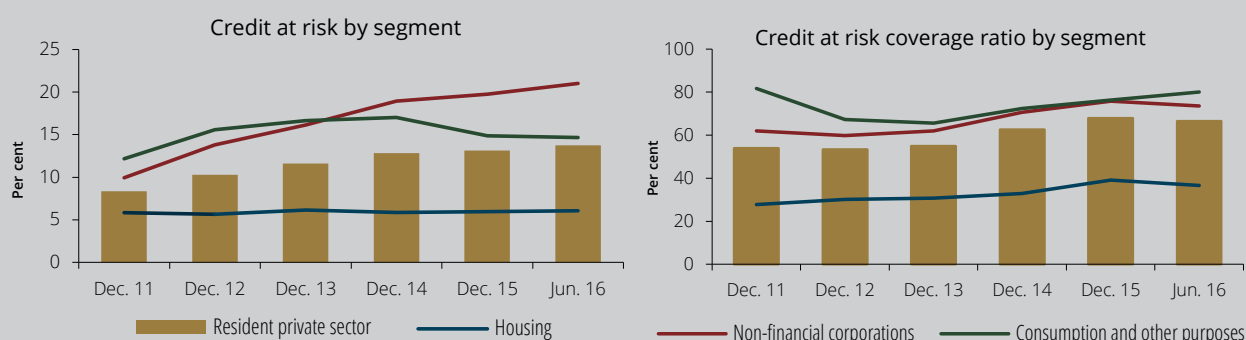
applying the transitional provisions foreseen in Regulation No 575/2013 of the European Union (Capital Requirements Regulation – CRR) was 12.1 per cent, 0.3 p.p. lower in relation to the end of 2015. The CET 1 ratio distribution shows some convergence to the sector average, thus reflecting less variability, although evident differences remain between the major institutions (Chart 16). In comparison with its European peers, the Portuguese banking sector continued to present a lower CET 1 ratio than the euro area median at the end of the first quarter of 2016 (Chart 17).

During the first half of 2016, the negative developments of the banking sector's own funds reflect weak profitability, which continues to limit the institutions' capacity to generate

capital internally. On the other hand, there was a reduction in risk-weighted assets (RWA), in line with the trend observed in recent years. This development was affected by the aforementioned deconsolidation of BCP's Angolan subsidiary. The reduction in RWA has been accompanied by a decline in the average risk weight of exposures (Chart 18).

Furthermore, the progressive elimination of the transitional provisions established in the CRR and in Directive 2013/36/EU of the European Union (Capital Requirements Directive – CRD IV), which currently allow for a gradual adjustment to the new regulatory requirements, has put a downward pressure on banks' capital adequacy ratios. Assuming the balance sheet as of 31 December 2015, it is

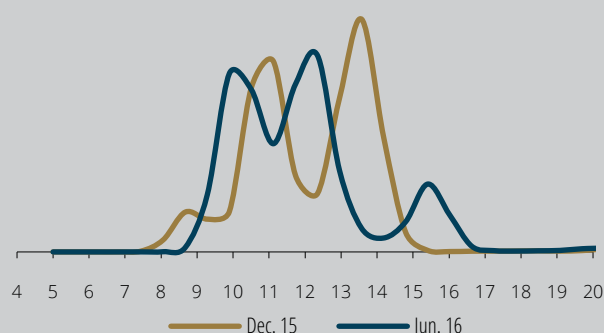
Chart 15 • Credit at risk and credit at risk coverage ratios by segment



Source: Banco de Portugal.

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

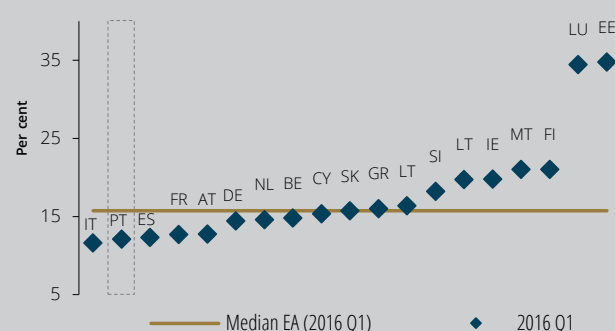
Chart 16 • CET1 ratio distribution (phasing in)



Source: Banco de Portugal.

Note: Empirical distribution using a Gaussian kernel in which institutions are weighted by total assets.

Chart 17 • International comparison of CET1 ratio



Source: European Central Bank (Consolidated Banking Data).

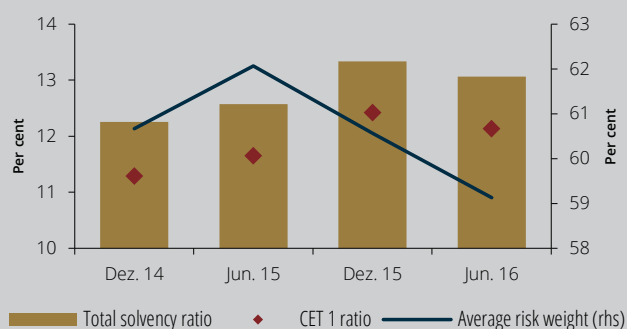
estimated that the regulatory changes applied from 1 January 2016 implied, by themselves, a reduction of 0.3 p.p. in the combined CET 1 ratio of the seven largest banking institutions operating in Portugal.

In accordance with the results of the Quantitative Impact Study of December 2015, promoted by the EBA and the Basel Committee, the domestic banking groups participating in the exercise complied fully with the minimum requirements for the CET 1 ratio, as defined by the Basel III framework and introduced by the CRD IV and CRR, following the transitional period (fully implemented).

Finally, the regulatory framework of the Banking Union also includes a leverage ratio that has been of mandatory disclosure by institutions under prudential supervision as of 1 January 2015. This ratio complements the RWA-based solvency measures, having as 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 QIS, with reference to December 2015, indicate that the participating Portuguese institutions have a leverage ratio above 3 per cent, which is the value currently accepted as the minimum reference level and in line with average European levels. For the average of domestic institutions participating

in the exercise, this leverage ratio reached 5.7 per cent. The relatively favourable position of the banking system in terms of this indicator (compared to the prudential capital ratios) reflects the fact that the RWAs per asset unit (average risk weight) in Portugal are among the highest in Europe (Chart 19).

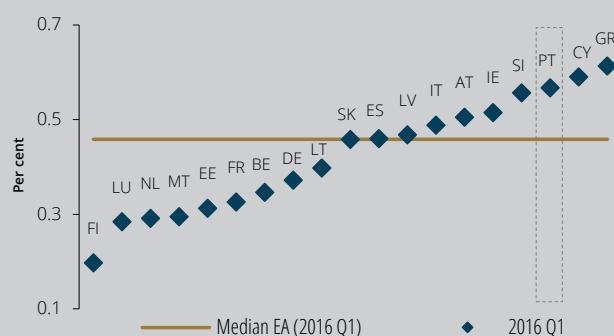
Chart 18 • CET 1 ratio, total solvency ratio, and average risk weight



Source: Banco de Portugal.

Note: The average risk weight corresponds to the ratio between risk-weighted assets and the accounting assets.

Chart 19 • International comparison of RWAs per asset unit



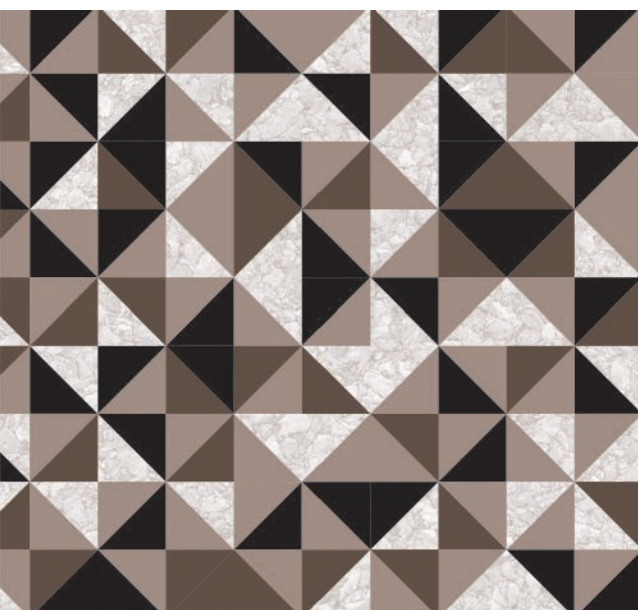
Source: European Central Bank (Consolidated Banking Data).

Note: Due to unavailability of data, figures shown for 2016 Q1 for Estonia and Lithuania refer to 2015 Q4.

Notes

1. The items 'credit to customers' and 'customer resources' were affected by the reclassification of some assets/liabilities from 'non-current assets/liabilities held for sale and discontinued operations' associated with the acquisition by Bankinter of Barclays' business in Portugal in the second quarter of 2016. Therefore, this reclassification did not have an impact on the development of total assets, although careful analysis is required when checking changes of these items in relation to the end of 2015. Furthermore, the deconsolidation of Banco Millennium Angola was a non-recurrent event with an impact on BCP's balance sheet items. Whenever such non-recurrent events have an impact on financial statements, annual rates of change are presented on a comparable basis.
2. Liquidity gaps are defined as the difference between liquid assets and volatile liabilities as a percentage of the difference between total assets and liquid assets, for each maturity ladder. Indicators were calculated on the basis of data and concepts set out in Instruction of Banco de Portugal No 13/2009. This indicator allows for a comprehensive characterisation of banks' liquidity position, by considering a wide set of assets and liabilities and their residual maturities.
3. In accordance with Article 3 of Commission Delegated Regulation (EU) 2015/61, of 10 October 2014, to supplement Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to the liquidity coverage requirement for credit institutions. For more details, see the European Commission's website.
4. The European Commission's Delegated Act on the liquidity coverage ratio establishes that stress shall mean "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".
5. In June 2016, most institutions already had a liquidity coverage ratio greater than 100 per cent.





IV

Special issues

1. Recent developments in consumer lending: A macroprudential approach
2. Efficiency of the Portuguese Banking System
3. Concepts used in the analysis of credit quality

1. Recent developments in consumer lending: A macroprudential approach

Summary

Among the intermediate objectives of macroprudential policy, one of Banco de Portugal's responsibilities, is the mitigation and prevention of excessive credit growth and leverage of the economy. Thus, when assessing risks to financial stability, as undertaken by Banco de Portugal, monitoring the evolution of credit to the economy is of the utmost importance.

Considering this, the upward path recently shown by consumer credit is analysed, as well as the possible risk this development may bring to the household de-leveraging process and to the quality of the resident financial system's balance sheet. Despite the reduced weight of consumer credit on total household debt and total loans from banks and other credit institutions, this segment of the lending market presents a significant default risk, and its persistent high growth could also lead to an increase in vulnerabilities, both for households and the banking system.

The recent increase in consumer credit was mainly driven by car loans, and was mostly associated with the effect of the anticipated purchase of cars as a result of the announcement of an increase in Vehicle Tax that came into force in April 2016. Although this evolution is expected to be of a temporary nature, reflecting the growth in the consumption of durables goods (that are projected to decelerate over the second half), the information regarding the third quarter of the year suggests a continued modest increase in annual rates of change. Therefore, given the reduced relative importance on households' balance sheets and the resident financial system, there is not expected to be a significant increase in risk to financial stability. However, further developments in consumer credit will continue to be closely monitored.

