# FINANCIAL STABILITY REPORT

11/2012





# FINANCIAL STABILITY REPORT NOVEMBER 2012

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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

CBE Banco de España Circular

CBSO Banco de España Central Balance Sheet Data Office

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

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 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

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

MiFID Markets in Financial Instruments Directive

MMFs Money market funds

NPISHs Non-profit institutions serving households

OMT Outright Monetary Transactions

OTC Over the counter

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

PD Probability of default PER Price earnings ratio Percentage points pp 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

TA Total assets

TARP Troubled Asset Relief Program

VaR Value at risk

WTO World Trade Organisation

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### INTRODUCTION

The situation on the financial markets continues to be affected by the unfolding sovereign debt crisis, and by the weak economic growth outlook in the short term. From May to end-July 2012, financial tensions in the euro area heightened, affecting Spain and Italy with particular intensity. These developments resulted in a worsening of public- and private-sector financing conditions. The rising tensions were prompted by several factors, including most notably the political uncertainty in Greece. Meantime, for Spain, the adverse international setting was compounded by the negative course of the real economy, the situation of public finances and doubts over the quality of bank balance sheets.

Since late July, the tensions on European financial markets have eased somewhat. Fundamentally contributing to this was the statement by President Draghi on 26 July that the ECB was prepared to do whatever was necessary to safeguard the euro, and the subsequent announcement on 2 August by the ECB Governing Council to adopt a programme for unlimited purchases of public debt on the secondary markets, the main details of which were communicated following its September meeting. These operations will be subject to strict and effective conditionality established under a full macroeconomic adjustment programme or under a precautionary programme of the European Financial Stability Facility or of the European Stability Mechanism, provided they include the possibility of these institutions making purchases on the primary market. From a more structural perspective, headway is being made towards the creation of a single banking supervisor in the euro area, in connection with which the European Commission unveiled a legislative proposal on 12 September. Despite this improvement in financial conditions, full normality has not been restored to the market situation (as illustrated, for example, by the fact that the Spanish economy's risk premium, despite falling, remains high), and uncertainty is still high.

In Spain, the focus of the economic policy measures pursued in recent months has been on the budgetary area. First, the Organic Law on Budgetary Stability and Financial Sustainability was approved in late April 2012, intending to strengthen the budgetary discipline framework by setting structural balanced-budget targets for all tiers of government, ceilings on public debt, transparency requirements and mechanisms for the correction of slippage, which include penalties or, indeed, government intervention in certain circumstances. Further, a fresh package of adjustment measures was approved in July. Their aim was to comply with the commitments entered into at the European level, including most notably a significant rise in indirect taxation and a reduction in public-sector wages. Late September saw the unveiling of the draft State budget for 2013; this includes new consolidation measures, and a structural reforms programme incorporating an explicit schedule of measures for the coming months in the budgetary realm and in the products and services markets, geared to liberalising certain sectors and to promoting competitiveness.

Turning to banking, in order to strengthen confidence about the valuation of assets related to the real estate development sector, which is undergoing a strong adjustment, Royal Decree-Laws (RDLs) 2/2012 and 18/2012 were approved, which most notably raise provisioning requirements for bank exposures to this sector.

Last May the Government decided to conduct a top-down stress test of the Spanish banking system. The aim was to have an independent evaluation of the resilience of the sector as a whole to a very adverse and thus less likely future macroeconomic scenario. Once the top-down exercise was concluded, and as a natural extension to it, a bank-by-bank bottom-up stress test was performed so as to have a likewise independent and external evaluation of the capital requirements of each bank under the aforementioned adverse scenario.

In parallel with the bank-by-bank stress test, the Government requested external financial assistance in the context of the recapitalisation and restructuring of the Spanish banking sector. This financial assistance, laid down in a Memorandum of Understanding (MoU) between the Spanish and European authorities, took the specific form of an amount of up to €100 billion, aimed at reinforcing the solvency of banks with a capital shortfall.

The results of the stress tests performed on Spain's fourteen biggest banking groups accounting for around 90% of the system's assets show that, under the adverse scenario, seven banks do not have additional capital needs. For the other half (accounting for 38% of the credit portfolio), additional capital needs of €59.3 billion have been identified, without considering either the integration processes under way or the tax effects.

The banking sector has thus been pursuing its business in a setting marked by the tensions on international financial markets, the weakness of the real economy and its own restructuring and recapitalisation process. In these circumstances, credit to the resident private sector continued to fall in the first half of the year. Adding to banks' greater difficulties in obtaining funds on wholesale markets is the lower credit quality of borrowers, which hampers their access to credit, and also lower demand by households and firms for funds, as a result of the economy's cyclical position. In any event, the downtrend in credit is consistent with a necessary process of deleveraging of the Spanish economy, following years of continuous expansion in which excessive debt built up. That should not, however, lead to any check on credit to the sectors that are most dynamic and which most boost economic activity, such as the export sector and new business start-ups.

Running concurrently with the ongoing contraction in private debt is a notable increase in public-sector liabilities, chiefly as a result of the build-up of budget deficits. A tempered increase in these liabilities in the short term and their reduction over the medium and long term will be key to restoring the confidence of the financial markets. And such confidence is a necessary condition for the full normalisation of the financing conditions to which the resident private sectors will be subject.

The increase in doubtful assets has persisted, especially those related to the construction and real estate development sector. Here, the increase and levels have been significantly higher than in the other credit segments. Among the latter, lending to households for house purchases continues to show a low doubtful assets ratio. This is due to various factors, including most notably: the traditional business model pursued by banks; the regulations in force in Spain, which makes borrowers liable for all their assets in the event of the risk of default; socio-economic factors, such as family support to the debtors; and, in particular, the low interest rates prevailing for loans currently outstanding, as these were entered into with lower spreads than those applied to new loans.

Banks continue to have difficulty gaining access to wholesale funding markets, which are affected by the tension arising from the sovereign debt crisis. But banks have continued to take advantage of the windows of opportunity that have opened, as was the case in

September. In any event, wholesale market access dysfunctions have translated into an increase in the recourse to Eurosystem financing, which, following the peaks reached in the summer, has fallen slightly over the recent period.

Retail deposits have continued to fall, at a moderate rate, in 2012 to date, furthering a pattern dating back to mid-2011. This behaviour is in response both to the lesser capacity of households and firms to accumulate financial assets, in a setting of weak income growth and of deleveraging, and to something of a shift in these agents' portfolios from deposits to other assets and, in particular, to bank securities issued by banks themselves (commercial paper). In this latter instance, this does not entail a loss of retail funds for banks, since they are replacing certain instruments with others under their liabilities. Bearing in mind this effect, the gap between credit and retail liabilities vis-à-vis the non-financial private sector has narrowed over recent months at a similar pace to that observed on average since early 2010.

There has been strong downward pressure on the profitability of deposit institutions, entailing losses at the aggregate level. The increase in the net interest margin has not sufficed to offset higher asset impairment losses. The strong growth of these corrections in value is due, on one hand, to the weakness of the economic situation, but also, and notably, to the bringing forward of the write-offs required under RDLs 2/2012 and 18/2012.

In any event, the Spanish banking sector is currently undergoing a reform comprising the recapitalisation and restructuring of the most vulnerable banks, and the adjustment of its aggregate capacity. The publication of the bank-by-bank stress test results on 28 September show that the core of the sector is sufficiently capitalised and that the additional capital needs under the adverse scenario are substantially lower than the maximum volume of the financing facility agreed with the European authorities. The banks requiring public aid will undergo restructuring forthwith to ensure the appropriate use of public funds and the proper functioning of the market for banking services.

This progress in the banking arena, which should shore up the solvency and profitability of the sector as a whole, will foreseeably contribute to strengthening financial market confidence. Such confidence is needed to restore normality to financing conditions for the different economic sectors. In this connection, it is also key to persevere with economic policies, including structural reforms and budgetary measures, geared to attaining this objective.

### 1 MACROECONOMIC RISKS AND FINANCIAL MARKETS

International financial markets continued to be affected mainly by sovereign debt crisis developments in the euro area Since the publication of the previous *Financial Stability Report*, international financial markets have continued to be influenced by the unfolding of the euro area sovereign debt crisis. During this period other risks considered less imminent also gained in prominence, such as the fiscal situation in the United States and in Japan or the greater vulnerability of certain emerging countries to a lower-than-expected rate of activity.

The tensions on European financial markets heightened from May to July, affecting Spain and Italy with particular intensity

From May to late July, financial tensions in the euro area heightened. This affected Spain and Italy with particular intensity and made for a tightening of financing conditions both for the public and private sectors in these countries. The yield spread on 10-year Spanish public debt over the 10-year German Bund exceeded 630 bp in late July, the highest recorded value since the inception of the euro area (see Chart 1.1), while stock market indices fell. These developments were accompanied by downgrades to public and private debt in Spain (and, in particular, to that of credit institutions). This climate prompted a fresh increase in the demand for safe-haven assets, such as the public debt of the economies with top credit ratings, which is reflected in declines in yields. Various factors contributed to the worsening of the tensions, including most notably the political uncertainty in Greece and, in relation to Spain, investor concern over public finances and the situation of the financial system. Against this background, the Spanish government requested financial assistance from the European institutions in June in order to recapitalise its weakest banks. Following this request, the Eurogroup agreed to grant funds for an amount of up to €100 billion. In parallel, there was a decline in policy interest rates in the euro area during this period, with the rate on the main refinancing operations falling by 25 bp in July to 0.75%.

Since the end of July tensions have eased somewhat, and the resident sectors' access to wholesale funding has improved. Contributing particularly to this was the ECB's announcement of its Outright Monetary Transactions (OMTs) programme

The tensions on euro area financial markets have abated somewhat since late July. The sovereign debt spreads of the countries subject to the greatest financial tensions narrowed from their peaks in July, standing in the case of the Spanish 10-year bond at around 415 bp as at the cut-off date of this report. In parallel, the main international stock market indices posted gains, more markedly so in the case of the Spanish market, and the euro appreciated to some extent. Private-sector access to wholesale funding also improved, as reflected in the volume of issues launched in September both by Spanish credit institutions and nonfinancial corporations. The decision adopted by the ECB in September, further to its August Governing Council meeting relating to the adoption of a secondary market sovereign bond purchase programme [Outright Monetary Transactions (OMTs)], has played a significant role when it comes to explaining this improvement. The purchases, which will be subject to strict and effective conditionality established under a European Financial Stability Facility/European Stability Mechanism programme, may encompass public debt securities with a residual maturity of up to three years. Measures by non-euro area central banks, via new non-conventional measures, in response to the slowdown in activity in their respective economies, have also contributed to stabilising international financial markets.

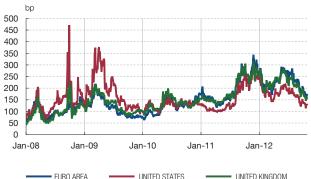
Economic activity in the emerging economies continued to gradually slow...

