FINANCIAL STABILITY REPORT

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ABBREVIATIONS [*]

€	Euro
AIAF	Asociación de Intermediarios de Activos Financieros (Association of Securities Dealers)
ABCP	Asset-backed commercial paper
ATA	Average total assets
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BLS	Bank Lending Survey
bn	Billions
bp	Basis points
BRRD	Bank Recovery and Resolution Directive
CBE	Banco de España Circular
CBSO	Banco de España Central Balance Sheet Data Office
CCB	Countercyclical capital buffer
CCR	Banco de España Central Credit Register
CDO	Collateralised debt obligation
CDS	Credit Default Swap
CEBS	Committee of European Banking Supervisors
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CET1	Common equity Tier 1 capital
CIs	Credit institutions
CNMV	Comisión Nacional del Mercado de Valores (National Securities Market Commission)
CPSS	Basel Committee on Payment and Settlement Systems
DIs	Deposit institutions
EAD	Exposure at default
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
EMU	Economic and Monetary Union
EONIA	Euro overnight index average
EPA	Official Spanish Labour Force Survey
ESFS	European System of Financial Supervisors
ESM	European Stability Mechanism
ESRB	European Systemic Risk Board
EU	European Union
FASB	Financial Accounting Standards Board
FROB	Fund for the Orderly Restructuring of the Banking Sector
FSA	Financial Services Authority
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSF	Financial Stability Forum
FSR	Financial Stability Report
FVC	Financial vehicle corporation
GAAP	Generally Accepted Accounting Principles
GDI	Gross disposable income
GDP	Gross domestic product
G-SIIs	Global systemically important institutions
GVA	Gross value added
GVAmp	Gross value added at market prices
IASB	International Accounting Standards Board
ICO	Instituto Oficial de Crédito (Official Credit Institute)
ID	Data obtained from individual financial statements
IFRSs	International Financial Reporting Standards
IMF	International Monetary Fund
INE	National Statistics Institute
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
JST	Joint Supervisory Team
LGD	Loss given default
LTROs	Longer-term refinancing operations
LTV	Loan-to-value ratio (amount lent divided by the appraised value of the real estate used as collateral)
m	Millions

(*) The latest version of the explanatory notes and of the glossary can be found in the November 2006 edition of the *Financial Stability Report*.

MiFID	Markets in Financial Instruments Directive
MMFs	Money market funds
NPISHs	Non-profit institutions serving households
NPLs	Non-performing loans
OMT	Outright Monetary Transactions
OTC	Over the counter
PD	Probability of default
PER	Price earnings ratio
pp	Percentage points
RDL	Royal Decree-Law
ROA	Return on assets
ROE	Return on equity
RWA	Risk-weighted assets
SCIs	Specialised credit institutions
SMEs	Small and medium-sized enterprises
SIV	Structured investment vehicle
SPV	Special purpose vehicle
SSM	Single Supervisory Mechanism
TA	Total assets
TARP	Troubled Asset Relief Program
TLTROs	Targeted Longer-term Refinancing Operations
VaR	Value at risk
WTO	World Trade Organisation

CONTENTS

On international financial markets, the greater volatility prevailing to January 2015 since the last FSR gave way to a climate of greater optimism following the announcement by the ECB of the extension of its asset purchase programme to sovereign debt. Against this background, the declining trend of sovereign debt yields in the euro area continued, reaching historical lows. In Spain, 10-year government bond yields stood at 1.3% at end-April (having bottomed out at 1.14% in March), and the spread over the German benchmark narrowed slightly to 115 bp as at the same date (the minimum spread in March was 88 bp).

Economic recovery continued in Spain, gaining greater momentum in the final stretch of 2014 and in the opening months of 2015 to place quarter-on-quarter GDP growth at 0.9% in 2015 Q1, on the INE flash estimate. These developments have been accompanied by more buoyant employment. In the medium term the expansionary pattern is forecast to continue, although this favourable outlook is not free from downside risks to economic growth, linked both to external and domestic factors.

In this setting of improving financial conditions and of recovery in the real economy, the aggregate stock of credit to the resident private sector in Spain continued to fall in 2014, although its rate of decline has eased (by almost 2 pp from 8.3% in 2013 to 6.4% in 2014). This moderation in the rate of decline was seen across the board at deposit institutions. The lesser decline in lending is perceptible both for credit to households and, especially, for credit to non-financial corporations engaging in activities other than construction and real estate development.

The year 2014 was the first since the onset of the crisis in which NPLs to the resident private sector fell in absolute terms (by more than €24 billion over the course of the year, a rate of 12.6% year-on-year). This fall in NPLs was seen both for lending extended to households and in that to non-financial corporations; and under this latter category, the decline was across all sectors of activity. The aforementioned decline was generalised across deposit institutions.

The fall in NPLs meant the related ratio trended favourably during 2014, making for a year-on-year decline in its level of over 1 pp on the latest figures. The decline in the NPL ratio over the past year is perceptible for households and for non-financial corporations alike.

Gross recourse to Eurosystem financing has continued declining, to a greater extent for Spanish than for European banks. With regard to retail financing, some switching of the instruments in which households and non-financial corporations are investing their saving has been seen, in response to the setting of very low interest rates. Bank deposits thus fell slightly in 2014 (by around 1%), while units in investment funds – largely marketed by banks themselves – rose significantly.

The recovery in Spanish banks' profits initiated the previous year continued in 2014. Despite limited business and low interest rates, net interest income increased on the previous year as a result of lower financing costs. Further, the containment of operating expenses and the decline in asset impairment losses contribute to improving the results recorded in 2014. The report shows that Spanish institutions have significantly reduced their offices and, to a lesser extent, their employees, but, compared with peer banking systems, Spanish banks still have more – and substantially smaller – offices.

Despite the pick-up in profitability, the persistence of very low interest rates together with a still-significant volume of non-productive assets (NPLs and foreclosures) will continue to exert substantial pressure on the income statement in the coming years. That will force institutions to reflect strategically on a business model that is sustainable over the medium term and the optimum mix of employees and offices to attain such sustainability.

In December 2014, the top-quality, common equity tier 1 (CET1) ratio stood at 11.8%, comfortably above the regulatory minimum levels. As regards solvency, this FSR includes a more detailed structural analysis of total exposure, risk-weighted assets (RWAs) and their density (i.e. the weight of RWAs relative to total exposure) at portfolio level, and of the related calculation method (standard or internal ratings based (IRB) approach).

Moreover, Chapter 3 provides a comparative analysis at the European level of the density of RWAs highlighting an intensity of use of the standard approach and the IRB approach that differs greatly from one country to another, and notable differences across European banking systems between the regulatory capital requirements stemming from the standard approach and from the IRB approach. The Spanish banking sector is among those in Europe that make least relative use of the internal ratings based approach and that show least distance between the densities of RWAs under both approaches. These differences across countries and between approaches in calculating minimum capital requirements should be analysed by the European banking supervisor to ensure a sufficient level of capital for all banks, in line with a proper measure of the risks incurred and guaranteeing the same level of regulatory requirement.

In sum, since the last FSR, the improvement in financial markets and in the Spanish economy has enabled Spanish deposit institutions to entrench their recovery, with profitability trending favourably (though still some way off pre-crisis levels) and high capital adequacy ratios. However, the setting of low interest rates poses significant challenges to Spanish banks over the coming years, meaning they must continue to improve operating efficiency and manage their risks appropriately.

A climate of greater volatility linked to various factors of risk prevailed to January on the international financial markets. Following the announcement of the extension of the ECB's asset purchase programme to sovereign debt in late January, greater optimism was observed on the markets

Since the publication of the last FSR, developments on international financial markets have been greatly influenced by the monetary policy decisions of the main central banks, by the decline in oil prices and, in the case of European markets, also by the doubts over the outcome of the financial assistance programme for Greece. Up until January a climate of greater volatility prevailed, linked to various factors such as the political uncertainty in Greece, the risk of long-term inflation expectations becoming deanchored in several developed economies, against the background of the continuing decline in oil prices and sluggish economic growth, and doubts over the economic performance of certain oil-exporting economies, such as Russia, a country also adversely affected by international sanctions. There were also certain one-off events in this period that were not anticipated by investors, such as the decision by the Swiss central bank to sever the link between the Swiss franc and the euro. From late January, the announcement by the ECB to extend its asset purchase programme to include sovereign debt and debt from other government institutions, infused the markets with greater optimism. The previous months also saw two new Eurosystem long-term refinancing operations (TLTROs) tied to the extension of lending. The progressive restoration of the monetary policy transmission mechanism has allowed the expansionary monetary policy stance to translate into a decline in financing costs for households and firms. Some central banks in emerging economies also pursued accommodative monetary policies, bolstering the maintenance of the generous liquidity conditions in place.

In the euro area, government debt yields declined to fresh historical lows, credit risk premia fell and stock exchange indices rose. In the United States and the United Kingdom, long-term interest rates declined until late January and rose subsequently. The dollar appreciated against the main currencies, especially against the euro

Against this backdrop, there was a continuation of the declining course of sovereign debt yields, which reached historical lows with the exception of Greece (see Chart 1.1). In the case of the Spanish 10-year government bond, the interest rate fell from 2.1% in late October to 1.3% in end-April. This reduction was somewhat more marked than that in the German benchmark, meaning the related spread between the two narrowed over the same period to 115 bp (the minimum spread in March was 88 bp). Along these same lines, the credit risk premia on bonds issued by European financial and non-financial corporations continued on the declining course seen in the previous months. In the United States and the United Kingdom, long-term government bond yields also fell to end-January, but rose subsequently. Stock market indices climbed across the board, more markedly so in the euro area countries than in other regions. The exchange rate of the dollar also rose significantly in this period, especially against the euro, in a setting of growing monetary policy divergences on both sides of the Atlantic.

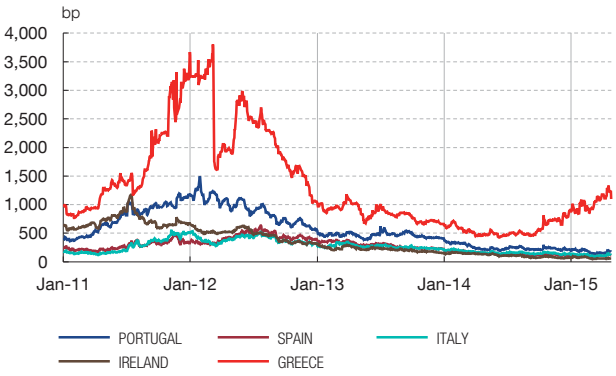
In 2014 Q4 and 2015 Q1, the tempo of activity in the advanced economies was favourable, with a decline in divergences. GDP growth in the euro area was more robust

The figures for 2014 Q4 and the indicators available for the opening months of 2015 show some reduction in the cyclical divergences across the advanced economies as a result of the slowdown in the United States (although the prospect of dynamic growth in the US economy in the coming quarters holds firm), Japan's exit from technical recession and the pick-up in the euro area. In 2014 Q4, euro area GDP grew by 0.3% (see Chart 1.2.A), after increasing 0.2% three months earlier, and into 2015 the available indicators point to somewhat more robust activity. Generally, growth in the main advanced economies has been underpinned by the pick-up in private consumption, assisted by the continuation of loose monetary and financial conditions and the increase in disposable income, owing both to the further improvements in labour markets and to lower inflation. Conversely, business investment remained disappointing in the euro area, Japan, the United Kingdom and, to a lesser extent, the United States. Inflation continued falling, down to very low levels, influenced above all by the decline in oil prices. Core inflation is proving more stable, although it is generally below the target set by central banks.

PRICES NEGOTIATED ON FINANCIAL MARKETS

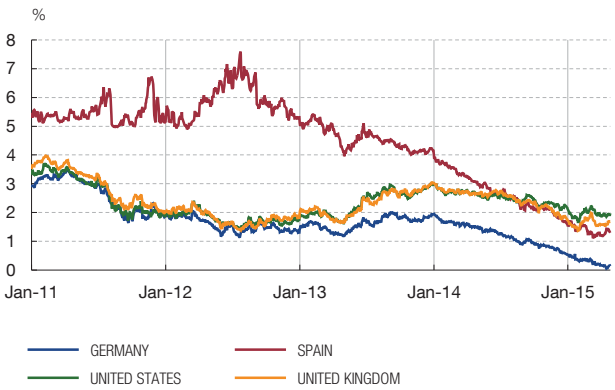
CHART 1.1

A. TEN-YEAR GOVERNMENT BOND YIELDS: SPREAD OVER GERMANY



B. FINANCIAL SECTOR CREDIT RISK INDICES (a)

C. TEN-YEAR GOVERNMENT BOND YIELDS



D. STOCK EXCHANGE INDICES

SOURCES: Datastream, Reuters and Bloomberg.

a Euro area: 5-year iTraxx Europe Senior Financials. United States and United Kingdom: average 5-year CDS for commercial banks. Latest data: 28 April 2015.

Conversely, the emerging economies showed, on average, something of a slowdown, albeit with marked differences from region to region

In 2014 Q4 and the opening stretch of 2015, activity across the various emerging regions showed notable differences, with higher and sustained growth in Asia, despite the mild slowdown in China, a quicker pace of growth in the new EU member states not belonging to the euro area and marked weakness close to economic stagnation in Latin America, as well as in Russia and its neighbouring countries. Inflation has held at low levels in Asia and emerging Europe (with the principal exception of Russia), which has allowed several central banks in these regions to introduce new expansionary monetary measures. Conversely, inflation has shown greater downward stickiness in Latin America, partly as a result of the depreciation of its currencies, which has restricted the margin for manoeuvre of the region's central banks. Brazil's central bank resumed the cycle of official interest rate rises; further, its government has announced a fiscal adjustment for an amount equivalent to 1.3% of GDP, as a result of the deterioration of its primary balance. This pro-cyclical adjustment of macroeconomic policies may deepen the recession in the Brazilian economy.

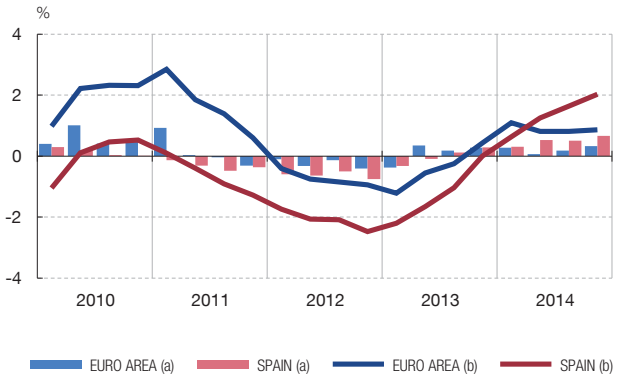
In the short and medium term, the strengthening of the advanced economies is expected to continue, although this scenario is not free from downside risks

With a view to the upcoming quarters, the strengthening of activity in the advanced economies is expected to continue, assisted by still-low oil prices and by the accommodative monetary policy stance, even in the United States and the United Kingdom where a rise in official rates is on the horizon. In the case of the euro area, the greater vigour of the recovery is expected to be further boosted by the depreciation of the euro and by the neutral stance fiscal policy has assumed following several years of budgetary consolidation. Nonetheless,

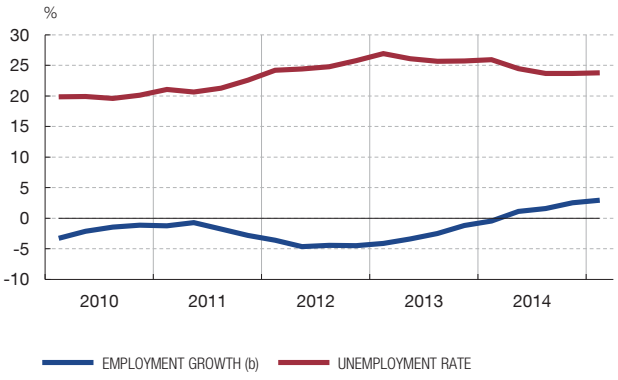
GDP AND EMPLOYMENT

CHART 1.2

A. YEAR-ON-YEAR AND QUARTER-ON-QUARTER GDP GROWTH



B. YEAR-ON-YEAR EMPLOYMENT GROWTH AND UNEMPLOYMENT RATE. EPA DATA



SOURCES: INE, Eurostat and Banco de España.

a Quarter-on-quarter rates.
b Year-on-year rates.

this macroeconomic scenario is not free from certain downside risks to growth, associated with high debt levels, uncertainty over oil prices and, especially, the tensions linked to the financial assistance programme for Greece and to the geopolitical risks of the Russia-Ukraine conflict.

In the emerging economies, it is expected that growth will tend to stabilise

Activity in the emerging economies will be broadly supported by the greater dynamism of the advanced economies and, in the case of the oil-importing economies, by the foreseeable continuation of low oil prices. However, these factors will be countered by the tightening of global financial conditions associated with the foreseeable rise in US interest rates, by the ongoing slowdown in the Chinese economy and, in the case of the commodities-exporting countries, by the change in cycle in the price of these products.

In Spain the economic recovery has firmed, as reflected in the greater dynamism of employment. In the medium term, the growth rate of GDP is expected to hold up

In Spain, the economic recovery that began in the second half of 2013 continued and gained greater momentum in the closing months of 2014. From September to December GDP grew by 0.7% in quarter-on-quarter terms, following the 0.5% increase in Q3, raising the year-on-year rate of expansion to 2%. Employment was more buoyant, rising to a year-on-year rate of 2.5%, 1.4 pp up on the June figure. Moreover, the unemployment rate continued declining, falling to 23.7% at end-2014 on EPA figures (see Chart 1.2.B). On the INE flash estimate, the quarter-on-quarter growth rate of GDP is expected to have increased again, rising to 0.9% in 2015 Q1. In the medium term, the latest Banco de España projections are for GDP growth of 2.8% for 2015 (0.8 pp up on the projection published in the "Quarterly report on the Spanish economy" in the December 2014 *Economic Bulletin)* and of 2.7% in 2016.[1]

The financial position of households and non-financial corporations strengthened once more on the whole

The latest information on balance sheets and incomes in the non-financial private sector, relating to 2014 Q4, shows overall an improvement in the economic and financial position. The debt and debt burden ratios of households and non-financial corporations are estimated to have fallen once more, household wealth is expected to be practically unchanged and, for the sample of corporations reporting to the Quarterly Central Balance Sheet Data Office Survey, the path of recovery of activity continued in virtually all sectors, although the ordinary results of this sample on the whole – in which the largest corporations play a leading role – fell since they were adversely affected by the decline in dividends received.

1 For further details, see the "Quarterly report on the Spanish economy" in the March 2015 *Economic Bulletin.*

General government debt has continued to increase, albeit at a more moderate rate

The general government debt ratio increased in the closing months of 2014, rising to 97.7% of GDP. However, the decline in average financing costs contributed to reducing debt-associated spending as a proportion of GDP while the more recent course of general government financing shows this slowdown in its liabilities, which grew at a rate of 4.7% in February 2015 (the latest available figure), 2.3 pp down on December 2014.