Introduction

The subprime crisis has led to profound reforms in financial regulation and supervision worldwide, with macroprudential policy having been developed to ultimately promote financial stability and mitigate or prevent the materialisation of systemic risks. In Portugal the definition and implementation of macroprudential policy are assigned to Banco de Portugal, which has established a strategy relying on a set of intermediate objectives related to the final objective and on policy instruments suitable to its observance.¹ Among the intermediate objectives are the mitigation and prevention of excessive credit growth and leverage on the economy, as well as the reduction of incentives in risk assumption by systemically important institutions.

In terms of leveraging, and notwithstanding the decline observed in Portugal since 2011, household and non-financial corporate debt (189 per cent of GDP in June 2016) is among the highest of the euro area, restraining economic growth as well as being a potential source of instability for the banking system.² In this context, the weight of loans for consumption and other purposes in total household debt is relatively low (below 20 per cent of the sector's debt and accounting for around 11 per cent of total credit granted by the resident financial sector to the non-financial private sector). However, this segment has a much higher probability of default than housing loans, although, as a rule, the interest rates applied reflect an associated higher risk level.³ Considering this risk profile, an increase in the exposure of credit institutions to the consumer loans segment may render them more vulnerable to macroeconomic shocks, such as a reduction in household disposable income. Hence – within the scope of the monitoring of credit granted by the financial

sector that should underlie the definition of macroprudential policy, and taking into account the above-mentioned intermediate objectives – the growth of consumer credit should be assessed and characterised on an ongoing basis.

Against this background, the recent path of consumer loans and the potential underlying risks are analysed from a macroprudential point of view, based on the characterisation of developments in consumer loans flows and stock. Where warranted, data are broken down by loan segment and type of institution. Data on positions are derived from Banco de Portugal's Central Credit Register (CRC in Portuguese), while data on new consumer loans are reported by credit institutions on a monthly basis to Banco de Portugal under Instruction No 14/2013. For the purposes of this analysis, four segments of consumer loans have been taken into consideration: (i) personal loans; (ii) car loans; (iii) credit cards; and (iv) other consumer loans.⁴

Recent trends of private consumption and consumer loans

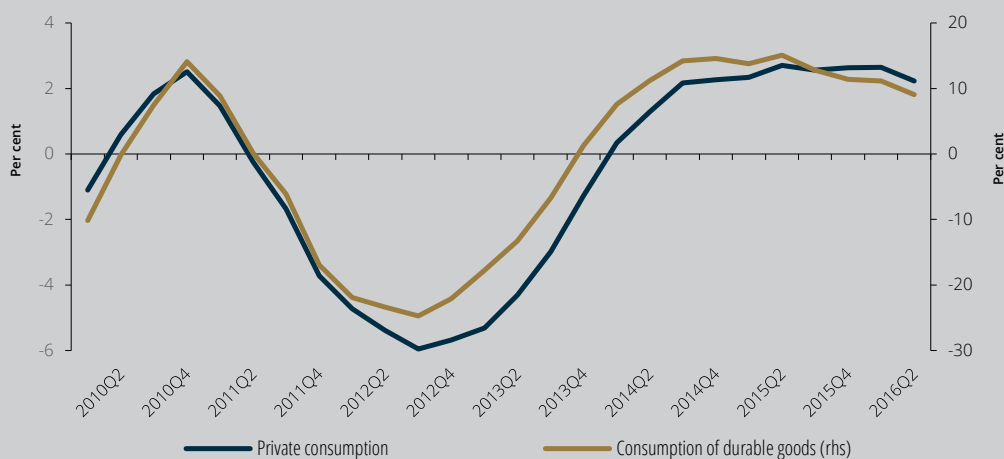
Since 2013, amid a decrease in interest rates and a gradual improvement of the economic environment, the recovery of household disposable income and the rise in consumer confidence led to private consumption

growth, with a particular contribution of the consumption of durable goods (which includes passenger car purchases) whose income elasticity is high (Chart 1). In the first half of 2016 passenger car sales recorded a marked increase, associated with the anticipation effect resulting from the announcement in February 2016 of a rise in the vehicle tax which entered into force in April this year. Projections for the second half of 2016 point to a deceleration in private consumption, chiefly reflecting the evolution of the durable goods component.⁵

The recent evolution of consumer loans has reflected developments in private consumption, especially in the durable goods component. Hence, following a sharp decline between 2010 and 2012, the flow of consumer loans increased progressively, reaching in the second quarter of 2016 a level similar to that recorded in 2010 (Chart 2). By loan segment, the main contributions to the change in the total were made by personal loans and especially car loans. Loans granted in the form of credit cards or other consumer loans remained stable over the whole period. The relative weight of each loan segment in total consumer loans granted recorded values close to those observed in 2010. This notwithstanding, taking 2013 as reference, it is possible to see that the weight of car loans in total consumer loans increased considerably (from 25 to 38 per cent).

Chart 1 •
Year-on-year rate of change (in volume) in private consumption and durable goods consumption

Source: Statistics Portugal.
Note: Y-o-Y rate of change for the year ending in the quarter.



The ratio of consumer loans (gross flows) to private consumption (excluding food) has been increasing continuously since 2012, standing at values close to those observed before the sovereign debt crisis (Chart 3). In turn, the ratio of car loans (gross flows) to the consumption of durable goods recorded a similar trend, although increasing further in 2015 (Chart 4).

Chart 5 shows the contributions of each loan segment to the year-on-year rate of change in the flow of new consumer loans from the first quarter of 2013 to the second quarter of 2016. The results are in line with those of Chart 2, and show that at first the main contribution stemmed from the evolution of personal loans. As of 2014 the greatest contributions to the rise in consumer loans were made by car loans and

to a lesser extent personal loans. The increase in car loans is associated with a considerable rise in car purchases, which partly reflects a renewal of the vehicle fleet, postponed during the crisis period. Throughout the first quarter of 2016, in particular, the granting of car loans was also quite influenced by said prospective worsening of the vehicle tax on the most polluting and more powerful vehicles. The announcement of this measure in February, under a draft State Budget Law for 2016, led to an anticipation of car purchases. In the second quarter of 2016 consumer loans slowed down vis-à-vis the same quarter a year earlier. However, the most recent data point to a further acceleration in the third quarter of the year.



Chart 3 • Ratio of consumer loans to private consumption excluding food

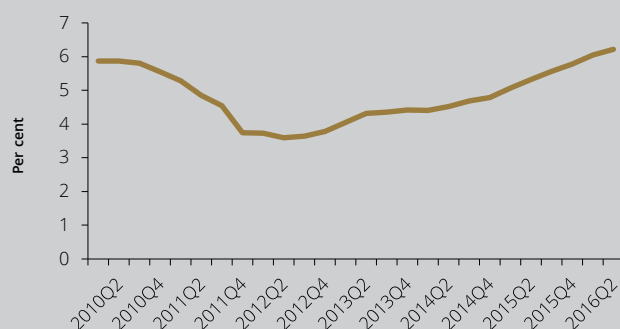
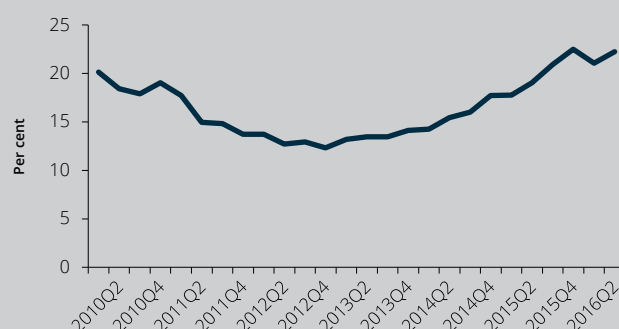


Chart 4 • Ratio of loans for car purchase to durable goods consumption



An analysis of quarter-on-quarter rates of change in new consumer loans, which, for being more volatile, tend to anticipate fluctuations in their respective year-on-year rates, shows that

personal and car loan flows decelerated in the first half of 2016, while the flow of loans associated with credit cards actually recorded negative rates of change (Table 1).

Table 1 • Quarter-on-quarter rates of change in new consumer loans (flows), by consumer loan segment

	Quarter-on-quarter rates of change (%)						Weight on the total flow of consumer loans on 2016Q2 (%)
	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	
Personal loans	3.8	5.1	1.7	6.3	5.8	2.6	43.7
Car loans	6.4	10.6	7.8	8.4	4.7	4.4	37.9
Credit cards	0.1	4.8	4.7	10.9	-4.3	-2.4	16.1
Other consumer loans	1.3	-0.7	7.7	4.0	9.4	14.4	2.2

Source: Banco de Portugal.
Notes: Seasonally adjusted.

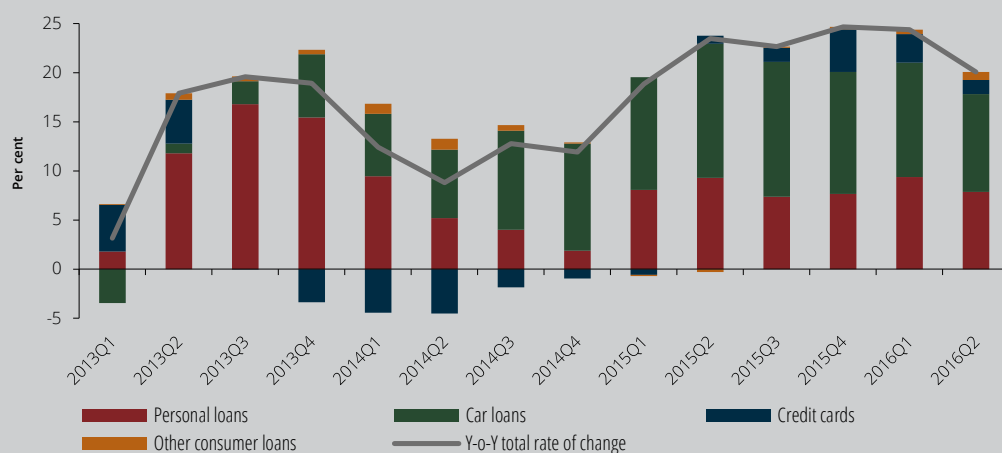
These developments were reflected into an increase in the stock of consumer loans as of the end of 2015, reflecting different trends in the various segments (Chart 6). Car loans have been the main driver of growth, reflecting a considerable increase in new loans in this segment. By contrast, and although the granting of new personal loans also increased quite markedly, the stock of loans in this segment has been declining. This chiefly reflects the net repayment of loans, consistent with a reduction in household leveraging. Notwithstanding the greater buoyancy of car loans, the relative weight of each segment in

the total stock of consumer loans has remained virtually unchanged since 2013 (Chart 7)⁶.

Recent developments in consumer loans were reflected in a rise in the ratio of consumer loans to private consumption (excluding food) to levels close to those observed before the sovereign debt crisis. It is important to analyse whether this is a broadly based phenomenon across the banking system or if it reflects the specialisation of some credit institutions. An assessment will also be made of whether increased competition in this market segment has led to excessive risk assumption by systemically important institutions.