During this period there was a progressive slowdown in activity in the emerging economies, and in some cases - most notably in Brazil and China - it was sharper than expected. These developments were in response to the lesser contribution of external demand and, in some cases, to the weakening in domestic demand. The worsening of the euro area crisis influenced the emerging economies through the trade channel and was more marked

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

#### B. FINANCIAL SECTOR CREDIT RISK INDEX (a)





### C. TEN-YEAR GOVERNMENT BOND YIELDS

#### D. STOCK EXCHANGE INDICES





SOURCE: 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: 26 October 2012.

in the emerging European economies and in China. Generally, inflation tended to ease, although the increase in energy and in some food prices in Q3 prompted something of a rebound. Against this background, some central banks continued with the cycle of interest rate cuts, although such conduct was far from generalised.

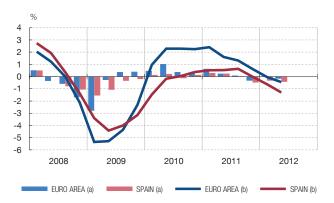
... and in the developed economies, activity slowed once more

In the developed economies, following a rebound in activity in 2012 Q1, an across-the-board slowdown was seen in Q2 and in Q3. Outside the euro area, the loss of dynamism was more acute in certain economies such as Japan, the United Kingdom and the United States, where the labour market showed fresh signs of weakness; however, a slight improvement was recorded in the United States in Q3. In this setting, and with inflation rates tending to ease, there was a further expansionary turn in the monetary policies of these countries using non-conventional measures.

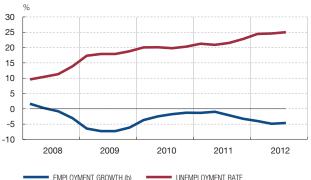
In the euro area, GDP fell slightly in 2012 Q2, and shortand medium-term growth prospects were revised downwards After stagnating in the first three months of 2012, euro area GDP fell by 0.2% in quarter-on-quarter terms in Q2, translating into a year-on-year decline of 0.5% (see Chart 1.2.A). Short- and medium-term growth prospects have also worsened somewhat, as reflected in the Eurosystem's September projection exercise results, which point to a change in GDP of between -0.6% and -0.2% in 2012, and of between -0.4% and 1.4% in 2013, rates that are below those in the June exercise.

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.

In Spain the decline in GDP in Q2 was slightly higher than that in Q1, and job destruction intensified

There was a quarter-on-quarter decline of 0.4% in Spanish GDP in Q2, compared with the 0.3% fall in the previous quarter, and the year-on-year rate was -1.3% against -0.6% in March (see Chart 1.2.A). This fall was accompanied by a step-up in the pace of job destruction which, on EPA (Labour Force Survey) figures, rose to a year-on-year rate of 4.8% in this same period, and the unemployment rate climbed to 24.6% (see Chart 1.2.B). In Q3, output has continued falling at a significant pace while employment has continued to shrink, with the unemployment rate reaching 25%.

The non-financial private sector remains subject to substantial financial pressure, and it has continued reducing its high debt...

Household and corporate debt has continued to fall and, despite the contraction in household income and the moderate increase in corporate income reflected in the National Accounts, this has allowed the ongoing deleveraging in both sectors to continue. Households and firms remain, however, subject to a high degree of financial pressure, as reflected in the high doubtful assets ratio. In the case of households, the difficulties arising from the high unemployment rate have been exacerbated by the decline in their net wealth, itself the result essentially of the fall in real estate prices, which has stepped up in recent months. The information available on business profits in the first half of 2012, based on the quarterly sample of corporations reporting to the Central Balance Sheet Data Office, shows a considerable contraction in these corporations' profits and profitability ratios in this period.

... while the general government debt and debt burden continue to grow in terms of GDP Net general government borrowing remains at high levels; accordingly, the growth rate of the sector's debt remains high (14.8% in annual terms, in August), far outpacing GDP growth, which has led to further increases in the debt ratio (76% of GDP in Q2) and in the associated debt burden (2.8% of GDP). In light of the official budget deficit forecasts for 2012 (7.3% of GDP) and 2013 (4.5% of GDP), the foreseeable weak economic growth and the potential impact of the aid to the financial sector, the public debt ratio might stand at over 90% of GDP at the close of 2013.

Despite the easing of financial tensions, uncertainty remains high and the risks linked to the sluggishness of economic growth persist

In sum, although the measures recently adopted by the European Central Bank and, specifically, the announcement of the Outright Monetary Transactions programme, have helped lessen tensions on euro area financial markets and contain liquidity risks, a high degree of uncertainty persists. Moreover, the risks linked to economic weakness remain in place.

### 2 DEPOSIT INSTITUTIONS

### 2.1 Banking risks

Since last May there has been a deterioration in the macro-financial conditions in Spain, where the tensions deriving from the sovereign debt crisis remain present. The Spanish banking sector has been subject to these general uncertainties, while doubts have persisted over the quality of their balance sheets.

Since May Spain's macro-financial conditions have worsened, with doubts persisting over the banking sector

In June, and in parallel with the second phase of estimation of capital needs (the bottom-up exercise), the Government submitted a formal request for financial assistance to the Eurogroup within the context of the recapitalisation and restructuring of the banking sector, leading to the extension of a credit line of up to €100 billion and the signing of a Memorandum of Understanding (MoU). The MoU lays down specific conditions for institutions that need public aid, and others to improve the sector's supervision and regulation. Chapter 3 of this FSR analyses in detail the progress made in complying with the MoU and the next steps to take.

The announcement of the OMT programme by the ECB helped to relieve the countries under most pressure, although tensions persist on the financial markets

The tensions afflicting the euro area, most intensely so Spain and Italy, also led to actions by the European authorities that have contributed to their alleviation since the end of July. The ECB agreed the OMT, an unlimited programme of secondary-market government debt purchases (see Box 2.1). From a more structural perspective, progress has been made towards the creation of a single euro area banking supervisor by means of a proposal for legislation of the European Commission of 12 September. Despite these positive developments, tensions persist in the euro area, and the wholesale funding markets are dysfunctional, reflecting the macro-financial risks mentioned above.

The consolidated balance sheet of Spanish deposit institutions, which includes both activity in Spain and that carried out through their subsidiaries abroad, grew in June 2012 at a year-on-year rate of 5.2% (see Table 2.1).

Financing to the private sector has contracted

This increase in the overall balance sheet has been consistent with an ongoing contraction in financing (credit and fixed income) to the private sector, which fell in June 2012 by 0.3%, relative to the same month of the previous year (see the memorandum item in Table 2.1). This contraction has been concentrated in business in Spain, in line, as analysed in greater detail below, with the weakness of economic activity.

Financing to general government grew in business in Spain Financing to general government has been moving in the other direction, posting a year-on-year increase of 16.1% (see the memorandum item in Table 2.1), which took its weight in the consolidated balance sheet to 11.7% in June 2012 (10.6% in June 2011). The growth of financing to general government was entirely concentrated in business in Spain, since the year-on-year rate of change of this variable in foreign business was negative in June 2012.

Doubtful assets continued to rise, leading to a higher doubtful assets ratio The deterioration in credit quality is apparent in the increase in doubtful assets which, at the consolidated balance sheet level (business in Spain and foreign business), increased by 34.5% in June 2012, relative to June 2011. This, along with the contraction in credit, led to a further rise in the doubtful assets ratio of consolidated balance sheets, to 6% in June 2012 (up from 4.6% in June 2011, see memorandum item in Table 2.1). This upward trend in the doubtful assets ratio is concentrated in business in Spain, a phenomenon that is analysed in greater detail below.

ASSETS	Jun-12	Change Jun-12/ Jun-11	Relative weight Jun-11	Relative weight Jun-12
	(€m)	(%)	(%)	(%)
Cash and balances with central banks	146,123	7.3	3.6	3.6
Loans and advances to credit institutions	228,032	10.1	5.4	5.7
General government	124,915	24.9	2.6	3.1
Other private sectors	2,359,810	-0.1	61.8	58.8
Debt securities	540,564	6.6	13.3	13.5
Other equity instruments	37,608	-34.4	1.5	0.9
Investments	56,262	8.1	1.4	1.4
Derivatives	266,569	71.0	4.1	6.6
Tangible assets	50,518	-5.8	1.4	1.3
Other (a)	205,954	9.6	4.9	5.1
TOTAL ASSETS	4,016,355	5.2	100	100
MEMORANDUM ITEMS:				
Financing to private sector	2,470,576	-0.3	64.9	61.5
Financing to general government	471,832	16.1	10.6	11.7
Total doubtful assets	194,292	34.5	3.8	4.8
Total doubtful assets ratio	6.0	140 (c)		
Provisions for bad debts and country risk	-118,900	40.9	-2.2	-3.0
LIABILITIES AND EQUITY	Jun-12	Change Jun-12/ Jun-11	Relative weight Jun-11	Relative weight Jun-12
LIABILITIES AND EQUITY	Jun-12 	Jun-12/	0	0
LIABILITIES AND EQUITY  Balances of central banks		Jun-12/ Jun-11	Jun-11	Jun-12
	(€m)	Jun-12/ Jun-11 (%)	Jun-11 (%)	Jun-12 (%)
Balances of central banks	(€m) 411,602	Jun-12/ Jun-11 (%) 370.2	Jun-11 (%) 2.3	(%) 10.2
Balances of central banks Deposits of credit institutions	(€m) 411,602 465,890	Jun-12/ Jun-11 (%) 370.2 -9.2	Jun-11 (%) 2.3 13.4	Jun-12 (%) 10.2 11.6
Balances of central banks  Deposits of credit institutions  General government	(€m) 411,602 465,890 95,494	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6	Jun-11  (%)  2.3  13.4  2.6	Jun-12 (%) 10.2 11.6 2.4
Balances of central banks  Deposits of credit institutions  General government  Other private sectors	(€m) 411,602 465,890 95,494 1,746,968	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0	Jun-11  (%) 2.3  13.4 2.6 47.6	Jun-12 (%) 10.2 11.6 2.4 43.5
Balances of central banks Deposits of credit institutions General government Other private sectors Marketable debt securities	(€m) 411,602 465,890 95,494 1,746,968 507,413	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8	Jun-11  (%) 2.3  13.4  2.6  47.6  14.4	Jun-12 (%) 10.2 11.6 2.4 43.5 12.6
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8	Jun-12 (%) 10.2 11.6 2.4 43.5 12.6 6.0
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0	Jun-11  (%)  2.3  13.4  2.6  47.6  14.4  3.8  2.5	Jun-12 (%) 10.2 11.6 2.4 43.5 12.6 6.0 1.8
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8 2.5 0.9	Jun-12  (%)  10.2  11.6  2.4  43.5  12.6  6.0  1.8  0.8
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other  Other (a)	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192 223,565	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3 -10.1	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8 2.5 0.9 6.5	Jun-12  (%)  10.2  11.6  2.4  43.5  12.6  6.0  1.8  0.8  5.6
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other  Other (a)  TOTAL LIABILITIES	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192 223,565	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3 -10.1	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8 2.5 0.9 6.5	Jun-12  (%)  10.2  11.6  2.4  43.5  12.6  6.0  1.8  0.8  5.6
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other  Other (a)  TOTAL LIABILITIES  MEMORANDUM ITEMS	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192 223,565 3,799,601	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3 -10.1	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8 2.5 0.9 6.5 94.1	Jun-12  (%)  10.2  11.6  2.4  43.5  12.6  6.0  1.8  0.8  5.6  94.6
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other  Other (a)  TOTAL LIABILITIES  MEMORANDUM ITEMS  Eurosystem net lending (b)	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192 223,565 3,799,601	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3 -10.1 5.7	Jun-11  (%)  2.3  13.4  2.6  47.6  14.4  3.8  2.5  0.9  6.5  94.1	Jun-12  (%)  10.2  11.6  2.4  43.5  12.6  6.0  1.8  0.8  5.6  94.6
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other  Other (a)  TOTAL LIABILITIES  MEMORANDUM ITEMS  Eurosystem net lending (b)  Minority interests	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192 223,565 3,799,601  378,176 23,621	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3 -10.1 5.7	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8 2.5 0.9 6.5 94.1	Jun-12  (%)  10.2  11.6  2.4  43.5  12.6  6.0  1.8  0.8  5.6  94.6
Balances of central banks  Deposits of credit institutions  General government  Other private sectors  Marketable debt securities  Derivatives  Subordinated debt  Provisions for pensions, tax and other  Other (a)  TOTAL LIABILITIES  MEMORANDUM ITEMS  Eurosystem net lending (b)  Minority interests  Valuation adjustments relating to total equity	(€m) 411,602 465,890 95,494 1,746,968 507,413 242,588 72,889 33,192 223,565 3,799,601  378,176 23,621 -17,445	Jun-12/ Jun-11 (%) 370.2 -9.2 -2.6 -4.0 -7.8 66.8 -25.0 -3.3 -10.1 5.7	Jun-11  (%) 2.3 13.4 2.6 47.6 14.4 3.8 2.5 0.9 6.5 94.1	(%) 10.2 11.6 2.4 43.5 12.6 6.0 1.8 0.8 5.6 94.6

