FINANCIAL STABILITY REPORT

5/2011

BANCO DE ESPAÑA

Eurosistema

ISSN: 1696-2621 (print)
ISSN: 1696-3520 (online)
Depósito legal: M. 52740-2002
Printed in Spain by Artes Gráficas Coyve, S. A.

ABBREVIATIONS*

€	Euro
AIAF	Asociación de Intermediarios de Activos Financieros (Association of Securities Dealers)
ABCB	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
CDOs	Collateralised debt obligations
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
ECB	European Central Bank
EMU	Economic and Monetary Union
ESFS	European System of Financial Supervisors
ESRB	European Systemic Risk Board
EU	European Union
FASB	Financial Accounting Standards Board
FROB	Fund for the Orderly Restructuring of Banks
FSA	Financial Services Authority
FSAP	Financial System Assessment Program
FSB	Financial Stability Board
FSR	Financial Stability Report
FVCs	Financial vehicle corporations
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
IOSCO	International Organization of Securities Commissions
LGD	Loss given default
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
OTC	Over the counter
PD	Probability of default
PER	Price earnings ratio
pp	Percentage points
ROA	Return on assets
ROE	Return on equity
RWA	Risk-weighted assets
SCIs	Specialised credit institutions
SMEs	Small and medium-sized enterprises
SIVs	Structured investment vehicles
SPV	Special-purpose vehicle
TA	Total assets
TARP	Troubled Asset Relief Program

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

VaR	Value at risk
WTO	World Trade Organisation

CONTENTS

Introduction

Since the publication of the last Financial Stability Report (FSR), there has been a fresh outbreak of tensions on euro area sovereign debt markets. On this occasion, the main trigger was market doubts over the capacity of Irish public finances to absorb the problems besetting the banking sector. This led to the launching, in late November, of a financial assistance programme for the Irish economy by its EU partners and the IMF.

The markets' doubts spread to other euro area countries, with the Spanish economy and its banking sector, particularly its savings banks, among those most affected. Compounding this was the weakness in 2010 of the Spanish economy, which nevertheless embarked upon a path of slow recovery in the final quarter of the year.

Since late November 2010, Spain has tended to decouple from the countries most affected by the euro area sovereign debt market tensions, which led Portugal to apply for financial assistance in late March. Favouring Spain have been the market expectations about a forthcoming reform of the financial support mechanism in place for countries in difficulty, such expectations having been confirmed by the agreement reached by the euro area Heads of State and of Government on 11 March, and by the measures adopted by the Spanish authorities.

The measures adopted by the Spanish authorities were specifically within the realm of the real economy, strengthening the commitments entered into regarding fiscal consolidation, while tackling structural reforms, especially in connection with the labour market and pensions. As to the banking sector, from late 2010 to date measures have revolved around two issues. First, around the requirements of the Banco de España that banks substantially increase their transparency, providing all relevant information to the markets on their exposure to the construction and real estate development sector, and also around their retail mortgage portfolios. Second, in the opening days of March 2011, the Parliament approved the Royal Decree-Law that stipulates the core capital requirements for all banks of 8% or 10%.

In any event, and despite the fact that Spain, as indicated, has tended to decouple from the countries most affected by the market tensions, the environment for Spanish deposit institutions proved to be a very complicated one in 2010.

Credit to the resident private sector in Spain continues to post negative year-on-year rates of change. Although in recent months these rates have been less sharp than in previous periods, they are not expected to recover significantly in the coming months. This is due both to the weakness of the real economy and the difficulties on funding markets, and to the natural reduction of debt by Spanish households and firms following its notable increase during the economic boom years.

Resident private sector doubtful assets are growing less sharply than in previous years, although in the closing months of 2010 there was a slight rise in this variable. This rise is associated with the increase in non-performing loans in the construction and real estate development sector, which traditionally shows higher doubtful assets ratios than the average for the portfolio owing to its strong cyclical profile. Defaults on lending granted to individuals and to business activities other than construction and real estate development have tended to ease off in the past quarter, a trend which in some cases was observable even before this. Non-performing loan-related problems are especially associated with the financing of construction and real estate development activities, in particular for certain savings banks, as these were the institutions that accumulated most imbalances during the Spanish economy's expansionary phase. Set against this, the retail mortgage portfolio continues to post very low and, in 2010, diminishing doubtful assets ratios. The lower relative risk associated with this type of financing (to individuals for house purchase) is something that has traditionally been seen in the Spanish banking sector.

Spanish deposit institutions have written down their balance sheets most considerably since early 2008. From that time to date, asset value corrections, via provisions, have amounted to approximately 9% of Spanish GDP. And to this must be added an increase in surplus tier 1 capital over minimum requirements, which accounts for 5% of GDP in absolute terms.

Since the international financial crisis broke in the summer of 2007, funding markets have continued to face notable difficulties. The bout of tension in late November 2010 in the euro area adversely affected market accessibility and the spreads on Spanish deposit institutions' primary market issues. Money markets have remained more stable than primary markets, and Spanish institutions have been able to resort to the interbank market, in particular through central counterparty clearing houses. This has translated into a substantial reduction in funds obtained from the Eurosystem, such funds resuming levels around Spain's capital key in the euro area.

Banks' income statements remain subject to downward pressure owing to the narrowing of the net interest income margin, and to the still-high weight of impaired financial assets. Against this background, lower operating costs are proving key to cushioning banks against the aforementioned downward pressures. Following the approval in 2010 of the savings bank integration processes, the associated synergies and cost savings, explicitly included in the integration plans of the institutions that have received support from the FROB, should materialise in 2011.

Spanish institutions' tier 1 solvency ratio in 2010 was higher than that recorded in 2009, insofar as the increase in core capital offsets the slight growth in risk-weighted assets. In any event, the new Royal Decree-Law 2/2011 requires Spanish banks to operate with core capital ratios of 8% or 10%. For those institutions that need to increase their capital to meet these new demands, there is the possibility of tapping the markets. But the FROB is in any case committed to providing the funds needed for this purpose. What is more, the new measures approved encourage, insofar as participation by the FROB is necessarily temporary, the entry of private investors, making management more professional and providing for more effective market discipline over banks. Accordingly, the new Royal Decree-Law raises banks' core capital requirements to new and demanding levels. It also introduces further incentives for the transformation of the Spanish banking sector, and in particular of savings banks, hitherto characterised by their singular corporate structure.

Since the onset of the financial crisis, Spanish banks have recorded highly substantial provisions, amounting to more than 9% of GDP. Following the restructuring of their balance sheets and the integration processes pursued under the FROB, the new core capital requirements should gradually contribute to dispelling market doubts over the soundness of the Spanish banking sector. For this to occur, the still-slow path of recovery on which the Spanish economy embarked in 2010 must become entrenched, while both the fiscal consolidation programme approved by the government and the structural reforms under way must take hold. Despite this outlook, this does not preclude the fact that the environment in which Spanish deposit institutions will be operating in the coming months will still be difficult.

International financial developments differed from region to region: risk premia fell and stock prices rose in the United States, and long-term interest rates increased on the best-rated sovereign debt in the developed economies.

Since the publication of the last FSR, international financial developments have differed from region to region. In the United States, the risk premium on fixed-income securities fell while stock market values rose against the background of the brighter US economic outlook and the publication of favourable business results (Chart 1.1). This was also reflected in higher long-term government bond yields, which spread to the top-rated sovereign debt in Europe. Nonetheless, in mid-April the rating agency Standard and Poor's put US debt on negative watch, which prompted expectations concerning the growth of this economy to ease in the face of a more-imminent-than-expected fiscal consolidation scenario. Stock markets in the emerging countries moved on a rising trend, though less so than in those of the main developed markets.

There has been a fresh outbreak of market tensions further to the Irish crisis, with the Spanish economy once more among those most affected. Expectations of changes to the European financial aid mechanism and the measures adopted at the national level have contributed to easing the tensions somewhat, but risk premia remain at high levels. This has been accompanied by a rise in interbank interest rates in the area.

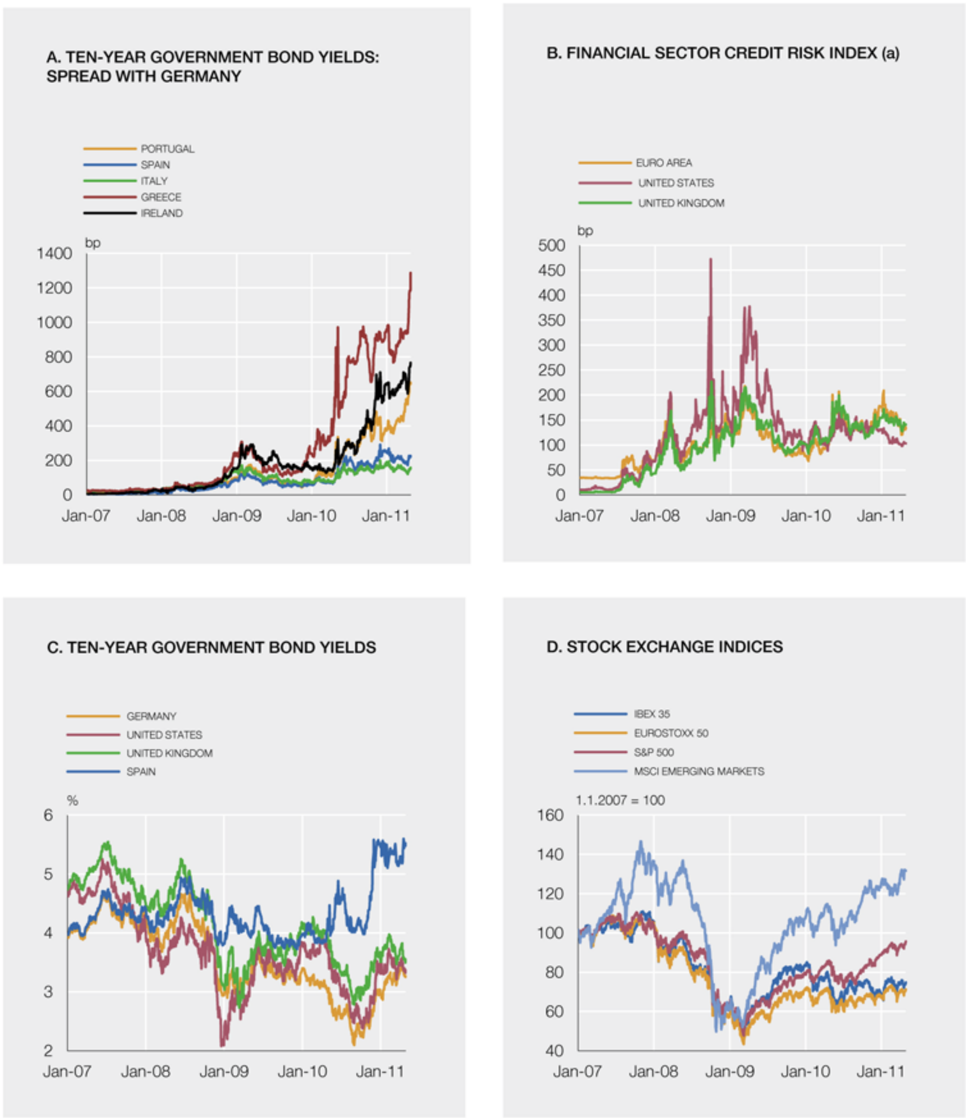
In the euro area there was a fresh outbreak of tensions on sovereign debt markets. On this occasion the main trigger was the growing market concern over the implications for Irish public finances of the problems assailing its banking sector. Such concern made it necessary for Ireland's EU partners and the IMF to launch a financial aid programme in late November. The turbulence spread to other euro area countries, with the Spanish economy once again among those most affected. The reflection of this was a rise in the yield spreads on Spanish public debt relative to German bonds, along with greatly limited access and dearer funding for Spanish credit institutions on wholesale markets (Chart 1.1). Listed company share prices, especially those of financial companies, fell back. The tension peaked in late November. Since then there has been an improvement, albeit amid high volatility, with the result that Spain has tended to decouple from the countries most affected by the tensions, despite the turbulence worsening in some of them. This is particularly the case in Portugal, which finally requested a financial assistance program in the closing days of March. Market expectations about the forthcoming reform of the current financial aid mechanism for countries in difficulty (which has been confirmed in the agreement reached by the euro area Heads of State and of Government on 11 March) and the particular measures adopted in Spain have both proved conducive to these more positive developments.

The Spanish authorities have moved towards greater transparency, requiring banks to publish detailed information on their exposures and provisioning for risks in the real estate sector and on their liquidity position. They have also reinforced the solvency of these institutions, raising the minimum capital requirements. However, despite the improvement in recent months, the risk premia on fixed-income securities issued by the public and financial sectors remain at very high levels. This has been accompanied, moreover, by an increase in market expectations about official euro area interest rates (confirmed at the ECB Governing Council meeting on 7 April, as these rates were raised by 25 bp), which has been reflected in increases in interbank yields.