Chart 5 • Contributions to the year-on-year rate of change in new consumer loans (flows), by consumer loan segment

Source: Banco de Portugal.
Notes: Not seasonally adjusted.



Evolution of consumer loans by type of institution

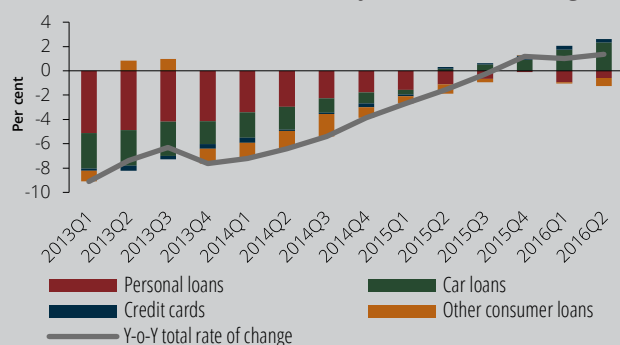
Despite the considerable increase in the contribution of the eight largest banking groups (G8) in the last four quarters, since the mid-2014 the contribution of Other Banks (residually defined as the banking system excluding G8) significantly supported the growth of new consumer loans (Chart 8).⁷ Consequently, the weight of loans granted by Other Banks in total new consumer loans has been increasing progressively, reaching 35 per cent in the second quarter of 2016 (compared with 25 per cent in the first quarter of 2013). The weight of loans granted by the G8 declined slightly in this period, although remaining close to 50 per cent.

A more detailed analysis of new consumer loans by loan segment and type of institution shows that the increase in car loans granted was chiefly accounted for by the contribution of Other Banks, while the increment in the personal loans segment resulted especially from the contribution of G8 (Chart 9).

Risk profile of new consumer loans

A crucial aspect for macroprudential policy associated with the evolution of consumer loans is the assessment of the financial system's exposure to those benefiting from the flow of new loans. An analysis of the counterparties' risk profile is one of the key elements in the assessment of the probability of the credit

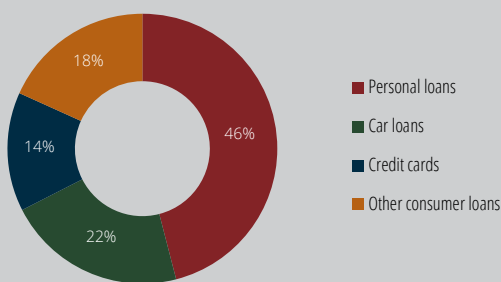
Chart 6 • Contributions to the year-on-year rate of change in the stock of consumer loans, by consumer loan segment



Source: Banco de Portugal.

Notes: Y-o-y rate of change for end-of-period positions.

Chart 7 • Weight of each loan segment in the total stock of consumer loans



Source: Banco de Portugal.

Notes: Position at the end of the second quarter of 2016.

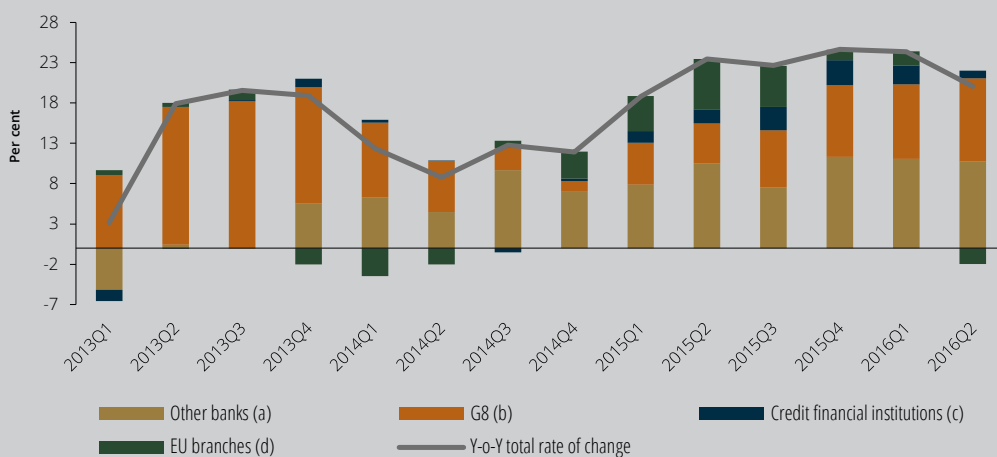


Chart 8 • Contributions to the year-on-year rate of change in new consumer loans (flows), by type of credit institution

Source: Banco de Portugal.

Notes: (a) Covers all banks not included in the G8. (b) The following financial groups considered on a consolidated basis were included in G8: Banif, BCP, BPI, Montepio, CGD, Novo Banco, Santander e SICAM. (c) Includes non-banking credit institutions. (d) Includes the Portuguese branches of EU-based credit institutions (banking and non-banking institutions).

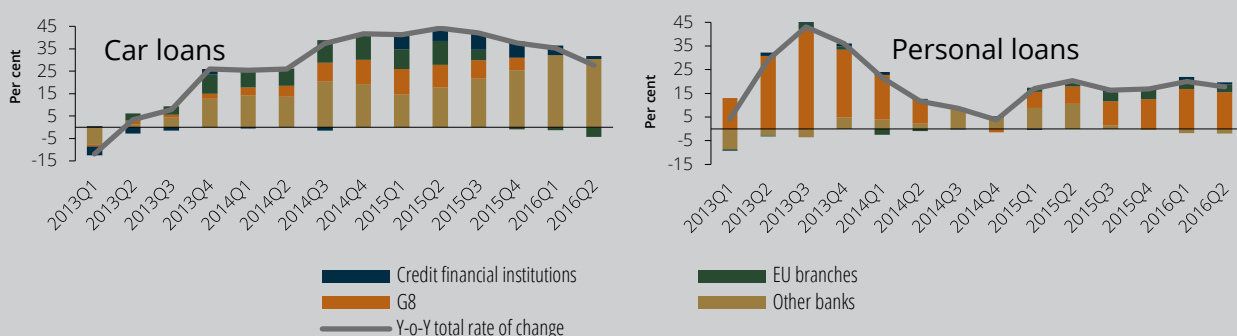
risk materialising. This analysis assumes further relevance given the recent dynamics of consumer loans. Taking into account the high household indebtedness levels, it is important to analyse developments in new consumer loans in line with household indebtedness, so as to monitor the increase in exposures to higher risk segments.

With this purpose, the contribution to the evolution of the year-on-year rate of change in the stock of consumer loans has been calculated, by class of debtor exposure to the resident financial system. Chart 10 shows that the recent increase in the stock of consumer loans was mainly associated with debtors whose total indebtedness⁸ was lower than €50,000.⁹ In turn, the contribution of debtors whose total indebtedness was between

€100,000 and €500,000 was negative over the whole period under review. An increase in loans to debtors with little or no exposure to the financial system may be associated with: (i) persons whose access to the credit market had been refused in the past, and are now obtaining credit due to an easing of the current credit standards¹⁰; or (ii) persons who previously did not want or need to obtain credit.

An analysis of the spreads implied in interest rates on personal loan and car loan agreements¹¹ shows that in recent years the distribution of the spreads underlying the new fixed-rate agreements¹² is shifting slightly to the left and becoming less disperse in both segments (Chart 11). This is consistent with the increase in competition reported

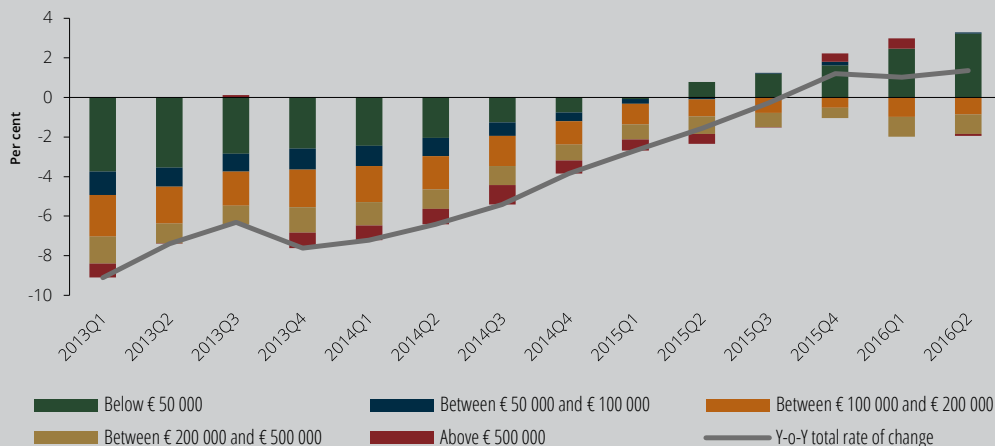
Chart 9 • Contributions to the year-on-year rate of change in new consumer loans (flows), by type of credit institution



Source: Banco de Portugal.

Chart 10 • Contributions to the year-on-year rate of change in the stock of consumer loans, by class of total household indebtedness

Source: Banco de Portugal.
Note: Y-o-y rate of change for end-of-period positions.



by the main institutions in the latest bank lending surveys.¹³ It may also signal a lower differentiation of debtors' credit risk and/or a greater concentration of credit institutions in medium-risk consumer credit agreements. However, this analysis does not control for the increase in demand for loans and its quality (i.e. it does not exclude the influence of these factors on the behaviour observed).

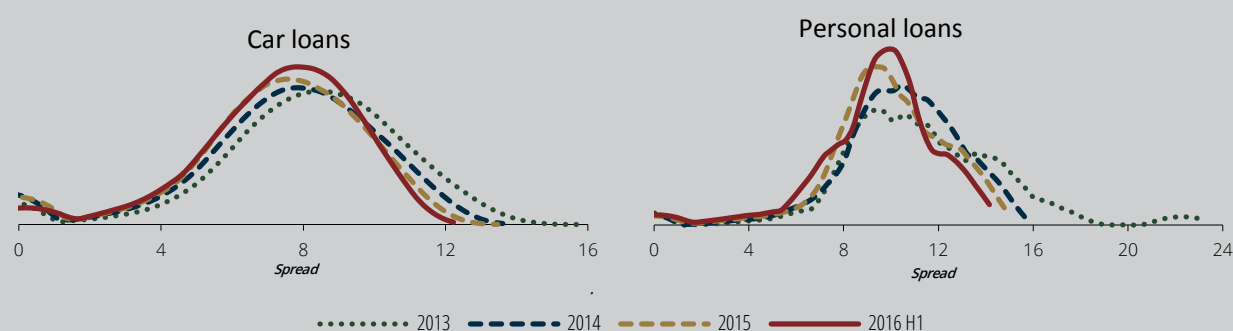
Although the spread reflects the different features associated with a credit agreement,¹⁴ its main determinant should be the debtor's credit risk. Thus, assuming the spread as a proxy for this risk, overall new loans seem to be granted to debtors of the two intermediate classes of risk considered (with spreads between 5 and 8 per cent and between 8 and

10 per cent) (Chart 12). Higher-risk agreements (with a spread of over 10 percentage points) have made a negative contribution to the year-on-year rate of change in car loans. Higher-risk personal loan agreements made a negative contribution only between the mid-2014 and late 2015.