SOURCE: Banco de España.

As in previous quarters, a notable increase is observed in derivatives, on both sides of the balance sheet, so that the net position is small. This trend is largely explained by the behaviour of interest rates and is related to hedging. Equity instruments, in line with the current financial market context, decreased by 34.4% in June 2012 (see Table 2.1), a reduction that was broadly based across institutions.

a The remaining assets and liabilities entries not explicitly considered, including valuation adjustments, are included in "Other".

b Difference between funds received in liquidity providing operations and funds delivered in absorbing operations. September 2012 data.

c Difference calculated in bp.

Balances of central banks increased significantly, reflecting Eurosystem operations, while deposits of credit institutions, marketable debt securities and subordinated debt decreased

On the liabilities side (see Table 2.1), balances from central banks grew sharply (up 370.2% from June 2011). This notable increase reflected operations with the Eurosystem, which has provided long-term liquidity in response to the tensions on euro area financial markets, and in particular in response to the dysfunctions observed in the money market. The decreases in financing observed in the items deposits from credit institutions (-9.2%), marketable debt securities (-7.8%) and subordinated debt (-25%) reflected these tensions on wholesale funding markets, which have been particularly intense in recent months for the institutions of those countries subject to the greatest market pressure in the context of the sovereign debt crisis, one of which was Spain. The heavier borrowing from the Eurosystem by Spanish institutions is apparent in the growth of net lending relative to total assets, which in June 2012 reached 8.4%, as against 1.3% a year earlier. After a further increase in August 2012, when net lending reached 9.7% of total assets, a decline was recorded in September (the latest figure available), to 9.4% (see memorandum item in Table 2.1).

Private-sector deposits also declined, partly due to weak business conditions and partly due to a certain reallocation of liabilities-side customer portfolios (increase in fixedincome securities issued by banks)

Private-sector deposits, in the consolidated balance sheet, show a negative rate of change, of -4%, in June 2012 relative to the previous year. As analysed in detail elsewhere in this edition of the FSR, and in particular in Box 2.2, the deposits of households and nonfinancial corporations in Spain, which reflect the retail financing of credit institutions, have declined progressively over the last year. This decline has been largely due to the macroeconomic setting, but is also partly explained by a reallocation of agents' portfolios, from deposits towards, basically, securities issued by banks, which does not entail any decrease in retail funds for the institutions.

The total equity of deposit institutions fell at a year-on-year rate of 3.6% in June 2012. However, this figure is affected by the institutions whose capital is majority-held by the FROB. When these are excluded, the total equity of the sector increased by around 1.5% between June 2011 and June 2012.

There was a decline in credit to the resident private sector in Spain, which was broadly based across institutions

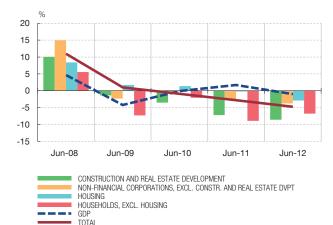
Credit to the resident private sector in business in Spain, according to financial statement data on a solo basis, continues to show signs of contraction. In June 2012, relative to the same period of the previous year, it fell by 4.7% (see Chart 2.1.A). The latest available data - a rate of change of -5.5% in August 2012 - show the persistence of this trend. This contraction in credit is broadly based across institutions, although differences in its intensity persist (see Chart 2.1.B).

This contraction in credit is seen both for individuals ... The contraction in credit to the resident private sector is also seen to be broadly based across the different borrowers and sectors. Credit to individuals declined by 3.5% in June 2012, as against a fall of 1.9% last year. The reduction in credit to individuals for purposes other than house purchase (-6.5% in June 2012) was greater than that in credit for housing (-2.9%), although the former has moderated over the last year, while the reduction in financing to individuals for house purchase has accelerated.

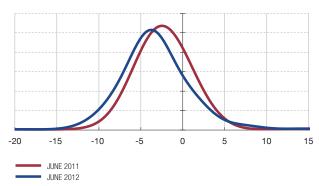
...and for non-financial corporations

In June 2012 credit to non-financial corporations fell more strongly than that to households (by 6.1%, as against 3.5%, respectively). This is basically attributable to the contraction in credit to construction and real-estate development firms (8.6%), which is hardly unexpected given the far-reaching adjustment taking place in the real estate sector in Spain. In other sectors, the fall in credit was less pronounced (3.8% in June 2012), although it has been progressively more marked since June 2011, and broadly based across the various sectors (see Chart 2.1.C). When distinguishing firms other than those engaged in construction and real-estate development by their size (as proxied by outstanding bank debt recorded in the CCR), a progressive decline is also apparent (see Chart 2.1.D).

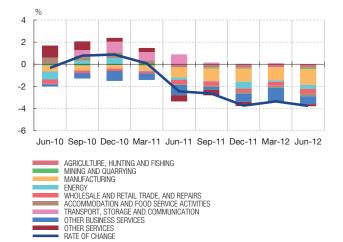
A. RATE OF CHANGE IN CREDIT TO THE RESIDENT PRIVATE SECTOR BY SECTOR OF ACTIVITY



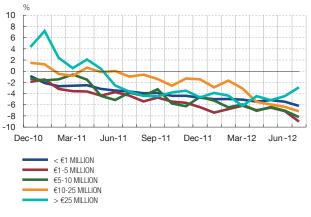
B. RATE OF CHANGE IN CREDIT TO THE RESIDENT PRIVATE SECTOR. DISPERSION ACROSS INSTITUTIONS



C. CONTRIBUTIONS TO THE RATE OF CHANGE IN CREDIT TO NON-FINANCIAL CORPORATIONS, EXCLUDING CONSTRUCTION AND REAL ESTATE DEVELOPMENT, OF DIFFERENT SECTORS OF ACTIVITY



D. RATE OF CHANGE IN CREDIT TO NON-FINANCIAL CORPORATIONS, EXCLUDING CONSTRUCTION AND REAL ESTATE DEVELOPMENT, BY SIZE OF CORPORATION (a)



SOURCE: Banco de España.

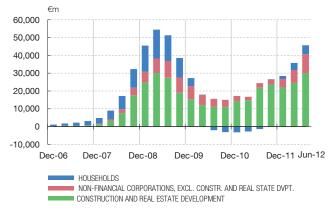
a Corporation size is proxied by the volume of bank debt reported to the Banco de España Central Credit Register.

The contraction in credit to the resident private sector is explained by several factors. The tensions still affecting wholesale markets make it difficult for institutions to fund customer lending. In addition, weak business conditions entail, on one hand, a reduction in the creditworthiness of firms and households, hampering their access to credit, and, on the other, a lower demand for funds, as a result of the economy's cyclical position. From a more structural perspective, the trend in credit is consistent with a necessary process of deleveraging in the Spanish economy, following years of constantly and sharply rising indebtedness.

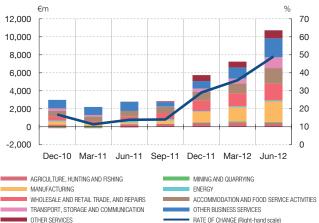
The increase in doubtful assets in Spain is explained primarily by that associated with the construction and real estate development sectors,...

The doubtful assets of the resident private sector in business in Spain, according to individual financial statement data, grew at a rate of 36.1% in June 2012, relative to the same period of the previous year. The rise in the rate of growth of doubtful assets is apparent from late 2010, and the latest data, for August 2012 (year-on-year growth of 41.1%) confirm that it is continuing. The increase in doubtful assets is largely explained by the increase in

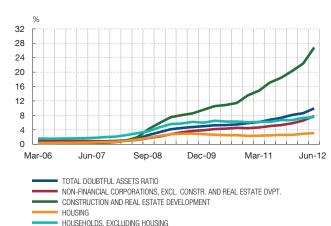




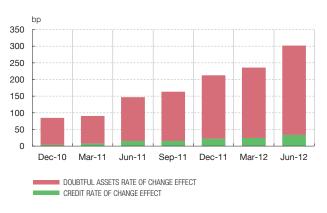
B. RATE OF CHANGE IN DOUBTFUL ASSETS OF NON-FINANCIAL CORPORATIONS, EXCLUDING CONSTRUCTION AND REAL ESTATE DEVELOPMENT



### C. DOUBTFUL ASSETS RATIO, BY SECTOR OF ACTIVITY



#### D. BREAKDOWN OF THE RATE OF CHANGE IN THE DOUBTFUL ASSETS RATIO



SOURCE: Banco de España.

...being more modest, although rising, for other sectors

The doubtful assets ratio continued to rise, owing to the increase in doubtful assets and, to a lesser extent, the contraction of credit

those associated with the construction and real estate development sector, which is undergoing a far reaching process of adjustment (see Chart 2.2.A). In the rest of the non-financial sectors the increase was more modest, although it stepped up as the year went by (see Chart 2.2.B), which is explained by the persistently weak economic situation.