The economic and financial situation in Spain is improving, but significant risks continue to cloud the future outlook

In sum, since the publication of the last FSR the improvement in financing conditions in Spain has continued, and the path of recovery in activity and job creation in our economy has firmed. The favourable course of job creation, combined with the more positive trend of household and corporate income and of asset prices, is translating into a progressive strengthening of the financial position of these sectors. In the medium term, similar growth rates to those observed in recent months are expected to hold, although this scenario is not free from downside risks, linked both to external and domestic factors alike.

2.1 Banking risks

2.1.1 CONSOLIDATED BALANCE SHEET OF DEPOSIT INSTITUTIONS

The consolidated balance sheet of Spanish deposit institutions, which includes both their business in Spain and that of their subsidiaries and branches abroad, grew 3% year on year in 2014 (see Table 2.1). This growth reflected changes in business abroad where total assets grew 12.9% in December 2014 compared with the same month of the previous year. In Spain there was a decline of 1.3% in year on year terms.

In December 2014 the balance sheet of activity abroad increased, partly due to the depreciation of the euro against certain currencies of countries where the activity of Spanish banks is more significant

Total assets abroad grew, thus increasing the weight of foreign business in the total consolidated balance sheet to 33.4% in December 2014, as against 30.4% in December 2013. Changes in exchange rates contributed to this growth of the balance sheet of activity abroad. In the last year, the euro has depreciated against the major currencies used by Spanish deposit institutions in their business abroad. In particular, the euro depreciated 6.6% against the pound sterling and 12% against the US dollar, the currencies of countries to which Spanish banks have greater foreign exposure (see Chart 2.1.A). The value of the euro hardly showed any significant changes in 2014 against the currencies of Latin American countries where Spanish banks have a larger presence (Brazilian real and Mexican peso).

The Spanish banks' model for expansion abroad, based on financially independent subsidiaries, partly reduces the risks of their foreign activity

As mentioned in previous FSRs, the foreign activity of Spanish banks is carried out in the countries concerned with financial autonomy and is mostly local activity denominated in local currency (see Chart 2.1.B), which partly reduces the attendant risks. Additionally, in December 2014, the total NPL ratios[1] in these countries remained at substantially lower levels than those of business in Spain (see Chart 2.1.C), where the total NPL ratio reached 8.8% in December 2014. Furthermore, in the main geographical areas where Spanish banks carry out their activity, the total NPL ratio declined slightly in December 2014 with respect to December 2013 (see Chart 2.1.D).

Financing to the private sector, which includes credit and debt securities, decreased slightly in December 2014 in year on year terms...

Financing to the private sector (see Table 2.1), which includes credit and debt securities, decreased 0.7% in December 2014 in year on year terms. As a percentage of total assets, it declined from 62.8% in December 2013 to 60.5% a year later, triggered by the fall in debt securities (11.4%), since credit to the resident private sector remained stable in 2014. As occurred with total assets, the performance of financing to the private sector was mixed across geographical areas: it increased abroad and decreased in Spain. Its two components (credit and fixed income) showed these patterns of behaviour in both cases. As for business in Spain, which is analysed in more detail in Section 2.1.2, credit to the private sector declined less sharply in December 2014 than in the same month of the previous year.

... while financing to general government grew, increasing its relative weight in the consolidated balance sheet

Financing to general government, which includes credit and fixed income, grew 25.2% in year-on-year terms in December 2014. Its weight in the balance sheet increased by 2.7 pp in the last year to 15.3% as a result of the growth of credit to general government (23%) and that of the fixed income of this sector (25.2%), the latter being the largest item in financing to general government. These trends were observed in business in Spain and, more markedly, in business abroad.

1 In addition to the financing and NPLs of the resident private sector, this figure includes those relating to general government and credit institutions. This, in addition to the scope of consolidation, means that the ratio given here differs from that analysed in greater detail in Section 2.1.2 of this Report, which refers to credit to the resident private sector in Spain.

CONSOLIDATED BALANCE SHEET.
Deposit institutions

TABLE 2.1

Assets	Dec-14	Change Dec-14/ Dec-13	Relative Weight Dec-13	Relative Weight Dec-14
	(€m)	(%)	(%)	(%)
Cash and balances with central banks	119,478	-15.3	4.1	3.3
Loans and advances to credit institutions	170,296	-7.0	5.3	4.8
General government	116,512	23.0	2.7	3.3
Other private sectors	2,030,615	0.0	58.4	56.7
Debt securities	618,946	10.2	16.2	17.3
Other equity instruments	48,616	24.8	1.1	1.4
Investments	41,458	-10.4	1.3	1.2
Derivatives	190,570	16.3	4.7	5.3
Tangible assets	55,032	8.9	1.5	1.5
Other (a)	187,487	13.9	4.7	5.2
TOTAL ASSETS	**3,579,009**	**3.0**	**100**	**100**
Memorandum items				
Financing to private sector	2,164,689	-0.7	62.8	60.5
Financing to general government	549,323	25.2	12.6	15.3
Total NPLs	200,347	-10.2	6.4	5.6
Total NPLs ratio	6.9	-95 (d)		
Loan loss and country risk provisions (b)	-114,953	-8.6	-3.6	-3.2

Liabilities and equity	Dec-14	Change Dec-14/ Dec-13	Relative Weight Dec-13	Relative Weight Dec-14
	(m€)	(%)	(%)	(%)
Balances from central banks	186,171	-12.7	6.1	5.2
Deposits from credit institutions	382,556	-0.1	11.0	10.7
General government	101,677	20.3	2.4	2.8
Other private sectors	1,802,769	3.4	50.2	50.4
Marketable debt securities	383,465	-4.7	11.6	10.7
Derivatives	186,424	23.0	4.4	5.2
Subordinated debt	44,757	4.2	1.2	1.3
Provisions for pensions, tax and other	35,957	0.5	1.0	1.0
Other (a)	198,444	7.5	5.3	5.5
TOTAL LIABILITIES	**3,322,220**	**2.5**	**93.3**	**92.8**
Memorandum items				
Eurosystem net lending (c)	123,819	-33	5.3	3.5
Minority interests	26,536	-1.1	0.8	0.7
Valuation adjustments relating to total equity	-6,321	.	-0.5	-0.2
Own funds	236,573	6.1	6.4	6.6
TOTAL EQUITY	**256,789**	**10.2**	**6.7**	**7.2**
TOTAL LIABILITIES AND EQUITY	**3,579,009**	**3.0**	**100**	**100**

SOURCE: Banco de España.

a The remaining assets and liabilities entries not explicitly considered, including valuation adjustments, are included in "Other".
b In addition to country risk provisions, it includes specific and general provisions for credit risk.
c Difference between funds received in liquidity providing operations and funds delivered in absorbing operations. March 2015 data (latest available) and March 2014 data to maintain the year-on-year comparison.
d Difference calculated in bp.

The year-on-year rate of change in total NPLs fell...

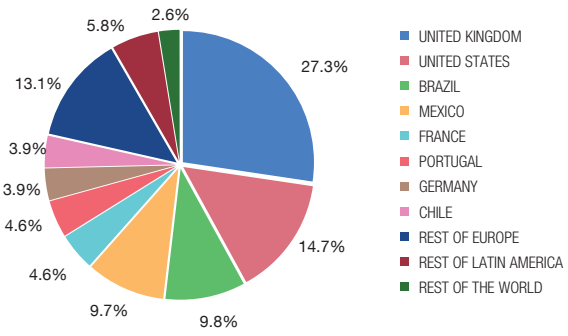
The year on year rate of change in **total NPLs**[2] fell in December 2014 by 10.2% and, consequently, their weight in the balance sheet declined from 6.4% in December 2013 to 5.6% a year later (see Table 2.1). Note that 2014 was the first year since the beginning of

2 See the footnote on the first page of this Chapter.

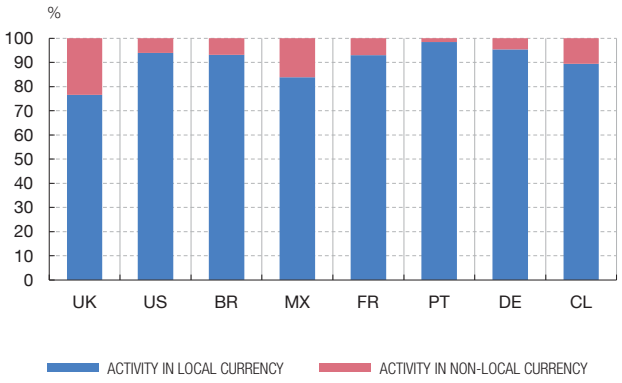
INTERNATIONAL EXPOSURE OF SPANISH INSTITUTIONS
Deposit institutions. December 2014

CHART 2.1

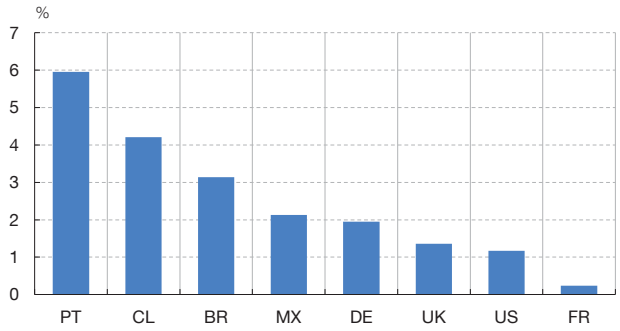
A. GEOGRAPHICAL BREAKDOWN OF FINANCIAL ASSETS ABROAD



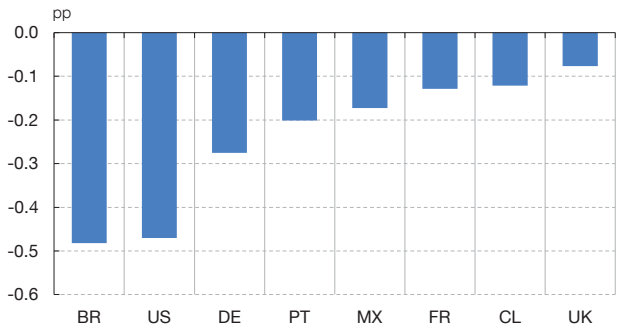
B. BREAKDOWN OF COUNTRIES' ACTIVITY, BY CURRENCY



C TOTAL NPL RATIO OF FINANCIAL ASSETS ABROAD, BY COUNTRY (a)



D. YEAR-ON-YEAR CHANGE IN TOTAL NPL RATIO OF FINANCIAL ASSETS ABROAD (a)



SOURCE: Banco de España.

a The total NPL ratio of consolidated financial assets abroad includes NPLs to credit institutions, general government and the private sector.

...in December 2014 for the first time since the crisis began

the crisis that total NPLs decreased in absolute terms. This improvement in their performance stemmed from business in Spain where they dropped by 12.1% in December 2014. Turning to business abroad, total NPLs grew by 5.3%, which was substantially less than growth in total assets and, therefore, their weight in the balance sheet fell, albeit to a lesser degree than for business in Spain (down from 2.3% in December 2013 to 2.1% in December 2014).

The decline in total NPLs has fed through to a decrease...

The decline in NPLs allowed the total NPL ratio at consolidated level to decrease by 95pb to 6.9% in December 2014. As has occurred with total NPLs (the numerator of said ratio), it is the first year, since the beginning of the crisis, that the total NPL ratio has fallen, declining across the board in most countries and geographical areas (see Chart 2.1.D). As analysed subsequently for business in Spain, the NPL ratio of the resident private sector followed a similar pattern during 2014.

...in year on year terms in the total NPL ratio

This decrease in the NPLs of deposit institutions was accompanied by a reduction in the provisions for loan loss and country risk, which fell back by 8.6% year-on-year in December 2014 compared with the same period in 2013. As a result, the weight of this item in total assets decreased by 0.4 pp, from 3.6% in December 2013 to 3.2% in December 2014.

On the liabilities side, private sector and general government deposits rose,...

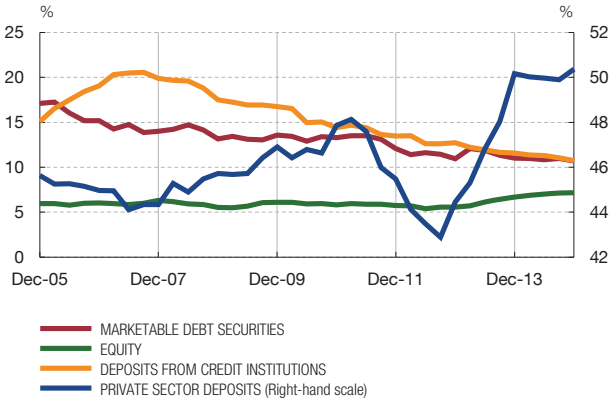
On the **liabilities side,** private sector and general government deposits rose and the weight of funding from central banks and marketable debt securities declined.

EUROSYSTEM FUNDING AND LIABILITIES
Deposit institutions

CHART 2.2

A. NET LOAN FROM THE EUROSYSTEM AS A PERCENTAGE OF TOTAL ASSETS

B. RELATIVE COMPOSITION OF LIABILITIES AND EQUITY AS A PERCENTAGE OF TOTAL ASSETS



SOURCE: Banco de España.

... Eurosystem lending fell back, and...

Thus, the year-on-year rate of change in **balances from central banks** decreased 12.7% in December 2014 (see Table 2.1), reducing their relative weight in banks' balance sheets by 0.9 pp to 5.2%. The weight of funding from central banks has gradually declined since its peak in mid 2012. In particular, the weight of Eurosystem net lending as a percentage of total assets dropped to 3.5% in March 2015 (see Table 2.1) which is higher than its pre-crisis level but far removed from the peaks recorded in mid 2012 (see Chart 2.2.A).

Deposits from credit institutions held steady throughout 2014 and their relative weight in total assets in the last year decreased by 0.3 pp to 10.7%, while deposits from general government rose by 20.3% in year-on-year terms in December 2014 and their relative weight increased by 0.4 pp to 2.8% of total assets.

Private-sector deposits in the consolidated balance sheet grew 3.4% in December 2014 compared with the same period of 2013, prompted by changes in this item in business abroad where they increased 11.9%. In business in Spain there was a minor decline of 0.6% which, as analysed in greater detail in Section 2.1.3, is largely explained by a slight change in the mix of agents' savings instruments in the current low interest-rate setting.

... the relative weight of marketable debt securities dropped

This rise in private sector and general government deposits went hand in hand with the loss of relative weight of marketable debt securities (see Chart 2.2.B). The balance of these securities fell again in 2014 which partly reflected that, despite the improvement in conditions in financial markets, banks have continued to change their funding structure.

Own funds increased in December 2014 to 6.6% of total assets

The total **equity** of deposit institutions increased in December 2014 by 10.2% relative to the same month of the previous year. Its weight in banks' total assets rose by 0.5 pp to 7.2% in December 2014. Own funds grew by 6.1% to account for 6.6% of total liabilities in December 2014.

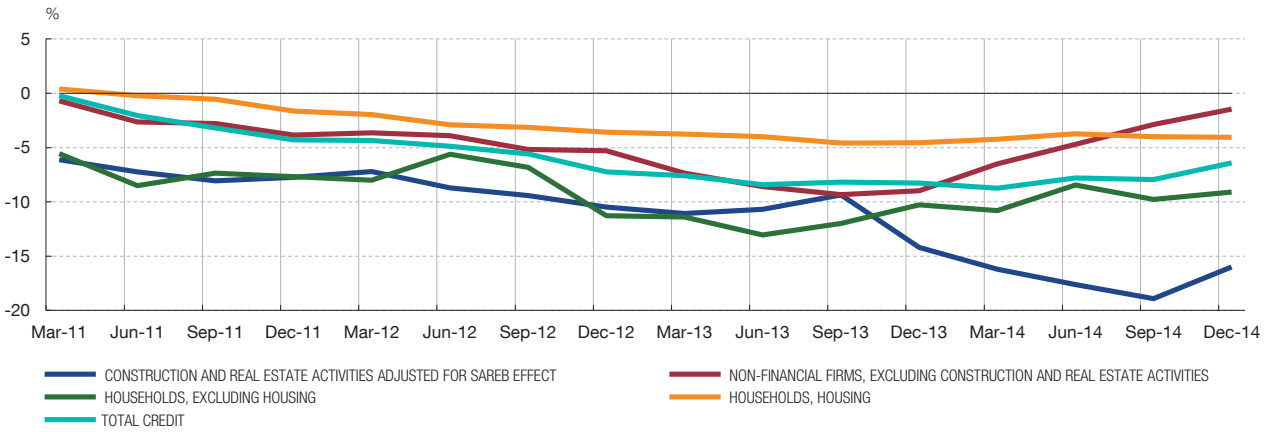
2.1.2 CREDIT TO AND NPLs OF THE RESIDENT PRIVATE SECTOR IN BUSINESS IN SPAIN (ID)

Credit to the resident private sector in business in Spain, per individual financial statements, fell in February 2015 by 5.9% in year-on-year terms for deposit institutions as a whole (see Chart 2.3.A). This rate of decline represents a continuation of the decreases seen in credit to the resident private sector during recent years, although this fall was lower in 2014 (6.4%) than in 2013 (8.3%, after adjusting for the effect of loan transfers to Sareb).

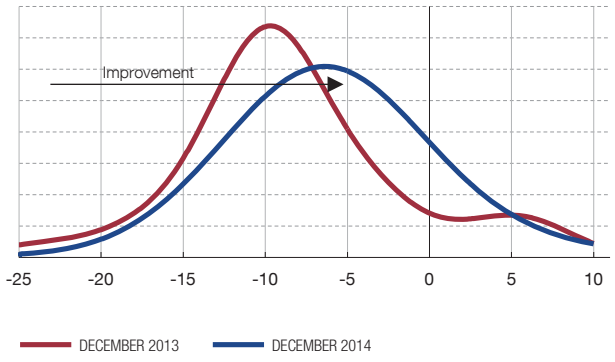
CREDIT TO THE RESIDENT PRIVATE SECTOR
Business in Spain, ID. Deposit institutions

CHART 2.3

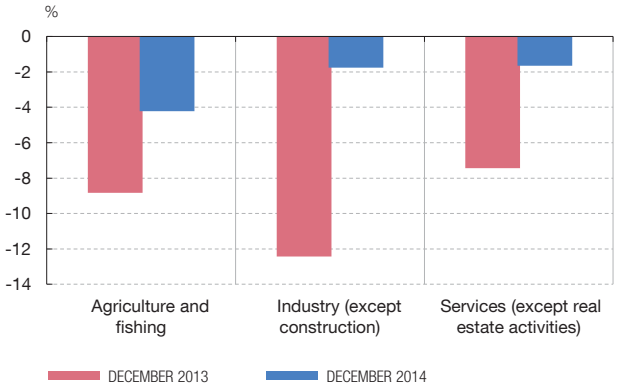
A. YEAR-ON-YEAR RATE OF CHANGE IN CREDIT TO THE RESIDENT PRIVATE SECTOR BY SECTOR OF ACTIVITY



B. DISTRIBUTION OF BANK CREDIT BY YEAR-ON-YEAR RATE OF CHANGE (%) (a)



C. YEAR-ON-YEAR RATE OF CHANGE IN CREDIT BY SECTOR OF ACTIVITY. NON-FINANCIAL FIRMS EXCEPT CONSTRUCTION AND REAL ESTATE ACTIVITIES



SOURCE: Banco de España.

a The graph shows the density function (or the distribution of frequencies) of the year-on-year rate of change of credit for deposit institutions. This density function is approximated through a kernel estimator which allows a non-parametric estimate of the density function, yielding a continuous and smoothed graphical representation of that function.