Conclusion

The flow of new consumer loans rose significantly as of 2013, currently standing at similar levels to those observed in 2010. The recent rise in consumer loans was mainly driven by the car loans segment. This credit growth is associated with a considerable rise in car purchase, which partly reflects a renewal of the vehicle fleet that had been postponed

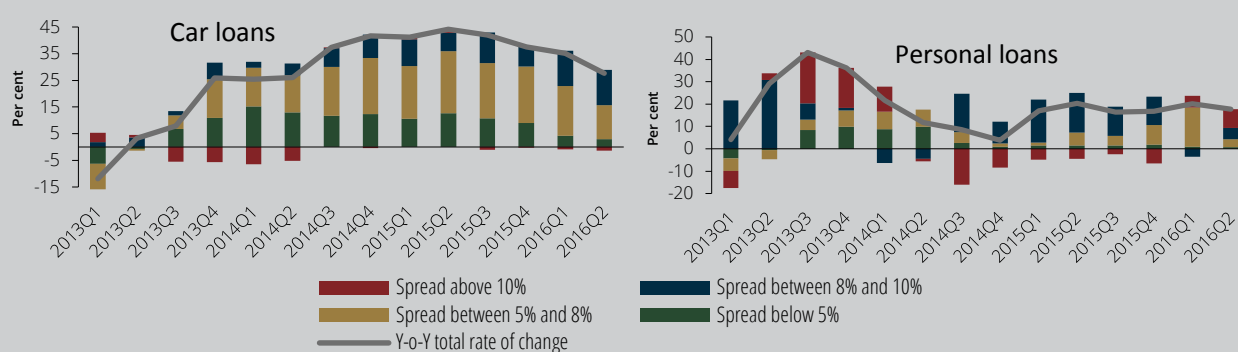
Chart 11 • Distribution of spreads in fixed-rate loan agreements



Source: Banco de Portugal.

Note: Kernel: Epanechnikov; Bandwidth=0,7

Chart 12 • Contributions to the year-on-year rate of change in new consumer loans (flows), by spread class



Source: Banco de Portugal.

during the most acute period of the crisis. In the first quarter of 2016 the rise in car loans also reflects the effect of the anticipation of purchases stemming from the announcement of a rise in the vehicle tax. The main contribution to the increase in consumer loans was made by Other Banks (i.e. banking system excluding the eight largest banking groups).

The recent evolution of consumer loans, particularly car loans, is likely to be chiefly associated with temporary factors, and mainly targeted at less indebted persons. At aggregate level, the deceleration in private consumption and particularly in the consumption of durable goods, is likely to be reflected in a slowdown in consumer loans. However, data on the third quarter of the year show that this type of loans continued to accelerate (although the annual rate of change continues to be moderate). This notwithstanding, its relative importance in the balance sheets of households and the banking system remains low, and in the short term it is not expected to lead to a considerable increase in the risk to financial stability. Given the recent developments, the evolution of consumer loans will continue to be closely monitored.

2. Efficiency of the Portuguese Banking System

Summary

In recent years, the Portuguese banking system has reduced its use of resources. Despite this reduction, when simple accounting-based efficiency metrics and operational resource utilisation indicators are considered, the Portuguese banking system is classified as being less efficient than many other European banking systems.

This type of simple assessment does not consider factor prices or bank dimension. This motivated an efficiency analysis of Portuguese banks using the so-called stochastic frontier method, which allows the effect of the above variables to be controlled. The results corroborate the initial idea that it is possible to improve use of resources in banking intermediation in Portugal given that, even considering the cost of financing and relatively small scale of Portuguese banks, which makes achieving economies of scale more difficult, the Portuguese banking system is below the European median in terms of the efficiency metrics produced by the model.

From a financial stability point of view, and according to the estimates presented, an increase in efficiency is considered to be a preferential path to be taken, aiming to improve Portuguese banks' profitability. However, the implementation of

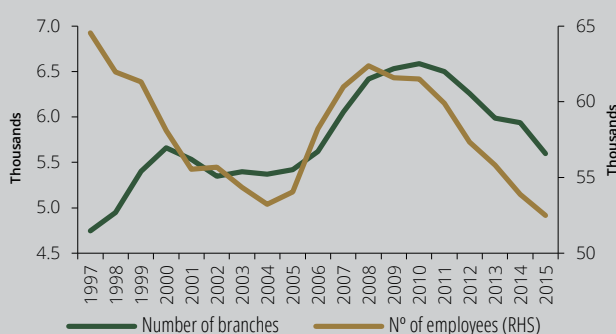
solutions, be they cost control or consolidation, have various associated risks that should be considered, especially in the short term. In this context, the challenges and opportunities associated with digital banking and the so-called Fintechs are especially important.

Developments in the banking system's efficiency and international comparison

From 2000 to 2010 the Portuguese economy grew slowly (annual average growth rates of the GDP of 0.7 and 3.4 per cent respectively in real and nominal terms, corresponding to cumulative rates of change of 7.6 and 40.0 per cent over the period as a whole). By contrast, the banking system expanded credit granted to the resident non-financial sector by 113 per cent,¹⁵ grew the branch network by 16 per cent and increased the number of staff by 6 per cent (Chart 1).

The sovereign debt crisis ended this sharp growth trend of the banking sector, originating (i) a reduction in the volume of financial services traded, (ii) deterioration of counterparty risk and (iii) a sharp decline in credit institutions' profitability levels. These developments translated

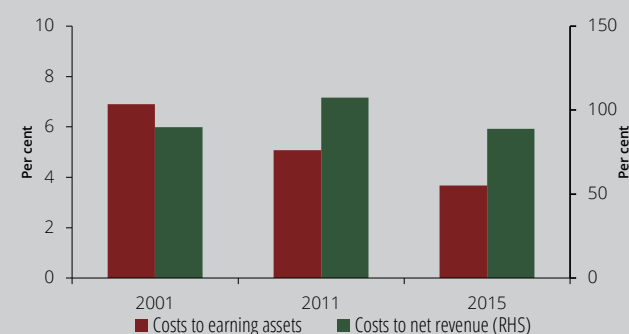
Chart 1 • Number of branches and employees of the Portuguese banking system



Source: ECB.

Note: end-of-year values for credit institutions in Portugal.

Chart 2 • Efficiency ratios of the Portuguese banking system



Source: Bankscope and Banco de Portugal.

Notes: Median of the largest banks in each year. Size is the sum of loans and other interest-bearing assets. Costs include interest expenses and overheads. Revenue is the sum of interest received and other operational income net of provisions/impairments.

into fast deleveraging of balance sheets and a need to contain costs in credit institutions, so as to recover profitability (Chart 2). This requirement was more urgent for some of the largest banks, which resorted to public sector support to reinforce their capital levels, being subject to compliance with the restructuring plans agreed on with the authorities involved.

From a financial stability point of view, Portuguese credit institutions' ability to persistently generate positive net results and to simultaneously regain access to capital markets takes a particularly relevant role, in particular given the need to comply with stricter regulatory capital requirements. Hence, it is important to assess not only the adjustment already made by

these institutions, but also the banking system's situation in terms of cost structure efficiency, as well as the existing potential for improvement.

In general, cost reduction by the Portuguese banking system, given the situation in 2011 (Table 1) when the Economic and Financial Adjustment Programme (EFAP) started, was carried out mainly through a decrease in interest paid, resulting from a recovery of the sovereign's self-funding ability and mainly from the standard and non-standard monetary policy measures adopted by the Eurosystem. Developments in operational costs were considerable in absolute terms (and with regard to assets), although not sufficient to reduce their relative importance vis-à-vis revenue.

Table 1 • Cost structure of the Portuguese banking system

	Interest expenses (volume)	Operational costs (volume)	Interest expenses (as a percentage of assets)	Operational costs (as a percentage of assets)	Interest expenses (as a percentage of revenue)	Operational costs (as a percentage of revenue)
2011	12.728	6.131	3.02	1.63	68.32	32.02
2015	5.284	5.038	1.38	1.48	40.63	39.94
Change	-58.5	-17.8	-1.64	-0.15	-27.69	7.92

Source: Banco de Portugal.

Notes: Data for the 7 largest banks. Cost-to-revenue variables are measured at the median. Costs include interest expenses and overheads. Revenue is the sum of interest received and other operational income net of provisions/impairments. Change (in the last row of Table 1) is in percentage for volumes and percentage points of revenue or assets, depending on the variable.

To assess the speed and magnitude of the decline in inputs in the Portuguese banking system, a comparison is made with other European banking systems, particularly with those most affected by the sovereign debt crisis. Table 2 contains two metrics for using inputs, i.e. the number of branches (per 1,000 inhabitants) and employees (as a percentage of the labour force). In Portugal, despite the adjustment, the reduction in both metrics was lower than in the EU15 average and the various Member States considered. In addition, the Portuguese banking system, despite the reduction, kept a dense branch network, clearly above the European average, Greece and Ireland and only below Spain.

Table 2 • Evolution of branches and employees of banking systems – European-level comparison

		Branches (per 1,000 inhabitants)	Employees (as a % of the labour force)
EU – 15 (mean)	2008	0.44	1.42
	2015	0.35	1.18
	Change	-19.6	-0.25
Portugal	2008	0.61	1.13
	2015	0.54	1.02
	Change	-11.9	-0.12
Greece	2008	0.37	1.32
	2015	0.23	0.96
	Change	-37.4	-0.36
Ireland	2008	0.20	1.78
	2015	0.15	1.25
	Change	-26.6	-0.53
Spain	2008	1.00	1.20
	2015	0.67	0.86
	Change	-33.2	-0.34

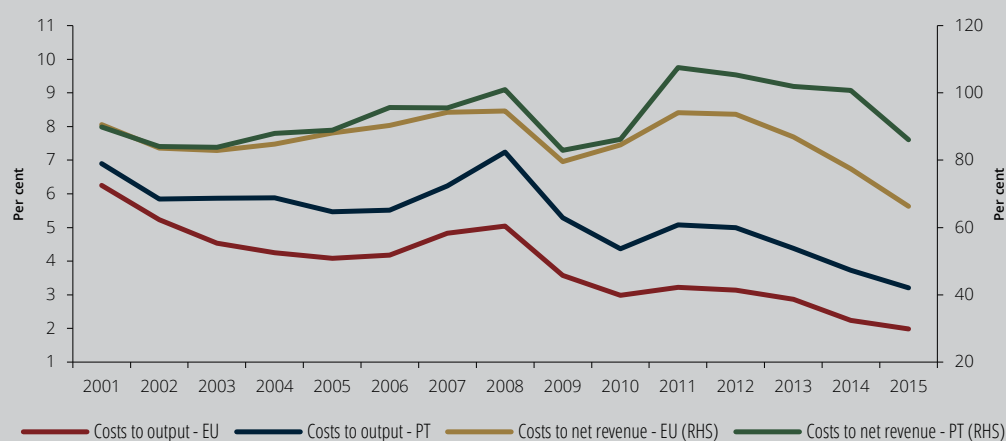
Source: ECB.