The doubtful assets ratio for credit to the resident private sector in Spain continued to rise, to reach 9.9% in June 2012 (see Chart 2.2.C; 10.8% on the latest data, for August 2012). Most of this increase stems from the increase in the volume of doubtful assets, although a proportion, which rose as the year elapsed, is due to the decline in credit (the denominator of the ratio; see Chart 2.2.D).

The doubtful assets ratio for individuals stood at 3.8% in June 2012, having shown a tendency to rise over the previous twelve months (from 3.04% in June 2011). The weakness of economic activity, along with the labour market situation in Spain, explains this increase in the doubtful assets ratio, although it remains relatively low for credit to individuals for house purchase (3.1% in June 2012, as against 7.5% for credit to individuals for purposes other than house purchase).

The doubtful assets ratio for retail mortgage credit remains low, as a result of various factors As argued in previous editions of the FSR, a number of factors help to explain this level of the doubtful assets ratio for retail mortgage credit, among which the following are noteworthy. First, Spanish institutions did not develop an originate-to-distribute model nor did they market significant amounts of more risky products, such as buy-to-let mortgages and mortgages to finance consumer goods. Second, the interest rates borne by the existing portfolio are linked to variable reference rates and the agreed spreads are smaller than those that would be applied in new transactions. Third, from the viewpoint of the structure of the retail mortgage market, the percentage of principal residences in Spain is almost 90%. Fourth, socio-economic factors, such as family support to the debtors. And finally, the incentives to default are also low insofar as borrowers have unlimited liability for any amount that may still be owed to the institution after the security has been enforced.

The doubtful assets ratio for non-financial corporations was particularly influenced by the changes in the ratio for the construction and real estate development sectors

For credit to non-financial corporations, the doubtful assets ratio reached 16.8% in June 2012, strongly influenced by the high level of doubtful assets in the construction and real estate development sector (27% in June 2012). Excluding firms classified in this sector, the doubtful assets ratio of non-financial corporations stands at 7.8%, although it has been rising since June last year. The rise in the ratio, in line with the trend in doubtful assets referred to above, is broadly based across branches of activity other than construction and real estate development.

Given the macroeconomic projections, the doubtful assets ratio can be expected to continue to rise, although the confidence concerning asset valuation should be reinforced after the recent rigorous stress tests

In a macroeconomic setting like the present one, in which, according to the latest IMF and market consensus projections, the contraction can be expected to continue in 2013, the rise in the doubtful asset ratio may be expected to continue too, as a result of the persistence in the growth of doubtful assets and in the contraction of credit. The measures of recapitalisation and transfer to the Asset Management Company for Assets Arising from Bank Restructuring (Sareb) of the impaired assets identified by the stress tests, as well as those introduced by the Royal Decree-Laws 2/2012, 18/2012 and 24/2012, are intended to reinforce the confidence concerning the valuation of real-estate assets and to lessen uncertainty over the impact of a potential further deterioration in the loan portfolio of Spanish institutions.<sup>1</sup>

The sovereign debt crisis drove developments on funding markets

The wholesale funding of Spanish deposit institutions is still problematic, in a situation in which euro area financial market developments continue to be driven by the sovereign debt crisis. Following a certain relieving of tensions in the first few months of the year, which opened a window of opportunity in the primary markets, between May and June uncertainty intensified considerably and there was a notable tightening of financing conditions, the most affected countries being Spain and Italy.

Tensions have been partly alleviated by the measures agreed by the ECB, but they remain present on financial markets Since late July tensions have abated somewhat, especially after the ECB announced its plans for unlimited intervention in euro area secondary sovereign bond markets, subject to the conditions established for the country in connection with whose debt the ECB were to intervene (see Box 2.1). In these circumstances, in which financing conditions on wholesale primary markets have become relatively easier, the volume of issuance by European institutions, including Spanish ones, has increased. Thus, even though the number of Spanish banks that issued debt in recent months was limited, there has been a certain recovery in the volume of issuance, although it has remained lower than in the first few months of the year (see Chart 2.3.A). In any event, financial market tensions are persisting and this is being passed through to financing conditions.

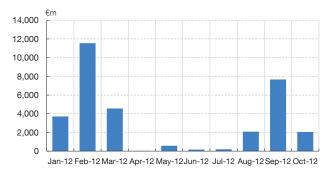
Money market activity continued to be weak...

The euro area money markets continued to be characterised by their weak activity. The ongoing lack of confidence due to the sovereign debt crisis meant that interbank market

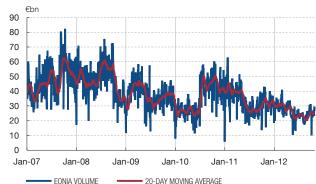
<sup>1</sup> Box 2.1 in the previous (April 2012) FSR analyses the key aspects of RDL 2/2012.

WHOLESALE FUNDING CHART 2.3

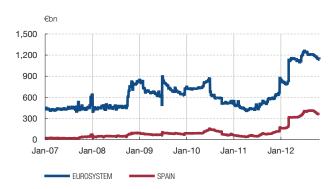
A. MAIN ISSUES OF SPANISH FINANCIAL INSTITUTIONS IN MEDIUM AND LONG-TERM WHOLESALE MARKETS (a) Latest data: 26 October 2012



B. EONIA TRADING VOLUME Latest data: 26 October 2012



C. OUTSTANDING AMOUNT PROVIDED THROUGH EUROSYSTEM TENDERS. Latest data: 26 October 2012



D. EUROSYSTEM GROSS LENDING TO SPAIN AS A PERCENTAGE OF TOTAL LENDING.
Latest data: September 2012



SOURCES: Bloomberg, Dealogic and Banco de España.

a Senior debt and covered bond issues are included. Retained issues are not included.

activity continued to be significantly lower than in previous years. The EONIA trading volumes show how, after a weak recovery in the closing months of 2011, trading resumed a downward path and, in summer 2012, reached very low levels even below those in the first half of 2010 (see Chart 2.3.B). Following the ECB's announcement of the aforementioned programme to intervene in the sovereign debt secondary markets, activity rallied, although remaining very weak. In the Spanish interbank market, both the unsecured segment and the repo segment recorded behaviour similar to that noted above for the EONIA.

...which prompted greater recourse to Eurosystem funds

The funding difficulties caused deposit institutions to turn increasingly to Eurosystem funds. From end-April to end-October 2012 (see Chart 2.3.C), institutions resident in Spain increased their gross funding from the Eurosystem by  $\leq$ 48,013 m (+15%), while the outstanding balance in the total Eurosystem fell by  $\leq$ 3,926 (-0.3%). Most of the recourse continued to be through main refinancing operations. The change for the whole of the period was affected somewhat because banks have generally reduced their funding from the central bank in recent months as a result of the additional measures taken by the ECB and the consequent improvement in the money markets.

The percentage of total Eurosystem lending received by Spanish institutions increased further in this period, although in September 2012 (latest data available) it was slightly lower than in August. Thus, the volume allotted in tenders to institutions resident in Spain relative to the total funds supplied by the Eurosystem averaged 33% in September 2012 (34% in August), while it had been 28% in April (see Chart 2.3.D).

In view of the persistence of the European sovereign debt crisis, the last few months have seen further measures by the Eurosystem to combat its negative effects. Besides cutting policy interest rates in July 2012, the Eurosystem has taken various decisions designed to remedy the poor functioning of the money market transmission mechanisms and to give European credit institutions readier access to funding.

First, in August the Governing Council of the European Central Bank (ECB) declared its intention to carry out intervention operations in the euro area sovereign debt secondary markets to attempt to correct the distortions in monetary policy transmission. The technical characteristics of these operations, known as outright monetary transactions (OMT), were announced in September. They are outright transactions which necessarily subject the country involved to strict and effective conditions set out in an appropriate programme of the European Financial Stability Facility/European Stability Mechanism (EFSF/ESM). It is envisaged that the IMF will participate in the design of those conditions and in programme monitoring. Based on market behaviour and on its monetary policy mandate, the ECB Governing Council will decide discretionally on the commencement, continuation and suspension of OMTs, for which no ex ante quantitative limits have been set. The operations focus on the short end of the yield curve and, in respect of bonds purchased under OMTs, the Eurosystem will have the same credit status as private creditors. Additionally, as under the securities market programme (SMP), the cumulative balance resulting from OMTs will be published weekly and the liquidity generated will be fully sterilised. These operations mark the end of the previous securities market programme (SMP), although its outstanding balances will continue to be sterilised.

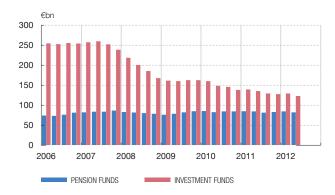
Second, the ECB Governing Council has also adopted various measures to preserve the availability of collateral. Specifically, in June it decided to reduce the credit rating threshold and change the admission criteria for certain asset-backed securities, thus widening the scope of the measures adopted earlier in this connection in December 2011. For the same purpose, in September it was decided to suspend application of the minimum credit rating threshold on collateral used in Eurosystem credit operations involving marketable debt instruments issued or guaranteed by central government, as well as for loans granted to or guaranteed by the central government of countries that are eligible for OMTs or included in a European Union and IMF programme and meet the associated conditions. It was also decided to accept as collateral for Eurosystem credit operations, with the related haircuts, marketable debt instruments denominated in currencies other than the euro (specifically, US dollars, pounds sterling or Japanese yen) but issued and held in the euro area. Measures of this type were first used temporarily between October 2008 and December 2010.

The retail deposits received by Spanish institutions have shrunk partly due to the economic conjuncture, but also due to a reallocation of liabilities-side customer portfolios which entails no loss of retail funds for institutions The retail deposits received by Spanish deposit institutions (deposits from households and non-financial corporations) contracted by 5.2% year-on-year in June 2012, and this trend persisted in the August data (–5.9%), which are the latest available. This development is explained by two factors: first, agents are less able to accumulate financial assets in a setting of deleverage and declining income, and, second, households and non-financial corporations have somewhat rebalanced their portfolio, reducing their holdings of deposits and increasing those of bank debt securities issued by institutions themselves. This rebalancing of the bank customer portfolio entails no loss of retail funds for institutions (see Box 2.2).

### INVESTMENT AND PENSION FUNDS

CHART 2.4





B. CONTRIBUTION TO CHANGE IN NET ASSET VALUE OF RETURNS AND OF NET SUBSCRIPTIONS



SOURCE: INVERCO.

The downward pressure on investment and pension fund assets continues

In any event, strong competition persists among banks to attract retail saving. This competition affects other institutions as well, such as investment and pension funds, which, moreover, operate in difficult financial market conditions. Hence, despite a slight rise in the net assets of both investment funds and pension funds in the first quarter of the year, the downward trend characterising their activity since the onset of the crisis persisted in the second quarter. The lack of confidence, the tension and the uncertainty weighing on the financial markets were behind this negative performance (see Chart 2.4.A). Net subscriptions of investment funds continued to be negative in all months of 2012 (continuing a trend dating from 2011 Q2). Meanwhile, investment fund yields reversed their adverse performance in 2012 and from June there were three consecutive months of positive yields (see Chart 2.4.B).