This smaller decline in credit to the resident private sector was widespread across the deposit institutions (see Chart 2.3.B).

The rate of decline of credit to the resident private sector moderated for credit extended to households,...

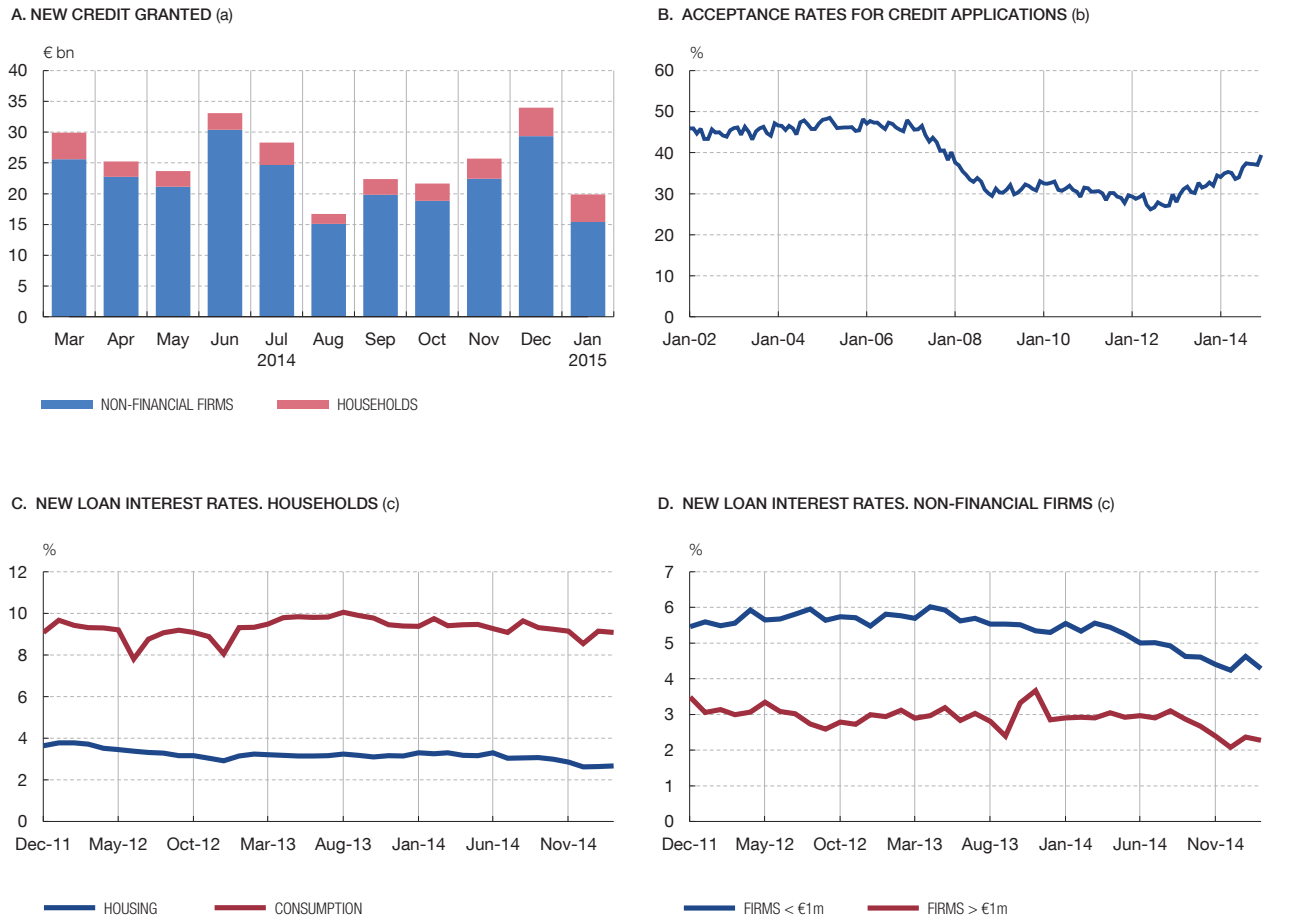
On quarterly data as at December 2014, the latest available figures to date, it is possible to analyse changes in credit by institutional and other sectors. **Loans to households** dropped in December 2014 by 4.8% compared with the same month of the previous year. This decline stood at 5.5% in December 2013 which also shows the trend towards smaller rates of decline. This moderation in the pace of decline of lending to households was observed in housing loans to households and loans for other purposes (see Chart 2.3.A). Consequently, loans for house purchase decreased by 4.1% in year-on-year terms in December 2014, compared with 4.6% in December 2013, whereas loans for other purposes fell by 9.1% compared with 10.3% in the previous year.

... to non-financial corporations...

Credit to non-financial corporations fell back by 7% in 2014 which also represented a lower rate of decline than that seen in previous quarters. Credit to non-financial corporations engaging in real estate activities and construction decreased by 16% year-on-year, non-financial corporations performing these activities have continued to show the highest rates

NEW CREDIT GRANTED AND FUNDING CONDITIONS
Deposit institutions. ID

CHART 2.4



SOURCE: Banco de España.

a This consists of new loans granted by banks, other than the rollover or refinancing transactions referred to by section 1 (g) of Annex IX of Circular 4/2004, or subrogations of debtors arising from previous periods.
b Non-financial firms which apply for a loan to an institution with which they are not working or they have not maintained a credit relationship in the last three months. The acceptance rate is defined as the ratio between the transactions accepted by deposit institutions and the total applications received in a particular month.
c The new loans of a period are defined as all the first-time loans arranged with customers and all the contracts existing in earlier periods whose amount, interest reate, maturity or other significant financial conditions in relation to interest rates have been renegotiated with customers in the month in question.

of decrease, and are, therefore, carrying on with the necessary process of correcting the excesses of the previous boom.

... and especially to those non-financial corporations engaging in activities other than real estate and construction

Credit to non-financial corporations other than those engaging in real estate and construction decreased by 1.5% in December 2014; its fall moderated notably relative to rates in 2013, when it dropped by 9%. The year-on-year rate of decline in credit eased across the various sectors of activity (see Chart 2.3.C).

New credit to the private sector amounted to around €280 billion between March 2014 and January 2015

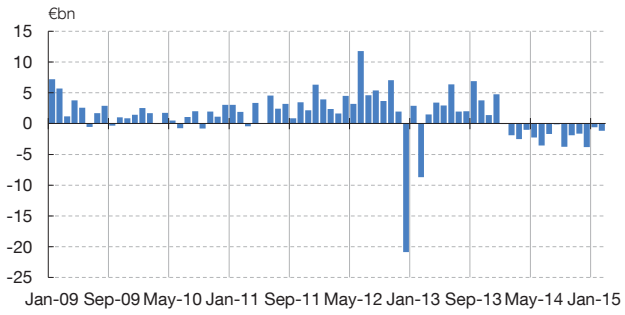
Since March 2014 it has been possible to obtain information on **new credit**[3] extended by Spanish deposit institutions without having recourse to approximations. Since this information is so recent, it is not yet possible to perform an analysis of year-on-year changes in this series, however, there does seem to be some seasonality in new credit flows. In any event, the new credit extended by Spanish banks to the resident and non-resident

3 Since March 2014 banks have reported new credit to the Banco de España. "New credit" means new loans granted by banks, other than the rollover or refinancing transactions referred to by section 1 (g) of Annex IX of Circular 4/2004, or subrogations of debtors arising from previous periods.

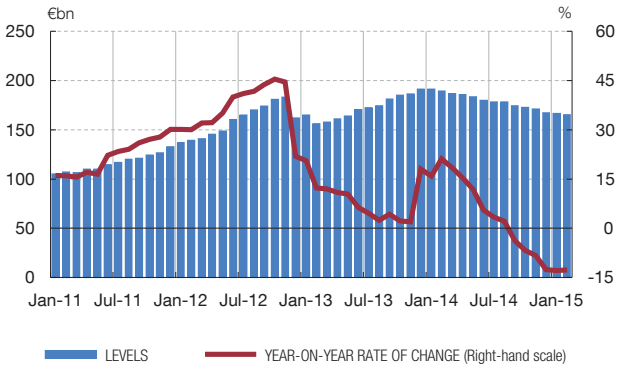
NPLs. RESIDENT PRIVATE SECTOR.
Business in Spain, ID. Deposit institutions

CHART 2.5

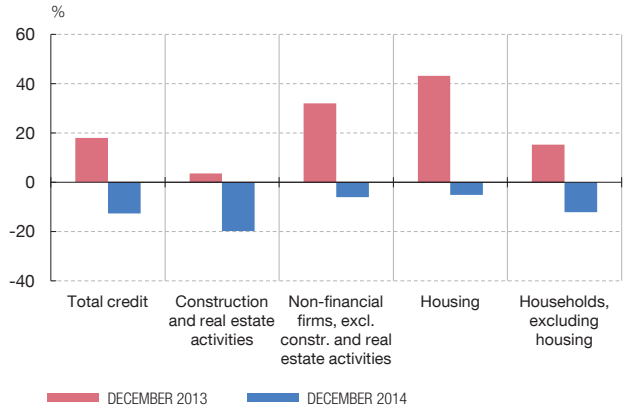
A. MONTH-ON-MONTH RATE OF CHANGE IN NPLs (a)



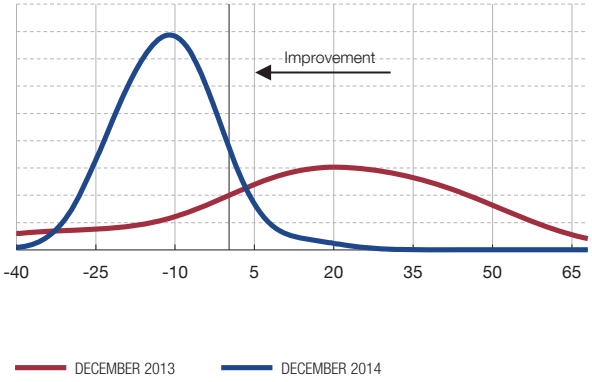
B. NON-PERFORMING LOANS (a)



C. YEAR-ON-YEAR RATE OF CHANGE IN NPLs, BY SECTOR OF ACTIVITY



D. DISTRIBUTION OF BANK NPLs BY YEAR-ON-YEAR RATE OF CHANGE (%) (b)



SOURCE: Banco de España.

a The transfers to Sareb by Group 1 and Group 2 banks in December 2012 and February 2013 affect the rates of change in those periods.
b The graph shows the density function (on the distribution of frequencies) of the year-on-year rate of change of NPLs for Spanish deposit institutions. This density function is approximated through a kernel estimator which allows a non-parametric estimate of the density function, yielding a continuous and smoothed graphical representation of that function.

private sector amounted to around €280 billion between March 2014 and January 2015 (see Chart 2.4.A).

Acceptance rates have continued to post a rising trend after having bottomed out mid-2012

Using data from the Banco de España's Central Credit Register (CCR), it is possible to calculate the acceptance rates of loan applications made by non-financial corporations to banks with which they are not working or with which they have not had a credit relationship in the preceding few months.[4] The acceptance rates calculated in this way have continued to post a rising trend after having bottomed out mid-2012 (see Chart 2.4.B).

...The interest rates on new credit transactions began to decrease moderately in 2014

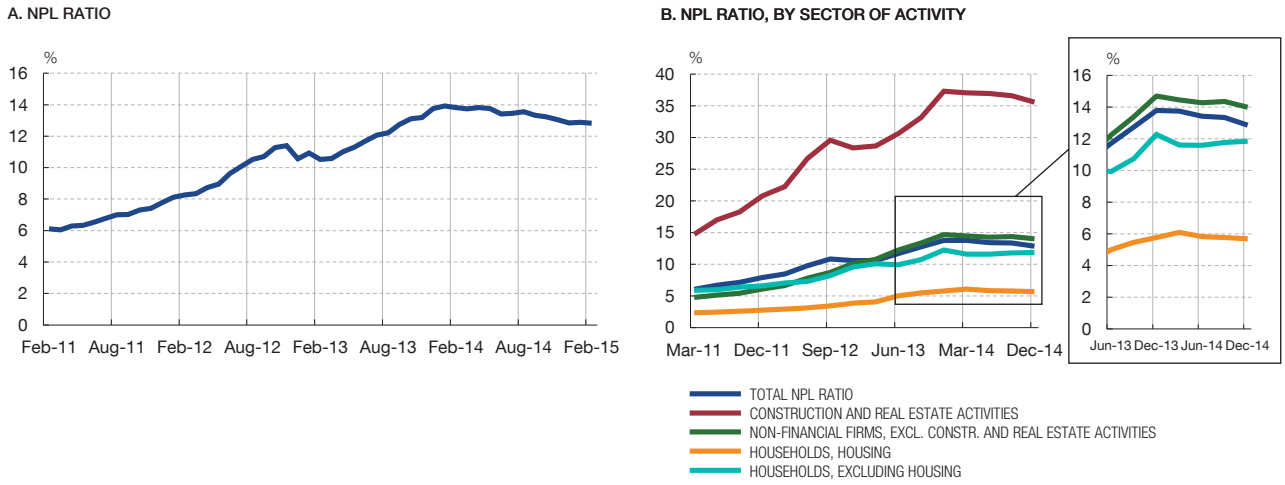
The **interest rates on new credit transactions** granted by Spanish deposit institutions[5] began to decrease moderately in 2014 for households (see Chart 2.4.C) and for non-financial corporations (see Chart 2.4.D).

4 For the subset of firms referred to, the rate of acceptance is defined as the loans accepted by deposit institutions divided by the total applications received in a given month. This analysis should be interpreted with due caution, first because of the small sample of firms, and second because changes in the rates of acceptance may have various causes ranging from alterations in demand to variations in conditions offered by banks.

5 For these purposes, the new loans of a period are defined as all the first-time loans arranged with customers and all the contracts existing in earlier periods whose amount, interest rate, maturity or other significant financial conditions in relation to interest rates have been renegotiated with customers in the month in question.

NPLs. RESIDENT PRIVATE SECTOR.
Business in Spain, ID. Deposit institutions

CHART 2.6



SOURCE: Banco de España.

This is particularly noticeable for loans to non-financial corporations, where the decline in interest rates on loans of less than €1 million began earlier and, subsequently, fed through to loans of more than €1 million in the closing months of 2014.

In short, credit is now contracting less sharply than in previous quarters

In short, recent changes show that the aggregate amount of credit is now contracting less sharply than in previous quarters, both in terms of lending to households and to non-financial companies which engage in activities other than construction and real estate. The data on the volumes extended and the interest rates on new loans, as well as the acceptance rates of loan applications by banks point in the direction of an improvement in the performance of credit. Even so, at aggregate level, the process of reduction of household and corporate debt in relative terms (as a percentage of GDP) is expected to continue in the coming months, albeit at a different speed (selectively by sector of activity).

2014 was the first year, since the crisis began, to show a year-on-year decline in NPLs,...

NPLs to the resident private sector in business in Spain decreased by more than €24 billion in December 2014 compared with December 2013, representing a year-on-year fall of 12.6% for deposit institutions as a whole. 2014 was the first year, since the crisis began, to show a year-on-year decline in NPLs, and the month-on-month change in NPLs showed negative values in every month of 2014 (see Chart 2.5.A and B), consolidating the change in trend which was already indicated in the previous FSR. The most recent data for the first two months of 2015 confirm these trends.

... which was seen in general across the various institutional sectors

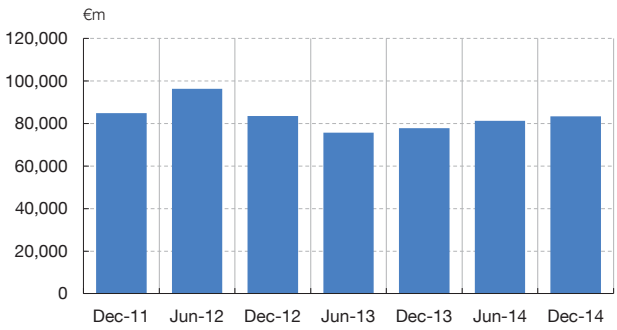
On quarterly data as at December 2014 by institutional sector (the latest available figures to date), the above-mentioned decrease in NPLs was seen in credit to households and non-financial corporations (see Chart 2.5.C). NPLs of households decreased by 7.1% in December 2014 compared with December 2013, a drop which was recorded in loans for house purchase (5.2%) and loans for other purposes (12.2%).

In credit to non-financial corporations NPLs declined by 14.5% in year-on-year terms, this fall was higher in credit to non-financial corporations performing real estate and construction activities and stood at 19.8% in December 2014. If these companies are excluded from the analysis, NPLs also fell, albeit at more moderate rates of 6.1%. For firms engaging in activities other than real estate and construction NPLs declined across all sectors of activity (see Chart 2.5.C).

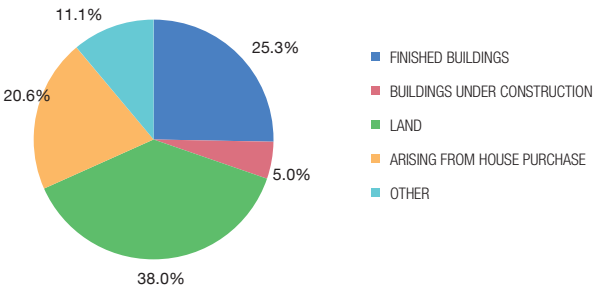
FORECLOSED ASSETS

CHART 2.7

A. VOLUME OF FORECLOSED ASSETS



B. COMPOSITION OF FORECLOSED ASSETS. December 2014



SOURCE: Banco de España

The improvement in NPLs was widespread across banks

The improvement in NPLs was widespread across banks (the distribution of frequencies has shifted to the left in Chart 2.5.D) and their behaviour in December 2014 also shows lower dispersion compared with December 2013 (see Chart 2.5.D).

As a result of the decline in NPLs the resident private sector's NPL ratio performed favourably...

As a result of the decline in NPLs the resident private sector's NPL ratio performed favourably during 2014. The most recent data available, which correspond to February 2015 show an NPL ratio of 12.8% for the deposit institutions as a whole, which is almost 1 pp lower than in February 2014 (see Chart 2.6.A).

... which was also noticeable for the various sectors of activity

On data as at December 2014 (the latest available figures) it can be seen that the improvement was widespread across institutional sectors and industries (see Chart 2.6.B). The NPL ratio for households declined by 0.1 pp year-on-year to 6.6%, whereas for non financial corporations it decreased more markedly by 1.7 pp to 21.6%.

In credit to households, the NPL ratio showed a slight decrease in loans for house purchase from 5.8% in December 2013 to 5.7% in December 2014, while the decrease for other loans was more visible from 12.3% in December 2013 to 11.9% in December 2014. At non-financial corporations the NPL ratio dropped to a greater extent for real estate and construction companies (35.6% in December 2014 compared with 37.3% a year earlier). For the other companies, as a whole, which show substantially lower NPL ratios than real estate and construction companies, the declines were slightly more moderate (NPL ratio of 14% in December 2014 as against 14.7% in December 2013).