On the commodities markets there were strong price increases, which quickened further to the geopolitical tensions in the Middle East and North Africa. This adversely affected higher-risk asset prices, as did too the natural disasters in Japan.

Another factor bearing on financial market developments during this period was the high rise in commodities prices, particularly oil. Behind this lies a notable increase in demand, especially in the emerging countries. Nonetheless, certain supply-side factors such as the tensions in the Middle East and in North Africa, in the case of oil, might subsequently have contributed to this rising trend, which may have been accentuated by financial factors in a setting of ample liquidity and investor interest for this type of asset. These developments had a negative effect on the price of higher-risk assets traded on international financial markets and were also reflected in a rise in share price volatility. More recently, another shock has also made an impact, namely the successive natural disasters and nuclear crisis in Japan. The possibility that this might affect global economic recovery led, in the days following the disasters, to an easing

PRICES NEGOTIATED ON FINANCIAL MARKETS CHART 1.1



SOURCE: Datastream, Reuters y Bloomberg.

a. Euro area: financial, ITRAXX 5 year. United States and United Kingdom: average 5-year CDS commercial bank. Latest data: 27th April 2011

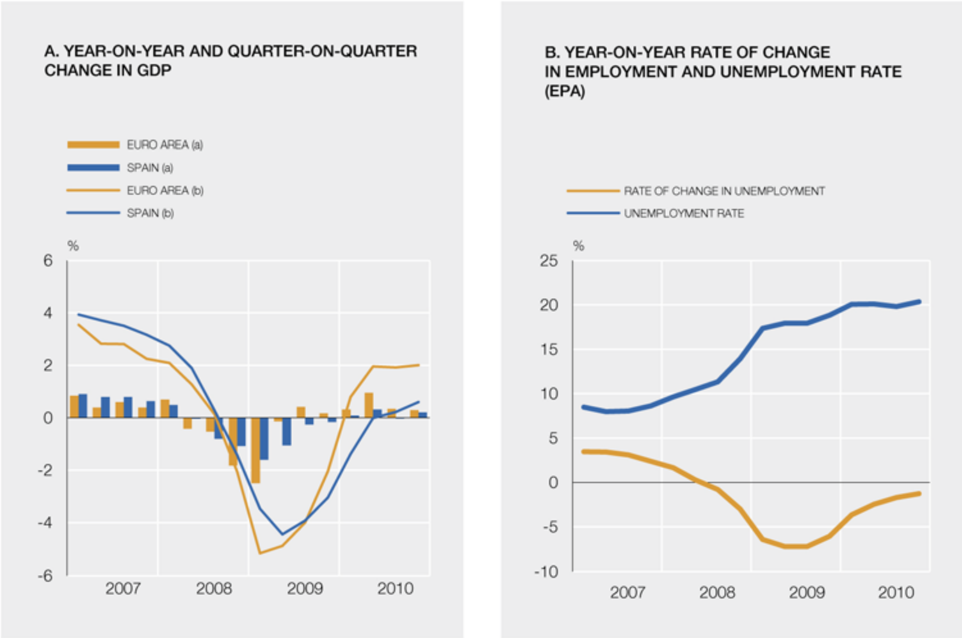
in the oil price and to a slight reduction in the interest rates on the developed countries' top-rated public debt, but these movements were subsequently reversed.

In the closing months of 2010, global economic activity began to pick up again, following the slowdown mid-year.

Following a moderate economic slowdown in mid-2010, there was a fresh rise in global economic activity in the final stretch of the year. As a result, the slowdown in world GDP in the second half of 2010 was less than expected, dipping from rates of approximately 5.2% to 3.7%. The latest indicators – mainly business survey and world trade data – appear to augur an acceleration in economic activity in 2011 Q1. The emerging economies continue to post high growth and in some there are signs of overheating, while in the industrialised economies growth is significant although more modest, with unemployment rates that remain high. Growth projections for 2011 point to an increase in world GDP somewhat below that in 2010 (4.5% against 5%), though they have been revised upwards due, above all, to the fresh stimuli in the United States. The advanced economies will grow by around 2.5%, and the emerging countries by approximately 6.5%.

GDP AND EMPLOYMENT

CHART 1.2



SOURCES: INE, Eurostat and Banco de España.

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

The euro area economy grew in 2010 Q4 at a moderate pace that differed from country to country. The ECB foresees a continuing growth trajectory for this year and the next.

In the euro area, despite the sovereign debt crisis, economic activity continued to pick up, albeit at a moderate pace differing from country to country. In Q4 GDP grew by 0.3% in quarter-on-quarter terms, and by 2% compared with the same period a year earlier (Chart 1.2.A). The ECB's March projections point to continuing growth, ranging from 1.3% to 2.1% for 2011, and from 0.8% to 2.8% for 2012.

Economic activity in Spain grew slowly in 2010 Q4, while the rate of job destruction eased.

The Spanish economy resumed a path of slow recovery in 2010 Q4, posting quarter-on-quarter GDP growth of 0.2%, after the flatness of the three previous months, and of 0.6% in year-on-year terms (Chart 1.2.A). This growth was accompanied by an easing in the pace of job destruction (Chart 1.2.B). The indicators available for the opening months of 2011 broadly suggest these trends will continue.

Household and corporate debt has scarcely fallen…

The household and corporate debt ratio fell very slowly during the second half of 2010, and therefore remains high. Nevertheless, the low level of the cost of funds has contributed to containing the associated interest burden, which continued to decline; that said, against the background of rising interest rates, the declining course of the burden will tend to be exhausted. In the case of households, these developments have been accompanied by further - although moderate - falls in net wealth, the result of the decline in property values and of the less favourable course of income (which fell in real terms over 2010 as a whole). In contrast, corporate profits have picked up somewhat.

… while general government debt continues to increase, although its pace is easing.

The pace of general government debt, despite easing, still stood at a year-on-year rate of 13.8% in December 2010 (19.1% in June). These dynamics, along with the sluggish increase in GDP, have led the debt/GDP ratio (60% of GDP in December) to continue rising, while the debt burden stood at close to 2% of GDP.

The Banco de España projections point to a gradual improvement in economic activity during this year and the next.

The Banco de España March macroeconomic projections point to a gradual improvement in economic activity for this year and the next. The GDP growth rate is expected to stand at 0.8% in 2011 and at 1.5% in 2012. this scenario is expected to be compatible with job creation from the second half of this year. Nonetheless, these projections are shrouded in high uncertainty.[1]

1. For further details on these projections and the uncertainty surrounding them, see "Spanish economic projections report", *Economic Bulletin*, April 2011, Banco de España.

2.1 Deposit institutions

2.1.1 BANKING RISKS

The Spanish authorities took additional measures in the macroeconomic and banking areas, stepping up the transparency and core capital requirements.

Since the publication of the previous FSR, the Spanish authorities have taken measures additional to those adopted up to mid-2010 (see Box 2.1), both in the macroeconomic and in the financial spheres. In the macroeconomic field, a stringent fiscal consolidation plan was reaffirmed and structural reforms were undertaken in various areas, particularly in labour and pensions. In the financial domain, two lines of action were taken. First, the recommendations to institutions on transparency were made substantially more demanding, particularly with regard to their loan portfolios in the construction and real estate development sector and to their lending to households for house purchase. And second, in early March 2011 Parliament approved the Royal Decree-Law establishing the core capital requirements for all institutions at either 8% or 10%, as appropriate.

Banks have recognised losses on their assets through additional provisions amounting to the equivalent of 9% of GDP.

During 2010 savings banks embarked on processes of integration. At the same time, deposit institutions wrote-down their balance sheets, recognising €96 billion of losses on their assets through provisions since January 2008 (9% of GDP). They also increased their capital (tier 1) buffer by an amount similar to 5% of GDP. The new Royal Decree-Law makes it compulsory for banks to operate with these new levels of core capital. This, along with the progress in the processes of integration[1] and the increased bank transparency, should gradually strengthen confidence in the Spanish banking sector. However, for this to eventuate, it is also essential to successfully carry through the structural reforms and the fiscal consolidation programme.

The **consolidated total assets**[2] of deposit institutions as a whole stood at €3.78 trillion in December 2010 (see Table 2.1).

The sluggish lending to the Spanish resident private sector persisted,…

The financing to the private sector (credit plus fixed income) in December 2010 remained at the levels of December 2009 (see Table 2.1). A large part of the behaviour of the financing to the private sector in the consolidated balance sheets is explained by that of credit to the private sector resident in Spain, which, as analysed in greater detail below, fell at a year-on-year rate of 0.8%. Although this decline in credit to the resident private sector in Spain is less sharp than in December 2009 (-2%), the negative rate of change reflects the weak macroeconomic situation and difficult conditions in the international financial markets. The backdrop to these developments was one of progressive reduction in the debt of Spanish firms and households after a sharp increase during the prolonged period of economic growth.

Financing to general government posted a year-on-year change of 10% (see Table 2.1), which was less sharp than in December 2009. The lower, albeit still high, growth of this variable is

1. One of the operations making up the savings bank restructuring process (which involves a reduction from 45 savings banks to 17 savings banks or groups of savings banks) could not be concluded. This was the so-called Banco Base project, which would have combined four savings banks (Cajastur, Caja Cantabria, Caja Extremadura and Caja de Ahorros de Mediterráneo). In fact, it was the one integration project which did not have in place all the agreements and all the necessary authorisations to make the process irreversible under the conditions set by the Banco de España. The data included in this FSR on the restructuring processes do not consider this occurrence. See: http://www.bde.es/webbde/en/secciones/prensa/Notas_Informativ/anoactual/presbe2011_10e.pdf
2. In 2010 there was a process of adjustment which reduced the number of banking groups and, as a result, the first-time financial statements have updated book values. The consolidated balance sheets as at 31 December 2010 include aggregate figures of the banking groups existing at that date, which differ from those a year earlier. For their part, the consolidated income statements, since most of the aforementioned processes of integration took place in the last few days of 2010, relate to the groups which existed at the beginning, not the end, of the year, because otherwise most of the results would relate to a very brief period of time, which would prevent a proper understanding of how the business performed over the whole of 2010. In any event, in interpret ting the figures given in this FSR, the reader should take this considerations into account.

explained by the performance of fixed income, which slowed notably throughout the reporting period.

… while doubtful assets grew less sharply.

Total doubtful assets at consolidated level continued to post positive rates of change (14% in December 2010, see Table 2.1), but grew less sharply than in previous years (48% in December 2009 and 244% in December 2008). In line with the rise in doubtful assets, the total doubtful assets ratio at consolidated level stood at 4.1% (see Table 2.1).

MEASURES ADOPTED BY THE PUBLIC AUTHORITIES IN RELATION TO THE SPANISH BANKING SECTOR SINCE THE START OF THE CRISIS IN SUMMER 2007

BOX 2.1

Since the summer of 2007 there have been three specific crises which have impacted, to differing degrees, the Spanish banking sector. The aim of this Box is to briefly explain these crises and review the measures adopted in each of them.

The international financial crisis

The international financial crisis broke in summer 2007, and was exacerbated following the bankruptcy of Lehman Brothers in September 2008. At that time, as the habitual financial stress indicators reflected, the international financial system was on the verge of collapsing. The widespread worsening in confidence and the disappearance of liquidity, combined with the impact of financial products that were ultimately labelled as toxic, obliged different governments to assist large-scale banks at the international level.

The impact of this first phase of the crisis was very limited for Spanish banks, particularly as regarded their solvency. The reason was that Spanish banks pursued a traditional retail banking model, and did not partake of the originate-to-distribute model. Further, the regulatory and supervisory authorities at the Banco de España stipulated that off-balance sheet vehicles (conduits and SIVs) be consolidated, thereby demanding capital and provisioning requirements. As a result, Spanish banks, unlike those in other countries, did not create this type of off balance-sheets structure.

Notwithstanding, the situation on international financial markets was very difficult, as confidence and – by extension – liquidity evaporated. As part of the European measures in this connection, and to avoid a potential bottleneck from affecting Spanish banks, two mechanisms were adopted. The first was a high-quality asset acquisition programme (FAFA). And the second, guarantees for new issues by Spanish banks, aimed at endowing such issues with a greater degree of confidence in what was, as explained, a very complicated environment. It should further be added here that the Eurosystem approved the provision of unlimited liquidity.

The economic crisis in Spain

As was the case internationally, the year 2009 was marked by the crisis in the real economy. As regarded Spain, the incipient correction of the economic imbalances that had built up during the growth phase interacted with and exacerbated the prolonged and acute international financial crisis.

Unlike the previous phase of the crisis, the downturn in the real economy directly impacted Spanish bank balance sheets, through asset impairment, particularly assets linked to the real estate development sector. That highlighted the imbalances that the Spanish banking sector – especially some specific banks – had built up. Of specific note were the excessive investment in the real estate development sector, excess capacity, especially bearing in mind how financial and economic activity will foreseeably fare in the coming years, and the dependence on wholesale funding, since although maturities were concentrated in the longer-dated terms, such dependence exposed Spanish banks to the tensions still prevailing on international markets.