Notes: EU – 15 are the 15 EU countries in 1995. Change in percentage for branches per 1,000 inhabitants and percentage points for staff members as a percentage of the labour force.

With regard to the impact of this adjustment on institutions' profits and losses, a few simple efficiency indicators are considered (Chart 3). In 2015 the Portuguese banking system showed a percentage deviation from the European median of 0.9 percentage points (p.p.) and 19.7 p.p. respectively when calculated vis-à-vis net assets and revenue net of impairments.¹⁶

It is necessary to clarify the rationale behind the construction of the indicators presented, which bear a number of differences compared to the most frequently used indicators in the banking efficiency analysis, such as cost-to-income:¹⁷

- Revenue net of impairments and provisions: revenue considered is net of impairments

**Chart 3 • Evolution of median total costs – European-level comparison**

Source: Bankscope and SNL.
Notes: Sample of 110 European banking groups for the 15 EU countries in 1995. Portuguese banking groups included: CGD, BCP, BPI, NVB, BST, MG, GCA and Banif. Total costs include interest expenses and overheads. Revenue is the sum of interest received and other operational income net of provisions/impairments.

since there are various European banks, particularly in the countries most affected by the sovereign debt crisis, whose interest received reflects the high credit risk level of counterparties and not their efficiency in generating revenue. This adjustment accounts for most of the gap between the Portuguese banking system and the European median observed since 2011.

- Inclusion of interest expenses in total costs: to measure efficiency, interest paid is also taken into account for the use of deposits and other liabilities, following the study by Boucinha et al. (2013),¹⁸ which contains evidence that banking liabilities are, jointly with labour and physical capital, an input for financial intermediation, since banks can reduce their variable costs by holding a greater volume of deposits. Ignoring that the financing cost interacts with operational costs may lead to erroneous conclusions, as pointed out in the quoted study, since there are institutions willing to incur higher operational costs in credit risk management so as to reduce their financing costs.

In sum, the Portuguese banking system appears to have reduced its use of resources to a lesser extent than its European peers, in particular compared with the Member States most affected by the sovereign debt crisis. This is reflected in the performance indicators that are ultimately the relevant measures from the viewpoint of the potential for reinforcing capital bases. These observations encourage a discussion on the Portuguese banking system's efficiency and the conclusion that additional adjustment efforts are necessary.¹⁹ However, this analysis should be read in the light of a series of factors specific to the Portuguese banking system:

- Technical limits to cost reduction: in case there are economies of scale and of scope in financial intermediation, the apparent inefficiency of the Portuguese banking system may be due to the small size of the Portuguese banking groups and to their business, which is focused more on granting loans.²⁰

In fact, in 2015 the size of average Portuguese banks (as measured by the sum of loans and other interest generating assets) amounted to €46 billion, compared to a European average of around €300 billion.²¹ In the same year, loans as a proportion of assets reached 70 per cent, compared to a European average of 60 per cent. Thus, improving results by reducing expenditure may be conditioned both by the size of institutions and the composition of assets;

- Input prices: it is also possible that the quantity of inputs employed by Portuguese credit institutions is related to low labour and physical capital prices compared to the rest of Europe, and this would explain a greater use of these inputs. By contrast, the higher amount of interest paid by Portuguese banking groups can be accounted for by the risk that markets associate to the Portuguese economy.
- Market structure: while other Member States' banking systems have undergone substantial changes since 2008, due to the failure or forced merger of various credit institutions, the structure of the Portuguese banking sector remained virtually unchanged until EFAP, when the largest banks, which received public support and implemented restructuring plans, started to rationalise costs and resize their branch networks.

Next, an analysis methodology is applied which takes into account bank size and price of inputs for determining the degree of inefficiency of credit institutions in Portugal, which allows us to reassess, where necessary, the conclusions previously drawn.

Quantification of the relative inefficiency of the Portuguese banking sector

This analysis resorts to the stochastic frontier method, applied in the above-mentioned study by Boucinha et al. (2013), to calculate a minimum cost function for European banking groups. Intuitively, inefficiency can be measured as the distance between the cost observed and

the minimum cost estimated for a given size, and for a given input price level. This measure is called inefficiency-cost in academic literature on production frontiers.

Chart 4 illustrates the rationale underlying this method, using data from a sample of 110 European banks for the 2000-15 period. The larger the size of a bank, the greater its costs. A decline of less than 1 means that the average costs decrease with the bank's size, i.e. that there are economies of scale. To calculate the minimum cost curve, the linear regression straight line is moved down vertically until there is no observation below the curve. A minimum cost line is thus obtained and hence, for every observation (i.e. for every bank-period combination), the vertical distance to that frontier is the inefficiency-cost measure.

However, this simple method has disadvantages: the observation on which the production possibility frontier relies can be anomalous (outlier), in the sense that it may be influenced by temporary factors, quite specific to the institution and/or without great economic significance. By contrast, the stochastic frontier method uses a set of more plausible assumptions as regards the location of the production possibility frontier.

Specifically, the stochastic frontier method considers that the total cost observed for a bank in a given period results from three

elements: (i) a minimum cost for producing a given quantity of goods (loans or other interest generating assets); (ii) a scaling factor measuring the level of inefficiency specific to each bank and (iii) a random measurement error capturing cost changes that remain unaccounted for by the model. In addition, this method also makes it possible to introduce additional explanatory factors (so-called control variables) that justify part of the vertical distance of each observation from the minimum cost curve, such as the input prices or other observable characteristics.²²

Chart 5 shows the inefficiency-cost estimates obtained through the stochastic frontier method. The median bank in Portugal has a cost level 80 per cent higher than the model forecast, compared to 70 per cent for European median banks. Therefore, there seems to be a divergence in the efficiency of the Portuguese banking system's banks vis-à-vis their European counterparts, even controlling the effects of inputs such as size and average interest expenses. In addition, there is a great disparity in the sample, given the distance between the benchmark (defined as the median of the 10 banks with the lowest cost volume compared to revenue) and the median for the European sample as a whole.

The methodology applied also makes it possible to estimate the characteristics of financial

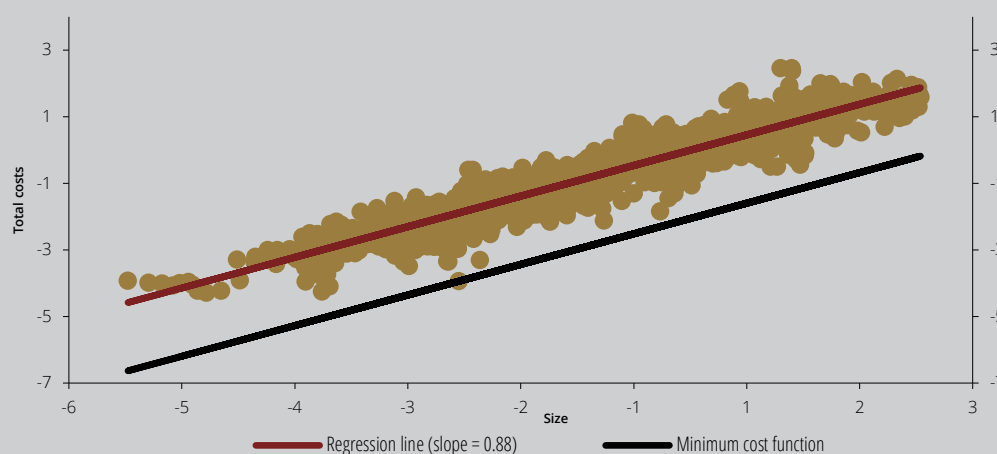


Chart 4 •
Total costs and size
of banking groups

Source: Bankscope and SNL.
Notes: Size is the natural
log of net loans and other
interest-bearing assets and
is an indicator of the scale
of each bank. Total costs
include interest expenses
and overheads.

intermediation technology: the point estimate of the total cost elasticity to size is 0.95 for the average Portuguese bank, which indicates the existence of increasing returns to scale.²³ This estimate shows that there are in fact technical limits to the efficiency of Portuguese banks and, insofar as they continue to be relatively small-sized, they could hardly move into line with the efficiency ratios of larger-sized banks.

However, this exercise only quantifies average savings in terms of cost reduction per euro of credit granted. To measure the banking system's efficiency in the generation of profits, the median of domestic banking groups was compared with both the group of most efficient banks (the so-called benchmark), identified by the previous model, and the sample median. Chart 6 shows the results of this exercise.

Compared to the benchmark of the 10 most efficient banks, the median bank in Portugal shows a difference of 20 p.p. in the total cost vis-à-vis revenue net of impairments. For a given revenue level, this difference results from higher figures in both cost categories (interest expenses and operational costs). In relation to the European median, the gap is narrower (14 p.p.), and is mainly due to the difference in operational costs.

To understand the magnitude of potential savings, if the Portuguese banking system's selected institutions simultaneously moved

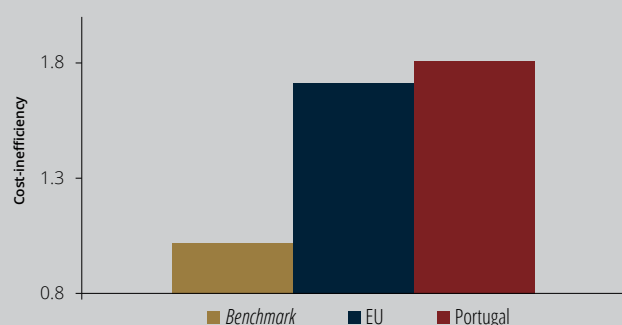
into line with the European median efficiency level in profit generation, the sum of the annual incremental profit would be €2.3 billion.²⁴ This figure accounts for 10 per cent of the Common Equity of the seven largest banking groups and, in a simplified analysis, would raise the aggregate common equity ratio by 1.1 p.p. In summary: (i) there is still room to improve the efficiency of Portuguese banks and (ii) this improvement would produce relevant savings that would contribute to an improvement in capital ratios.

Impact of technological evolution as promoter of efficiency

In an environment of low economic growth, low interest rates and growing regulatory requirements, an important objective for banks should include reaching higher efficiency levels. This need implies the revision of the business models and operational structure of credit institutions. For this, it is necessary to take into account the opportunities and threats that frame the broadly based adaptation of new information technologies in financial business, be it generally in information management, be it, more specifically, at the level of customer relations.

In addition to this aspect, commonly known as digital banking, it is also important to consider the fact that the broadly based supply of digital services is fostering the emergence of

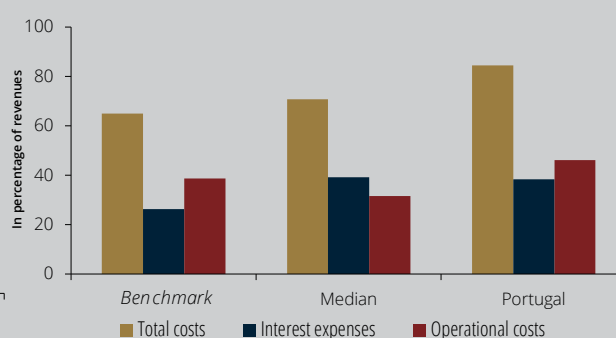
Chart 5 • Estimates of inefficiency-cost in 2015 (stochastic frontier)



Source: Banco de Portugal calculations.