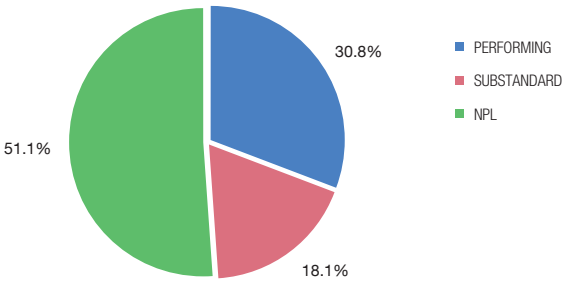
The volume of foreclosed assets or assets received in payment of debt from business in Spain which are owned by Spanish banks and are recorded in their balance sheets[6] amounted in December 2014 to €83,409 million. Chart 2.7.A shows changes in foreclosed assets in recent years, whose balance sheet value peaked in June 2012 at around €100 billion. Subsequently, coinciding with the transfer of part of these assets to Sareb (December 2012 and early 2013), their volume decreased to around €75 billion (June 2013). On the latest available data, a slight increase can be seen from the low posted to the current above-mentioned volume.

6 Assets acquired or exchanged for debt from financing extended by each bank in relation to its business in Spain and investments and financing of the holding entities of those investments are included as foreclosed assets. The amount indicated is that recorded in the balance sheet before deducting the related provisions.

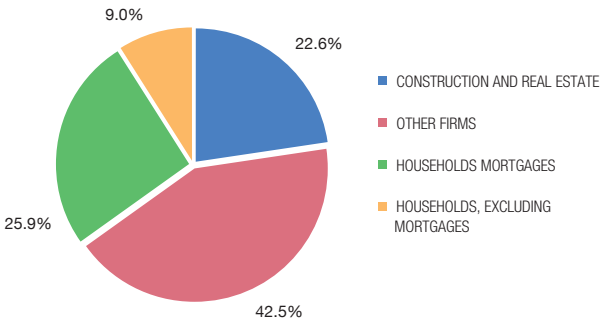
FORBORNE (REFINANCED AND RESTRUCTURED) EXPOSURES
Deposit institutions, ID. December 2014

CHART 2.8

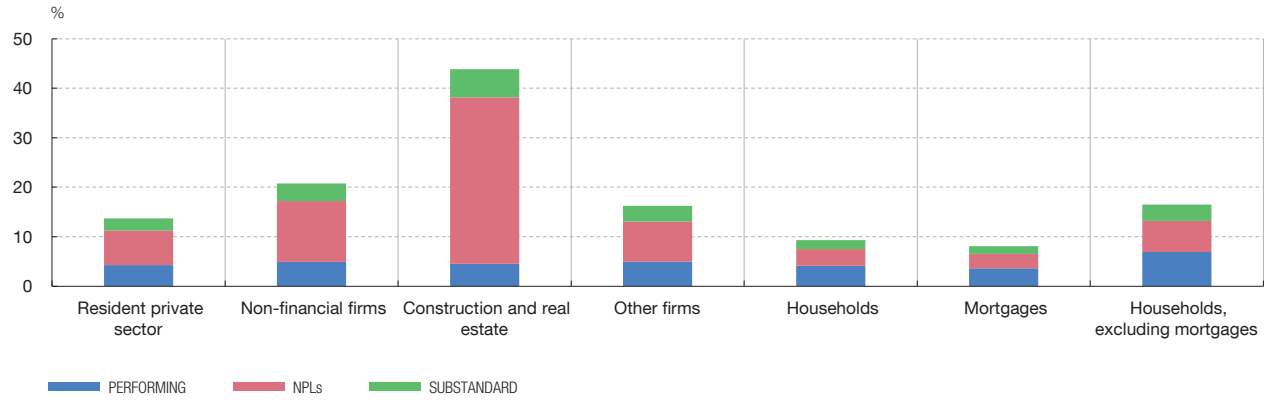
A. CREDIT QUALITY OF FORBORNE LOANS



B. SECTORAL BREAKDOWN OF FORBORNE LOANS TO THE PRIVATE SECTOR



C. WEIGHT OF FORBORNE LOANS IN THEIR RESPECTIVE PORTFOLIO AND BREAKDOWN BY CREDIT QUALITY STATUS



SOURCE: Banco de España.

The breakdown of foreclosed assets (see Chart 2.7.B) shows that most relate to real estate assets from financing earmarked for construction and real estate activities and, in particular, to land, which represents 38% of total foreclosed assets. Next in importance (in financing transactions from construction and real estate activities) are completed buildings which account for 25.3% of the total. These are followed by foreclosures of mortgage loans to households for home purchases, which represent 20.6%, whereas buildings under construction account for only 5% of the total and other foreclosures represent 11%.

In banks' credit portfolios, forborne (refinanced and restructured) exposures declined 4.5% in year-on-year terms in December 2014

In banks' credit portfolios, **forborne (refinanced and restructured)** exposures[7] declined 4.5% in year-on-year terms in December 2014 with respect to December 2013. Considering that the volume of these exposures arising from credit extended to general government only represents 2% of the total, and focusing the analysis on the resident private sector, it can be observed (see Chart 2.8.A) that 51.1% of total forborne exposures are classified as non-performing, 18.1% as substandard and the remaining 30.8% as performing.

The sectoral distribution of these exposures (see Chart 2.8.B) shows that 65.1% are loans to companies, while the remaining 34.9% are loans to households. 22.6% of total forborne exposures are loans extended to construction and real estate companies, whereas 42.5% relate to companies with a different economic activity to the foregoing. Almost three quarters of the forborne exposures to households are for home purchase.

7 Exposures as defined by section 1 (g) of Annex IX of Circular 4/2004.

Forborne loans of the resident private sector as a whole represent 14% of total lending volumes to this sector

Forborne loans of the resident private sector as a whole represent 14% of total lending volumes to this sector (see Chart 2.8.C). In credit extended to non-financial corporations, forborne loans account for 21% of the total; noteworthy is lending to construction and real estate companies, where the percentage of forborne loans amounts to 44% of total loans. 34 pp of that percentage of forborne loans are classified as non-performing, 6 pp as substandard and the remaining 4 pp as performing (see Chart 2.8.C).

As for credit to households, 9.3% of the total volume of exposures are forborne. This percentage falls to 8% for loans for house purchase and rises to 16% for loans which finance other types of household activity.

The reduction of NPLs and the NPL ratio which was beginning to be visible in the last FSR is confirmed with the latest available data

In short, the nascent trends seen in the last FSR have been confirmed in this FSR, with the result that the volume of NPLs has posted year-on-year declines for the first time since the beginning of the crisis. This downward trend in NPLs, despite the drop in credit, has enabled the NPL ratio to decrease, thus halting its upward trend. The continuation of this decline in the NPL ratio will hinge largely on the economy remaining on the path of recovery observed in recent quarters (see Chapter 1).

2.1.3 FUNDING OF THE BANKING SECTOR

The systemic risk indicator in Spain is showing levels similar to those recorded before 2007

Market indicators continue to show that uncertainty about Greece, to date, has not had an adverse impact on systemic risk levels in Spain which have remained contained and, after peaking around 2009 and after 2012, they have returned to similar levels to their pre-crisis ones. Consequently, the **systemic risk indicator in Spain** (SRI) has shown since end-2013 – despite some specific rises – similar levels to those recorded before 2007 (see Chart 2.9.A). This stability at aggregate level is shared by the four markets included in the systemic risk indicator (the money, government debt, securities and bank funding markets).

The average contribution of Spanish banks to euro area systemic risk has decreased notably since the highs seen around 2009 and 2012

Using a model called CoVaR, it is possible to quantify the contribution of Spanish banks to the systemic risk of the euro area as a whole. A bank's CoVaR measures the impact that would be triggered by a situation of stress at that bank on the financial system. In particular, the situation of stress is defined as an extreme fall in the stock market value of the bank analysed. The effect on the financial system is calculated by estimating the impact of this fall on the left tail of the distribution of the Eurostoxx index using an econometric model.[8] The results obtained by using this methodology show that the average contribution of Spanish banks to the systemic risk of the euro area has decreased notably since the peaks in around 2009 and 2012 and it currently stands at similar levels to its pre-crisis ones (see Chart 2.9.B).

The Spanish risk premium decreased and, although with a certain lag with respect to the risk premium, the agency ratings are beginning to improve.

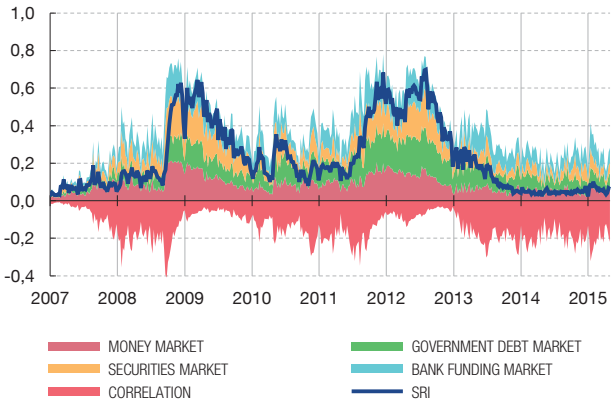
The decrease in the levels of systemic risk in Spain is also reflected in the progressive correction of the ten-year Spanish government bond spread over the German benchmark (see Chart 2.9.C). As the same chart shows, this improvement in market sentiment, measured by the aforementioned spread, is also apparent, albeit less strongly and with a certain lag, in the ratings assigned by rating agencies.

The issuance activity of Spanish deposit institutions has not increased significantly.

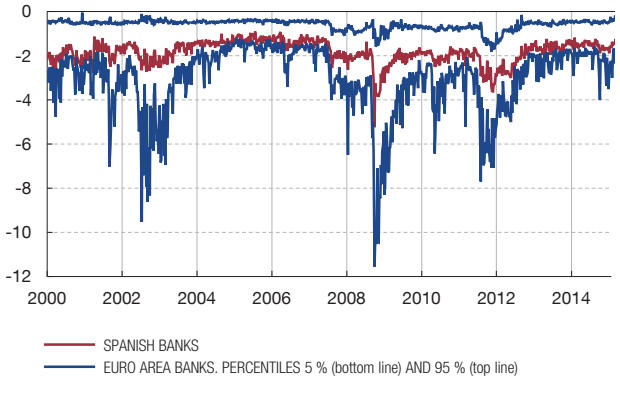
In the closing months of 2014 and early 2015, the **issuance activity** of Spanish deposit institutions did not increase significantly and remained constant (see Chart 2.10.A). This behaviour has already been noted in previous reports and, despite the improved market conditions, may be attributed to a strategy of reduction in wholesale funding and the

8 See T. Adrian and M. K. Brunnermeier, CoVaR, Federal Reserve Bank of New York Staff Reports, No 348, September 2011.

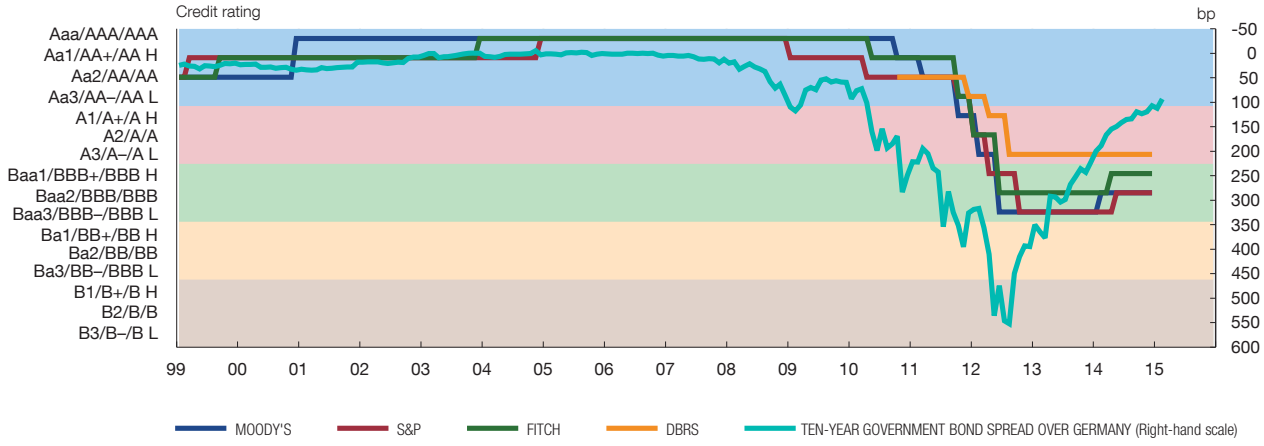
A. SYSTEMIC RISK INDICATOR (SRI) (a)



B. SPANISH BANKS' CONTRIBUTION TO SYSTEMIC RISK, MEASURED THROUGH COVAR (b)



C. TEN-YEAR GOVERNMENT BOND SPREAD OVER GERMANY AND SPANISH SOVEREIGN DEBT RATINGS (c)



SOURCES: Datastream, ECB, Banco de España and Ministerio de Economía.

a For a detailed explanation of this indicator, see Box 1.1 in the May 2013 FSR.
b The CoVar model is used to calculate the impact that a situation of bank stress would have on the financial system.
c http://www.tesoro.es/deuda-publica/noticias/presentación-kingdom-spain

consequent higher relative importance of retail funding, against a background of still-declining credit activity and low deposit costs.

The euro area interbank markets have not undergone significant changes.

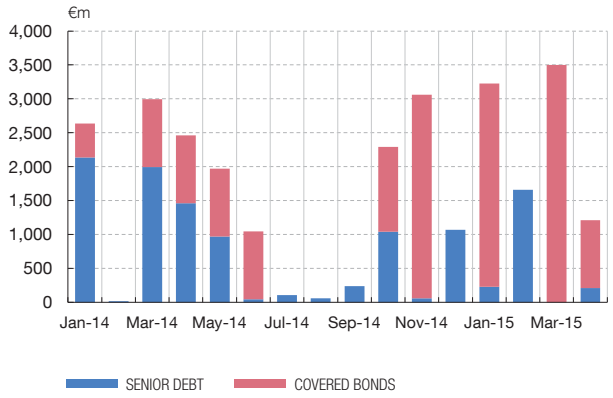
In recent months the activity of the **euro area interbank markets** has not undergone significant changes. Although the entry of the deposit facility rate into negative territory affected interest rates, the trading volume on very short-term money markets was practically unchanged. The EONIA volume indicated that in 2013 trading took an upward course, although it is relatively moderate and discontinuous and has still not reached the levels of previous years (see Chart 2.10.B). The Spanish interbank market showed a similar performance to that described for EONIA, with a decreasingly important role played by the unsecured segment of the market.

European banks continued reducing their recourse to the Eurosystem.

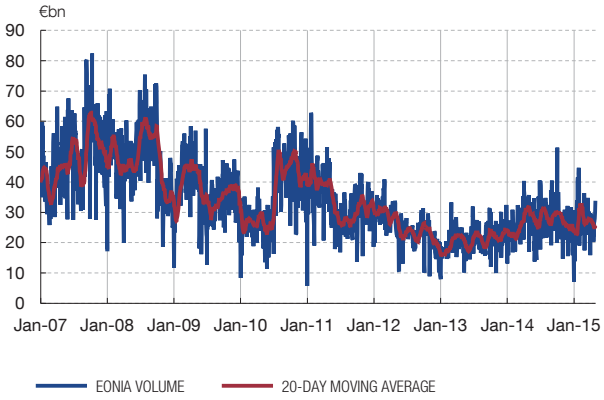
Against this background, and given the full allotment policy used in Eurosystem regular refinancing operations, extended in June 2014 until at least December 2016, European banks continued their large-scale recourse to Eurosystem funds. This recourse, however, has continued to decline, following the trend initiated in summer 2012. European banks'

WHOLESALE FUNDING (a) CHART 2.10

A. MAIN ISSUES OF SPANISH INSTITUTIONS IN MEDIUM- AND LONG-TERM WHOLESALE MARKETS (b)



B. EONIA TRADING VOLUME



C. OUTSTANDING AMOUNT PROVIDED THROUGH EUROSYSTEM TENDERS

SOURCES: Bloomberg, Dealogic and Banco de España.

a Latest data: 28 April 2015.
b Senior debt and mortgage covered bond issues are included. Retained issues are not included.

readier access to more stable funding sources has allowed them gradually to lower their purchases in new tenders and to use the repayment option associated with the two 3-year tenders allotted in late 2011 and early 2012. Furthermore, these repayments have recently been used, before the final maturity of these operations, for the purpose of replacing them with shorter-term Eurosystem operations allowing more active liquidity management or with the TLTRO conducted so far.[9]

Banks resident in Spain continued to reduce their gross recourse to the Eurosystem.

The behaviour of the outstanding balance of ECB tenders, both for the Eurosystem as a whole and for banks resident in Spain (see Chart 2.10.C) shows that, from end-October 2014 (date covered by the previous FSR) to end-April 2015, banks resident in Spain lowered their gross recourse to the Eurosystem by €26 billion (–16.4%), while the Eurosystem as a whole reduced its outstanding balance by €13 billion (–2.5%).

As a result of this development, the share of Spanish banks in the total loan to the Eurosystem decreased in this period. Thus the volume allotted in tenders to banks resident in Spain as a percentage of the total provided by the Eurosystem averaged 25.5% in March 2015, compared with 30.4% for October 2014.

9 See Box 2.1 for details of the non-standard measures taken by the ECB since the second half of 2014.

During the second half of 2014 and early 2015 the ECB Governing Council continued to adopt non-standard monetary policy measures. With the aim of improving the monetary policy transmission mechanism, and supporting bank lending to the real economy, the ECB had announced in June 2014 a series of targeted longer-term refinancing operations (TLTRO).[1] The two initial operations were conducted in September and December 2014, and the additional operations were launched in March 2015 and will continue in June, September and December 2015, and in March and June 2016.

In the first two operations, each credit institution could borrow a total maximum amount equivalent to 7% of the outstanding amount of its loans as at 30 April 2014 to the euro area non-financial private sector (non-financial corporations and households), excluding loans to households for house purchases. After these first two operations, the maximum permitted allotment in further operations depends on how the aforementioned type of lending evolves. Moreover, if lending stands below a benchmark set for each institution, full repayment of the financing obtained might be mandatory. Altogether, 1,223 euro area credit institutions participated in the first two operations, some in combination in "TLTRO groups", and the total amount of funds obtained was €212.4 billion (€82.6 billion in September and €129.8 billion in December).

In the first additional operation in March 2015, the funds allotted amounted to €97.8 billion. Into 2015, the Governing Council decided to alter the interest rate on the six remaining TLTROs, fixing it at the rate on the Eurosystem main refinancing operations prevailing at the time of take-up. Accordingly, the fixed spread of 10 bp applied in the first two TLTROs was eliminated, as a means of reinforcing their effectiveness in their support to lending to the non-financial private sector.