Looking ahead to the potential difficulties that certain banks might face, and following the experience gained after taking official control of Caja Castilla-La Mancha, the decision was taken in June 2009 to create the Fund for the Orderly Restructuring of the Banking Sector (FROB).

As is known, the FROB turns on two functions or mechanisms. First, it reinforces the intervention mechanism in the event it should have to act in a bank undergoing problems that affect its viability. In this respect, it is set up as a flexible mechanism that provides for measures to be taken in this type of situation. The second mechanism focuses on the provision of aid to institutions which, while viable, are involved in integration and restructuring processes. This second mechanism through which the FROB acts was also intended to reorder the banking sector so as to adjust its excess capacity, while affording greater operational size to banks which, otherwise, would face even greater difficulties gaining access to the wholesale funding markets.

From the entry into force of the FROB to date, its first mechanism, i.e. the intervention mechanism, has only had to be applied in the case of CajaSur. The second mechanism, that of supporting integration processes between viable institutions so as to strengthen their solvency and provide for their restructuring, has resulted in the approval of nine integration processes. Total aid committed by the FROB to these processes has amounted to €11.6 billion.

In addition to the integration processes supported by the FROB, three further integration processes have come to fruition. Thus, to date, 12 such processes have been finalised in the savings bank sector, in which 40 institutions have participated. Starting from a total of 45 savings banks in Spain, there are now 17 institutions or groups.

The action taken by the FROB in this area has responded to the objectives set. Firstly, the excessive fragmentation of the sector has been corrected, with average assets per institution (or group of institutions) rising from €29 billion to €76 billion. Further, capacity has been reduced, since the processes approved by the FROB entail restructuring plans that bear on cuts in costs and central services. Cuts in the number of offices of between 10% and 25% are expected, alongside staff cuts of between 12% and 18%. Finally, write-downs on the balance sheets of the institutions that have integrated have also been significant, with provisions charged to reserves increasing by €22 billion.

The sovereign debt crisis

The sovereign debt crisis affecting the euro area since early 2010 may be divided, in turn, into two episodes. The first derived from doubts over the sustainability of Greek public finances, doubts that fed through to other euro area countries and which, moreover, highlighted economic governance problems in the EU. This first episode of the sovereign crisis adversely impacted investor confidence about the soundness of the Spanish economy's fiscal position. The repercussion of this was a rise in the cost of financing sovereign debt, and this fed through to Spanish banks' financing possibilities. At the height of the tensions, the wholesale financial markets were closed to banks.

The financial sector measures adopted (adding to the government's structural reforms and its fiscal consolidation plan) turned on three elements: the tightening of provisioning rules, stress tests and reform of the regulatory framework for savings banks.

Provisioning rules were tightened in the summer of 2010. Although these rules were already demanding in Spain, the Banco de España decided to amend them in two directions. On one hand, to accelerate the need to provision all loans in default status (100% coverage in a year), explicitly recognising the value of the collateral (calculated after applying severe haircuts based on the type of collateral). And on the other, to require a provisioning schedule for foreclosures and assets delivered in payment of debt. The outcome of this tightening of provisioning rules, combined with the efforts already made by banks in this connection since early 2008, is that the provisions since set aside account for around 9% of GDP. Bank balance sheets have thus been most significantly written down since then.

The new savings bank legislation, approved via Royal Decree-Law 11/2010, addressed two weaknesses in the sector: its inability to obtain own funds through means other than retaining profits, and governance. The reform offers different possibilities to savings banks as regards their corporate structure, and in particular it resolves the aforementioned limitations and is conducive to a better exercise of market discipline over these institutions.

Finally, the stress tests conducted in Spain, as part of the European exercise in the summer of 2010, were favourably received by the financial markets. These tests were underpinned by several aspects, some of which distinguish them from those performed in other European countries. Firstly, the parameters used in the adverse scenario were very harsh. Secondly, virtually the entire Spanish banking sector was subject to these tests. Thirdly, highly detailed bank-by bank information was published. And finally, a previously created mechanism already known to the markets (the FROB) was at hand, which allowed the potential problems detected following the conducting of the stress tests to be resolved.

The second episode of the sovereign debt crisis had its epicentre in the problems that arose in Ireland; adding to the doubts over Irish fiscal sustainability was a strong lack of confidence concerning the banking sector, and in particular the quality of loans and investments related to the real estate sector. Investors questioned whether, in a fiscal situation they considered weak, it was possible to withstand banking sector losses that were greater than those that were initially conceivable.

The difficulties Ireland underwent quickly spread to other euro area economies. And this through two channels. Questioning the reliability of the stress tests published in Europe a few months earlier; and passing through the problems of the Irish real estate sector, and its links to the banking sector, to other countries in which there had also been sharp growth in house prices in the previous cycle. Although different problems are involved, at the centre of the latest episode of the sovereign debt crisis is Portugal, which in the opening weeks of April 2011 announced that it would seek financial assistance.[1]

In addition to deepening the structural reform and fiscal consolidation measures adopted by the government in Spain, two fundamental measures were taken in relation to the banking sector.

One involved a greater demand for transparency, especially regarding investment in the real estate development and construction sector, and also on the retail mortgage portfolio. Spanish banks must disclose this information in detail in their annual reports, although savings banks, subject to greater doubts, were required to do so earlier. Over the course of January, all savings banks have published this information, which will be included and auditors on the attendant annual reports. The remaining banks, in the main, have also disclosed this information ahead of schedule.

The second measure is the new Royal Decree-Law 2/2011, which raises the capital ratios required of Spanish banks to 8% or 10%, defining these ratios, moreover, in terms of core capital. A more detailed analysis of this legislation and its consequences can be found in Chapter 3 of this FSR.

1. See Box 2.2 regarding Spanish banks' exposure to Portugal

CONSOLIDATED BALANCE SHEET TABLE 2.1
Deposit institutions

ASSETS	DEC-10	CHANGE DEC-10/ DEC-09	RELATIVE WEIGHT DEC-09	RELATIVE WEIGHT DEC-10
	(€m)	(%)	(%)	(%)
Cash and balances with central banks	122,835	39	2.4	3.2
Loans and advances to credit institutions	215,039	-12	6.5	5.7
General government	89,024	22	2.0	2.4
Other private sectors	2,377,105	0	63.7	62.8
Debt securities	486,526	-4	13.6	12.9
Other equity instruments	61,639	-17	2.0	1.6
Investments	48,972	15	1.1	1.3
Derivatives	175,105	17	4.0	4.6
Tangible assets	50,186	8	1.2	1.3
Other (a)	157,031	22	3.5	4.2
TOTAL ASSETS	3,783,462	2	100	100
MEMORANDUM ITEMS				
Financing to private sector	2,507,055	0	67.6	66.3
Financing to general government	357,132	10	8.8	9.4
Total doubtful assets	129,087	14	3.1	3.4
Total doubtful assets ratio	4.08	51 (d)		
Provisions for bad debts and country risk (b)	85,013	23	1.9	2.2

LIABILITIES AND EQUITY	DEC-10	CHANGE DEC-10/ DEC-09	RELATIVE WEIGHT DEC-09	RELATIVE WEIGHT DEC-10
	(€m)	(%)	(%)	(%)
Balances from central banks	95,067	-23	3.3	2.5
Deposits from credit institutions	497,215	-2	13.7	13.1
General government	96,571	2	2.5	2.6
Other private sectors	1,814,553	4	46.8	48.0
Marketable debt securities	545,342	-12	16.8	14.4
Derivatives	161,749	20	3.6	4.3
Subordinated debt	105,245	3	2.8	2.8
Provisions for pensions, tax and other	35,869	2	0.9	0.9
Other (a)	212,444	64	3.5	5.6
TOTAL LIABILITIES	3,564,055	2	93.9	94.2
MEMORANDUM ITEMS				
Eurosystem net lending (c)	40,992		2.0	1.1
Minority interests	14,713	10	0.4	0.4
Valuation adjustments relating to total equity	-3,507	256	0.0	-0.1
Own funds	208,201	-2	5.7	5.5
TOTAL EQUITY	219,406	-3	6.1	5.8
TOTAL LIABILITIES AND EQUITY	3,783,462	2	100	100

SOURCE: Banco de España.

a. The remaining assets and liabilities not explicitly considered, including valuation adjustements, are included in "Other".
b. The figure for provisions in the consolidated balance sheet of €85 billion should not be compared with the €96 billion mentioned in this FSR for write-downs made by banks since the beginning of 2008 because they refer to different items. First, the amount of Table 2.1 refers to the end of the period and to consolidated business, while the write-downs figure refers to a flow since 31 December 2007 for business in Spain only. Second, the €85 billion are net of the derecognition required by law for certain transactions that have been doubtful for a specific length of time. Such derecognition must be carried out using provisions that have been set aside. In addition, the law also requires write-downs to be made against provisions in the case of mortgage loans that, as a consequence of enforcement of their collateral, have become foreclosed real-estate assets. Finally, the provisions set aside for foreclosed real-estate assets should be derecognised when such assets are sold.
c. Difference between funds received in liquidity providing operations and funds delivered in absorbing operations. Average figures for March 2011.
d. Difference in basis points.

Despite the difficulties still persisting in the funding markets, Spanish institutions significantly reduced the

Spanish deposit institutions continued to obtain **funding** from the Eurosystem, but from July 2010 to a much lesser extent. The lower recourse to funding from the Eurosystem shows that Spanish deposit institutions raise funds on the wholesale market when they can do so. They largely access the interbank market through their operations in central counterparty clearing *funding obtained from the Eurosystem.*

houses. However, that does not mean that the situation in the wholesale funding markets has fully returned to normal, and this is reflected in the behaviour of marketable securities (-12%) and, to a lesser extent, in subordinated debt (3%). The relative weight of private sector deposits in the consolidated balance sheets rose by 1 pp with respect to December 2009 (see Table 2.1).

The reduction in net worth partly reflects the processes of savings bank integration.

The **net worth** of Spanish deposit institutions decreased by 2.7%, which is largely explained by the decline in accounting own funds (2.3%). This fall partly reflects the effects of the processes of savings bank integration.

The risks associated with business abroad are linked to the operations conducted through subsidiaries, not to non-local activity.

Business abroad represented 26.5% of total consolidated assets in December 2010. The operations abroad of Spanish institutions are basically pursued through subsidiaries which are financially autonomous and centre their activity on retail commercial banking. Therefore most exposure abroad does not represent positions in third countries financed with funds raised outside those countries, but rather arises from the subsidiaries' ordinary activities, i.e. it reflects local activity financed in local currency. This is the case, for example, of Spanish banks' exposures in Portugal (see Box 2.2).

EXPOSURE OF THE SPANISH BANKING SECTOR TO PORTUGAL BOX 2.2

Spanish banks' exposure to their Portuguese counterparts amounted to €63.5 billion in December 2010.[1]

Irrespective of the fact that this volume of exposure accounts for only 1.7% of deposit institutions' consolidated assets, other factors must be taken into consideration to assess the significance of such exposure in terms of the potential losses that might arise from it in the event of problems materialising.

In particular, a distinction should be drawn between what are Spanish banking sector exposures on wholesale markets and financed with funds obtained, from what are exposures arising from the pursuit of banking activity in Portugal via subsidiaries and branches, i.e. local activity financed in local currency. This distinction is important because the risks differed substantially. The losses on holdings of Portuguese debt would pass through directly and immediately to the portfolios of holders of such debt. In the second case, the damage would be indirect, and would operate through the potential impairment of subsidiaries' income statements and of the value of Spanish groups' holdings in them. That is to say, in the latter case risk will depend on the subsidiary's assets and liabilities structure and on its capacity to manage a more difficult situation.

In the case of the Spanish banking sector, 88% of the aforementioned amount is attributable to local activity by subsidiaries, and to a lesser extent branches, of Spanish groups. 95% of such activity is concentrated in the Spanish groups with the best credit ratings and with greater experience in the management of geographically diversified activities. Further, the relative weight of Portuguese subsidiaries in these groups is low, ranging from 2.1% to 6.3% in terms of total assets. The activity of these subsidiaries is concentrated in the financing of resident private sector activities (87%) and is funded in the main by customer retail deposits raised in Portugal.

The exposure held by these Spanish banking groups in Portuguese general government (the bulk of which central government) debt of local exposure. Moreover, the losses that may have are already recognised on balance sheets, since the portion of this debt classified in the "held-to-maturity" portfolio is not significant. Nor is the amount of financing extended by Spanish groups to the Portuguese particularly sizeable, and in any event it is concentrated in the country's main banks.