### 2.2 Profitability

The consolidated net income of deposit institutions was negative...

Deposit institutions recorded a consolidated loss attributable to the controlling entity of  $\[ \in \]$ 3,124 million (m) between January and June 2012 (see Table 2.2). This contrasts with the positive result in the same period a year earlier ( $\[ \in \]$ 7,836 m). This loss put the return on assets (ROA) at -0.17%, compared with 0.44% in June 2011. The return on equity (ROE) declined from 7.4% in June 2011 to -3% a year later.

The loss before tax of deposit institutions as a whole was  $\in$ 7,872 m. There are 28 consolidated groups with a loss totalling  $\in$ 13,857 m. This generated a tax effect which offset those generated by the 84 institutions with profits, so the net income after tax is higher than that before tax by  $\in$ 3,133 m.

# CONSOLIDATED INCOME STATEMENT Deposit institutions. January-June 2012

TABLE 2.2

	Jun-12		Jun-11	Jun-12
	€m	% Change Jun-12/Jun-11	% ATA	% ATA
Financial revenue	70,342	7.2	3.65	3.80
Financial costs	35,619	3.4	1.91	1.93
Net interest income	34,723	11.4	1.73	1.88
Return on capital instruments	1,138	-20.7	0.08	0.06
Share of profit or loss of entities accounted for using the equity method	1,468	-38.4	0.13	0.08
Net commissions	11,973	0.6	0.66	0.65
Gains and losses on financial assets and liabilities	4,476	10.0	0.23	0.24
Other operating income (net)	-1,553		-0.02	-0.08
Gross income	52,226	3.3	2.81	2.82
Operating expenses	25,023	0.2	1.39	1.35
Net operating income	27,203	6.4	1.42	1.47
Asset impairment losses (specific and general provisions)	29,188	139.2	0.68	1.58
Provisioning expense (net)	2,896	28.9	0.12	0.16
Operating profit	-4,881		0.62	-0.26
Asset impairment losses (assets other than loans and credits)	4,347	70.6	0.14	0.24
Income from disposals (net)	1,356	-20.2	0.09	0.07
Profit before tax	-7,872		0.57	-0.43
Net income	-4,739		0.49	-0.26
MEMORANDUM ITEM				
Income attributable to the controlling entity	-3,124		0.44	-0.17

SOURCE: Banco de España.

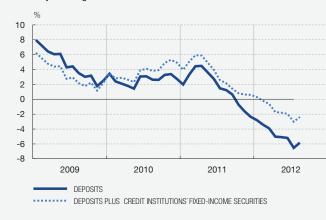
The deposits of resident households and non-financial corporations with Spanish banks showed an upward trend until June 2011. Since then they have shrunk progressively, their year-on-year rate of change being -5.9% in August 2012 (see Chart A). The behaviour of deposits of this type is important for banks because these funds are of a retail nature and are hence more stable vis-à-vis changes in financial markets and in the perception of risk by investors. Notably, of all bank deposits, these are the clearest example of stable retail funding. It is therefore important to analyse the factors behind their recent behaviour.

The changes in this item in recent months are explained, first, by the changes in financial asset purchases by households and firms, and, second, by shifts between deposits and other instruments.

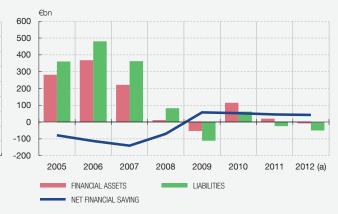
Chart B shows how, in the latest expansionary phase of the Spanish economy, the volume of financial assets purchased by Spanish households and non-financial corporations was very high. This was so even though the net financial saving of those sectors (i.e. the difference between their income and their expenditure) was negative. Hence that rise in assets was only possible because the sector's total liabilities (basically bank loans) rose by an even greater amount. After the global financial and economic crisis broke out in 2007-2008, credit conditions tightened notably for fresh funds and the demand for funds dropped. Thus net borrowing tended to fall and turned negative. Against this background, despite the sector's net financial saving becoming positive, the purchase of financial assets also contracted notably. The lower capacity to accumulate financial assets was also a result of weak income growth against a backdrop of job destruction and economic recession.

1 For a detailed analysis of deposits in general, and of those by sectors other than households and non-financial corporations in particular, see the article entitled "Analysis of recent changes in bank deposits in Spain" in the September 2012 Economic Bulletin of the Banco de España.

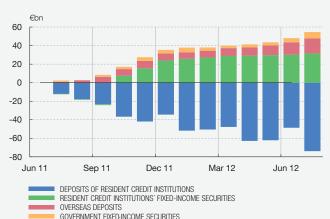
#### A. HOUSEHOLDS AND FIRMS. Year-on-vear change



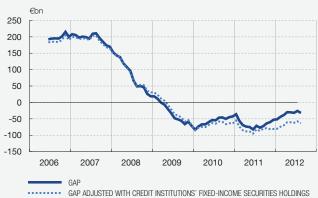
# B. NET FLOWS OF FINANCIAL ASSETS AND LIABILITIES. HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS



### C. ASSETS OF HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS



D. HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS: CREDIT-DEPOSITS GAP (Twelve-month cumulated flows) (b)



SOURCE: Banco de España.

- a Four-quarter cumulated data until 2012 Q2.
- b A positive value in this series shows that the credit-deposits gap is widening, while a negative value shows that the gap is narrowing.

Moreover, to that factor must be added a certain recent portfolio rebalancing by households and firms towards other financial assets and away from bank deposits (see Chart C). Thus these agents purchased a significant volume of bank securities (€32 bn between September 2011 and July 2012). Additionally, deposits abroad increased moderately in the past 12 months according to balance of payments data, as did holdings of State government debt securities, although only residually in the latter case.

The rapid increase in holdings of bank-issued debt largely reflected a change in the marketing of securities (mainly commercial paper) amongst bank customers, which is explained by the regulatory changes introduced in 2011. In June last year, and in order to adjust the contributions required for the risks assumed, Royal Decree 771/2011 increased fivefold the compulsory contributions that deposit-taking institutions had to make to deposit guarantee funds for all deposits earning interest at rates exceeding the reference rates set above certain thresholds. Additionally, in December 2011, Royal Decree-Law 19/2011 raised the general contribution to the new credit institution deposit guarantee fund to 2 per mille of the base used for the calculation. Both measures reduced the relative attractiveness of deposits for banks compared

with other instruments, such as securities, not subject to such contributions, which explains the interest of banks in promoting some interchangeability between them. This effect has presumably been weakened by the removal in August this year (Royal Decree-Law 24/2012) of the penalties on high-interest deposits, so the shift from deposits to notes will foreseeably reverse somewhat in the coming months.

Given that the aforementioned policy of banks does not entail a loss of customer funds, but rather merely that they are reallocated to alternative instruments, the sum of deposits and issued debt securities held by Spanish households and non-financial corporations gives a more accurate picture of the recent trend in retail funding than does the behaviour of deposits alone. Chart A shows that this aggregate also posted a negative year-on-year rate of change in August 2012, but that it was significantly smaller, in absolute terms, than that of deposits alone (2.4% compared with 5.9%). Similarly, a measure of the change in the households and firms loan-deposit gap adjusted for the increase in holdings of debt securities, suggests that this indicator has continued to decrease in recent months, at a rate not very different from the average recorded since 2010 (see Chart D).

... due largely to the institutions majority owned by the FROB

The worsening of results with respect to the first half of 2011 was across the board. Although what is observed is a reduction in ROA, albeit to differing extents, for most institutions, the loss recorded by the system as a whole is due to the (significant) negative result recorded by institutions majority owned by the FROB. Excluding these institutions from the analysis, consolidated income attributable to the controlling entity is positive in the amount of €2,778 m (€3,276 m before tax).

Apart from the notable impact of these institutions on the sector as a whole, the weaker results are largely explained by the significant increase in asset impairment losses. This increase reflects the higher provisioning requirements derived from RDL 2/2012 and RDL 18/2012, as well as the slump in economic activity.

Net interest income grew...

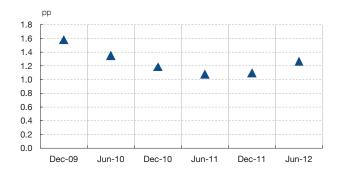
Net interest income grew by 11.4% in the past 12 months. This growth was based on an increase in financial income (7.2%) outweighing that in financial costs (3.4%). In terms of ATA, net interest income rose from 1.73% in June 2011 to 1.88% in June 2012. This pickup in net interest income, which had decreased by 12.7% between June 2009 and June 2011, was basically caused by a wider spread between the average return on assets and the average cost of liabilities, perceptible in business in Spain (see Chart 2.5.A).

...due to the favourable behaviour of interest rates on loans and deposits

The average return on investments and the average cost of liabilities was more than sufficient to offset the adverse effect on net interest income arising from the contraction in activity (see Chart 2.5.B). The relative moderation in financial costs was partly because institutions stepped up their recourse to funding from the central bank, reflecting their participation in the unlimited refinancing operations introduced by the ECB in late 2011 and early 2012 (LTROs).

Within financial income, that from the government, including both debt securities and loans, increased. Also up was financial income from the rest of the resident and non-

# A. DIFFERENCE BETWEEN AVERAGE RETURN ON INVESTMENTS AND AVERAGE COST OF LIABILITIES



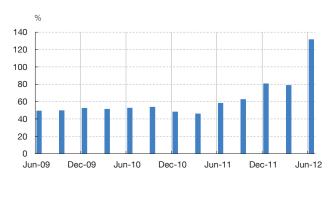
# B. PERCENTAGE OF THE CHANGE IN NET INTEREST INCOME EXPLAINED BY EACH FACTOR



### C. MARGINAL INTEREST RATES ON ASSETS AND LIABILITIES (a)



D. ASSET IMPAIRMENT LOSSES (specific and general provisions)
AS A PERCENTAGE OF NET OPERATING INCOME



SOURCE: Banco de España.

a Marginal interest rates are those established in transactions initiated or renewed during the month prior to that of reference, such transactions being weighted by their volume. The assets-weighted marginal rates include, inter alia, those applied to housing and consumer finance and credit to non-financial corporations, while the liabilities-weighted ones include, inter alia, fixed-term deposits and repos.

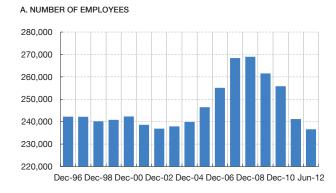
resident private sector. The current setting in which institutions have been operating, characterised by slower credit extension activity, was offset by the higher interest rate on new loans. This interest rate continues the upward trend seen since end-2010, which has gradually fed through to the whole of the credit portfolio (see Chart 2.5.C).

However, funding conditions on wholesale financial markets and strong competition for retail savings put upward pressure on financial costs, feeding through to the net interest income of the sector which must persist with its process of restructuring and of rationalisation of overheads.

Net commissions recorded a slight increase

Net commissions recorded a slight increase in the first half of 2012 compared with the same period in 2011 (0.6%). Commission revenue was particularly bolstered by commissions received for collection and payment services, offsetting the reduction of those related to the marketing of non-bank financial products.