Notes: Inefficiency estimates at the median for each group. France is not included due to lack of data. Benchmark: Median value for the set of 10 banks with the lowest costs with respect to the model's prediction.

Chart 6 • Efficiency in profit generation



Source: Banco de Portugal.

Notes: Benchmark: Median value for the set of 10 banks with the lowest costs to revenue in 2015. Sample median in 2015. Portugal: Median of the 5 largest Portuguese banking groups, excluding NVB and BST.

new players in the financial services market. These new entities, the so-called Fintechs, competing with banks or providing them services (as outsourcing) in some of their business segments, may gain systemic size, still not being subject to the same prudential and regulatory requirements.

Given the theme's emerging importance, on 4 October 2016 Banco de Portugal held the Workshop on Digital Banking and Fintech: Challenges and Threats for the Banking System,²⁵ targeted at discussing recent trends in this field and anticipating its impact on the banking system's architecture.

Digital banking may be considered a new concept of electronic banking, via the massive integration of digital technologies into the sector's productive process. It will allow for integrated and optimised information management, reconciling back-office (management information at various levels) and front-office (customer interface) information. The development of digital banking has multiple dimensions, such as the adoption of strategic analysis tools, media interaction, innovative payment solutions, and online and mobile accesses, while privileging user needs. The effects of digital banking translate into a progressive change in the relationship between banks and their customers, particularly by the fact that younger generations have a greater appetite for the use of new technologies, requiring that banking customers need to visit branches increasingly less. These transformations privilege the dismantling of operational structures backed by large branch networks, which will make it possible to reduce the average costs of financial services provision.

In turn, Fintechs, i.e. enterprises that provide financial services and have a technology-based business model, have been playing a key role in the passing-through of technological evolution to the banking business.

Having grown at a fast pace, enhanced by a high penetration rate of smartphones and broadly based Internet access, Fintechs have responded to new business opportunities by meeting customer expectations, offering more and better products and services at low prices.

Many of these Fintechs have grown outside of the banking system and were developed by startups. The first Fintechs were especially devoted to payment systems and virtual currencies. Currently, they offer a diverse range of financial products and services, such as: financial advice (robot-advice) and portfolio management; credit operations (crowdfunding and peer-to-peer lending); insurance; database analysis (Big Data and Machine Learning), among others.

Thus, on the one hand, if technological evolution brings benefits in terms of simplifying the productive process, it is also associated with the emergence of new competitors in sectors traditionally dominated by banks. This phenomenon is due to less regulation of this business and fewer or more incipient barriers to entry, since the sale and use of these services is now pursued electronically.

Solutions and challenges

The solutions proposed to improve banking system efficiency generally follow a set of vectors that should be analysed from a financial stability point of view:

- Reduction of the branch network: It is necessary to analyse whether the closing of branches generates relevant savings, especially in the short term, given that this strategy implies costs for replacing the commercial space and the potential loss of customers, which may lower the value of a bank as a retail business.²⁶ However, this solution may be effective when the banking system as a whole reduces its network, as in that case it may have a lower impact on market shares.²⁷
- Layoffs or wage cuts: Saving on layoffs, despite having a positive and permanent effect on efficiency ratios, in the short term also bring about costs for entities and create obligations for the State.²⁸ In addition, it is necessary to ensure that the smooth functioning of operations is not jeopardised with implementation of such a strategy.
- Consolidation of the banking system: This allows for the implementation of economies

of scale, with the elimination of replications and the dilution of fixed costs. However, the consolidation of the banking system can also pose risks to financial stability, by increasing the systemic potential of the remaining institutions.

- Investment in technology: Greater investment in technology by banks allows for the streamlining and automation of tasks, namely back-office and middle-office tasks, which will contribute to a rise in operational efficiency, with cost reduction (fewer branches and fewer staff members) and a faster and more efficient response to customers.

In summary, from a financial stability point of view and according to the estimates presented, the increase in efficiency constitutes a path to be prioritised aiming at the improvement of capital bases and in general of the sustainability of institutions. However, the implementation of solutions, be it cost containment or consolidation, conducive to reaching these theoretical gains, has a number of associated risks that must be safeguarded against, especially in the short term. In this context, it is important to be aware that increased recourse to new technologies in banking business may be unavoidable for setting out a successful strategy to improve efficiency, allowing banks to simultaneously contribute to meeting new needs for banking services.

3. Concepts used in the analysis of credit quality

Summary

Asset quality in banks' balance sheets can be assessed using different concepts, based on prudential, accounting or supervisory reporting benchmarks. Non-performing exposures (NPEs), of which non-performing loans (NPLs) are the chief component, are the main concepts at European level for assessing banks' credit quality. Therefore, it is important to have a clear perception of their definition and scope, as well as how they compare and relate with national concepts – being that in Portugal the credit at risk concept should be highlighted.

Currently, some international institutions, such as the European Banking Authority (EBA) and the European Central Bank (ECB), already use NPE/NPL based indicators to perform international analyses and comparisons on credit quality. In this context, it is relevant to consider the high subjectivity inherent to the application of these concepts and the current insufficient harmonisation across countries, and even across institutions of the same country.

Most relevant concepts

The suitability and use of each credit quality concept depends on the purpose (and the users) under consideration,²⁹ being that the main concepts available in Portugal to assess credit quality are the following:

- Overdue credit, based on accounting definitions;³⁰
- Credit at risk (CaR), defined by Banco de Portugal for supervisory monitoring of credit quality;³¹
- Non-performing exposures (NPEs) and forborne exposures, defined by the EBA for supervisory monitoring of credit quality, with a view to introducing common criteria for the European Union Member States.³² NPEs include non-performing loans and non-performing assets (NPLs and NPAs respectively), although there is a strong overlap between these concepts, as explained below.

Overdue credit and credit at risk are Portuguese concepts, whilst NPEs and forborne exposures follow international standards. The latter were established in the aftermath of the international economic and financial crisis, with a view to monitoring and assessing banking institutions' asset quality in a consistent and comparable way across European institutions. Therefore, and when the data report based on these concepts holds the desired level of harmonisation and quality (which is still not the case), it should substitute the various national concepts currently used in many European countries (including Portugal). Concurrently, it is aimed to ensure an adequate articulation between accounting and prudential concepts, thus the definition of NPEs builds on concepts of impaired and/or defaulted assets, despite being broader.

There follow some clarifications on the concepts listed:³³

- Overdue credit
Of the concepts considered, this is the narrowest. Following an operation-based approach, overdue credit comprises amounts overdue within a maximum of thirty days after due date.³⁴
- Credit at risk (CaR)
Following a credit operation-based approach, credit at risk is defined as the total amount outstanding (i.e. including credit falling due) of those credits that comply with one of the following conditions: i) credit past-due for more than 90 days, ii) credit restructured after having been past-due for at least 90 days, without suitable reinforcement of the guarantees (where these should be sufficient to cover the overdue amounts) nor full payment by the debtor of overdue interest and other charges, or iii) credit past-due for less than 90 days, in relation to which there is evidence supporting its classification as credit at risk, namely the bankruptcy or liquidation of the debtor.

Thus, in order for an operation to be considered as credit at risk a part of it must be (or have been) overdue, and it includes the total outstanding claim and not only the amount overdue as with the concept of overdue credit.

- Impaired assets

An impairment is recorded for incurred losses associated with a given asset when there is objective evidence for such. The International Accounting Standard IAS39 presents a number of loss events that can contribute to the 'objective evidence', such as significant financial difficulties of the debtor or a breach of contract.³⁵ The recognition of impairments for incurred losses also considers the value of any possible collateral associated with the financial asset, as such, if the collateral value is higher than the loss incurred, no impairment is recorded.

- Defaulted credit

It is the prudential concept defined in Regulation (EU) No 575/2013 (CRR)³⁶ and used to calculate risk weights and capital requirements. An obligor is considered in default when one of the following situations take place: i) there are material credit obligations which are more than 90 days past-due;³⁷ ii) the obligor is considered as unlikely to pay its credit obligations in full without recourse to measures such as the realisation of collateral.

This concept follows an obligor-based approach although, for the retail portfolio (essentially households and small enterprises), the banking institution may opt to follow an operation-based approach.

The interpretation of the obligor's situation (mentioned in point ii) above) is supported by a number of qualitative elements described (not exhaustively) in the CRR.³⁸ For example, the unlikelihood to pay may be indicated by a restructuring that implies a loss to the banking institution or by the recording of impairments.

However, the definition of defaulted credit continues to present a number of subjective criteria and thresholds.³⁹ This is addressed by

the CRR itself which determines that the EBA should issue guidelines on the application of the concept, which occurred recently, in September 2016, with the publication of guidelines that should be applied as of 2021.⁴⁰

- Non-performing exposures (NPEs)

This is the broadest concept, and the most subjective in terms of its application, and therefore the most difficult to harmonise across banks (and countries). NPEs include loans, securities (except those classified in the trading book) and off-balance sheet exposures⁴¹ that comply with at least one of the following conditions: i) material exposures that are more than 90 days past-due (quantitative criterion); ii) the debtor is assessed as unlikely to pay its obligations in full without realisation of collateral (qualitative criterion); iii) impaired assets, except incurred but not reported (IBNR) impairments; and iv) defaulted credit, in accordance with the CRR prudential concept.

The link with the defaulted assets implies that the subjectivity associated with this concept is also observed in defining NPEs. The latter concept takes a debtor-based approach, that is, regardless of the exposure or specific situation that justifies its classification as non-performing, all exposures the banking institution has to that debtor are included as NPEs. For the retail portfolio (essentially households and small enterprises), the banking institution may opt to follow an operation/exposure-based approach. In this case, there is contamination to that debtor's remaining exposures (on and off-balance sheet), thus classifying all exposures to that debtor as NPEs, when the on-balance sheet exposures that are more than 90 days past-due represent more than 20 per cent of total on-balance sheet exposures to that debtor. The banking institution may also extend the NPE classification to all entities belonging to the debtor's economic group.

In general terms, exposures cease to be classified as NPEs when none of the aforementioned conditions are met.⁴² Furthermore, when forbearance measures have been extended to the NPE, there is a cure period of one year, i.e. only after that

period, which begins once the forbearance measures are extended, can the exposure cease to be classified as an NPE.

- Non-performing loans (NPLs)

An identical concept to NPEs, but applied only to on-balance sheet loans and advances. However, it is noteworthy that various publications incorrectly identify CaR as NPLs.

- Non-performing assets (NPAs)

An identical concept to NPEs, but applied only to on-balance sheet loans and advances and debt securities.