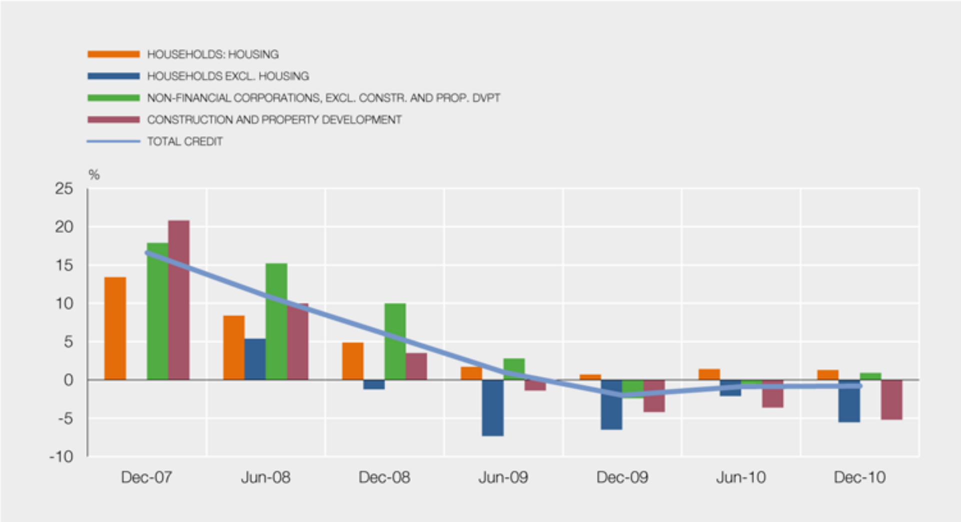
Accordingly, the main potential channel of contagion for Spanish banks stems from how subsidiaries pursuing their activity in Portugal fare. And it is therefore confined to the impact this may exert as a result both of the impairment of subsidiaries' income statements and of Spanish groups' ownership stakes in these parents. This potential impact, even though it may be of some importance, would not be significant for Spanish banking groups.

Finally, non-local activity, i.e. that not directly pursued by Spanish groups in Portugal, accounts for only 0.2% of the Spanish banking sector's total assets.

1. It amounts to €79.1 billion, 2.1% of overall deposit institutions' assets if, in addition to financial assets, contingent commitments are considered.

YEAR-ON-YEAR RATE OF CHANGE IN CREDIT TO THE RESIDENT PRIVATE SECTOR. BUSINESS IN SPAIN. ID
Deposit institutions

CHART 2.1



SOURCE: Banco de España.

Credit to the resident private sector posted negative year-on-year changes,…

Based on the individual bank information,[3] **credit to the resident private sector in Spain** showed negative year-on-year rates of change (-0.8% in December 2010, see Chart 2.1). The most recent data, relating to February, show that this trend persists (-1%).

There are significant differences in the behaviour of credit to the resident private sector depending on the sector of activity (see Chart 2.1). Thus, in December 2010, loans on the balance sheet granted to individuals remained at the same levels as a year earlier, although those for house purchase rose somewhat more than 1% year-on-year. The increase in loans of this kind, particularly in the closing months of the year, was partly due to the rise in demand derived from spending decisions being brought forward to end-2010 for tax reasons. This would be consistent with the more recent behaviour, relating to January and February, of this kind of credit, which posted negative growth rates. Meanwhile, loans to individuals for purposes other than house purchase showed a negative change of 5.5%, which, although sharper than that a year earlier (-2.1%), is smaller than that in June 2010(-6.5%).

… particularly that to construction and real estate development firms.

Lending to non-financial corporations behaved very differently depending on whether it was to construction and real estate development firms or to other firms. Thus loans to construction and real estate development firms decreased by 5.2% in December 2010 (-4.2% in December 2009). Those to other firms grew slightly in December 2010 (0.9%) after showing negative rates of change in June 2010 (-0.5%) and December 2009 (-2.4%).

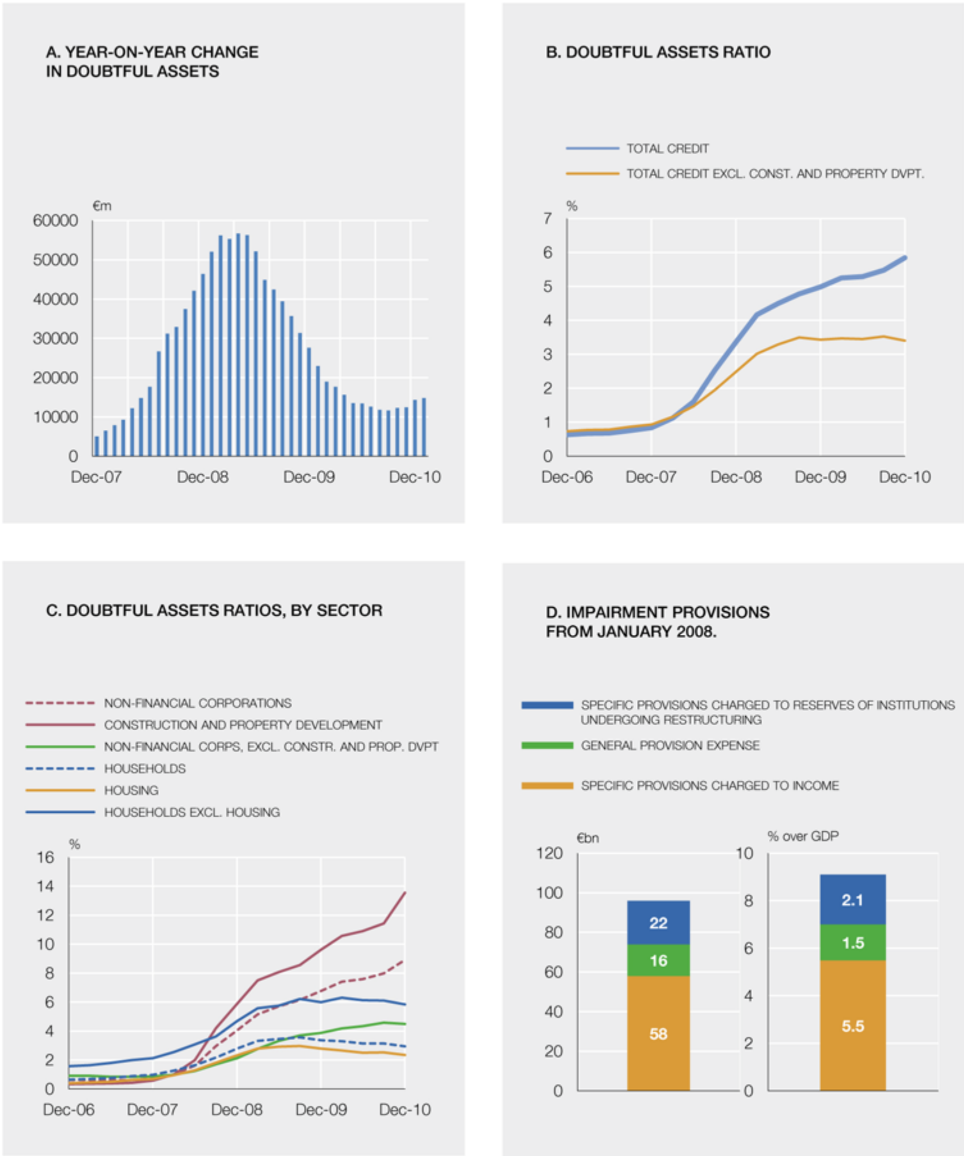
However this variable is not expected to recover

Despite the relative recovery in credit for activities other than construction and real estate development, this variable is not expected to increase significantly in the next few months.

3. The FSR uses consolidated data, which include activities abroad by Spanish institutions through subsidiaries, but also other data relating to individual balance sheets. The latter, whose use is indicated in the text, and likewise in the charts (by means of the abbreviation ID), allows the analysis to focus on the risks associated with developments in the Spanish economy and makes for a more detailed analysis owing to the greater information available.

DOUBTFUL ASSETS AND PROVISIONS TO THE RESIDENT SPANISH PRIVATE SECTOR
Deposit institutions. ID

CHART 2.2



SOURCE: Banco de España

significantly in the coming months.

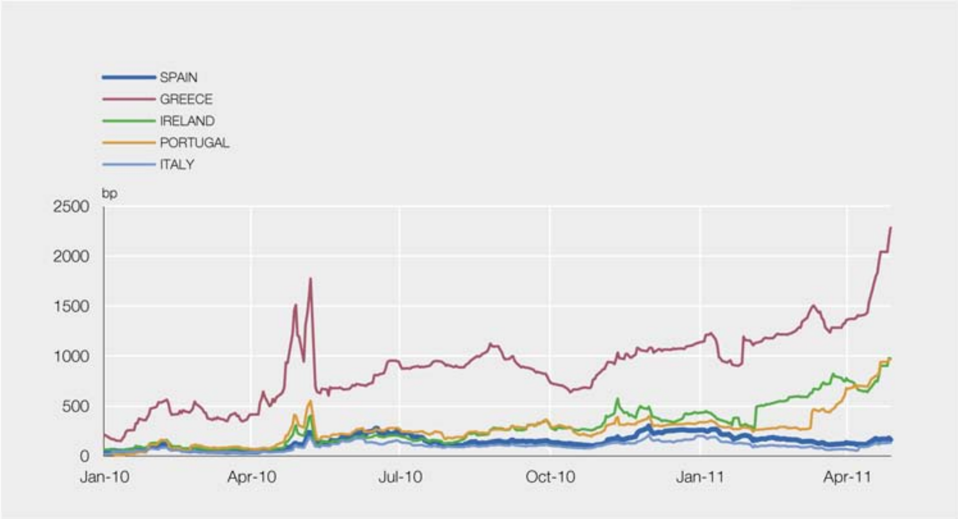
The uncertainty still prevailing with respect to the real economy and to the situation of the international financial markets further complicate the process of reducing the debt of Spanish firms and households following its notable rise in the years of economic expansion.

The **doubtful assets of the resident private sector in business in Spain** posted a rate of change of 16% in December 2010. The rise in the closing months of 2010 (see Chart 2.2.A) is associated with construction and real estate development (see Chart 2.2.B).

The increase in the doubtful assets ratio, which is moderate,…

The **doubtful assets ratio of the resident private sector in Spain** stood at 5.9% in December 2010. The trend of this variable, as indicated by the most recent data relating to February 2011, continues to be upward (6.2%). However, its rate of increase is lower than in previous quarters.

TWO-YEAR GOVERNMENT BOND YIELDS: SPREAD WITH GERMANY CHART 2.3



SOURCE: Bloomberg

… is concentrated in the construction and real estate development sector.

The increase in doubtful assets in credit to the resident private sector in the fourth quarter of 2010 is concentrated in the construction and real estate development sector. The doubtful assets ratio excluding that sector edged down from 3.5% in September 2010 to 3.4% in December 2010 (see Chart 2.2.B), whereas that of the construction and real estate development sector persisted in its upward trend. Thus, within non-financial corporations, credit for activities other than construction and real estate development went from 4.5% in September 2010 to 4.2% in December 2010 (see Chart 2.2.C).

The fall of the doubtful assets ratio in lending to individuals for house purchase was confirmed in 2010.

For individuals, the doubtful assets ratio in lending for purposes other than house purchase started to decrease from June 2010 when it was 6.1%, and by December 2010 it stood at 5.9%. Meanwhile, lending to individuals for house purchase showed a doubtful assets ratio of 2.8% in December 2009. Since then it has decreased gradually to 2.4% in December 2010 (see Chart 2.2.C).

The retail mortgage portfolio has traditionally been little troubled by doubtful assets,…

In Spain, the **retail mortgage portfolio** has traditionally shown the lowest doubtful assets ratio. Thus, for example, in 1993, when the unemployment rate rose to around 24% and interest rates were five times higher than now, the doubtful assets ratio for house purchase loans was 4 pp lower than that for total loans.

… and a factor limiting the potential damage is the value of the collateral relative to that of the loan.

In addition to the foregoing, house purchase loans are backed by real estate collateral which consists of the very asset being financed. The purpose of this collateral is to limit banks' potential losses. It is thus pertinent to look at the value of the loan with respect to the appraisal value of the collateral (LTV). This LTV averages 62% for Spanish banks and is distributed very evenly across them. Only 1.8% of house purchase loans have a LTV exceeding 100%, and 17% have a LTV between 80% and 100%.

Construction and real estate development loans have a high doubtful assets ratio.

Above it was noted that the increase in the ratio of doubtful loans to the private sector in Spain between September and December 2010 is explained by the increase in that ratio for **loans to the construction and real estate development sector**. The doubtful assets ratio of this sector reached 14% in December 2010 for total deposit institutions. The higher risk associated with this sector, which is currently undergoing extensive adjustment, derives from its markedly cyclical profile.

The definition of potentially troubled loans adopted by the Banco de España includes standard loans under surveillance and foreclosed assets.