### NUMBER OF EMPLOYEES AND OFFICES. BUSINESS IN SPAIN Deposit institutions, ID





SOURCE: Banco de España.

Operating expenses grew moderately

Operating expenses grew moderately (0.2% year-on-year in June 2012). Their weight in terms of ATA decreased from 1.39% in June 2011 to 1.35% a year later. If Spanish banks with a large presence abroad are stripped out of the analysis, operating expenses dropped by 8.5%. The situation of the business in Spain and the various bank restructuring processes explain the continual reduction in the number of employees (see Chart 2.6.A) and offices (see Chart 2.6.B) from the peaks of 2008 (a cumulative decrease of more than 13% in both cases). The numbers of employees and offices were similar to their pre-crisis levels and to those at the end of the 1990s, although it could be expected that under the current circumstances in the sector further efforts will be made to rationalise overheads.

Asset impairment losses posted strong growth

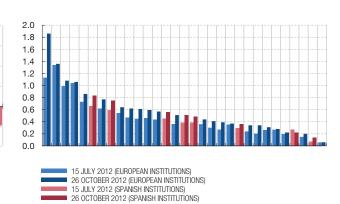
Asset impairment losses, which reflect the specific and general provisions recorded, grew very considerably in the last year (year-on-year rate of change of 139% in June 2012). In terms of ATA, they increased from 0.68% in June 2011 to 1.58% in June 2012. This strong growth was conditioned partly by the approval of RDL 2/2012 of 3 February 2012 on balance sheet clean-up of the financial sector and RDL 18/2012 of 11 May 2012 on the write-down and sale of the financial sector's real estate assets. These measures, which were established in the RDLs, represent additional provisioning requirements for banks. During the first half of the year and, to differing degrees, the banks recorded ahead of schedule the additional provisions required, which resulted in the increase seen in total provisioning by deposit institutions. In addition to the importance of the regulatory changes, developments in the macroeconomic environment, which led to an increase in doubtful assets, also contributed to the increase in asset impairment losses. Consequently, the percentage of net operating income absorbed by impairment losses has grown considerably (see Chart 2.5.D for business in Spain).

Developments in impairment losses were different across banks. Thus, the banks which contributed most to the growth rate of 139% are, on one hand, banks that recorded ahead of schedule the provisions required by the RDLs, and, on the other, banks in which the FROB has a controlling stake. It is precisely at the latter where provisions absorbed the highest percentage of net operating income.

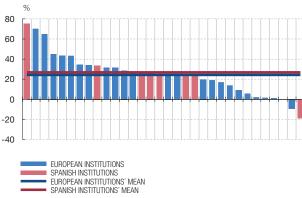
Impairment losses on other assets also grew notably

Impairment losses on other assets also grew very sharply in June 2012 (70.6% year-onyear), partly due to the higher provisions associated with foreclosed assets, which also rose notably in this period as a result of developments in the real estate sector and of the above-mentioned regulatory changes.

A. STOCK MARKET CHANGE BETWEEN 15 JULY 2012 AND 26 OCTOBER 2012 (a)



B. PRICE-TO-BOOK VALUE RATIO. BIGGEST EUROPEAN INSTITUTIONS (b)



SOURCE: Datastream.

- a Each bar represents an institution. Latest data: 26 October 2012.
- **b** Each pair of bars represents an institution.

The stock market prices of Spanish and European banks have performed favourably in recent months

Since the summer months, as a consequence of the various above-mentioned factors which brought some relief to the financial strains, a recovery was seen in the stock market prices of Spanish banks. This recovery was also seen among large European banks (see Chart 2.7.A). This rise improved banks' price-to-book value ratio which, however, due to the adverse performance during the crisis, continues to hold at less than one at most banks. Both as regards this recovery and the price-to-book value ratio, Spanish banks are in an intermediate position compared with their European peers (see Chart 2.7.B), although evidencing high dispersion.

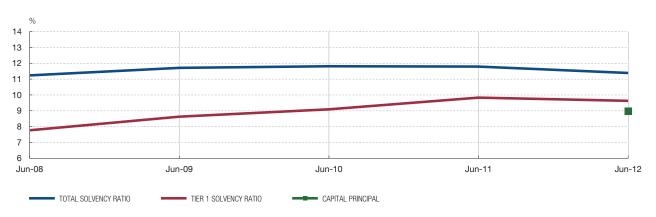
## 2.3 Solvency

The "capital principal" ratio based on RDL 2/2011 stood at 9% in June 2012

The solvency ratio of deposit institutions stood at 11.4% in June 2012, 40 bp lower than in June 2011. The tier 1 ratio fell slightly to 9.4% in June 2012 (from 9.8% a year earlier), while the "capital principal" ratio (a requirement introduced by RDL 2/2011 and amended by RDL 24/2012) stood at 9% in June 2012 (see Chart 2.8). The levels of the solvency ratios, as well as the changes in them over the last year, are influenced by banks in which the FROB has a majority holding. If these banks are stripped out of the analysis, the total solvency ratio in June 2012 is 12.3%, the tier 1 ratio is 10.6% (both increased by around 60 bp in relation to June 2011) and the "capital principal" ratio would reach 10.1% in June 2012.

An improvement was seen in the quality of own funds In June 2012 the rate of decline in total own funds quickened by 1.8 pp, a year-on-year fall of 7.7%. Excluding the banks controlled by the FROB, own funds rose by 7 pp (posting a year-on-year growth rate of 1.1%). Furthermore, there has been an increase in the quality of solvency. Thus, the weight of lower-quality own funds in total own funds has decreased from 20.8% to 19.2%, as a result of their 14.8% decline. Tier 1 capital decreased by 9.1 pp, posting a decline of 7% (see Chart 2.9.B). For banks which are not majority-owned by the FROB, tier 1 capital has increased 1%, whereas tier 2 capital has fallen 8.9%.

Tier 1 capital grew 36.6%, 10.5 pp up on the previous year, at the expense of preference shares (which decreased by 41.3%, 59 pp less than in 2011) and of reserves (which were down 15.5%) (see Chart 2.9.C), this decline mostly reflecting the situation of banks owned by the FROB.

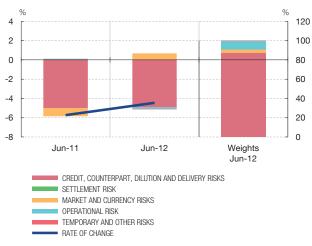


SOURCE: Banco de España.

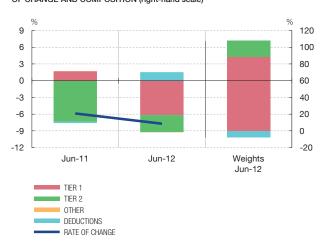
# CAPITAL REQUIREMENTS AND OWN FUNDS Deposit institutions

CHART 2.9

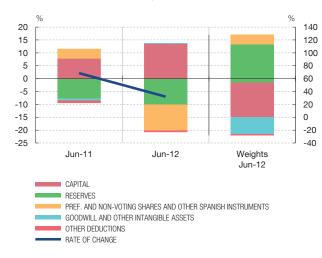




# B. OWN FUNDS. CONTRIBUTION TO RATE OF CHANGE AND COMPOSITION (right-hand scale)



# C. TIER 1 CAPITAL. CONTRIBUTION TO RATE OF CHANGE AND COMPOSITION (right-hand scale)

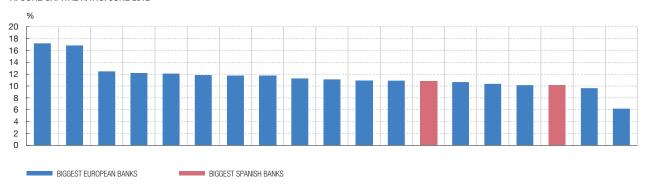


D. TIER 2 CAPITAL. CONTRIBUTION TO RATE OF CHANGE AND COMPOSITION (right-hand scale)

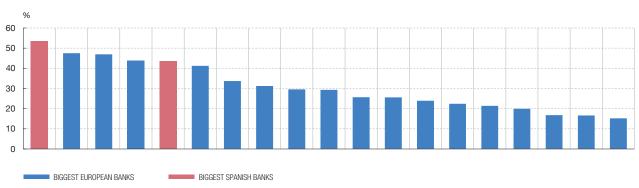


SOURCE: Banco de España.

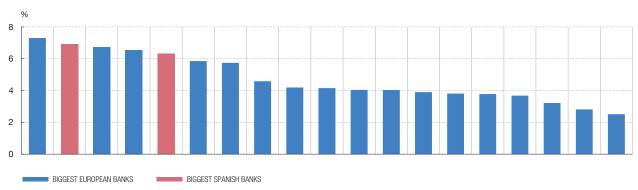
### A. CORE CAPITAL RATIO. JUNE 2012



### B. RWA AS A PERCENTAGE OF TOTAL ASSETS. JUNE 2012



### C. SHAREHOLDERS' EQUITY AS A PERCENTAGE OF TOTAL ASSETS. JUNE 2012



## SOURCE: SNL Europe.

a The biggest banks in Belgium, Denmark, France, Germany, Italy, Netherlands, Spain, Sweden, Switzerland and United Kingdom are taken. Each panel depicts the banks in descending order for the variable in question.

The fall in tier 2 capital (see Chart 2.9.D) was triggered mainly by the decline of 11.7% in subordinated debt (the component with the highest weight of 80%), in line with the search for higher-quality own funds. Meanwhile, the general provisions eligible to be counted as own funds (with a weight of 18%) fell 5.6%.

The decrease in risk weighted assets slowed in 2012 with respect to the previous year. Credit risk requirements, with a weight of 87% in total requirements, fell for the second year running at a rate of 5.7%, similar to that in 2011 (see Chart 2.9.A).

The improvement in the quality of own funds prompted by RDL 2/2011, is further enhanced by the regulatory change introduced by RDL 24/2012 in this respect. Thus, from 1 January 2013, the "capital principal" requirement of 8% or 10% becomes a single requirement of 9% adopting the EBA's definition of core capital. The aim is not only to maintain the requirement of higher quality capital but also to favour international comparisons.

The solvency ratios of large Spanish institutions stand in a medium-low position in relation to comparable European institutions but they are in a sound position in terms of leverage Large Spanish institutions, in relation to comparable European institutions, record capital ratios which stand in a medium-low position, although their ratios are similar to those of their European peers (see Chart 2.10.A, in which 15 of the 19 institutions, including two Spanish institutions, have ratios of between 12.5% and 10%). Furthermore, their European competitors have, in relative terms, lower risk weighted assets (see Chart 2.10.B which shows the higher weight of these assets as a percentage of total assets at Spanish institutions). The comparision of solvency ratios between banks based on the leverage ratio (capital to book assets) eliminates certain differences in the solvency ratios calculated on the basis of risk-weighted assets owing to differences in criteria in the estimation of capital requirements [not all differences, however, since differences in accounting criteria between Europe and the United States persist (see Box 2.3)] Spanish banks are in the upper quartile of leverage ratio values (see Chart 2.10.C).