At its first meeting in September 2014, the ECB Governing Council had decided to launch two new private asset purchase programmes: an asset-backed securities purchase programme (ABSPP) whose underlying assets would consist of claims against the euro area non-financial private sector, and the third programme involving the purchase of euro-denominated covered bonds issued by euro area credit institutions (CBPP3). The purchases, which under both programmes are made on the primary and on the secondary markets, commenced on 20 October for CBPP3 and on 21 November for ABSPP.

Given the characteristics of the ABS market, the Governing Council considered it advisable to appoint four external asset managers to purchase ABS under ABSPP on behalf of the Eurosystem and on its explicit instructions, until the Eurosystem itself should take charge once it has perfected its technical capabilities and knowledge. Under the current procedure, the Eurosystem is entrusted with price checks and due diligence prior to the approval of the operations. In December 2014, the French central bank joined the four managers as an internal asset manager. As regards CBPP3, purchases are in principle carried out by the entire Eurosystem, although some degree of specialisation has been used for reasons of efficiency.

In 2015 the Governing Council has continued adopting non-standard measures. In a setting in which the ECB's official interest rates had reached their lower limit and the actual and expected inflation indicators were at all-time lows, it announced the expansion of its asset purchase programme in January, adding purchases of debt issued by euro area central governments, certain agencies established in the euro area or certain international or supranational institutions located in the euro area to the prevailing programmes of asset purchases from the private sector. These asset purchases seek to ease monetary and financial conditions further, making access to finance cheaper for households and firms, and thereby contributing to a return of inflation rates towards 2% in the medium term, so that the ECB's price stability mandate is fulfilled. Consequently, the expanded asset purchase programme will encompass both the public sector debt purchase programme (PSPP) and the ABSPP and CBPP3 programmes launched in the closing months of 2014. Purchases under the expanded programme will amount to a total of €60 billion per month, and it is expected to continue to at least September 2016, or until the Governing Council considers that the inflation path is consistent with its price stability mandate.

With regard to PSPP, asset purchases commenced on 9 March 2015 and are implemented in a decentralised fashion by the Eurosystem in coordination with the ECB. The purchases are allocated among issuers from different euro area countries on the basis of their capital key in the ECB. Overall, 12% of the purchases will involve acquisitions of the securities of international or supranational institutions located in the euro area, while the remaining 88% will relate to securities issued by euro area central governments or agencies established in the euro area. As to the sharing of hypothetical losses, 20% of asset purchases under PSPP will be subject to a risk-sharing regime; this percentage includes the above-mentioned 12% of asset purchases from institutions established in the euro area plus 8% of the total purchases to be made by the ECB.

1 Subsequently, in July, the technical details were announced and the legal document acting as a basis for the TLTRO series was published (Decision ECB/2014/34 of the European Central Bank of 29 July 2014 on measures relating to targeted longer-term refinancing operations).

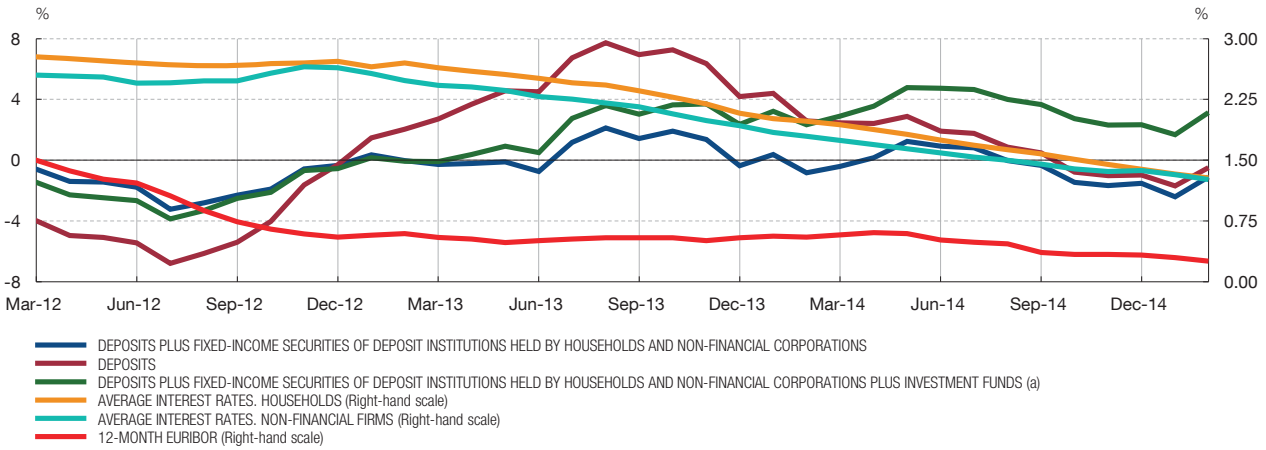
The year-on-year rate of change of deposits from households and non-financial...

The year-on-year rate of change of **deposits from households and non-financial corporations** in business in Spain decreased continuously throughout 2014, falling by 0.5% on the most recent data, which relate to February 2015 (see Chart 2.11.A). The decrease is of a similar order of magnitude if to deposits are added the securities issued

RETAIL FUNDING
Deposit institutions, ID

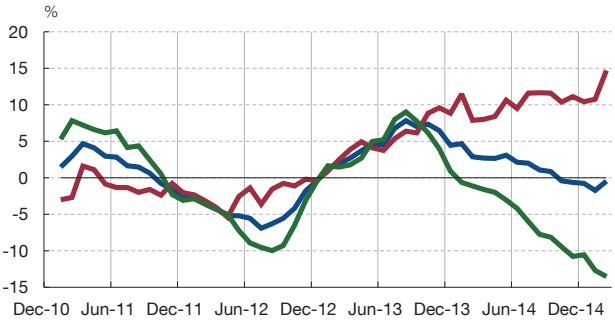
CHART 2.11

A. DEPOSITS FROM HOUSEHOLDS AND NON-FINANCIAL FIRMS, AND AVERAGE INTEREST RATES



DEPOSITS PLUS FIXED-INCOME SECURITIES OF DEPOSIT INSTITUTIONS HELD BY HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS
DEPOSITS
DEPOSITS PLUS FIXED-INCOME SECURITIES OF DEPOSIT INSTITUTIONS HELD BY HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS PLUS INVESTMENT FUNDS (a)
AVERAGE INTEREST RATES. HOUSEHOLDS (Right-hand scale)
AVERAGE INTEREST RATES. NON-FINANCIAL FIRMS (Right-hand scale)
12-MONTH EURIBOR (Right-hand scale)

B. DEPOSITS FROM HOUSEHOLDS AND NON-FINANCIAL FIRMS



TOTAL
OVERNIGHT
WITH AGREED MATURITY

C. LOAN-TO-DEPOSIT RATIO IN RELATIVE TERMS (b)

SOURCES: CNMV and Banco de España.

a Investment funds are those marketed by deposit institutions in Spain. There is no information available regarding the unit-holders of these funds, so they are not limited to households and non-financial corporations.
b Loans to households and non-financial corporations net of provisions. Deposits of households and non-financial corporations plus fixed-income securities of deposit institutions held by households and non-financial corporations.

...corporations in business in Spain decreased throughout 2014...

by deposit institutions to households and non-financial corporations. As explained in detail in previous reports, these securities (basically notes) were marketed by deposit institutions in previous years, displacing to some extent the commercial appeal of deposits, although this trend has now reversed.

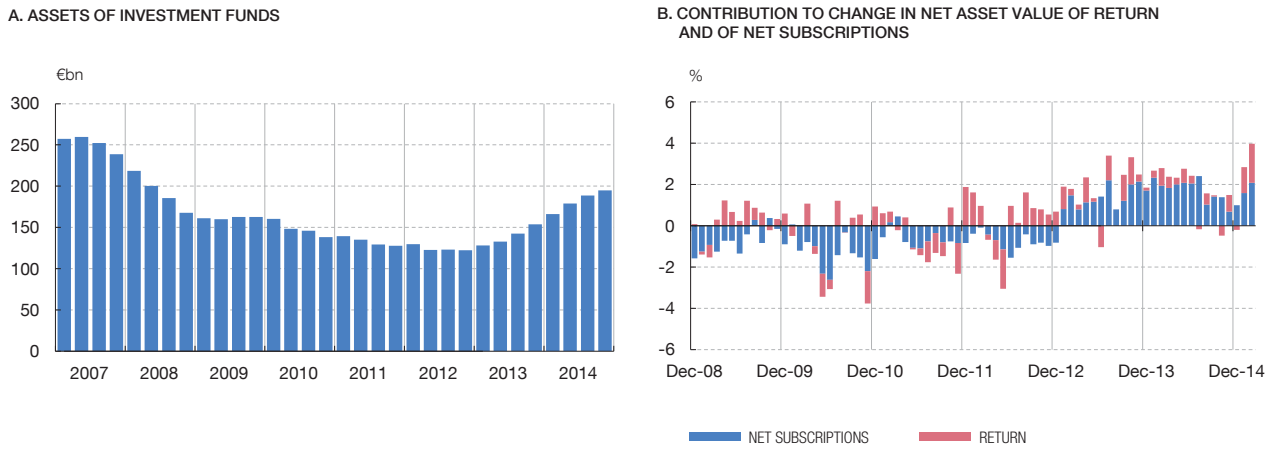
...which is largely explained by the environment of declining interest rates...

In any event, the slowdown in deposits in recent months is largely explained by the environment of declining interest rates, which makes these saving products less attractive to deposit customers. The average interest rates paid by banks to households and non-financial corporations started to decrease in early 2013, with a certain lag relative to money market rates because of they were largely fixed term. Households' and non-financial corporations' deposits have also undergone a sustained shift from term to sight deposits (see Chart 2.11.B).

...which is prompting a certain shift in the composition...

If, in addition to the deposits and securities held by households and non-financial corporations, we take into account the investment funds marketed by banks to their

INVESTMENT FUNDS CHART 2.12



SOURCE: CNMV.

...of the saving instruments used by households and non-financial corporations

customers, the rate of change, although turning slightly downward in the second half of 2014, is positive at 3.1% in February 2015 (see Chart 2.11.A). This development is consistent with a certain shift in the composition of the saving instruments used by households and non-financial corporations in this low interest rate environment.

The fall in lending to households and non-financial corporations, along with the behaviour of funding from these sectors, made it possible for deposit institutions to continue in 2014 the reduction of the retail funding gap initiated in 2007. The loan-deposit gap has decreased by 40% since 2007, although the pace of that decrease steadied in the closing months of 2014 (see Chart 2.11.C).

In this respect, the net assets of investment funds continued to grow in 2014

The net assets of investment funds continued to grow in 2014, rising by €41 billion, or 26.7% (see Chart 2.12.A). A significant fraction of the net assets of investment funds (more than 85%) is managed by Spanish deposit institutions themselves, and the net assets of funds of this type increased significantly (by nearly 30%) in 2014. Although investment fund yields were positive in nearly all months of the year, the main reason for the significant rise in fund assets was the increase in net subscriptions (see Chart 2.12.B).

It should be noted that the risk assumed by investment fund unit-holders is higher than that of depositors and depends on the asset mix and performance of those funds

It should be noted that the risk assumed by investment fund unit-holders is higher than that assumed by customers who place their savings in bank deposits and depends on the asset mix and performance of those funds. Thus a fall in stock market prices, an across-the-board increase in interest rates at all maturities or even an appreciation of the euro may cause losses of value for investment fund unit-holders. Hence the shift of savings from deposits to investment funds cannot be considered a mere substitution of one for the other because the risk involved is very different.

2.2 Profitability

Deposit institutions recorded profit before tax in 2014 of €21,620 million

Deposit institutions recorded profit before tax in 2014 of €21,620 million, nearly 87% more than a year earlier, giving a bottom line, in consolidated profit terms, of €14,973 million, up 33.5% on the previous year (see Table 2.2).[10] In relative terms, the net income after tax represented an increase in return on assets (ROA) of 0.12 pp, from 0.38% in 2013 to

10 Inter-company mergers and acquisitions in 2014 caused the scope of consolidation to change from 2013 to 2014, affecting the comparability of the income statements for these years.

CONSOLIDATED INCOME STATEMENT
Deposit institutions

TABLE 2.2

	Dec-14		Dec-13	Dec-14
	€m	% Change Dec-14/Dec-13	% ATA	% ATA
Financial revenue	113,308	-4.8	3.34	3.32
Financial costs	49,243	-14.9	1.62	1.44
Net interest income	64,065	4.7	1.72	1.88
Return from capital instruments	1,511	30.8	0.03	0.04
Share of profit or loss of entities accounted for using the equity method	3,282	-24.6	0.12	0.10
Net commissions	22,655	-0.6	0.64	0.66
Gains and losses on financial assets and liabilities	11,042	-18.5	0.38	0.32
Other operating income	-3,152	.	-0.09	-0.09
Gross income	99,404	-0.3	2.80	2.91
Operating expenses	48,901	-3.3	1.42	1.43
Net operating income	50,503	2.7	1.38	1.48
Asset impairment losses (specific and general provisions)	26,558	-17.9	0.91	0.78
Provisioning expense (net)	5,023	4.2	0.14	0.15
Operating profit	18,923	57.5	0.34	0.55
Asset impairment losses (assets other than loans and credits)	4,414	-30.8	0.18	0.13
Income from disposals (net)	7,112	19.6	0.17	0.21
Profit before tax	21,620	86.8	0.32	0.63
Net income	16,969	25.5	0.38	0.50
MEMORANDUM ITEM				
Income attributable to the controlling entity	14,973	33.5	0.31	0.44

SOURCE: Banco de España.

0.50% in 2014. The return on equity (ROE) stood at 6.6%, nearly 1.5 pp higher than a year earlier (5.2%).

The improved profits of banks measured in terms of average total assets (ATA) is basically due to higher net interest income (see Chart 2.13.A). The containment of operating expenses also contributed to this improvement, as did a further decrease in the volume of provisions for impairment of assets on the balance sheet, subtracting 61% of operating income in 2014 compared with 79% in 2013 (see Chart 2.13.B).

Net interest income increased in 2014...

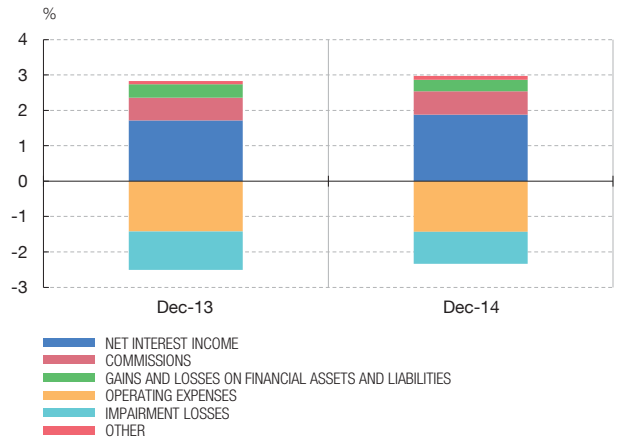
Specific analysis of the main income statement items shows that **net interest income** increased by nearly 5% in 2014 with respect to 2013. Although financial revenue decreased with respect to the previous year (4.8%) because of the falling interest rates and because a still-significant portion of assets are non-interest earning, the containment of funding costs (14.8% with respect to the same period of 2013) allowed banks to end 2014 with net interest income of slightly above €64,000 million. In terms of average total assets, net interest income amounted to 1.88% in December 2014, against 1.72% in the previous year.

The increase in net interest income was apparent both in business abroad and in activity in Spain. The still-negative trend in Spain, against a background of declining credit, was offset by the more favourable behaviour of interest rates on liabilities than on assets (widening of the difference between the return on investment and the cost of funds), observed both for average rates on outstanding balances and for marginal rates arising from new transactions (see Charts 2.14.A and B).

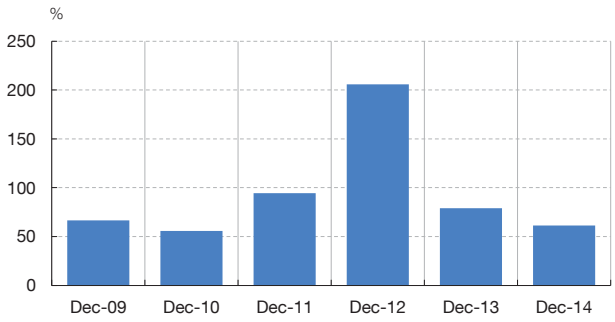
PROFITABILITY
Deposit institutions

CHART 2.13

A. CONTRIBUTION OF THE ELEMENTS OF PRE-TAX PROFIT AS % OF ATA



B. PERCENTAGE REDUCTION IN NET OPERATING INCOME DUE TO IMPAIRMENT LOSSES



SOURCE: Banco de España.

...unlike gains and losses on financial assets and liabilities and, to a lesser extent, net commissions

Gross income decreased by 0.3% in December 2014 with respect to a year earlier. This slight drop in gross income was basically due to year-on-year falls in net commissions and especially in gains and losses on financial assets and liabilities and in exchange differences, which decreased in absolute terms by nearly €2,500 million with respect to 2013. As regards gains and losses on financial assets and liabilities, the rise recorded in December 2014 in those on available-for-sale financial assets with respect to the same month of 2013 was offset by the fall in gains on the trading book, exchange differences and other financial transactions.

In business in Spain, net commissions grew owing to the increase in those on non-bank financial products and securities services, which offset the fall in those on collection and payment services

As indicated above, net commissions decreased slightly in year-on-year terms (0.6%), while their relative weight in terms of average total assets remained practically unchanged. The performance of net commissions was more favourable in business in Spain, where their year-on-year growth rate increased (see Chart 2.14.C), driven by the buoyancy of those received for the marketing of financial products (higher investment fund subscriptions) and for securities services, given the greater activity of financial markets and, in particular, of stock exchanges. Meanwhile, those derived from collection and payment services, which are more closely linked to banking activity, showed a year-on-year decline.

Operating expenses also showed a certain containment, particularly perceptible in business in Spain

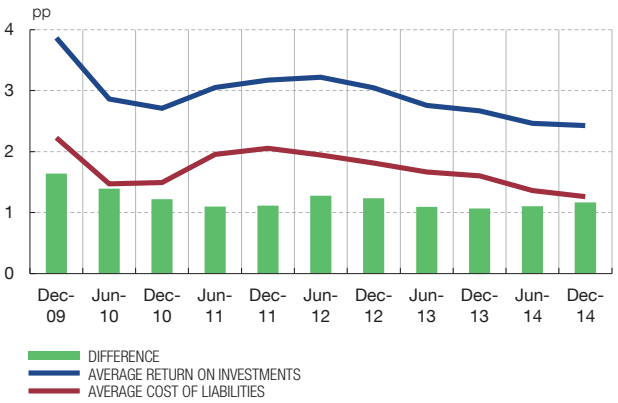
Net operating income in 2014 stood at over €50,000 million, up nearly 3% on 2013. This was due to the favourable performance of **operating expenses,** which for total business fell by 3.3% year-on-year.[11] This decrease arose from business in Spain, since in business abroad operating expenses remained practically unchanged between 2013 and 2014. In business in Spain, following the process of capacity adjustment and operating cost reduction, operating expenses continued their downward trend and, accordingly, the progressive adjustment of staff numbers continued, although at a lower pace than office numbers (see Chart 2.14.D). Box 2.2 gives further details of the staff and office numbers of the Spanish banking sector compared with that of other European countries. The **efficiency ratio,** i.e. operating expenses divided by gross income, stood at 49.2% in December 2014, 1.5 pp lower than in 2013.