The potentially troubled loans in the construction and real estate development sector are not limited to doubtful assets. The Banco de España has adopted a rigorous stance in this respect and has defined potentially troubled loans to include standard loans under special surveillance and foreclosed assets and those received in satisfaction of debt. Standard loans under special surveillance are those which, although still current in payment, exhibit some weakness associated with the loan transaction itself or with the sector or borrower group with which the transaction was carried out. Banco de España rules require specific provisions to be set aside for these loans. Foreclosed assets and those received in payment of debt arise as a result of default on collateralised loans. The Banco de España supervises these transactions so that in no case do they result in delay in recognition of losses and it requires provisions to be recorded from the time of foreclosure (if not already in place).

The serious difficulties experienced by the Irish banking sector reawakened misgivings as to the potential losses on Spanish banks' loans to the construction and real estate development sector, particularly those of savings banks. The stress tests published by the Banco de España last July, which in Spain factored in falls of 50% and 62% in the price of houses under construction and of land, respectively, initially merited a favourable reception from investors (due both to the harshness of the scenarios and to the degree of coverage and the detailed institution-by-institution information published).

The Banco de España required total transparency from institutions in respect of their exposures to construction and real estate development.

For these reasons, in November 2010 the Banco de España decided that banks have to publish full details of their exposures to the construction and real estate development sector in their financial statements. Further, since the misgivings centred especially on the savings bank sector, these institutions were required exceptionally to publish this information early, which they did at the end of January 2011[4].

For savings banks, the provision coverage of potentially troubled loans is 31%.

For savings banks, 46% of total lending to construction and real estate development firms is potentially troubled. Its coverage by specific provisions set aside by savings banks is 31%, this figure rises to 38% if general provisions are taken into account.

Since the beginning of the crisis, Spanish deposit institutions have written down their balance sheets by an amount equivalent to 9% of GDP…

These percentages of coverage reflect the notable effort made by Spanish banks in **writing down their individual balance sheets since the beginning of 2008**. Thus, from that time until now, the amount of the asset value adjustments via provisions is equal to approximately 9% of GDP for total deposit institutions. Of this total amount, €58 billion arose through provisions recorded via the income statement, €16 billion came from the release of previously recorded general provisions and €22 billion reflect an addition to provisions with a charge to reserves as a result of balance sheet write-downs by the savings banks which have participated in integration processes (see Chart 2.2.D).

… and have increased their tier 1 capital buffer by 5% of GDP.

To the foregoing should be added a notable increase in the tier 1 capital buffer over minimum requirements between 2008 and December 2010. This increase was equivalent to 5% of GDP.[5]

---

4. In this regard see the notice published by the Banco de España "Savings banks: development and reform" on 21 February 2011.
(http://www.bde.es/webbde/es/secciones/prensa/reestructura_sane/ficheros/Notareformacajas20110217_IVI_en.pdf)

5. This increase includes the contributions from the FROB already committed prior to Royal Decree-Law 2/2011.

2010 was characterised by bouts of tension in the euro area public debt markets.

Since the outbreak of the international financial crisis in the summer of 2007, the funding markets have been beset by notable difficulties. During 2010 these difficulties intensified as a result of the episodes of tension associated with the sovereign debt crisis in the euro area.

In the first half of 2010, the tension was triggered by the fiscal sustainability problems of Greece, which spread to the other euro area economies.

In the first half of 2010, the sovereign crisis in the euro area was sparked by the fiscal sustainability problems of Greece. The doubts in this respect degenerated into a crisis of confidence, which particularly affected the economies whose budget deficits had worsened most or which had major imbalances. The Spanish markets were among those most affected by this period of tension, as evidenced by a rise in the risk premium (see Chart 2.3) and by a drop in the volume of debt securities issued by credit institutions, particularly in the second quarter of 2010.

The measures adopted by the Spanish authorities helped to improve investor confidence.

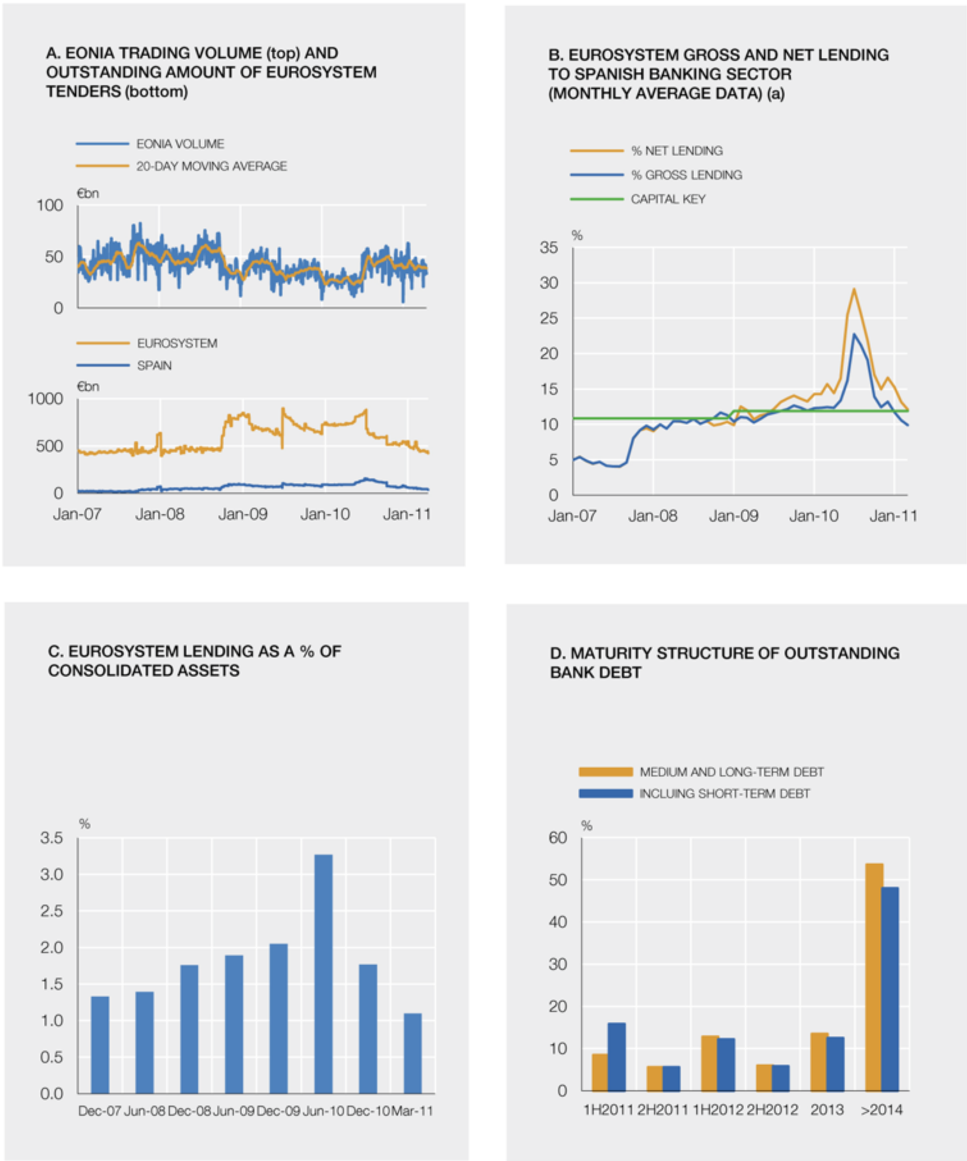
The measures taken by the Spanish authorities helped to improve investor confidence. First, a severe fiscal consolidation programme was adopted and structural reforms were undertaken. Second, in relation to the banking sector, not only was headway made in the savings bank restructuring under the auspices of the FROB, with amendments to the savings bank law, but also the already strict provisioning rules for Spanish banks were further tightened and the stress tests on the Spanish banking sector were published. In this respect, the stress tests conducted and published in Spain within the European framework used very strict stress parameters, encompassed practically all the Spanish banking sector and allowed the publication of highly detailed bank-by-bank information.

As a result of this set of measures, and following the favourable reception of the stress tests conducted in Spain, an improvement was seen. This was perceptible in the reduction in the risk premium and in Spanish banks' greater dynamism on both the primary markets and the interbank market, and there was progressively less resort to liquidity provided by the Eurosystem.

There was a further bout of tension in late 2010, on this occasion further to Ireland's problems with its banking sector.

However, in late 2010 there was a second bout of tension on the euro area sovereign debt markets, the epicentre of which was Ireland and the problems unfolding there. In this case, market doubts focused on the viability of Irish banks, in particular due to their exposure to the real estate sector, and on the capacity of the Irish public sector to withstand greater-than-expected losses arising from the banking sector. This episode spread to other euro area economies through two channels. The problems of the Irish banking sector and its links to the real estate sector were equated with those potentially existing in other countries, and the Europe-wide stress tests were called into question. With regard to the latter, the EBA is conducting European solvency tests during the first half of 2011, whose results are expected to be released by mid-June. The total number of institutions taking part is 91, 27 of which are Spanish, accounting for 88% of the Spanish system's total assets. The principal difference with this year's tests is the definition of capital used, which has taken into account the capacity to absorb losses under the going concern assumption as the chief quality of capital components. This is why Core Tier 1 has been defined as Tier 1 minus any type of hybrid plus any instrument subscribed by the State. The level set for approval is 5%. Notable also among the changes is the consideration of a harsher macroeconomic scenario, which includes a significant increase in the cost of funding for institutions, linked to sovereign risk, the application of more restrictive methodological assumptions and an exhaustive quality review of the results by the EBA.

WHOLESALE MARKET FUNDING CHART 2.4



SOURCE: Banco de España

a. Gross lending: funding extended by the Eurosystem via tenders (main refinancing operations, longer-term refinancing operations and structural operations). Net lending: total funds received by institutions in liquidity operations (adding marginal lending facilities, fine-tuning operations and operations adjusting collateral margins to what is included in gross lending) net of the funds deposited in liquidity absorption operations.

In any event, the contagion to the Spanish banking sector was notable, calling into question the quality of bank balance sheets, and in particular that of assets most linked to the real estate sector.

However, following the new measures adopted by the authorities, there has been a decoupling of the Spanish sovereign spread from those

The authorities reaffirmed their adhesion to the fiscal consolidation programme and structural reforms. And this, along with the new banking measures adopted, requiring firstly total transparency by banks regarding their exposures to the real estate sector, and further significantly increasing capital requirements (see Chapter 3), has contributed to the sovereign spread trending favourably, with a decoupling from developments in the countries most *of the economies subject to the biggest problems.*

affected by the market tension (see Chart 2.3). However, Spanish banks, whose activity is highly geographically diversified, have had to bear greater issuance costs, in view of the link between the sovereign risk premium and the risk premium that markets demand of these banks for their issues. These higher issuance costs are observed in particular in comparison with those that the market demands of the banks of other countries with lower sovereign spreads, and this irrespective of the specific situation of the banks in question.

Spanish banks have continued resorting to the money markets...

Spanish banks, confirming what has been seen since July 2010, have continued resorting to the interbank market, largely through the central counterparty clearing houses. As a result of the financial crisis, bilateral operations on these interbank markets ground to a halt. CCPs offer a market solution here, acting on their own account and freeing institutions from the counterparty risk inherent in the traditional interbank market. The money markets, despite still being affected by uncertainty and mistrust, have remained relatively stable following their recovery since July 2010 (see Chart 2.4.A).

...which has made for a marked decline in funds borrowed from the Eurosystem.

The above developments have made for a marked decline in dependence on Eurosystem funds, more notably so for Spanish banks than for the euro area as a whole(see Chart 2.4.A). From late September 2010 to late March 2011, banks resident in Spain reduced their gross recourse to the Eurosystem by €36.61 billion (-49%), while the reduction in the outstanding balance in the Eurosystem as a whole stood at €89.28 billion (-17%).

Chart 2.4.B shows the changes in the volume allotted to institutions resident in Spain compared with the total provided by the Eurosystem. The percentage allotted in auctions to institutions resident in Spain has progressively fallen from its peak in July 2010. Compared with an average fall of 23% for July (29% in terms of the net loan), in September 2010 and in March 2011 the respective figures were 19% (22% in terms of the net loan) and 10% (12% in terms of the net loan) (see Charts 2.4.B and C), which is once again around Spain's capital key in the euro area.

Access to the primary markets, though it has improved, continues to be difficult and subject to high spreads.

Access to the primary markets, particularly the mortgage covered bond and senior debt markets, which had improved for Spanish banks following publication of the stress tests, became more complicated following the fresh outbreak of tension caused by the problems in Ireland. Although they have improved, security issues during the course of 2011 have been limited and generally the spreads of those that have been placed remain high. Conceivably, the measures taken at the end of 2010 to increase the transparency of Spanish banks, the higher core capital requirements (ratios of 8% or 10% under the new Royal Decree-Law) and the progressive recovery of economic activity in Spain will help to gradually build up investor confidence.

Maturities are concentrated in the longer terms.