- Forborne exposures (due to financial difficulties of the debtor)

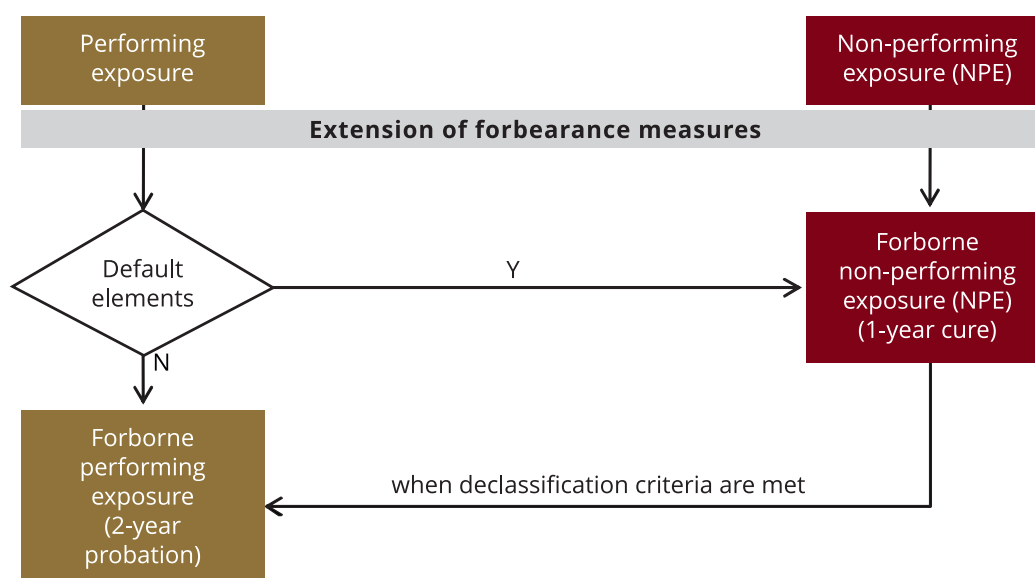
A debt contract subject to a modification of its original terms and conditions or to refinancing is considered a forborne exposure when such concessions occur due to financial difficulties of the debtor. The exposure may or not be classified as performing. This concept aims to be comprehensive and conservative, with the EBA's implementing technical standards (ITS) presenting a wide range of situations that justify the classification of the exposure as forborne,⁴³ with differing degrees of certainty.⁴⁴

The forbearance classification can only be discontinued for exposures considered as performing, following a minimum 2-year probation period from the date the forborne exposure was considered as performing and if i) regular payments of more than an insignificant amount of the exposure have been made during at least half of the probation period, and ii) none of the exposures to the debtor is more than 30 days past-due at the end of the probation period.

NPEs and forborne exposures due to financial difficulties of the debtor

The conceptual articulation between NPEs and forborne exposures is relatively complex given the complementarity of the concepts, which aim to reflect different situations. As aforementioned, an exposure can be performing or non-performing at the time forbearance measures are extended. In very general terms, in the first situation (performing forborne exposure), and so that the exposure retains its performing classification, the forbearance measure may not lead the exposure to show signs of default,⁴⁵ otherwise the exposure would be reclassified as non-performing (NPE) (Figure 1).

Figure 1 • Articulation between NPEs and forborne exposures



Source: Banco de Portugal.

The conservative nature of these criteria are also justified by the definition of probation periods (mentioned above when defining these concepts): a non-performing exposure that is forborne shall comply with the conditions described above to cease being classified as an NPE, which foresee a cure period of one year until it can be considered as performing, albeit always retaining its classification of forborne. Performing forborne exposures have a probation period of two years until they cease to be classified as forborne. During this period, forborne performing exposures previously classified as non-performing should be subject to more demanding monitoring rules (e.g. if they are subject to a second forbearance or are past-due

for more than 30 days they must be classified as NPEs). The diagram illustrates this dynamic. Note that a non-performing exposure subject to forbearance measures due to the debtor's financial difficulties shall have a minimum period of three years before being totally reclassified and considered 'only performing'.

Comparative analysis of the concepts

The various concepts presented diverge between themselves, especially in terms of the instruments covered, the scope of contamination, and the criteria for classification/declassification. Table 1 provides an overview of the main features that differentiate them.

Table 1 • Main characteristics of the concepts used in the analysis of credit quality

Concept	Instruments	Approach / contamination	Classification criteria
Overdue credit	Loans	By operation, consider only amount past-due	Up to 30 days past-due
Credit at risk (CaR)	Loans	By operation, consider total outstanding amount	i) 90 days past-due, ii) restructured having been past-due for 90 days, iii) past-due for less than 90 days with strong evidence of risk (e.g. bankruptcy or liquidation)
Non-performing exposures (NPEs)	Loans, securities (excluding trading book) and off-balance sheet exposures	By debtor, with the possibility of being by operation for retail exposures; consider total amount outstanding. * Contamination at debtor and group level	i) 90 days past-due, ii) unlikely to pay in full (without realisation of collateral), iii) impaired (except IBNR), iv) defaulted (CRR prudential concept). * If forborne, 1-year cure period for declassification
Non-performing loans (NPLs)	Loans		
Non-performing assets (NPAs)	Loans and securities (excluding trading book)		
Forborne exposures	Loans, securities (excluding trading book) and off-balance sheet exposures	By operation	i) Due to financial difficulties of the debtor, ii) contractual change in favour of the debtor * 2-year probation period for declassification * Performing for declassification
Impaired assets	Loans and securities (excluding assets at fair value)	By operation	Objective evidence of losses incurred (see IAS 39)
Defaulted credit	Loans and securities	By debtor, with the possibility of being by operation for retail exposures	i) 90 days or 180 days past-due, ii) unlikely to pay in full (without realisation of collateral)

Source: Banco de Portugal.

Using overdue credit and credit at risk as references (concepts used to monitor the Portuguese banking system), it is clear that in most cases, the concept of NPE is significantly

more comprehensive. The differences are mitigated, but not suppressed, when considering the concept of NPL.

Example:⁴⁶

A large corporation with two loans with a banking institution: a €100,000 loan with €20,000-worth of instalments 12 months past-due, and a second loan of €400,000 to be completely repaid within 6 months.

In this case there is: €20,000 of overdue credit, €100,000 of credit at risk (the only loan with credit overdue), and an NPL of €500,000 (considering the total exposure as for large corporates a debtor-based approach is followed).

Comparing the NPEs with impaired and defaulted assets, there is a similar conclusion, that is, the NPE is a more comprehensive and conservative

concept. The following examples illustrate the main differences.

Examples:

A) A corporation in financial difficulties restructured its loans with a banking institution 3 months ago, fully complying with its commitments since then, and showing no further signs of risk.

There is no recording of overdue credit or credit at risk. In this case, no impairments will be recognised, presuming that the restructuring did not cause any losses for the creditor and the debtor's new situation – without any signs of risk – does not support the recognition of losses. Furthermore, there are no signs of default as no sums are past-due, nor are there signs that the creditor is unlikely to pay its credit obligations in full. However, the exposure continues to be classified as an NPE as it is within the cure period (less than 1 year after forbearance).

B) A private individual has a housing loan of €20,000 with €10,000 in instalments past-due for over 2 years, guaranteed by a mortgage on a property valued at €25,000; and a second car loan of €3,000 for which he has fulfilled all his commitments.

In this case, the overdue credit is €10,000, and the credit at risk, which considers each loan by its total outstanding value is €20,000. No impairments should be recognised as the value of the collateral (€25,000) covers the loss incurred. Only €20,000 is classified as defaulted (value of the housing loan with instalments past-due for more than 180 days; being a private individual, an operation-based approach may be taken and the second loan may not be contaminated). However, the credit overdue (€10,000) represents 43 per cent of the bank's on-balance sheet exposure to that customer (€23,000). Being above the 20 per cent threshold, the entire exposure is contaminated and thus classified as an NPL.

Situation in Portugal

The legal acts underlying the various concepts were not approved simultaneously, meaning that the application of the concepts is not simultaneous either. In Portugal, overdue credit and credit at risk have been used since 1996 and 2011 respectively, the concept of impairment since 2005 with the adoption of the International Accounting Standards, whilst the concepts of default (for prudential purposes), NPEs and forborne exposures were generally

introduced in 2014, simultaneously with the other European Union Member States.⁴⁷

Chart 1 presents the values recorded by the Portuguese banking system in December 2015, including debtors of all institutional sectors, regarding the main concepts used when assessing credit quality, as well as impairments and collateral reported by resident banking institutions.

Stemming directly from the definitions presented above, overdue credit, credit at risk or NPLs/NPEs

net of impairments cannot be interpreted as certain or almost certain bank losses for two main reasons. Firstly, there could be a partial or total recovery of outstanding exposure by repayment of the debtor, namely: (i) when their financial situation improves and the respective credit is reclassified as performing (following the cure period aforementioned); or (ii) by realising collateral (in the column on the right of Chart 1, besides the value of recorded impairments, the value of the collateral underlying the NPE is shown).⁴⁸ Secondly, and based on the concepts detailed above, the difference between the value of the NPLs and credit at risk is basically due to exposures that are not past-due for more than 90 days (i.e. not included in credit overdue) but in relation to which the debtor is assessed as unlikely to pay its credit obligations in full (qualitative

criterion in defining NPEs). As mentioned above, the loss does not materialise for part of these exposures. Another important aspect to consider when analysing and comparing aggregate values of NPLs net of impairments, between different countries or banks, relates to disparities with different compositions by purpose of the loan reflected in the banks' impairment models. As an example, it is natural to expect that past-due housing loans have lower levels of impairments than loans to corporations, when the associated collateral is of better quality and covers a greater percentage of the underlying credit.

Finally, it is important to emphasise that there is currently a recognised differentiation in how the concepts of defaulted credit, NPEs/NPLs and forborne exposures are applied in practice by different countries and even by different

Chart 1 •
Credit quality
in Portugal,
impairments
and collateral |
December 2015

Source: Banco de Portugal.