11 This year-on-year fall was made sharper by the staff reductions which were made by various banks in 2013 and had a stronger impact on operating expenses in that period.

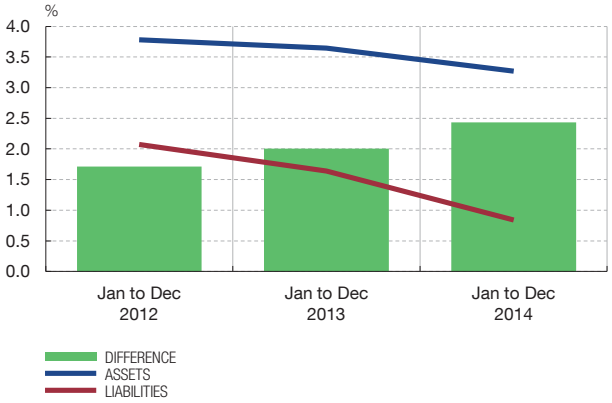
PROFITABILITY
Business in Spain. ID. Deposit institutions

CHART 2.14

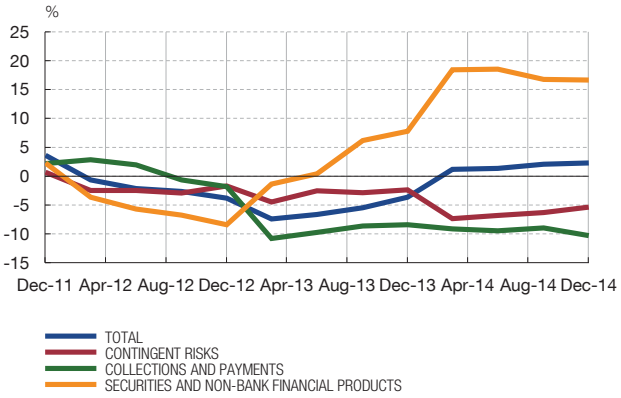
A. DIFFERENCE BETWEEN AVERAGE RETURN ON INVESTMENT AND AVERAGE COST OF LIABILITIES



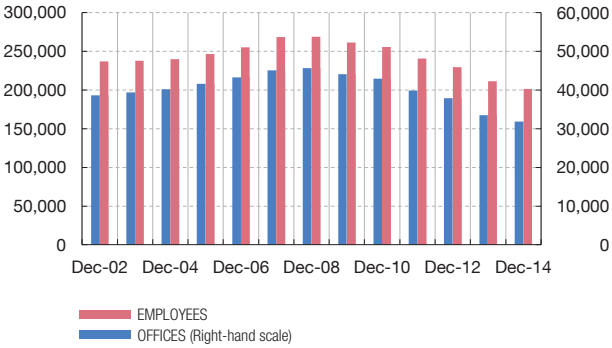
B. MARGINAL INTEREST RATES ON ASSETS AND LIABILITIES (a)



C. YEAR-ON-YEAR RATE OF CHANGE IN NET COMMISIONS AND THEIR MAIN COMPONENTS



D. EMPLOYEES AND OFFICES



SOURCE: Banco de España.

a Marginal interest rates refer to those established in transactions initiated or renewed in the previous reference month. The transactions are weighted according to their volume. The weighted marginal interest rates of assets include, among others, those applied to financing for house purchase, consumption and credit to non-financial firms, while the liabilities ones include fixed-term deposits and repos, among others.

Asset impairment losses decreased...

Asset impairment losses (specific and general provisions) decreased by nearly 18% in 2014. In general, the positive performance of non-performing loans in 2014, along with the higher levels of provisioning in previous years, contributed to this decline in provisions. In terms of ATA, provisions similarly continued their downward trend. In particular, if their current weight relative to assets is compared with that in 2012 (the year of application of Royal Decree-Laws 2/2012 and 18/2012), a significant decrease is observed, since while the volume of provisions recorded in that year amounted to 2.31% of ATA, provisions currently represent 0.78%.

...as did those arising from the impairment of assets other than loans and receivables

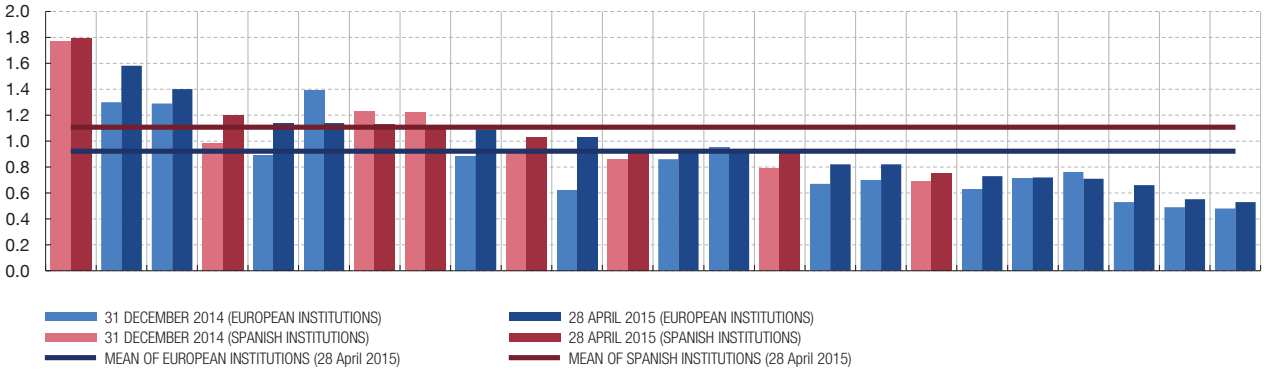
Losses arising from the impairment of assets other than loans and receivables (mainly provisions used to cover the decline in value of foreclosed assets) exhibited a similar trend to that of other provisions, i.e. they decreased substantially with respect to 2013. Specifically, in 2014 they fell somewhat more than 30% with respect to the previous year, to stand slightly above €4.4 billion.

In short, the results of Spanish deposit institutions...

In short, the results of Spanish deposit institutions continued in 2014 the recovery initiated in 2013. Thus the downward pressure on income capacity associated with a low activity

MARKET INFORMATION
Price-to-book value ratio. Biggest European institutions (a)

CHART 2.15



SOURCE: Datastream.

a Each pair of bars represents an institution. Banks are from those countries with globally systemic banks.

...continued in 2014 the recovery initiated in 2013

environment, depressed interest rates and still-high, albeit decreasing, levels of non-interest earning assets (non-performing and foreclosed assets) was offset by the generation of net interest income driven by lower funding costs, containment of operating expenses and the lower asset impairment losses following the high provisions of previous years and the downturn in NPLs. The prospects of a relatively long period of low interest rates will definitely lead Spanish banks to examine their volume of installed productive capacity (offices), which has been reduced notably in the last few years but still differs from that of other European banks, which have fewer offices of a larger size.

The market information available on listed Spanish banks shows that generally investors have confidence in their medium-term profitability

The market information available on listed Spanish banks shows that generally investors have confidence in their medium-term profitability, albeit with some disparity of opinion among them. The same information at European level reflects a relatively more favourable position for Spanish banks compared with the large European banks and, in particular, with euro area banks. The recovery of economic activity in Spain and the intense bank restructuring process are factors explaining this difference between Spanish banks and other euro area banks. Thus the ratio of market value to book value for Spanish banks is, save some exceptions, at a medium-high level in relation to the main European banks (see Chart 2.15).

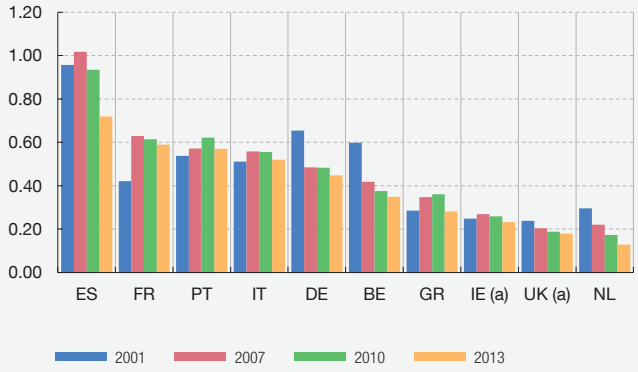
IMPACT OF THE RESTRUCTURING OF THE SPANISH BANKING SYSTEM ON ITS BUSINESS MODEL. A EUROPEAN COMPARISON

BOX 2.2

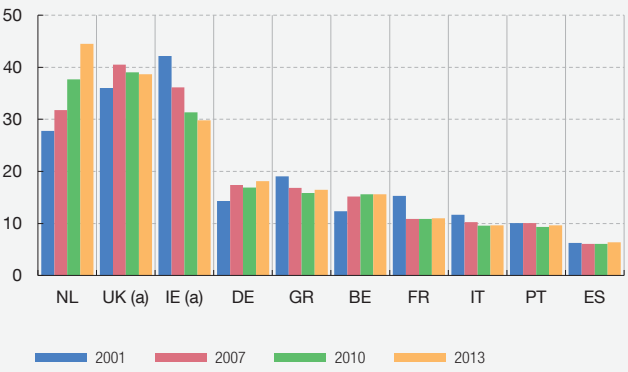
In recent years the Spanish banking sector has undergone changes as a result of the crisis and of the correction of the imbalances built up in prior years. The reduction of balance sheets and of excess debt has been reflected in the downsizing of the sector's capacity through the reduction in the number of employees and offices. A 30% decline can thus be seen in the number of offices compared with the 2008 peak, and a smaller 25% reduction is discernible in the number of employees set against the same 2008 high (see Panel 2.14.D). Further, the decline in the number of institutions as a result of the sector's restructuring via mergers and acquisitions has increased the level of concentration.

The restructuring, in particular the reduction in the number of offices, has drawn the Spanish banking sector closer to the parameters prevailing in the main in peer countries. Although the gap with other European countries has narrowed notably in terms of the number of offices per inhabitant, on data to December 2013, the Spanish banking system is still that with most offices in relation to the number of inhabitants (see Panel A). This ratio has also declined in the main

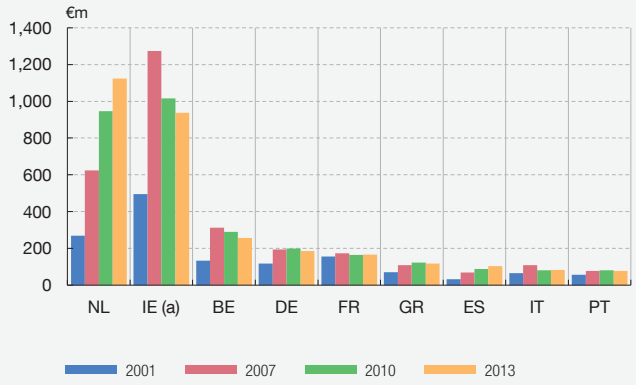
A. NUMBER OF OFFICES PER ONE THOUSAND INHABITANTS



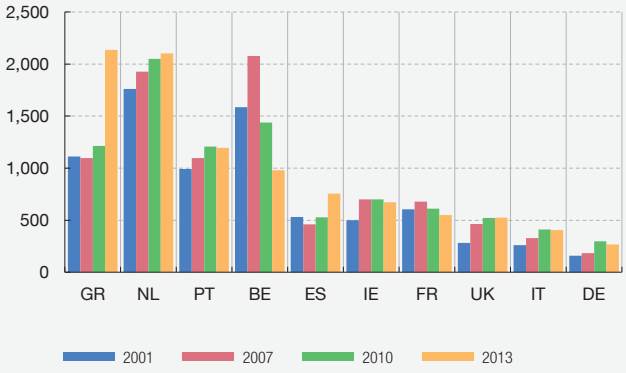
B. NUMBER OF EMPLOYEES PER OFFICE



C. TOTAL ASSETS PER OFFICE



D. HERFINDAHL-HIRSCHMAN INDEX IN TERMS OF TOTAL ASSETS (b)



SOURCES: EU Banking Structures, Banking Structures Report and Structural Financial Indicators. ECB.

a Data refer to December 2012.
b The Herfindahl-Hirschman Index is defined as the sum of the squares of all the institutions' market shares.

European countries in recent years, but on a lesser scale than in Spain, which has narrowed the gap. In terms of employees and assets per office (see Panels B and C), Spain occupies the lowest positions despite the slight increase in recent years (which shows that the reduction in the number of offices has been greater than the decline in the number of employees and the reduction in assets). That is to say, the Spanish banking sector, in relative terms, shows an intensive structure, with a high number of small offices.

Despite the increasing concentration in recent years, the level of concentration in Spain is at an intermediate position relative to Spain's European peers (see Panel D), somewhat above France and United Kingdom and well above Italy and, especially, Germany, two countries where there is a high number of small-sized banks.

In conclusion, the characteristics discussed in relation to the main European banking systems show that, despite the restructuring and resulting decrease in the number of both employees and, to a greater extent, offices, the Spanish banking sector maintains its traditional retail business model, and still has a relatively extensive network of small offices. The environment of very low interest rates, which substantially pushes margins down, along with a still-contracting level of banking activity will force Spanish banks to continue reflecting on the role that offices play in their business strategy. The distance between the ratios for offices of the Spanish banking sector and of the rest of Europe analysed in this box still offers room to continue increasing the operational efficiency of Spanish banks.

Moreover, from the standpoint of financial stability, it appears reasonable to view the developments in respect of productive capacity in Spain as positive, insofar as they contribute to increasing banks' efficiency and, therefore, their ability to reinforce their income statements and solvency in the medium term.[1]

1 The relationship between concentration, market power and stability of the banking system is controversial, at the theoretical and empirical levels alike. An approach to this matter for the Spanish case can be seen in "How does competition affect bank risk-taking?", in G. Jiménez, J.A. López and J. Saurina, Journal of Financial Stability, 2013, pp. 185-195, and in "The impact of interbank and public debt markets on the competition for bank deposits", in C. Pérez Montes, The Spanish Review of Financial Economics, 2013, Volume 11, Issue 2, pp. 57-68.

2.3 Solvency

In December 2014 the ratio of highest-quality capital, i.e. common equity tier 1 (CET1) stood at an aggregate level at 11.8%, well above the regulatory minimum of 4.5%

In December 2014 the ratio of highest-quality capital, i.e. **common equity tier 1 (CET1)** stood at aggregate level at 11.8%, well above the regulatory minimum of 4.5% (see Chart 2.16). Note that 2014 saw the first-time application of the prudential solvency standards approved by the Basel Committee, generally known as Basel III, and transposed to European legislation by the CRR/CRDIV. As explained in the previous FSR, among other changes it raised the quality of capital eligible as CET1 for regulatory purposes and set the minimum requirement at 4.5% until full application of the capital conservation buffer.[12] The **tier 1 capital ratio,** which to CET1 adds additional tier 1 capital, and whose regulatory requirement is 6%, reached in December 2014 practically the same level as CET1 (11.8%, see Chart 2.16), due to the effect of gradual transitional adjustments, particularly in relation to deductions.[13] For its part, the **total capital ratio** stands at 13.6%. Both capital metrics comfortably exceed the minimum regulatory requirement (of 6% and 8%, respectively).

In absolute terms, the excess CET1 capital over the minimum regulatory requirement of the sector as a whole is more than €120 billion, while for the other two metrics, the capital surplus is more than €90 billion (see Chart 2.17.A).

CET1 capital represents the vast bulk of regulatory own funds

As regards the numerators of the ratios, it should be noted that CET1 capital represents the vast bulk of own funds, namely 87% of them (see Chart 2.17.B), in line with the importance which higher quality capital instruments have for regulators and for the market. The rest of banks' own funds come mainly from tier 2 capital.

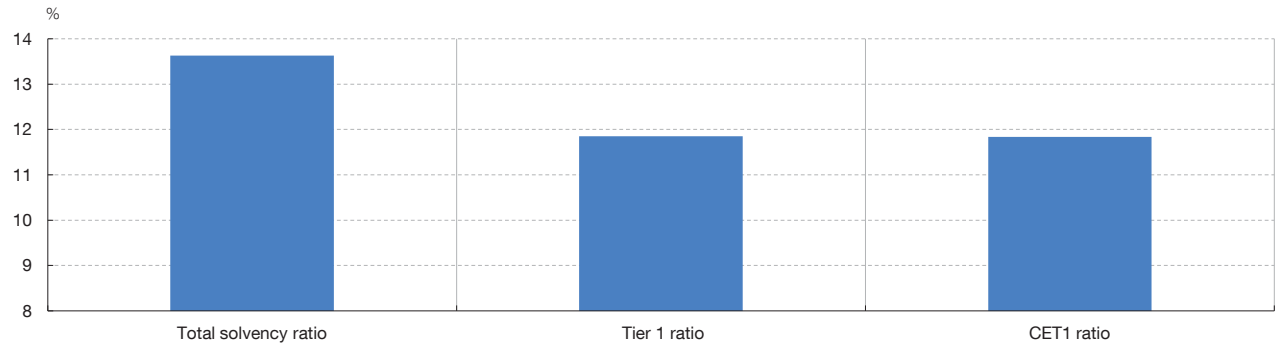
Of the elements making up CET1 capital, the main item, insofar as eligible elements are concerned, is capital instruments, which represent 53% of them. Next come reserves at 28%, so these two items make up more than 80% of the eligible elements of CET1 capital. Finally, transitional adjustments (13%), and minority interests and other (6%) complete the list of eligible elements. As regards deductions, most come from goodwill and other intangible assets (70%), well ahead of deferred tax assets (21%) and other deductions (9%). Chart 2.17.C shows this structure of CET1 capital in terms of risk-weighted assets (RWA).

12 This regulatory requirement will rise to 7% on 1 January 2019, when the capital conservation buffer is applied in full.

13 The ratios take into account the transitional adjustments which facilitate the progressive implementation of Basel III. The implementation timetable specifies generally that in 2014 only 20% of the total deductions is to be subtracted from common equity, while the other 80% is deducted from additional tier 1 capital. In quantitative terms, the main transitional adjustments are those relating to deductions of intangible assets, and, secondly, the deductions of deferred tax assets based on future income.