The maturity structure of the medium- and long-term debt of Spanish banks is characterised by having the bulk of maturities at longer terms. The maturity profile is similar if short-term debt is included, albeit with an increase in the proportion of maturities in 2011 (see Chart 2.4.D).

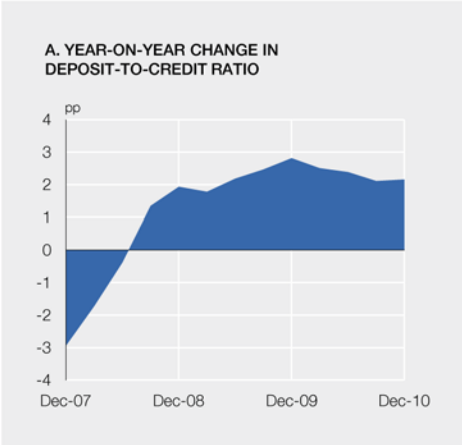
The drastic changes wrought by the financial crisis on the wholesale debt markets have induced financial institutions to begin readjusting the mix of their liabilities so that retail deposit funding is given greater relative importance than in the years before 2007.

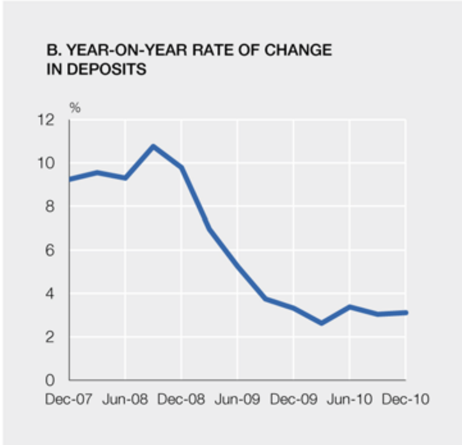
Banks have continued attracting more retail deposits, but at a more moderate pace…

Although Spanish banks have traditionally enjoyed a solid retail deposit base, they also are participating in this general process of bank balance sheet restructuring. Thus the receipt of more corporate and household saving means that the ratio of deposits to loans has grown uninterruptedly since July 2008 (see Chart 2.5.A). This is occurring despite the fact that the growth

DEPOSITS OF HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS
Deposit intitutions. ID

CHART 2.5





SOURCE: Banco de España.

rate of deposits, after various quarters in which it exceeded 10% per annum, has become progressively more subdued. The moderation of deposit growth rates (see Chart 2.5.B) is a natural consequence of, on one hand, the notable growth rate in previous years, and, on the other, the macroeconomic setting faced by households and firms.

… while the rates offered for time deposits continue to put upward pressure on funding costs. The FROB has set limits in this respect on the institutions that have received funds.

The heightened competition to attract retail deposits has put upward pressure on the rates offered for new time deposits. This brisker competition is a consequence of the higher cost of wholesale funding and of the balance sheet restructuring by banks. Although the higher cost of new time deposits has fed through only gradually to the average interest costs of banks (and thus to the income statement), the Banco de España has nevertheless cautioned them against the undesirable consequences of particularly aggressive commercial policies. Not only has it reminded banks that they should counteract the negative effect on the income statement by cutting costs more sharply, but also the FROB has instructed the institutions receiving public funds in integration processes that the nominal interest rate offered by them must not exceed the average of the highest rates on comparable products offered by the five main competitor credit institutions in the institution’s geographical market that have not received aid from the FROB. In addition, commercial actions must not negatively affect the income statement and must be in keeping with the business plan objectives set in the integration plans approved for the grant of aid.

2.1.2 PROFITABILITY

Consolidated profit fell…

Deposit institutions reported **consolidated profit attributed to the group** of €16,734 million from January to December 2010 (see Table 2.2)[6]. Return on assets (ROA) fell by 7 basis points to 0.47% in December 2010. Return on equity was also down, dropping from 9% in December 2009 to 7.9% in December 2010 (see Chart 2.6.A).

These results are basically explained by two factors. The first is a fall in net interest income. The second is the impairment losses on financial assets (basically specific provisions) and non-financial assets (provisions for foreclosures and assets received in satisfaction of debt, among others), which continue to have a significant weight in income statements.

6. An analysis of these figures should take into consideration the circumstances mentioned in footnote 2 on this Chapter.

CONSOLIDATED INCOME STATEMENT
Deposit institutions

TABLE 2.2

	DEC-10		DEC-09	DEC-10
	€m	% CHANGE DEC-10/ DEC-09	% ATA	% ATA
Financial revenue	122,116	-14.7	4.14	3.42
Financial costs	56,321	-22.5	2.10	1.58
Net interest income	65,795	-6.6	2.04	1.85
Return from capital instruments	2,400	-1.5	0.07	0.07
Share of profit or loss of entities accounted for using the equity method	3,680	58.6	0.07	0.10
Net commissions	22,781	4.3	0.63	0.64
Gains and losses on financial assets and liabilities	9,921	-8.5	0.31	0.28
Other operating income	-426	n.s.	0.00	-0.02
Gross income	104,151	-3.5	3.12	2.92
Operating expenses	48,882	4.7	1.35	1.37
Net operating income	55,269	-9.8	1.77	1.55
Asset impairment losses (specific and general provisions)	26,349	-22.1	0.98	0.74
Provisioning expense (net)	4,761	101.7	0.07	0.13
Operating profit	24,159	-3.7	0.72	0.68
Asset impairment losses (assets other than loans and credits)	4,904	-29.1	0.20	0.14
Income from disposals (net)	3,514	-24.6	0.14	0.10
Profit before tax	22,769	-0.2	0.66	0.64
Net income	18,772	-6.5	0.58	0.53
MEMORANDUM ITEM				
Income attributable to the controlling entity	16,734	-9.9	0.54	0.47

SOURCE: Banco de España.

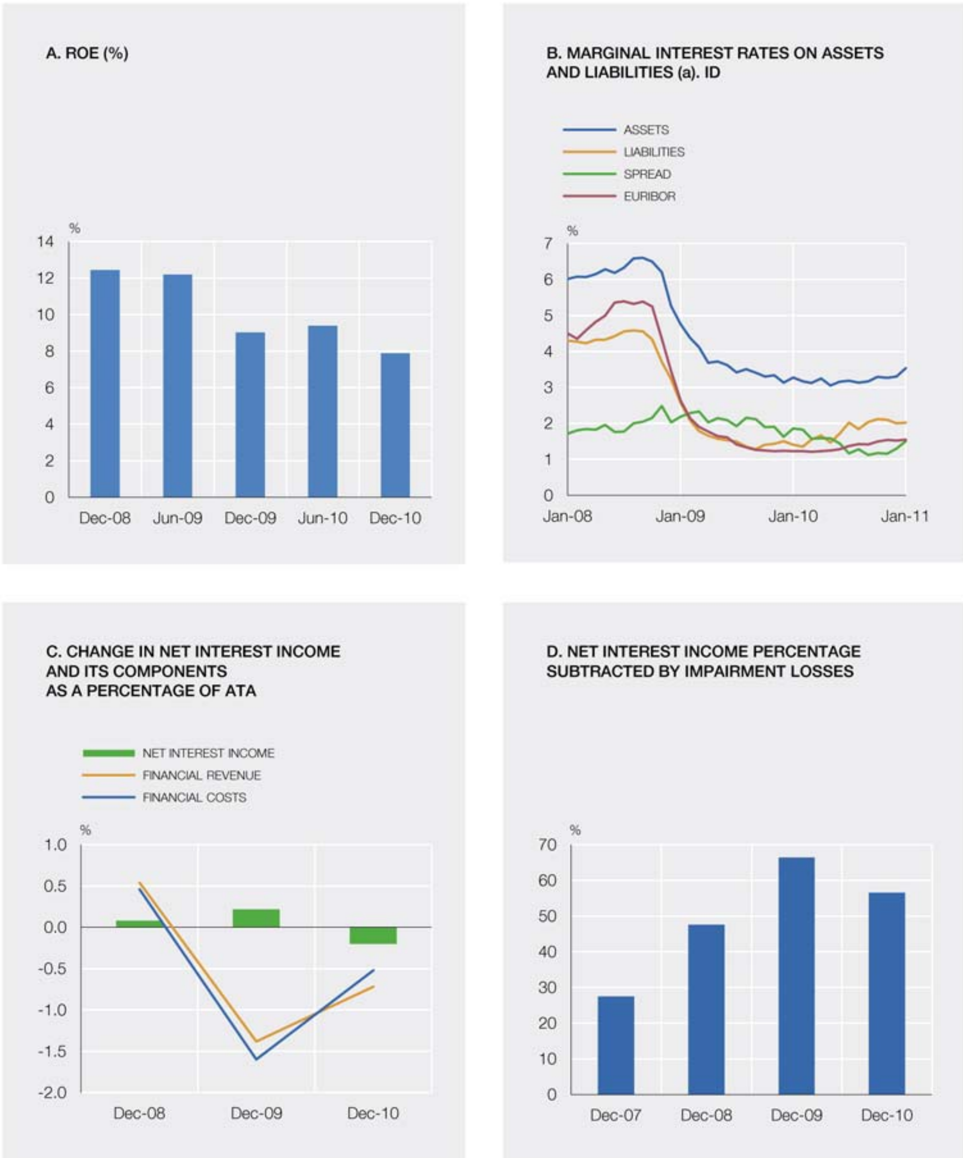
… due to the narrower net interest margin…

Although financial costs fell in absolute terms more than financial revenue (-22.5% compared with -14.7%, respectively), the opposite occurred in terms of average assets (see Table 2.2). This resulted in a narrowing of the net interest margin which in absolute terms fell by 6.6% in December 2010 compared with the previous year (see Table 2.2), although the shrinking trend in the difference between marginal rates reversed slightly in the closing months of 2010. The reasons for that narrowing have not changed. To begin with, the cost of new time deposits has increased (see Chart 2.6.B) due to stronger competition among banks to attract retail savings. Although the average cost of liabilities changes more slowly, the increase in the cost of new funding is a factor which exerts upward pressure on it. This, along with the sluggish economic activity and the volume of non-interest-earning doubtful assets still on bank balance sheets, explains the downward pressure on the net interest margin (see Chart 2.6.C).

In any event, as noted above, if the strategies for attracting retail deposits put upward pressure on the average cost of funding, they must be accompanied by measures to lessen their negative impact on the income statement. There are two ways to do this. First, by reducing and optimising operating costs, and second, by balance sheet management to offset the fall in profitability by, for example, divesting unprofitable assets and improving the quantity and quality of services provided. For institutions that have received public funds to undertake processes of integration, the FROB has established the aforementioned limitations

RESULTS
Deposit Institutions

CHART 2.6



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 asset-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.

on the interest rates they can offer their customers, and, moreover, they must complete their integration and restructuring plans as soon as possible .

… and due to the weight of specific provisions.

Apart from the narrower net interest margin, the other factor exerting downward pressure on income statements is **impairment losses on financial assets** (specific provisions) and those associated with other assets (largely foreclosed assets). Thus provisions continued to eat up a substantial part of banks' net operating income: 56.5% in December 2010 (see Chart 2.6.D). However, in December 2009 their impact on net operating income was greater (66.5%).

There are two reasons for the lower, albeit still significant, relative impact of provisions. The first is the behaviour of doubtful assets, the rate of increase of which is progressively moderating.

The second is the charge to reserves of €22 billion in various processes of integration, which did not have an effect on income statements but impacted net worth.

2011 will foreseeably still be a complicated year for income statements, since the aforementioned factors will keep putting downward pressure on them. It can, however, be expected that the specific provisioning needs of banks will progressively diminish.

In any event, banks must reduce their operating costs…

A key factor in alleviating the pressure on income statements is **operating expenses**. In December 2010 consolidated operating expenses increased by 4.7% year-on-year[7]. However, in business in Spain they increased minimally, by 0.5%. Despite the moderation in operating expenses, banks have to make additional efforts to reduce them because they are the component of the income statement which can be used most effectively to counteract the shrinkage of the net interest margin and the still high, albeit falling, provisioning needs. Also, in the measure appropriate in each case, banks will have to correct their excess capacity.

… which the new savings bank groups will foreseeably do this year.

During 2011 the institutions involved in processes of integration will foreseeably cut their operating costs and, at the same time, the synergies derived from those processes will start to materialise. Thus, after the processes of integration were defined in 2010 (the year in which the issues relating to the governance of the new institutions were clarified) the emphasis will now be on focusing efforts on operating aspects, including most notably cost optimisation. Moreover, the institutions that received public funds have made specific commitments in this respect in their restructuring plans.

Comparison of the 2010 results of the major European banks with those of the largest Spanish banks shows that in relative terms the return on equity continues to be favourable to the latter (see Chart 2.7.A). Nevertheless, the CDS spreads for large Spanish banks, although they have narrowed, are higher than for large European banks. The sovereign crisis and the uncertainty still prevailing in the market in this respect affect Spanish banks negatively, and this also impinges on their stock market prices (see Chart 2.7.B).