### ACCOUNTING CONVERGENCE: NETTING AND PROVISIONS

#### **BOX 2.3**

### Introduction

Further to the reflections outlined in previous editions of the Financial Stability Report, two aspects of particular significance for banking continue to arouse concerns regarding convergence between the chief standard-setters IASB and FASB. The aim of this box is to explain the differences in accounting treatment in these two areas (the possibility of offsetting assets and liabilities by presenting rights and obligations as a net amount, e.g. in operations with derivatives and in the model to be applied for the estimation of asset impairment losses arising from credit risk), while at the same time reporting on the current status of the debate between IASB and FASB on these two questions.

### Offsetting of assets and liabilities (netting)

For the IASB, financial offsetting is applicable if, in addition to being party to a netting agreement with the legal right to demand netting, there is an intention to use it. The rule indicates that netting agreements, in which the right to net arises in default or other circumstances that do not usually occur in the normal course of business, do not per se fulfil the requirements for presenting rights and obligations as a net amount.

Under FASB rules, netting is generally allowed under the same circumstances as permitted by the IASB, except for derivatives included in master netting arrangements, for which the intention to settle open positions net is not required.

Various negotiations between the IASB and FASB failed to reach a common position and both have concluded that they will not

converge on this matter. However, they have agreed that, from 2013, they will both require a breakdown in explanatory notes regarding netting of positions in the statement of financial position.

The significance of this matter particularly affects banks, especially those that are very active in derivatives on wholesale markets, such as investment banks, with a demonstrable impact on their balance sheet and, therefore, on their leverage.<sup>1</sup>

Thus, the consequences for banks under IFRSs or under FASB may be significant not only in terms of the different amounts of assets shown on their balance sheets but also because of the prudential consequences that may arise from this.

### Credit portfolio impairment

The management of credit risk is the essence of the banking business. Accordingly, the proper estimate of credit impairment is essential for a correct interpretation of its results. Five years on since the financial crisis broke, agreement has still not been reached by the FASB and the IASB on replacing the so-called "incurred loss model" with a different model capable of resolving the rapid impairment that crisis periods - as opposed to boom periods - evidence. What is worse, the possibilities of an agreement have become even more remote in recent months, and since last August both regulators have been following a different route.

<sup>1</sup> Calculations of the Basel III leverage ratio will not depend on accounting but will rather seek uniformity by offering their own asset and liabilities offsetting rules, thereby neutralising the potential differences attributable to differing international and US accounting criteria.

The model explored by the IASB seeks to reflect credit impairment once an economic worsening relative to the economic situation existing as at the date of concession is evidenced. To do this it divides loans into two categories: first, that of initial recognition, for which they propose recognising the expected loss over a horizon of one year; and a second category for loans that have already undergone an impairment, whether collective or individual, reflecting the total expected loss throughout its life.

The model the FASB is exploring involves a single methodology for all types of loans, and is based on a statistical behaviour of credit risk losses, under the concept of expected loss. In this way, all loans will reflect the entire expected loss at the initial date as an adjustment in respect of the amount actually drawn down. Any subsequent change in the expected loss should be recorded in the income statement for the period in which it arises.

The main obstacle encountered by the IASB to moving in step with the FASB is that, in the initial recognition of the loans, they should reflect their total expected loss; that is to say, a loss should be recognised on concession of the loan. The FASB argues that, in addressing portfolios, the valuation of the expected loss is made for all of them, thereby avoiding delaying the recognition of losses that are already expected from the outset.

### Convergence

Accounting convergence has been one of the issues that has concerned the G20 and the FSB since the start of the crisis. Their publications have highlighted the importance of a convergent and sound accounting framework. Given how relevant and necessary accounting convergence is, this is an area where perseverance will be essential.

# 3 THE PROCESS OF RECAPITALISATION AND RESTRUCTURING OF THE SPANISH BANKING SECTOR

Over the last three years a number of measures have been taken to reorganise the Spanish banking sector. Liquidity support has been provided to institutions, the consolidation and restructuring of the weakest promoted, savings banks transformed into commercial banks and levels of capital and provisions strengthened.

The beginning of the year saw approval of RDL 2/2012 and RDL 18/2012, which have significantly increased the provisioning requirements for real-estate sector exposures

Against a background characterised by the persistence of the euro area sovereign debt crisis, ongoing deterioration in the real economy and intense adjustment in the real-estate sector in Spain, it was necessary to continue shoring up the confidence of financial markets in the Spanish banking sector. Uncertainties persisted over the quality of the assets on the balance sheets of Spanish institutions, and in particular of those relating to the real-estate development sector. At the beginning of the year RDL 2/2012 and RDL 18/2012 were approved, which have significantly increased the provisioning requirements for exposures to that sector.

Also, with a view to reinforcing confidence regarding the solvency of Spanish banks, an external assessment of the resilience of the banking sector on aggregate was commissioned

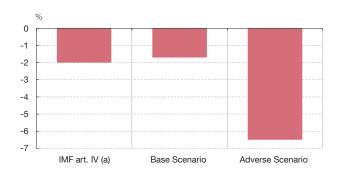
Also, with a view to reinforcing confidence in respect of the solvency of Spanish banks, on 11 May 2012 the Council of Ministers assigned to the Ministry of Economic Affairs and Competitiveness the task of preparing an aggregate top-down external analysis to enable the resilience of the Spanish banking sector in the face of a further severe deterioration in the economy to be assessed. The Banco de España, in coordination with the Ministry, lead-managed this assessment, for which two independent international consultancies were hired.

The 14 principal Spanish banking groups, representing 90% of the sector, participated in this exercise. The purpose of the test was to provide an overall estimate of the capital needs of the institutions analysed, over the three-year period 2012-14. The two consultancies were required to use their own methodologies independently and to consider the same two macroeconomic scenarios. These were, first, the baseline scenario, prudently judged to have a greater probability of occurrence, under which a core capital ratio (as defined by the EBA) of 9% at the end of the above-mentioned three-year period was required. And second, an adverse scenario, considered very unlikely (less than 1% probability), as it incorporated a very severe further deterioration in the Spanish economy, under which the core ratio (EBA definition) had to be at least 6% as at end-2014. A core ratio of 6% under a very severe scenario is highly demanding and, in comparative terms, greater than that required in other stress tests conducted internationally. This scenario includes, for example, a cumulative GDP decline over the three years analysed (2012-14) of 6.5% (see Chart 3.1.A), unemployment rates of 27.2%, further falls in house prices of 25% and in land prices of 60%. Considering a period of three as opposed to two years, as in other exercises, with the macroeconomic setting performing so adversely, reinforces the severity of the exercise.

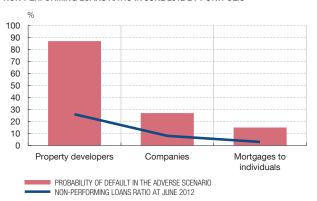
The results of this top-down stress test conducted by independent experts, released on 21 June, were an estimation of the recapitalisation needs of the system as €16-26 billion under the baseline scenario. Under the adverse scenario additional capital needs were estimated as lying within a range of €51-62 billion.

The next step was to identify capital needs, bank by bank, through a bottom-up exercise After the completion of this top-down stress test, which allowed a range to be set for the Spanish banking sector's capital needs, the next step, a natural extension of the first, was to perform a bottom-up analysis of capital needs, bank by bank.

A. CUMULATIVE CHANGE IN GDP IN THE STRESS TEST PERIOD (2012-2014)



B. PROBABILITY OF DEFAULT UNDER THE ADVERSE SCENARIO AND NON-PERFORMING LOANS RATIO IN JUNE 2012 BY PORTFOLIO



SOURCE: Banco de España.

a IMF forecast in the Article IV Report for Spain dated 27 July 2012.

This second phase of the work, the results of which are analysed below in detail, was performed between the beginning of July and 28 September, when the results were published. The work was assigned to one of the independent consultancies that participated in the top-down stress test. Also, to maximise the rigour and exhaustiveness of the exercise, the four main audit firms in Spain carried out an accounting review of the loan portfolio and foreclosed assets of the participating banks, ensuring that the information was consistent, and six national and international appraisal companies were involved.

In parallel with the second phase of the estimation of the capital needs, the Government requested an external financial assistance programme in the context of the restructuring and recapitalisation of the banking sector

In parallel with the performance of the second phase of the estimation of the capital needs (the bottom-up exercise), the Spanish Government requested external financial assistance in the context of the process of restructuring and recapitalisation of the Spanish banking sector. The agreed financial assistance, of up to €100 billion, was agreed by the Eurogroup and included in the Memorandum of Understanding (MoU) between the Spanish and European authorities.

A key aspect of the MoU is the review of the vulnerable segments of the Spanish banking sector, which requires three issues to be addressed. First, determination of the capital needs of each bank by means of an analysis of the quality of the assets of the banking sector and a stress test carried out bank by bank under a hypothetical stressed scenario. Second, the recapitalisation, restructuring and/or resolution of the less viable banks, on the basis of plans that address the capital shortfalls detected in the stress test. And third, the segregation of the impaired assets of those banks that would require public support without segregation, and their transfer to an Asset Management Company. The presentation of the results of the bottom-up exercise on 28 September 2012 enabled the first of the points mentioned above to be completed. The other two are currently in progress, as explained below, in line with the timetables agreed in the MoU.

# Organisation of the bottom-up stress tests

As mentioned above, the bottom-up stress test was a natural extension of the top-down one. From this viewpoint, the scope of the exercise is the same as regards the participating

<sup>1</sup> For the details of the reports and documents published on that date, see http://www.bde.es/bde/en/secciones/ prensa/infointeres/reestructuracion/

banks (fourteen main Spanish banking groups), the credit portfolio tested (lending to the resident private sector, including real-estate assets), the time period considered (2012, 2013 and 2014) and the macroeconomic scenarios (the baseline and adverse scenarios).

The main difference between the bottom-up exercise and the top-down one lies in the comprehensiveness of the information used. The strictness of the bottom-up exercise and its governance contribute significantly to its rigour The main difference between the bottom-up exercise and the previous top-down one is that significantly more information is required to carry out the former. Thus, comprehensive bank-by-bank information was used, which, along with the harshness of the macroeconomic scenario considered and the governance process, guaranteed the rigour of the exercise.

The information used in the exercise was characterised by its comprehensiveness and came, basically, from four sources.

- i. Granular loan-by-loan information. The banks' own databases and those available at the Banco de España were used, with detailed information on 36 million loans and 8 million guarantees. This information (with details of exposure, whether the loans are performing or non-performing, the location of the borrower or of the real-estate asset, the sector of activity, LTV ratios, etc.) was supplemented by data from the Banco de España Central Credit Register (monthly observations loan-by-loan from 1989 to 2011).
- ii. Audit-generated information. The four main audit firms in Spain, with the involvement of more than 400 auditors, verified the quality of the data to be used in the exercise, as well as analysing the correctness of the level of provisions in more than 115,000 transactions.
- iii. Asset valuation review. Six real-estate appraisal companies (three national and three international) performed a highly detailed cross-Spain review of foreclosed assets and collateral. In all, 1.7 million automatic appraisals were performed and 8,000 singular assets were valued individually.
- iv. Bank business plans. The banks' business plans for the next three years were taken into account. The business plans made available to the independent consultancy by the banks were also adjusted to ensure that the assumptions made by each bank were fully compatible, when all are taken into account together, with the exercise scenarios and hypotheses validated by the Spanish and European authorities.