CAPITAL RATIOS
Deposit institutions. December 2014

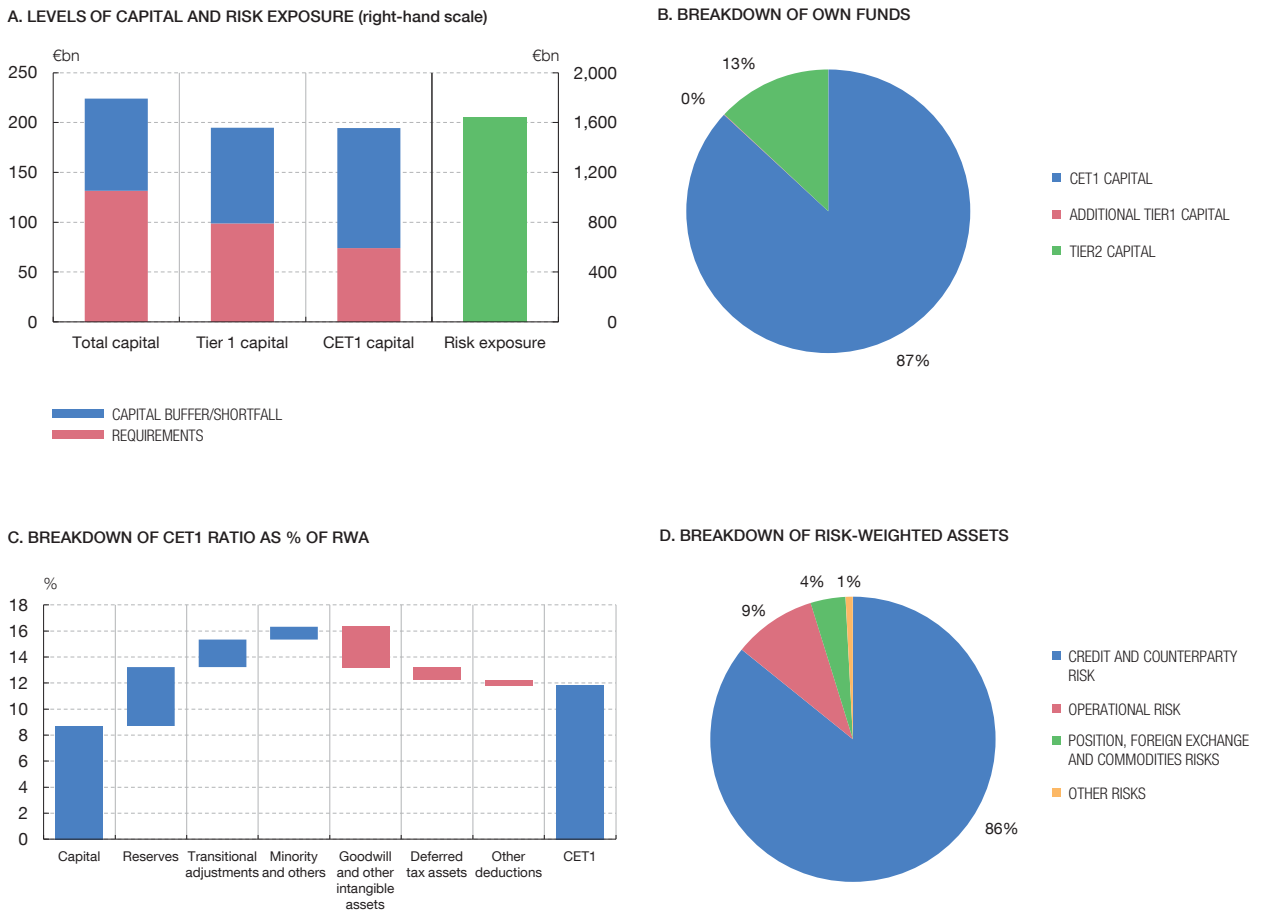
CHART 2.16



SOURCE: Banco de España.

BREAKDOWN OF OWN FUNDS AND RISK-WEIGHTED ASSETS
Deposit institutions. December 2014

CHART 2.17



SOURCE: Banco de España.

In December 2014 risk-weighted assets accounted for 46% of total assets

Risk-weighted assets, the denominator of solvency ratios, reached €1,644 billion in December 2014, accounting for 46% of the total assets of deposit institutions. A look at the composition of risk-weighted assets (see Chart 2.17.D) shows that, for Spanish banks, 86% are due to credit and counterparty risk.[14] Operational risk (10%) and position, foreign exchange and commodity risks (4%) are the following components in order of quantitative importance, while other risks represent less than 1% of risk-weighted assets.

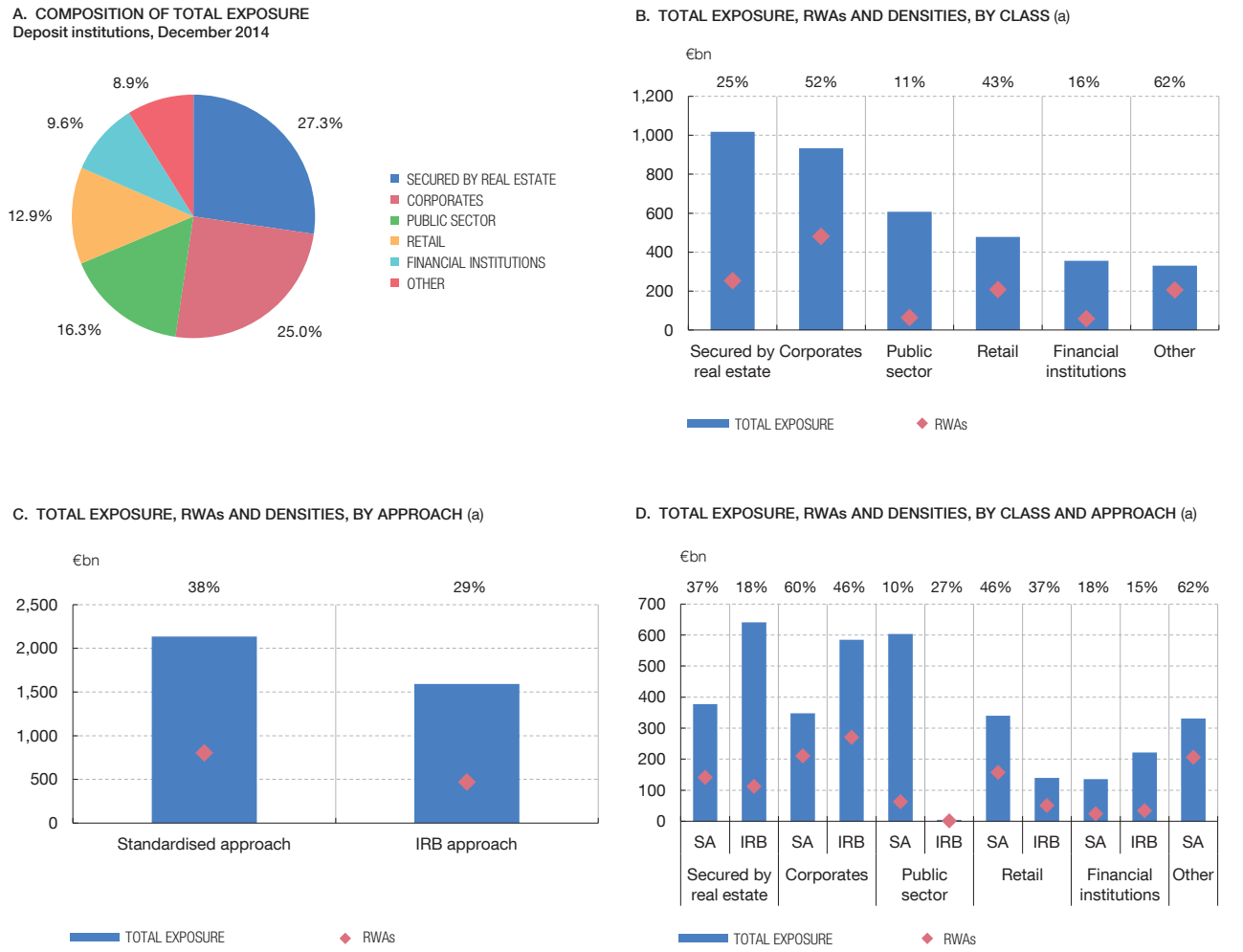
The bulk of Spanish banks' risk-weighted assets arise from lending activity

As noted above, the bulk of Spanish banks' risk-weighted assets arise from lending activity (see Chart 2.17.D). From now on, our analysis of regulatory capital requirements for credit risk excludes that arising from equity securities and securitisations (which together account for less than 10% of total credit and counterparty risk). The credit exposure thus defined mainly consists of exposures secured by real estate (which include mortgage loans to households for house purchase and loans to SMEs secured by real estate) and exposures to firms (large companies, SMEs to which the bank has loaned an amount above a certain threshold and specialised financing), which together represent more than half of total credit risk exposure (see Chart 2.18.A). Next come exposures to the public sector (loans and securities) and the retail portfolio (other SMEs, consumer credit and credit cards, not

14 This is the risk arising from credit exposures, equity exposures and securitisation positions and includes that calculated using risk-weighted assets obtained by both the standardised approach and the internal ratings based (IRB) approach.

EXPOSURE AND RISK WEIGHTED ASSETS

CHART 2.18



SOURCE: Banco de España.

a Blue bars represent the total volume of exposure, dark red diamonds represent the risk-weighted assets, and density is shown as a percentage, which is calculated by dividing risk-weighted assets by the total volume of exposure.

secured by a mortgage), the joint weight of which is nearly 30%. Finally, in terms of relative importance, come exposures to financial institutions and other exposures.

Real estate mortgage loans have the highest volume of exposure in absolute terms, but not the highest risk-weighted assets, since their density (25%) is lower than that of other exposure classes such as, for example, corporates, whose risk-weighted assets are higher

Portfolio size is not sufficient to value the risk exposure of banks. Portfolios of the same size in absolute value terms may generate very different levels of risk. Chart 2.18.B compares the total exposure of each portfolio with the risk-weighted exposures measured in accordance with the CRR/CRD IV. It shows that, although real estate mortgage loans have the highest volume of exposure in absolute terms (blue bar), their risk-weighted assets (dark red diamond) are not the highest, since their density, i.e. the weight of their risk-weighted assets in the total exposure (25%) is lower than that of other exposure classes such as corporates (52%), which have the highest risk-weighted assets. The exposure to the public sector is high, but its density is the lowest (11%), so its risk-weighted assets in absolute terms are the lowest in amount, along with those of financial institutions, the exposure to which, as noted above, is significantly lower. By contrast, the "other exposures" class, which includes defaulted exposures, has the highest density (62%) and its risk-weighted assets are among the highest, despite having the lowest total exposure of all classes. Finally, the retail exposure is not very high, being a little less than half the real estate mortgage exposure, but its higher density (43%)

means that its risk-weighted assets are nearly equal to those of real estate mortgage exposures. In short, in December 2014 somewhat more than half of Spanish deposit institutions' portfolios exposed to credit risk had a density of risk-weighted assets equal to or less than 25%, while their other portfolios, basically exposure to corporates, had a density of nearly 50%.

For Spanish deposit institutions, in December 2014 both their total exposure and their risk-weighted assets and density are higher under the standardised method

Capital requirements for credit risk can be calculated using the standardised approach or the internal ratings based (IRB) approach. For Spanish deposit institutions, in December 2014 both the total exposure and the risk-weighted assets and density are higher under the standardised approach (see Chart 2.18.C). Analysis by exposure class shows that exposures to the public sector and to retail[15] are calculated mainly by the standardised approach, while real estate mortgage loans, corporates and financial institutions are processed more by the IRB approach (see Chart 2.18.D). Comparison of the weights resulting from the two approaches shows that the density under the IRB approach is appreciably less than the density under the standardised approach for real estate mortgage loans, corporates and retail.

The following chapter features a comparative analysis at European level of the density of risk-weighted assets and of the intensity of use of the capital requirements calculation method based on banks' internal models (IRB approach), which sets in context the information in the previous paragraph, included for the first time in this Report.

15 Note that only the standardised approach has an "other exposures" class.

3 OTHER MATTERS. ANALYSIS OF THE CREDIT PORTFOLIOS AND RISK-WEIGHTED ASSETS OF EUROPEAN BANKS

This chapter presents a comparative analysis at European level of the composition of the credit portfolio, the distribution of risk-weighted assets and their density – namely their weight in unweighted exposures – and the intensity of use of the capital requirements calculation method based on institutions' internal models (IRB approach). As detailed below, the data used refer to December 2013 and were published by the European Banking Authority (EBA) following the stress test carried out at European level in 2014. They include aggregate data by country for Germany (DE), Spain (ES), France (FR), Italy (IT), the Netherlands (NL) and the United Kingdom (UK), as well as the aggregate comprising the sum of the aforementioned countries.

The distribution of credit exposures, RWAs and differences in density under the IRB and SA approaches are analysed

Based on data published by the EBA,[1] the distribution of the credit exposures in the following portfolios is analysed: central governments and central banks, institutions, corporates, retail and other.[2] The risk-weighted assets (RWAs) from these portfolios are also studied as well as the differences in RWA density in total exposures depending on whether these RWAs are calculated by the Internal Ratings Based Approach (IRB) or the Standardised Approach (SA). The total for each country is obtained by summing the figures of the banks in that country which participated in the European stress test.

Note that this comparative analysis of European banks is limited to credit portfolios; therefore it excludes the trading book in which differences in risk measurement across countries may be highly substantial and add to those obtained for the credit portfolios.

In the aggregate of the six countries which make up the sample, the highest percentages of exposure relate to the retail and corporates portfolios.

As seen in Chart 3.1, for the aggregate of the six countries which make up the sample (the "total" column in the chart), the highest percentages of exposure relate to the retail and corporates portfolios, whose relative weights in total exposure are practically identical (around 30%), and together they account for more than 60% of total credit exposure. For Spain, the retail portfolio represents 41% of exposure, which is higher than the other countries, whereas the corporates portfolio represents 24% of Spain's exposure. In Germany, the high weight of the central governments and central banks and the institutions portfolios is worth noting; both represent practically 50% of the total credit portfolio.

The RWA density is higher in SA exposures both for the sample as a whole (43% in SA, 33% in IRB) and in Spain (47% in SA, 39% in IRB)

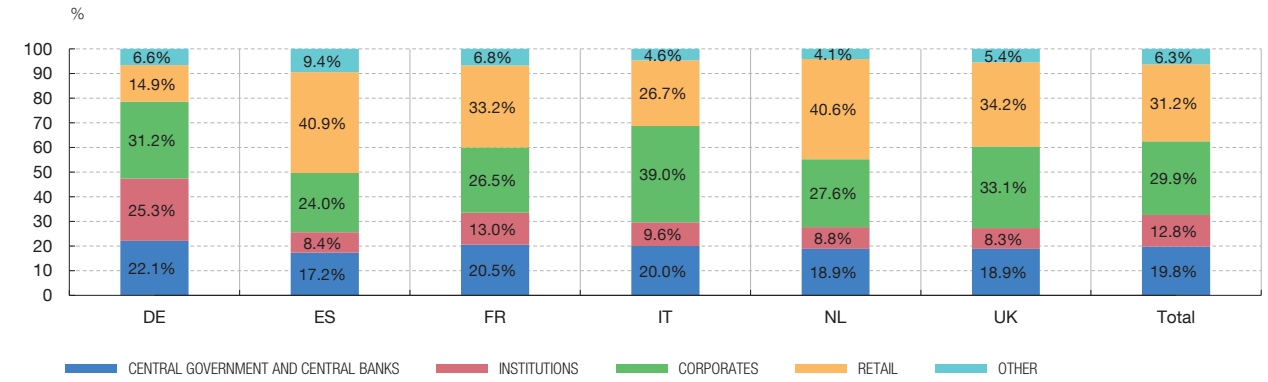
Chart 3.2 divides total exposure based on the use of the standardised approach or the IRB approach and provides the percentage (density) which RWAs represent for each type of exposure (percentage of each bar), for each country and for each approach (IRB or SA). For the total sample (right-hand scale), the RWAs of exposures subject to the standardised approach amount to a volume of approximately €3,300 billion out of total exposure of €7,900 billion, which means RWA density in exposure of 43%. The exposures subject to the IRB approach of the total sample amount to €13,000 billion, with RWAs of around €4,200 billion and RWA density of 33% (a difference of 10 pp with respect to the density seen in exposures under the SA). In Spain, RWA density in total exposure under the IRB approach (39%) is the

1 Public data are used in this section and are available at: http://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2014/results.

2 The corporates portfolio includes loans to large corporations, SMEs and specialised lending. The retail portfolio includes retail loans secured by real estate (both to individuals and to SMEs), consumer lending, credit cards and other retail loans to SMEs not included in the corporates portfolio. The other exposures comprise equities, securitisations and other exposures which are not directly credit transactions but are subject to credit risk.

CREDIT RISK COMPOSITION BY COUNTRY AND BY PORTFOLIO
December 2013

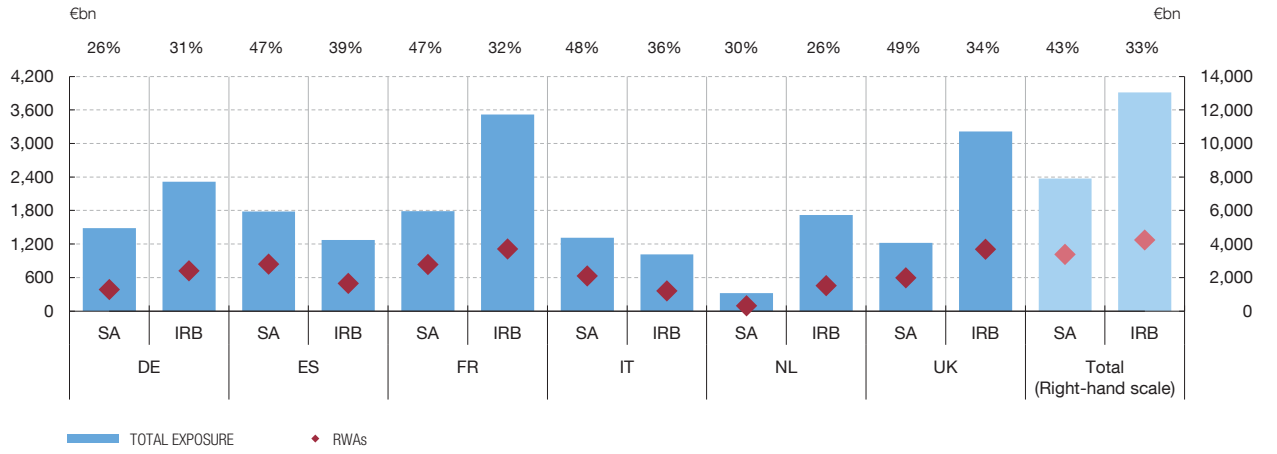
CHART 3.1



SOURCE: European Banking Authority.

TOTAL EXPOSURES, RWAs AND DENSITIES (IRB AND SA). TOTAL PORTFOLIO (a)
December 2013

CHART 3.2



SOURCE: European Banking Authority.