2.1.3 SOLVENCY

The tier 1 solvency ratio increased,…

The **overall solvency ratio** stood at 11.9% in December 2010, 33 bp less than in the same period of the previous year. However, the tier 1 ratio, which includes higher quality capital than the overall solvency ratio, amounted to 9.6%, 31 bp more than in 2009[8] (see Chart 2.8.A). The disaggregated analysis shows that a large number of banks increased their tier 1 ratio (see Chart 2.8.B).

… the slight rise in risk-weighted assets…

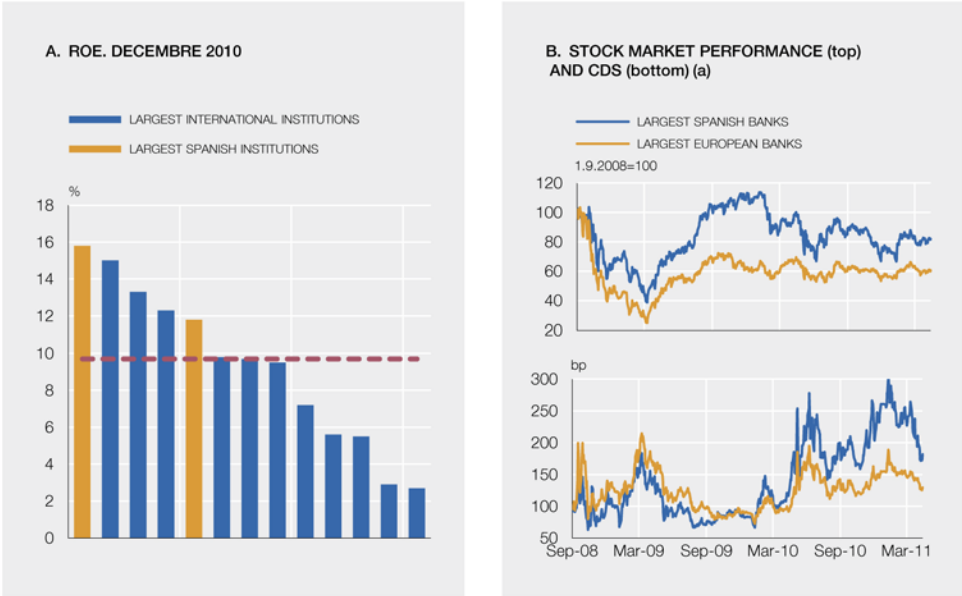
Risk-weighted assets, the denominator in the calculation of the solvency ratio, fell by 1% in December 2010, against a background in which lending activity continued to contract (see Chart 2.9.A). Thus, credit risk requirements, with a weight of 87% in the total, decreased by 2.3%, as compared with growth of 1.3% recorded at end-2009. The next most important risk (weight of 8%) is operational risk, which decelerated by 7.5 pp to grow at 1.7%, while market and exchange risk (weight of 4%) rose by 31.8%.

… being offset by the increase in higher-quality own funds.

Total own funds fell in 2010 by 3.7% following their strong rate of growth in December 2009 (8.9%). However, there was an improvement in the quality of own funds, since tier 2 capital fell more quickly, at a rate of 16.7%, while tier 1 capital, albeit more slowly (12.4 pp less than a year earlier), continued growing (3.5%, see Chart 2.9.B).

7. Note that this figure refers to the consolidated income statement, which includes business activity abroad and is not therefore reflect the changes in institutions' internal costs. Such changes are influenced, into earlier, by exchange rates and shifts in the scope of consolidation.
8. From June 2008 the figures are calculated as stipulated by CBE 3/2008, which transposes to Spanish law the EU directives setting out the changes to solvency rules made by Basel II.

INTERNATIONAL COMPARISION AND MARKET INDICATORS CHART 2.7



SOURCES: Datastream, information published by institutions and Banco de España.

a. Latest data correspond to 13 April 2011.

Tier 1 capital continued growing thanks to the strong pick-up in common equity (10.7 pp), which posted a rate of change of 17.1%. Reserves decreased by 3.6% after growing by 15.2% in 2009, although the tier 1 category was boosted by the FROB aid and the issuance of convertible bonds. Intangible assets slowed by 4.4 pp but continued growing due to the rise in goodwill (7.9%) (see Chart 2.9.C).

Tier 2 capital fell more steeply (16.7%) as a result of a decline in all its components (see Chart 2.9.D). Specifically, subordinated debt, with a weight of 77%, dropped by 13.8% as compared with no change in 2009, revaluation reserves fell by 52% and corrections to valuation adjustments were down by 63.5%.

In any event, since the approval of Royal Decree-Law 2/2011 Spanish banks operate with core capital of 8% or 10%.

On 10 march 2011 Parliament passed **Royal Decree-Law 2/2011** on new financial system reform measures. This Royal Decree-Law, the content and implications of which are analysed in more detail in Chapter 3 of this FSR, imposes a new core capital ratio of 8% for all deposit institutions.[9] This ratio will be 10% for the institutions which depend more on wholesale funding[10] (i.e. those for which the ratio of wholesale funding less liquid assets to customer loans exceeds 20%) and whose third-party equity holders do not own at least 20% of capital.

The institutions which have to increase their capital and cannot do so through the market will obtain it from the FROB.

Spanish deposit institutions which have to increase their capital to meet the new requirements may seek the necessary funds in the market but, as explained in detail in Chapter 3 of this FSR, the FROB will be available to provide such funds as may be needed to meet the requirements of the Royal Decree-Law. This provision of funds, where needed, will be temporary.

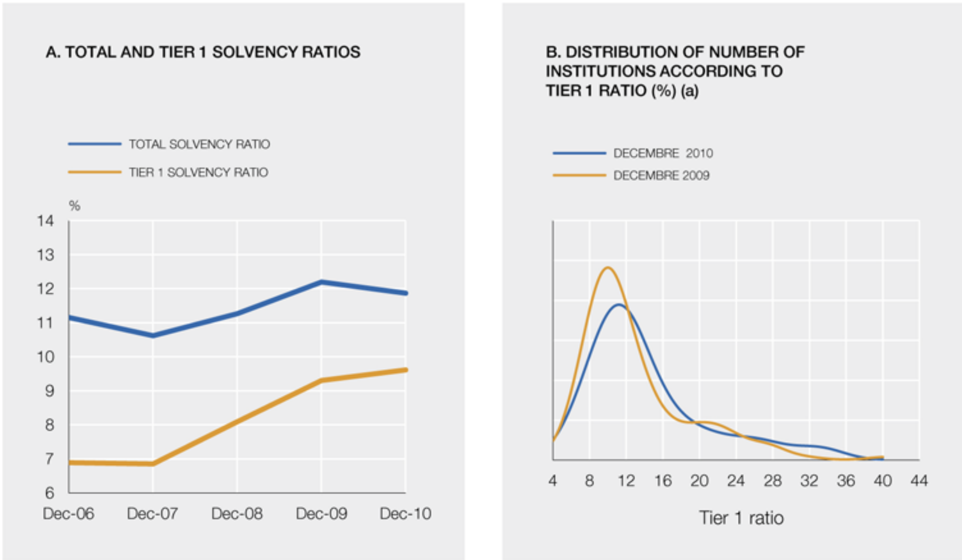
The capital required to comply with Royal Decree-

On 10 March the Banco de España published the capital needed by the institutions that have to increase capital to meet the new capital requirements. Of a total of 114

9. The Tier 1 ratio shows the relationship between regulatory capital and risk-weighted assets, defining regulatory capital as capital, reserves and certain preference shares, less deductions that detract from its quality such as goodwill, for instance. Common equity Tier 1 is a new ratio established under Basel III, which focuses on higher-quality capital, essentially because it does not accept reference shares among the components of capital and it is more demanding in respect of regulatory adjustments. Finally, core capital is the concept introduced by RDL 2/2011 and, as indicated in Chapter 3 of this FSR, it is close to the Basel III concept of common equity Tier 1.
10. Wholesale funding is defined in Banco de España Circular 2/2011.

SOLVENCY
Deposit institutions

CHART 2.8



SOURCE: Banco de España.

a. Non-parametric estimation of the density function, which provides a continuous and smoothed graphic representation of such function. As it is based on the number of institutions, they all have the same weight in the distribution, without the larger ones being more weighted. A shift rightwards in the distribution denotes an improvement in solvency.

Law 2/2011 is €15,152 million and affects 12 institutions or groups of institutions.

institutions or groups of institutions (54 excluding credit cooperatives, none of which needs additional capital to comply with the new Royal Decree-Law), 12 need more capital, totalling €15,152 million. Of these 12 institutions, 8 are savings banks, which have to obtain €14,077 million (93% of the total) and 4 are commercial banks, which account for the remaining amount and of which one is a Spanish medium-sized commercial bank, one is a small commercial bank and two are subsidiaries of EU banks[11].

The entry of private capital and the temporary nature of the FROB aid provide powerful incentives for the restructuring of the banking sector.

The aforementioned amount, €15,152 million, ensures that Spanish banks operate at minimum levels of core capital which are currently among the most stringent in Europe. Furthermore, the FROB funds are necessarily temporary, so, either in the short term or the medium term, they foster the entry of private investors in institutions such as savings banks, thereby enhancing both the professionalism of their management and the market discipline to which they are subject. Therefore the new Royal Decree-Law, in addition to strengthening the solvency of Spanish deposit institutions, provides additional incentives to transform the banking sector.

2.2 Insurance companies, investment funds and pension funds

The insurance sector faces risks derived from the macro environment and from the sovereign debt crisis…

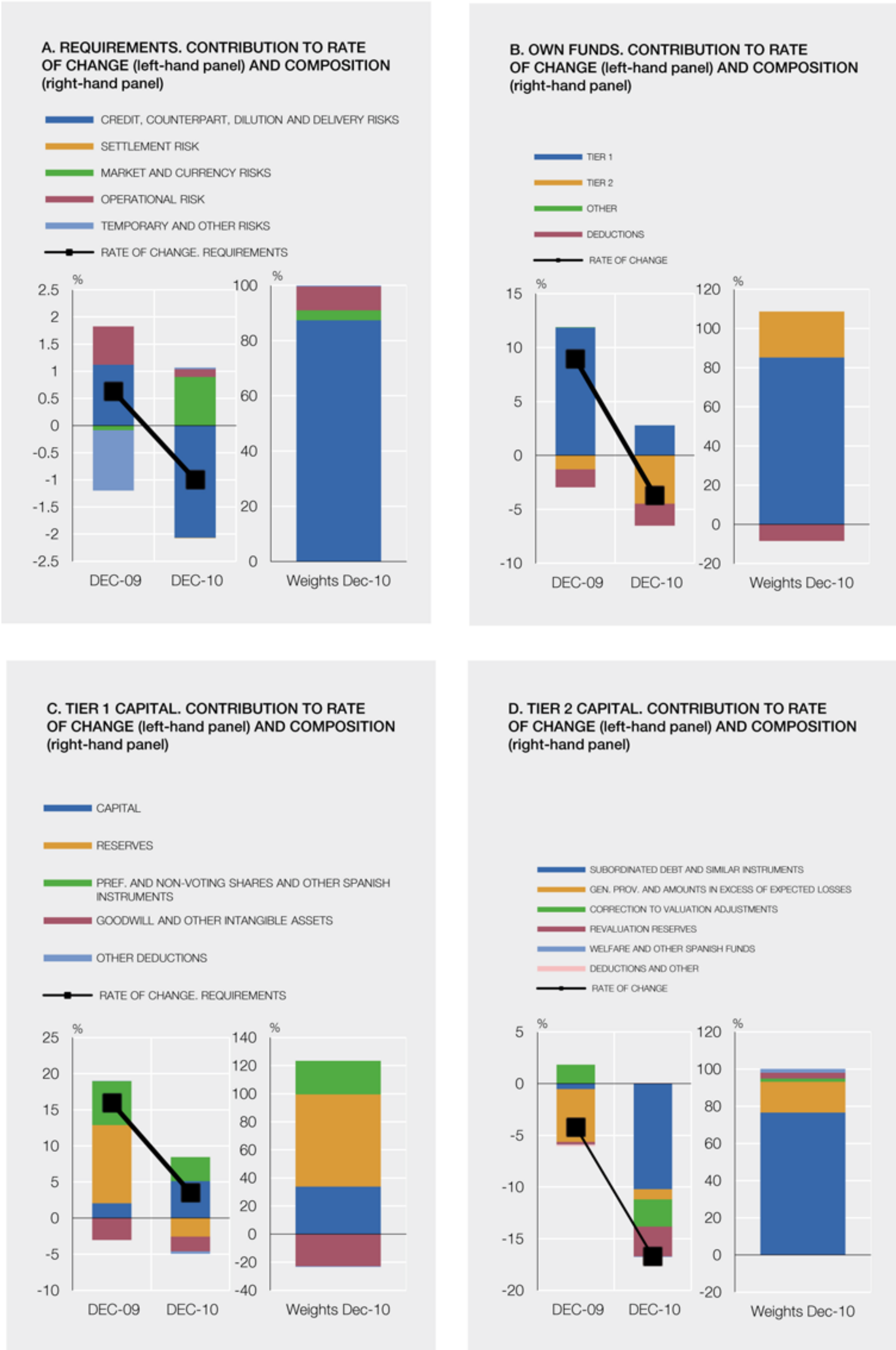
The European **insurance sector** faces a complex operating environment because the macroeconomic situation is still subject to uncertainty and because of the tension in the financial markets. In this respect, the low interest rate environment is a factor of risk for insurance companies, which adds to the difficulties derived from the sovereign debt crisis in the euro area. Also, the recent regrettable earthquake in Japan adds additional risks from the standpoint of insurance companies.