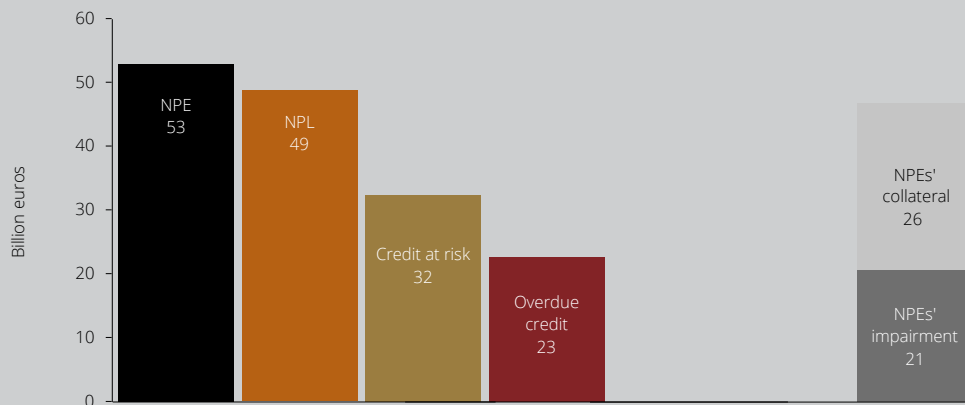
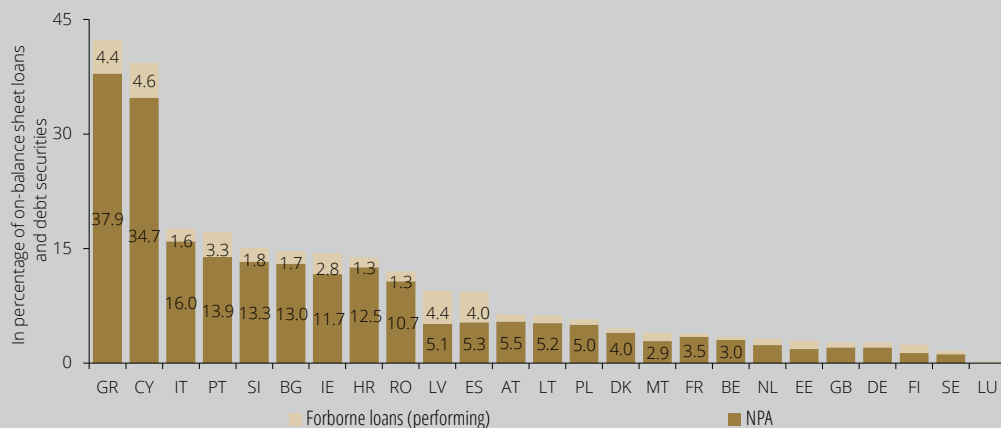


Chart 2 •
Non-performing
assets (NPAs) and
forborne exposures
| December 2015

Source: ECB Statistical Data
Warehouse.



institutions in the same country. This results from the qualitative elements, which can be subjective and thus subject to interpretation, included in these concepts, namely in the classification of exposures as performing, in a context in which they are discussed and applied by the various countries and institutions. The coordinated work developed by national and European supervisory teams (especially within the scope of the Single Supervisory Mechanism) and the entry into force in 2021 of the EBA's additional guidelines on the application of the concept of default should progressively improve harmonisation. Until then, international comparisons such as presented in Chart 2, compiled using data published by the ECB, for not considering different composition of credit by purpose and for reflecting a clearly unharmonised subjective understanding of the concepts used, should be interpreted with due care.

Notes

1. On macroprudential policy objectives and instruments, see: https://www.bportugal.pt/sites/default/files/anexos/macroprudential%20policy%20in%20portugal_0.pdf
On the macroprudential policy strategy see: https://www.bportugal.pt/sites/default/files/anexos/estrategiamacroprudencial_en_0.pdf
2. For further details, see “I. Financial stability: Vulnerabilities and risks” and “II. Financing of the economy”, in this issue of the Financial Stability Report.
3. The ratio of credit overdue in loans for consumption and other purposes reached 14.3 per cent in June 2016, increasing considerably from the value recorded at the start of the Economic and Financial Adjustment Programme (8.6 per cent). At the end of June 2016 the ratio of credit overdue in total housing loans was 3.1 per cent.
4. In accordance with Instruction No 14/2013 personal loans include loans granted for different purposes, such as education, home, health, and renewable energy, and also consolidated loans and equipment leasing. Car loans cover the financing of cars and other vehicles, new or used. Other loans includes credit lines and overdraft facilities.
5. For further details on the recent evolution and projections of private consumption, see Banco de Portugal, Economic Bulletin, October 2016.
6. Taking the first quarter of 2013 as reference, the relative weight of car loans increased from 20 per cent to 22 per cent, while the weight of credit cards increased from 13 per cent to 14 per cent. Conversely, the weight of personal loans declined from 48 per cent to 46 per cent, while the weight of other consumer loans declined from 19 per cent to 18 per cent.
7. The following financial groups considered on a consolidated basis were included in the G8 aggregate: Banif, BCP, BPI, Montepio, CGD, Novo Banco, Santander and SICAM. Other Banks includes all banks not included in the G8. Credit and financial institutions include non-banking financial institutions. Finally, the EU branches aggregate includes the Portuguese branches of European Union based credit institutions (banking and non-banking institutions).
8. In this article, total indebtedness covers consumer loans granting contributing to the increase in the stock under review. However, should this review take into account total indebtedness before said credit granting, the results would not be significantly different.
9. The recent increase in consumer credit was chiefly associated with loans to an amount below €25,000. The weight of this type of loan in total consumer credit has varied between 83 and 90 per cent since 2013.
10. The results of the bank lending survey show relatively stable credit standards in this market segment, although a number of factors have contributed to a lower easing.
11. Spreads were calculated as the difference between the Nominal Annual Rate (TAN in Portuguese) and the 12-month Euribor rate.
12. Most of the consumer loans are taken on at a fixed rate. In the second quarter of 2016 around 72 per cent of the car loan stock and around 78 per cent of the personal loan stock was granted at fixed interest rates. In the second quarter of 2016 the average of fixed interest rates (TAN) in these two segments reached 9.4 and 7.1 per cent respectively.
13. Available at <https://www.bportugal.pt/en/publications/banco-de-portugal/2016/114>.
14. The value of the spread associated with a credit agreement depends on different factors, namely customer risk, credit purpose, characteristics of the loan, collateral pledged, and possible purchases of other products and/or services by the customer.
15. Monetary and financial statistics, Banco de Portugal.
16. The value of total costs vis-à-vis assets reflects the institution's economic efficiency level, while the alternative indicator measures efficiency in profit generation.
17. This indicator is presented in “III. Banking system”.
18. Boucinha M., T. Weyman-Jones and N. Ribeiro (2013), “An Assessment of Portuguese Banks' Efficiency and Productivity towards Euro Area Participation”, *Journal of Productivity Analysis*, vol. 39, 2013, pp. 117-190.
19. See Financial Stability Report, Banco de Portugal, May 2015 and May 2016, for examples of this discussion.
20. Economies of scope are savings in the average production cost resulting from the simultaneous production of different goods. For the purposes of this analysis, economies of scope are measured by the coexistence of a securities portfolio and loans in a bank's balance sheet. Intuitively, a bank granting loans and thus with a credit risk management department, which is a fixed cost, is capable of diluting this cost by holding a portfolio of bonds of the same counterparties.
21. Other interest generating assets are all banking assets, except loans, which generate interest.
22. For lack of a variable allowing to control price differences among Member States, in this analysis only the average interest rate level in each Member State is controlled. This implies that the cost of the labour input is the same in all countries, which means that our estimates of inefficiency-cost for Portugal may be understood as a lower limit.
23. Scale gains are non-linear in the size of the banking group.
24. This estimate assumes that the amount of revenue remains unchanged, and should therefore be understood as an upper limit of potential gains.
25. The conclusions of this Workshop are available at <https://www.bportugal.pt/page/sintese-do-workshop-digital-banking-and-fintech-challenges-and-threats-banking-system>.
26. The net costs of replacing the commercial area include the removal of the vault and other equipment specific to a bank branch, and thus will be lower the higher the recovery value of this equipment (that should not be high in a context of broadly based reduction of the banking system's installed capacity).
27. In the light of this argument, the entry of new operators might reduce incentives to the reduction in the number of branches, since, from the industrial organisation viewpoint, the other competitors fear to lose market share with the entry of a rival. On the use of bank branches as tools for differentiating products and competition, see the article by Moshe Kim and Bent Vale (2002), “Non-price strategic behaviour: the case of bank branches”, *International Journal of Industrial Organization*, vol. 19, pp. 1583–1602.

28. Staff reduction costs are not only accounting costs, e.g. early retirements and compensations, but also include the impact on the organisation's morale and relationships between employees.
29. In analytical terms, the choice of a specific concept may also depend on the availability and timeliness of the information.
30. Defined in Instruction No 6/2005 of Banco de Portugal, although the concept had been used previously within the scope of the Chart of Accounts for the Banking System.
31. Credit at risk is a Portuguese concept defined by Instruction of Banco de Portugal No 22/2011 (Official Bulletin No 10 of 17 October 2011).
32. EBA/ITS/2013/03/rev1: EBA FINAL draft Implementing Technical Standards on Supervisory reporting on forbearance and non-performing exposures under article 99(4) of Regulation (EU) No 575/2013 of 24 July 2014, adopted by the Commission by way of Implementing Regulation (EU) No 680/2014 of the Commission of 16 April 2014, subsequently amended by Implementing Regulation (EU) No 295/227 of the Commission of 9 January 2015.
33. The concepts are presented in generic terms in order to transmit their nature and main characteristics. A more detailed analysis can be made using the documents referenced.
34. The banking institution may classify as overdue credit the unpaid amounts prior to the thirty days period in the event it considers that immediate repayment is not possible. Future instalments, for reasons related to the non-payment of past instalments, may, according to law, be deemed overdue.
35. IAS39 follows an impairment model for losses incurred. This standard will be replaced by IFRS9 as of January 2018, which relies on an impairment model for expected losses.
36. Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.
37. Competent authorities may replace the 90 days with 180 days for exposures secured by residential property or SME commercial real estate in the retail exposure class, as well as exposures to public sector entities.
38. See Article 178 (3) of the CRR.
39. Including what is understood by 'unlikely'. Furthermore, the indicative elements of unlikeliness to pay include subjective thresholds such as 'significant decline', 'material economic loss' and 'material forgiveness'.
40. EBA/GL/2016/07 Final Report on guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013 and EBA/RTS/2016/06 Final Report on draft RTS on the materiality threshold for credit obligations past due under Article 178 of Regulation (EU) No 575/2013, both of 28 September 2016.
41. For example, financial guarantees and loan commitments given.
42. The exposure ceases to be classified as an NPE once all of the following conditions are met: i) the exposure is not impaired nor defaulted, ii) there is no amount past-due by more than 90 days, and iii) the situation of the debtor has improved to the extent that full repayment is likely to be made. All these conditions must be met, regardless of what originally determined the exposure's classification as an NPE.
43. Whenever forbore exposures are referred to in this context, it is implicit that they occur in connection with a debtor in financial difficulties.
44. For example, a contractual modification that involves partial debt relief is a forbearance measure. The fact that a performing exposure is past-due for more than 30 days in the three months prior to the contractual modification is a rebuttable presumption that such a modification constitutes a forbearance due to financial difficulties of the debtor (see paragraphs 165, 166, 172, 173 and 174 of the EBA's ITS on forbore and non-performing exposures - EBA/ITS/2013/03/rev1).
45. In this case, a forbearance measure that includes the write-off of a significant part of the debt can be considered a sign of default.
46. The examples are merely illustrative, and for simplicity exclude issues such as accrued interest and possible commissions and penalties.
47. For some institutions that apply internal methods to assess risk in calculating capital requirements, the concept of default was introduced in 2008 by way of Notice No 5/2008. The classification of forbore exposures has been done since the end of 2012, based on Instruction of Banco de Portugal No 18/2012, subsequently revoked by Instruction No 32/2013, relating to the identification and classification of forbore exposures due to financial difficulties of the customer.
48. The value of the collateral considered in Chart 1 (approximately €26 billion) corresponds to the sum of the unrestricted amounts reported by the banks for their individual exposures classified as NPEs. By unrestricted collateral value it is meant that it was not limited to the value of the loan, that is, the value was not adjusted in the event of overcollateralisation. Furthermore, collateral valuation is an extremely complex aspect that also requires harmonisation at international level.