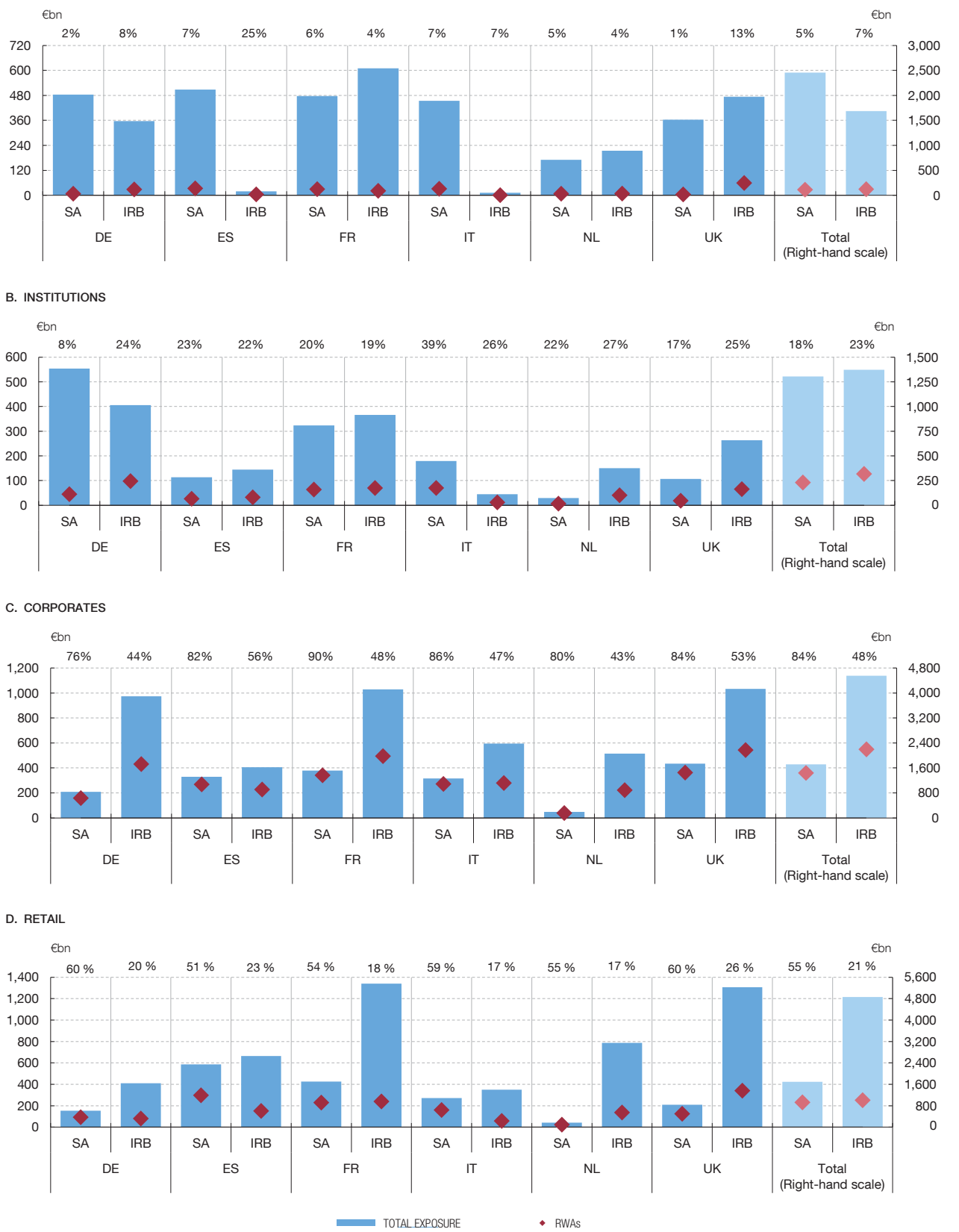
a Blue bars represent the total volume of exposure, dark red diamonds represent risk-weighted assets, and density is shown as a percentage, which is calculated by dividing risk-weighted assets by the total volume of exposure.

highest of all the countries and the density in SA exposures (47%) is also amongst the highest.[3] Notable is Germany where RWA density in exposures under the IRB approach is higher than under the standardised approach. This specific feature is mainly determined by the central governments and central banks portfolio (22.1% of the exposure) and by the institutions portfolio (25.3%). As observed in Chart 3.3.A, RWA density in Germany for exposures to the central governments and central banks under the IRB approach (8%) is higher than the RWA density for SA exposures of this class (2%). In Germany (as shown in Chart 3.3.B) the difference in RWA density for credit exposures to institutions is even more extreme and stands at 24% under IRB, 16 pp higher than under the SA (8%).

3 The exposures and the RWA densities for Spain do not coincide with those described in the solvency section of the previous chapter for several reasons. First, because the reference date is different, second, because in the solvency section the analysis is performed at the level of deposit institutions, whereas in this chapter it is performed for all banks directly supervised by the SSM. Lastly, the exposure published by the EBA and used for the calculation of the RWAs, does not coincide with the original exposure since it is defined as the exposure after the application of the risk mitigation techniques and conversion factors. Even though it does not coincide with the original exposure, what is important about the information reported is that it is consistent for all participating banks. Thus it can be assured that the analysis and comparisons made below are uniform.

TOTAL EXPOSURES, RWAs AND DENSITIES (IRB AND SA) (a)

CHART 3.3



SOURCE: European Banking Authority.

a Blue bars represent the total volume of exposure, dark red diamonds represent the risk weighted assets, and density is shown as a percentage, which is calculated by dividing risk weighted assets by the total volume of exposure.

In any event, note that the information provided by the EBA does not permit a complete analysis of the differences in RWAs under the standardised approach and the IRB approach. The lack of granularity of this information prevents an assessment from being made of the credit risk inherent in each type of portfolio and of the ease with which banks, after receiving authorisation from the banking supervisor, can choose to develop and use IRB models in some credit exposures but not in others, which finally determines whether the IRB or SA method will be used to calculate RWAs and, consequently, the minimum regulatory capital required.

In the corporates and retail portfolios, Spain shows, as does the sample as a whole, a considerable RWA saving associated with the use of the IRB approach

Continuing with the analysis by portfolio type, for exposures to corporates (see Chart 3.3.C), the volume of exposure under the IRB approach for the total sample (around €4,600 billion) is considerably higher than the volume subject to the standardised approach (approximately €1,700 billion), showing that advanced models specialise in this type of exposure. The RWA density for the total sample amounts to 48% for exposures under the IRB approach, while for exposures subject to the standardised approach, the RWA density stands at 84%. In the case of Spain, RWA densities are close to those of the total sample and are 56% for IRB exposures (slightly higher than for the total) and 82% for standardised exposures (slightly lower than for the total countries).

Chart 3.3.D focuses on the retail portfolio and shows that for the total sample, the volume of exposure under the IRB approach (around €5,000 billion) is slightly more than three times the exposure subject to the standardised approach (approximately €1,600 billion), thus revealing the huge importance of advanced models for this type of portfolio. The RWA density for the total sample is 21% for IRB exposures and 55% for exposures under the standardised approach. In the case of Spain, the exposure volumes under the standardised approach and the IRB approach are quite similar (around €600 billion); however, the differences encountered in the RWA densities in relation to standardised exposures (51%) and exposures under the IRB approach (23%) remain.

The relationship between the RWA saving associated with the use of the IRB approach, as opposed to the standardised approach, and the intensity of effective use of the IRB approach is analysed

The saving generated by using the IRB approach rather than the standardised approach to calculate the RWAs of the various credit portfolios[4] is analysed at country level based on the available data. This analysis is completed first for the total portfolios. Given the quantitative importance of the corporates and retail portfolios in total credit exposure for most of the countries chosen, the above-mentioned analysis is also performed for the portfolio of credit to the private sector, which is defined as the sum of the corporates and retail portfolios.[5]

For the total sample portfolios, the relationship between effective use of the IRB approach and the saving in RWA density associated with this approach is positive

Chart 3.4.A reveals for the total portfolios that there is an increasing relationship between the variable plotted on the y-axis (percentage of saving in RWA density derived from use of the IRB approach rather than the standardised approach) and the variable plotted on the x-axis (percentage of use of IRB approach).[6] The correlation coefficient between these two variables is 0.38 and thus indicates that the greater the use of the IRB approach, the also seemingly greater saving in terms of RWAs.

4 The RWA saving is estimated to have a direct effect, of the same amount and proportion, on the capital requirements figure.

5 Specialised lending is not included in the corporates portfolio and the set of exposures called "other" are not included in the total portfolio in any of these analyses since they could distort the analysis and they have a low weight.

6 The dispersion Charts 3.4.A and 3.4.C do not include outliers for central governments and central banks (Spain, Germany, United Kingdom), institutions (Germany), and retail, revolving and other (Italy), because they distort the overall pattern. Since there are only six outliers, it is preferable to analyse them individually, although this analysis does not feature in this Report.

An indicator is devised to describe, for each country, effective use of the IRB approach and the saving in RWA density associated with this RWA calculation method.

Chart 3.4.B is a bar chart portraying, at country level, the relationship found in Chart 3.4.A, plotting four measurements for each country. In this chart, the first bar shows the weight of the portfolio in question in the total exposure of each country (100% in the case of the total portfolio). The second bar indicates the relative saving in terms of RWA density entailed by the use of the IRB approach rather than the SA. The third bar represents the weight of exposures under the IRB approach relative to the total exposure of the portfolio. The last bar is a synthetic indicator, I, which reflects the incentives and intensity of use associated with the IRB approach. The indicator depends on three factors. First, f_1, is defined as the difference (saving), in relative terms, of RWA density between the standardised and IRB approaches. Second, f_2, is the percentage of exposure which does not fall under the IRB approach, i.e. the percentage of exposure under the standardised approach. Finally, the third one, f_3, is the weight of this type of exposure in the total portfolio.[7]

This indicator rises as saving in RWA density increases under the IRB approach, as the weight of the portfolio subject to IRB increases (and thus exposure subject to SA processing decreases) and as the weight of the type of exposure analysed in the total portfolio increases. The indicator thus established informs of the incentives for using the IRB approach (f_1), of the intensity of effective use within the portfolio examined (f_2) and of the importance of that portfolio in the total exposure (f_3).

France, the United Kingdom and the Netherlands are notable for their intense use of the IRB approach and a high value of the indicator, well above that of Spain. Germany is atypical because of its exposure to central governments, central banks and institutions

The countries which obtain greater relative saving (second bar) owing to the use of the IRB approach rather than the SA in the total portfolio are: France, the United Kingdom and Italy, with 40%, 26% and 21% respectively. The Netherlands has a large part of its exposure under the IRB approach (85%). France and the United Kingdom have 67% and 75%, respectively, of their exposure under the IRB approach. Notable in terms of the value of the synthetic indicator are France and the United Kingdom, followed by the Netherlands. Spain obtains a relative saving of 16% in RWA density through the use of the IRB approach rather than the standardised approach, which is not a negligible figure, but does stand below the sample average. Additionally, the weight of the Spanish portfolio under the IRB approach (45%) is 18 pp less than the weight of the IRB portfolio for the total countries in the sample (63%).[8] The value of the synthetic indicator for Spain is the lowest of all the countries in the sample except Germany. The exposures to central governments and central banks and to institutions represent a large fraction of the credit

7 The relationship among the three factors is the following:

$$I = \frac{f_1}{f_2} f_3 = \frac{\frac{\text{Density}_{SA} - \text{Density}_{IRB}}{\text{Density}_{SA}}}{1 - \%\ \text{Exposure}_{IRB}} \text{ (Portfolio\_weight)}$$

The respective formulas of the three factors are the following:

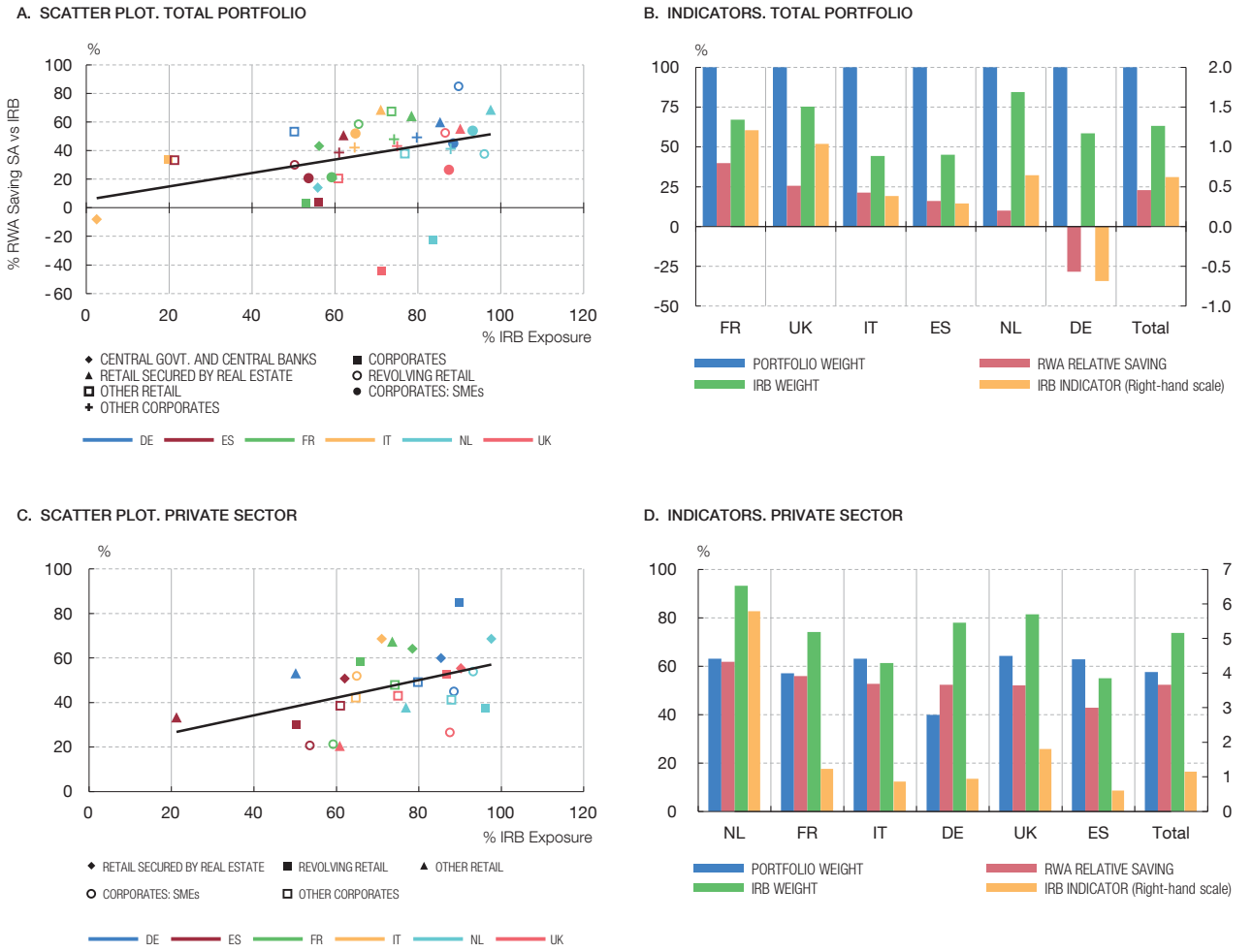
$$f_1 = \frac{\text{Density}_{SA} - \text{Density}_{IRB}}{\text{Density}_{SA}}$$

$$f_2 = 1 - \%\ \text{Exposure}_{IRB}$$

$$f_3 = \frac{\text{Exposure}_{PORTFOLIO}}{\text{Exposure}_{TOTAL}} = \text{Portfolio\_weight}$$

8 Note that the above percentages relate to the total portfolio from which specialised lending and other exposures have been excluded.

RELATIONSHIP BETWEEN IRB EXPOSURE AND SAVING IN RWA DENSITY BETWEEN SA AND IRB. December 2013 CHART 3.4



SOURCE: European Banking Authority.

portfolio in Germany and the exposures in these portfolios subject to the IRB approach exhibit, in that country, a higher density than the exposures subject to the standardised approach. These facts explain the negative value of the measure of saving f_1 and of the indicator for Germany.

In Chart 3.4.C it can again be seen, this time exclusively in private sector portfolios, that there is an increasing relationship between the percentage of saving in RWA density due to use of the IRB approach and the percentage of effective use of this IRB approach. The correlation coefficient between these two variables is 0.43 and indicates that with greater use of the IRB approach, there is a greater saving in terms of RWAs.

For private sector portfolios, there is also a positive relationship between the use of the IRB approach and the saving associated with this approach in RWA density. France, the United Kingdom and the Netherlands are again notable for intense...

Chart 3.4.D is a bar chart of measures of use of the IRB approach and RWA saving solely for exposure to the private sector. It shows that the countries obtaining greater relative saving (second bar) from the use of the IRB approach rather than the SA in the private sector portfolio are: the Netherlands, France and Italy, with 62%, 56% and 53%, respectively. The Netherlands has practically all its exposure under the IRB approach (93%). France and Italy have 74% and 61% of their exposure under the IRB approach, respectively, and are both slightly exceeded by Germany, where 78% of exposure is under this approach (with a percentage of relative saving of 52%). In terms of value of the

...use of the IRB approach and a high value of the indicator

synthetic indicator, the Netherlands is clearly most notable, followed by the United Kingdom and France. Spain obtains a relative saving of 43% in RWA density through the use of the IRB approach rather than the standardised approach, 9 pp below the average (52%) for the countries in the sample. Additionally, the weight of the portfolio of Spain under the IRB approach (55%) is 19 pp below the weight of the IRB portfolio for the total of the countries in the sample (74%). The value of the synthetic indicator for Spain is the lowest of all the sample countries.

The conclusions drawn from the above analysis are as follows:

1) The banking systems of the main EU countries analysed differ significantly in terms of the composition of the total exposure to credit risk, the intensity of use of the standardised and IRB approaches and the reduction, or saving in terms of RWAs (and therefore of regulatory capital) due to the use of the IRB approach rather than the standardised approach.

2) This saving shows a positive correlation with the intensity of use of the IRB approach, i.e. the greater the saving, the greater the weight of use of the IRB approach in the total portfolio for calculating capital requirements.

3) For the analyses carried out, either by measuring saving in terms of RWAs or by using a synthetic indicator which reflects the ex-post materialisation of the ex-ante incentives for banks to use the IRB approach rather than the SA, it can be seen that the gap between the RWA density (RWAs divided by absolute exposure) in portfolios under the IRB approach and those under the SA may suggest two conclusions of importance to regulatory policy:

   (i) The RWA density in IRB portfolios is relatively low in comparison with the SA and its use represents a saving opportunity in terms of RWAs (and thus in capital consumption) for banks using this approach. This opportunity seems to be being widely used by banks.

   (ii) The RWA density in SA portfolios, perhaps because of the simplicity of this approach, may include significant simplifications in the measurement of the risk of certain exposures and portfolios. The IRB approach would allow greater accuracy in measurement of RWAs, although generally the direction of that accuracy is usually downward.

   These two opposing conclusions imply, in any event, that the current RWA calculation system, based on the dichotomy between the standardised approach and the IRB approach, generates significant differences in capital requirements proportional to risk and probably encourages regulatory arbitrage through the use of one approach rather than the other.

4) In general, the credit portfolio of Spanish banks is characterised by a relatively high weight of retail exposures relative to other types (40.9% in Spain compared with 31.2% in the total sample), less use of the IRB approach (42% of the total credit exposure in Spain subject to the IRB approach compared with 62% for the total sample), a reduction, or highly significant saving, in RWAs due to use of the IRB approach rather than the SA, albeit smaller than in other countries (relative reduction of RWA density of 16% and 43% in the

total portfolio and in the private sector portfolio in Spain, as against 23% and 52%, respectively, in the total sample).

5) Among the countries analysed, France, the Netherlands and the United Kingdom stand out for their significant saving in regulatory capital owing to use of the IRB approach, and for the high intensity of their effective use of this approach in the total credit portfolio and in the private sector credit portfolio.

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