The severity of the exercise is reflected in the levels of probability of default (PD) used. For example, in the adverse macroeconomic scenario, the cumulative PD for developers is three times as high as the non-performing loans ratio observed in June 2012, and is also three times the ratio for firms and five times the non-performing loans ratio for personal mortgages (see Chart 3.1.B).

Finally, the third of the elements that have been mentioned as contributing to the high degree of rigour in the exercise is the governance process. A governance regime was established that was designed to ensure the work is of the highest possible quality, with the same methodology applied consistently to all the participating groups. The governance of the tests involved Spanish authorities (the Banco de España, the Ministry of Economic Affairs and Competitiveness and the FROB) and international authorities (the European

Commission, the European Central Bank, the European Banking Authority and the International Monetary Fund, as advisor).

The governance structure was established on two levels. At one level, an Expert Coordination Committee (ECC) was set up to monitor the work closely and continuously, to control the exercise at the technical level, and to question and validate the consultancy's working hypotheses. At a second level, a Strategic Coordination Committee (SCC), made up of high-level representatives of the institutions involved, was set up to take decisions and check the results. Accordingly, the main task of the SCC was to validate the results on the basis of the ECC's recommendations.

## Results of the bank-by-bank stress tests

The additional capital needs are estimated at €59.3 billion under the adverse scenario

The bottom-up stress tests resulted in estimated additional capital needs for the total banks considered of  $\[ \in \] 25.9$  billion under the baseline scenario ( $\[ \in \] 27.4$  billion after the tax effect) and of  $\[ \in \] 59.3$  billion under the adverse scenario ( $\[ \in \] 55.9$  billion after the tax effect). These figures do not take into account the integration processes under way. These capital needs are in line with those reflected in the top-down exercise and are significantly lower than the financing of up to  $\[ \in \] 100$  billion agreed with the European authorities.

The capital needs are concentrated in seven of the fourteen banking groups considered, particularly in the banks in which the FROB has a majority holding

The breakdown of the 14 banking groups considered shows that seven of them, representing 62% of the total credit portfolio analysed, do not need more capital under the adverse scenario. The other seven groups, representing 38% of the total credit portfolio, have additional capital needs, which are largely concentrated in those in which the FROB has a majority holding (see Charts 3.2.A and 3.2.B).

## Next steps in the bank recapitalisation and restructuring process

The capital needs detected by the stress test do not represent the final amount of the State aid which will arise from the process The capital needs disclosed by the stress test do not represent the final amount of State aid which will derive from the process. The need for aid will depend on the various actions to be undertaken by banks to reduce their capital needs, which can be summarised as follows: 1) sale of assets held by banks; 2) raising of capital from private investors; 3) transfer of assets to the Asset Management Company for Assets Arising from Bank Restructuring (Sareb);<sup>2</sup> and 4) implementation of loss-assumption exercises by the holders of hybrid instruments (see Box 3.1). These four elements will be specified during the process whose steps are indicated below.

Banks will be classified into various groups...

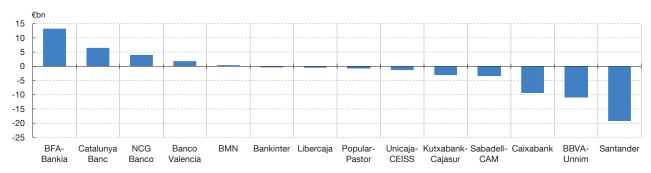
First, banks will be classified into four groups on the basis of the recapitalisation plans of the banks having a capital shortfall under the stress test, and of the review of those plans by the authorities.

- Group 0: already known, since it is formed by the banks which do not need more capital.
- ii. Group 1: already known, since it consists of the four banks owned by the FROB.
- iii. Group 2: banks which will require State aid.
- iv. Group 3: banks which have until 30 June 2013 to execute their recapitalisation plan and reach the required capital without need for State aid from then on.

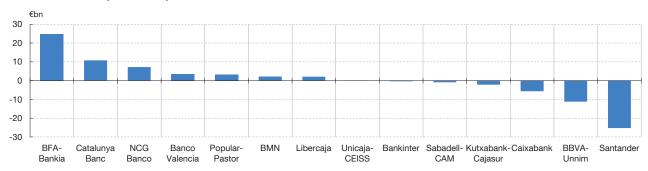
Figures net of tax effect.

A positive figure denotes capital needs, and a negative figure a surplus of capital.

#### A. BASE SCENARIO (Core Tier 1: 9%)



#### B. ADVERSE SCENARIO (Core Tier 1: 6%)



SOURCE: Banco de España.

...after which banks will submit restructuring or orderly resolution plans Second, once banks have been assigned to each group, they will have to submit restructuring or orderly resolution plans which must, where applicable, take into account the requested State aid in accordance with the impact of the transfers to Sareb and of the loss-assumption exercises by hybrid and subordinated instrument holders. The timetables for submitting these plans differ for each of the aforementioned groups of banks.

- i. Group 1. Since these are banks in which the FROB already has a capital holding, the Spanish authorities and the European Commission have been working on the plans since the end of July 2012. Taking into account the results of the stress test, the plans will be sent to the European Commission for approval in November. On this basis the State aid will be granted. Transfer of impaired assets to Sareb will have been commenced by the end of the year. Also, voluntary or mandatory loss-assumption exercises will have to be carried out by the holders of hybrid capital instruments.
- ii. Group 2. The Spanish authorities and the European Commission will assess the viability of the banks in light of the results of the stress tests and the recapitalisation plans submitted. The viable banks that need State aid for recapitalisation<sup>3</sup> will have to prepare a restructuring plan. Any banks considered non-viable and non-systemic will be subjected to orderly resolution in accordance with the resolution plan. The Spanish authorities will

<sup>2</sup> For greater details of the current status of the Sareb, see http://www.bde.es/bde/en/secciones/prensa/infointeres/reestructuracion/

<sup>3</sup> Or those whose resolution could not be carried out without seriously harmful effects to the banking system.

On 31 August 2012 the Government approved RDL 24/2012 on the restructuring and resolution of credit institutions, with immediate entry into force. It entails an exceptional strengthening of the mechanisms available to Spanish public authorities to strengthen and clean up the financial system, the ultimate objective being to safeguard the financial sector as a whole.

A summary description is given below of the types of measures the RDL includes.

- 1 A new, strengthened crisis-management framework. A full legal regime is set in place for the treatment of ailing credit institutions, which involves the early writing into Spanish law of some of the aspects included in the draft of the future European Crisis Resolution Directive.
  - On the basis of the seriousness of the ailing credit institution's situation and with a view to its effective restructuring and orderly resolution, if necessary, the following may be considered: preemptive measures (for slight difficulties, which are integrated into the ordinary supervisory phase and are directed by the Banco de España), restructuring measures (for temporary weaknesses able to be resolved through the contribution of public funds, including the instruments of the financial assistance, the transfer of impaired assets to an asset management company or any early intervention measure) and resolution measures (for non-viable institutions, the resolution of which will be carried out by selling the business, transferring assets and liabilities to a bridge bank, or to an asset management company; instruments that may receive public financial support).
- New regulations governing the FROB, defining its competencies and significantly reinforcing its tools at all stages of crisis management, while clarifying its relationship to the Deposit Guarantee Fund (DGF), limiting the DGF to deposit guarantee functions and potentially supporting orderly resolution processes up to the limits of the amount covered in guaranteed deposits, so as to safeguard the depositors covered.
- 3 Sharing restructuring costs: management of hybrid instruments. The regulations establish the mechanism under
- 1 At the time of this FSR going to press, the draft legislation RDL 24/2012 was before Parliament for amendments.

- which holders of hybrid capital instruments (preference shares and subordinated debt) may be obliged to assume a portion of the losses of an institution undergoing restructuring or resolution. The FROB may thus impose a specific conversion exercise if it considers that the first phase of the exercise, which is proposed by the institution and accepted voluntarily, is deemed insufficient. The regulations offer different possibilities as to what the exchange options may consist of.
- 4 Asset Management Company for Assets Arising from Bank Restructuring (Sareb). The regulations lay the foundations for the creation of this Company and empower the FROB to oblige institutions that receive public aid to transfer their troubled assets to the Company.
- New mechanisms to safeguard retail investors are laid down. These include enhanced transparency in the marketing of instruments not covered by the DGF and sold to retail customers, discouraging the marketing of some of them (preference shares and other likewise complex instruments) among such retail customers. The regulations also increase the powers of the CNMV (Spanish National Securities Market Commission), especially in respect of complex products marketed to retail customers.
- 6 Amendment of the capital principal requirement that institutions must meet under RDL 2/2011. The current requirements of 8% or 10% become a single requirement of 9% that must be met by all institutions as from 1 January 2013, adopting the European Banking Authority's definition of core capital.
- 7 Clear segregation of functions between the Banco de España and the Ministry of Economic Affairs and Competitiveness in respect of licensing and sanctioning credit institutions, entrusting to the Banco de España the tasks for which the Ministry was previously responsible.
- 8 With regard to remuneration, a new, lower ceiling is set for fixed remuneration from all sources of executive chairmen, managing directors and managers of institutions which, although the FROB does not have a majority holding in them, receive financial support from it. This ceiling falls from its current level of €600,000 to €500,000.

send to the European Commission in October the related restructuring or resolution plans. The process of approval of the plan may take until the end of December because the stress test results have to be included. The plans have to incorporate the steps necessary for transferring assets to the Asset Management Company and the voluntary or mandatory exercises for loss-assumption by hybrid instrument holders.

iii. Group 3. Banks with capital needs equal to or above 2% of risk-weighted assets form a sub-group within Group 3. As a precautionary measure, banks in this sub-group will be required to issue contingent convertible securities (COCOs) under the recapitalisation scheme to meet their capital needs by end December 2012 at the latest. The COCOs will be subscribed by the FROB using programme resources and will not be converted until 30 June 2013 if the banks do not succeed in raising private capital. If by that date a bank has not obtained private capital, the COCOs will be converted fully or partly into ordinary shares and the bank will have to present a restructuring plan to support its request for State aid.

The other sub-group within Group 3 is comprised of banks with capital needs below 2% of risk-weighted assets. For this second sub-group, the procedure is the same as in the forgoing case, except that they will not issue COCOs during the period of time (until 30 June 2013) in which they are seeking private capital under their recapitalisation plan.

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<sup>2</sup> Moreover, it is updated daily in the Statistics section.

<sup>3</sup> A quarterly update of the tables of this publication is also disseminated on the Internet.