In Spain the risks faced by the sector have not changed substantially since the publication of the last FSR. These risks are determined by factors similar to those mentioned for the

11. For more detail in this respect, see the notice published by the Banco de España on the capital needed by credit institutions to comply with Royal Decree-Law 2/2011.
http://www.bde.es/webbde/en/secciones/prensa/Notas_Informativ/anoactual/presbe2011_9e.pdf

CAPITAL REQUIREMENTS AND OWN FUNDS
Deposit institutions

CHART 2.9

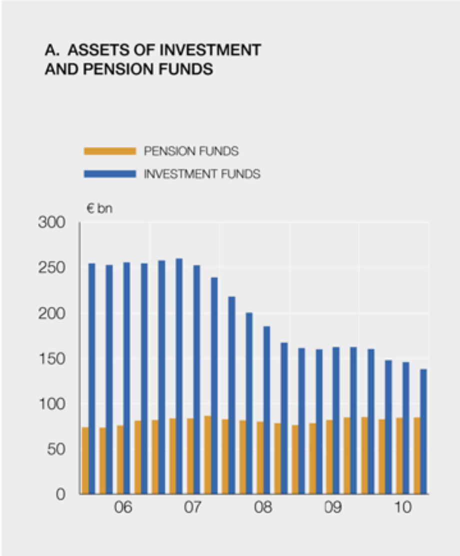


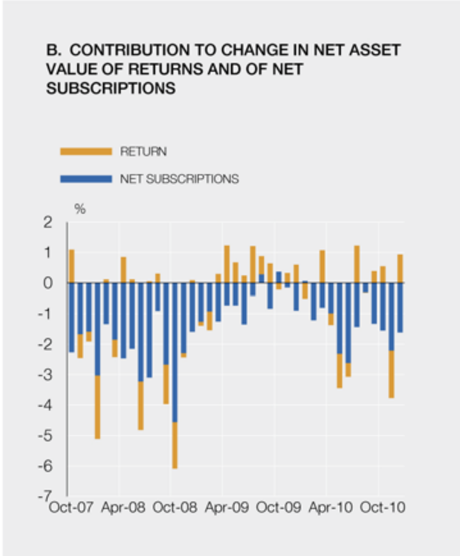
SOURCE: Banco de España.

European sector. The information available on 2010 indicates that premiums for the sector as a whole fell by nearly 4%[12]. The decrease in premiums is nearly all attributable to the life segment (-8.4%), while premiums in the non-life segment were practically flat with respect to 2009 (0.21%). Both multirisk and health business showed increases in premiums (3% and

12. ICEA figures.

INVESTMENT AND PENSION FUNDS CHART 2.10





SOURCES: INVERCO and Banco de España.

4.2%, respectively), while automobile insurance, which represented 36.3% of total premiums in December 2010, continued along the lines of previous quarters and showed negative rates of change near to 1%.

… while the situation for investment funds, judging by the trend in net subscriptions, is also difficult.

The net assets of **investment funds** in Spain have been shrinking since the international financial crisis began (see Chart 2.10.A). The reasons for this are, firstly, because the difficulties in the international financial markets have exerted downward pressure on returns, and, secondly, because it has probably been more complicated to attract and retain customers in such difficult market conditions, as reflected in the adverse performance of net subscriptions (see Chart 2.10.B). This latter obstacle has been enlarged by deposit institutions, which are fierce competitors in the race to attract household and corporate savings and have been continuously increasing their volume of deposits in recent years. Although in the first half of 2010 there was a slowing trend in the negative net subscriptions, suggesting an improvement, from that time until end-2010 the net withdrawals from funds quickened. These withdrawals were partly offset by improved returns, which resulted in a mild decline in net assets in the closing months of 2010.

3 New financial system reform measures: Royal Decree-Law 2/2011

The government and the Banco de España launched measures to tackle difficulties and improve confidence.

During 2010 both the government and the Banco de España launched a series of measures to tackle the difficulties facing Spanish credit institutions and to improve market confidence (see Box 2.1). Basically, the measures entailed: (i) temporary public aid in the form of preference shares, to achieve greater efficiency by means of integration processes (mergers and IPSs); (ii) changes in the savings bank institutional framework to smooth their access to capital markets and to increase confidence in the sector; (iii) a boost to transparency so that the general public should have the necessary information to make an appropriate assessment of the situation of each institution, via the publication of the stress tests conducted; and (iv) the improvement of the accounting rules in force to ensure that institutions recognise early and objectively the losses incurred on their assets.

The Irish debt crisis prompted a contagion effect to other countries.

However, in late 2010 a second bout of the euro area sovereign debt crisis unfolded. Further to the problems in the Irish banking sector and their interaction with the country's fiscal position, a contagion effect to other euro area countries came about. This heightened doubts about the quality of bank balance sheets, and in particular of assets linked to the real estate sector. Faced with this situation, and along with the Banco de España requirement for greater overall transparency on the part of banks, Royal Decree-Law (RDL) 2/2011 on the reinforcing of the financial system[1] was approved in the opening months of 2011. The aim here was, firstly, to dispel the mistrust potentially surrounding Spanish banks, mainly as a result of the contagion effect; and, secondly, to speed through and complete the progress already made in restructuring the Spanish banking system.

The RDL entails new capital requirements defined on the basis of higher quality capital …

As for the strengthening of the solvency for all banks, in order to dispel any doubts about the Spanish banking system, the new Royal Decree-Law establishes very high capital levels which, furthermore, are defined in terms of higher quality capital.

Thus, a new core capital ratio of 8% is required of all deposit institutions, rising to 10% for those institutions more dependent on wholesale funding (the percentage of which is at least 20%, this being understood as the ratio between wholesale funding less liquid assets and credit to customers), and which, moreover, have not placed at least 20% of their capital with third-party investors. In any event, the level of capital required may be raised by the Banco de España as a result of the stress tests to be conducted.

These new requirements introduce a compensatory measure to counter the potentially harmful effect that they might exert on the volume of credit for financing households and firms: the risk-weighted assets for the calculation will, during 2011, at least be equal to those calculated for December 2010.

This new capital requirement incorporates a very high level of solvency since: (i) it must be met with high-quality capital (core capital, a concept close to the common equity Tier 1 capital applicable under Basel III in 2013[2]; (ii) the required level of 8%-10% is higher than that

1. Correction of errors (Official State Gazette of 26 February). Approved by the Parliament via Resolution dated 10 March.

2. The RDL accepts two core capital components not envisaged in Basel III. One is the support extended by the FROB to certain institutions in the form of preference shares which, as they have the backing of the FROB, are of higher quality, as well as being convertible into ordinary shares in the event that any of the institutions that have received such aid enter into a situation of difficulty. The other, mandatory convertible debt, is only acceptable if it meets a series of highly demanding requirements. Conversion shall be mandatory before 31 December 2014, a conversion equation shall be set ex ante, the shares are subject to the discretionarity of the issuer regarding the related coupon payment when the institution's solvency status may so require, and they are acceptable as own funds for accounting purposes.

of 7% which will be required in 2019, when the implementation of the Basel III Accord will be completed.

…and a reform of the FROB…

In the event that not all institutions are able to raise the necessary funds on the markets to meet the new capital requirements, the RDL also amends the FROB's legal regime. Under this reform, when the FROB provides aid, it does so by temporarily acquiring ordinary shares on arm's length terms. Since the nature of the FROB's investment is temporary, this justifies it being in the form of ordinary shares, an issue which in turn requires that the entity that receives the aid be a commercial bank.

…the main change to which is the financial support it can provide.

Thus, the main change resides in the financial support the FROB may provide. Compared with the previous general rule, whereby such support consisted of the subscription of preference shares, the new regulations only allow for the subscription of ordinary shares or of contributions to the capital of credit cooperatives, with two exceptional cases aside: (i) institutions which, as of the entry into force of RDL 2/2011, had commenced negotiations to apply to the FROB to reinforce their capital; and (ii) credit cooperative integration processes.

For the subscription of securities, the Banco de España will have to approve the bank's recapitalisation plan.

The subscription of securities is tied to the submission of a recapitalisation plan by the applicant bank. This plan must be approved by the Banco de España and will include a business plan and commitments regarding the improvement of the institution's governance, increased financing to SMEs in terms consistent with the business plan submitted, and other commitments that the FROB may require.

The FROB will determine the subscription price on the basis of the institution's economic value and of what one or several designated independent experts should determine, unless in the five months prior to the subscription, real significant transactions involving the capital have taken place, in which case that price will be taken into account.

The granting of aid by the FROB will involve the appointment of a special administrator from the FROB at the institution, in order to ensure compliance with the recapitalisation plan. In the case of the savings banks, the transfer of the banking business to a banking PLC in the three months following the approval of the plan, and the establishment of minimum governance rules, for instance that there must be between 5 and 15 directors, with non-executive directors comprising a majority.

After the reform, savings bank directors shall be subject to the duties laid down in the consolidated text of the Share Capital Companies Law.

As indicated, the FROB's participation in the capital of applicant institutions is temporary. The RDL lays down a maximum term of five years for the divestments of the securities subscribed by the FROB, without prejudice to a possible commitment to sell back the instruments in one year (two, with additional commitments) to the issuer, or to a third party proposed by the issuer. Another notable feature of the reform is that savings bank directors automatically become subject to the duties of directors laid down in the consolidated text of the Spanish Share Capital Companies Law.

Were a bank to fail to comply as of 10 March 2011 with the minimum levels of core capital stipulated in the new regulations, it will have to take the necessary measures to meet the new ratio before 30 September 2011, in accordance with the calendar and strategy previously approved by the Banco de España. Essentially, these measures may consist of a reduction in risk-weighted assets as a result of a special operation (e.g. sale of an office network, of a credit or real asset portfolio, or of strategic stakes), the placement with third parties of part of the institution's capital, or aid from the FROB.

The Banco de España may agree to an extension of the foregoing deadline to 31 December 2011, if there should be a delay arising from the formalities and operations to be performed. In the case of share listings, this extension may run to 31 March 2012, provided that there exists, at least, a resolution by the competent governing body acting as a basis for the application for listing, along with a detailed implementation calendar and the assignment of the operation to one or several managing entities.

Finally, the FROB governance arrangements have been amended. The FROB will now have a Governing Committee of nine members, two of whom will be in representation of the Ministry of Economy and Finance. Exemptions are envisaged to the regulations on takeover bids and on limits to the activity of newly created banks; specific fiscal measures are detailed (especially in relation to IPSs); and certain rules are set in respect of affiliation to deposit guarantee funds.

In sum, with a view to strengthening confidence in the Spanish banking sector, RDL 2/2011 notably raises capital requirements for all institutions. It further determines that the FROB shall be the mechanism to ensure that institutions requiring capital but unable to obtain in on the market may meet the new obligations. The FROB's participation, if any, will be in the form of ordinary shares, and therefore necessarily in a commercial bank, and will be for a limited period. Thus, the new RDL not only raises the level of solvency required of all institutions, but also provides additional incentives for the transformation of the banking sector.

BANCO DE ESPAÑA PUBLICATIONS

Studies and reports

REGULAR

Annual Report (in Spanish and English)
Economic Bulletin (quarterly) (the Spanish version is monthly)
Estabilidad Financiera (half-yearly)
Financial Stability Report (in Spanish and English) (half-yearly)
Informe del Servicio de Reclamaciones (quarterly)
Memoria Anual sobre la Vigilancia de Sistemas de Pago (available only in electronic format on the website)
Memoria de la Central de Información de Riesgos (available only in electronic format on the website)
Memoria del Servicio de Reclamaciones (annual)
Mercado de Deuda Pública (annual)
Report on Banking Supervision in Spain (in Spanish and English) (annual)
Research Memorandum (in Spanish and English) (annual)
The Spanish Balance of Payments and International Investment Position (in Spanish and English) (annual)

NON-PERIODICAL

Central Balance Sheet Data Office: commissioned studies
Notas de Estabilidad Financiera

ECONOMIC STUDIES

70 OLYMPIA BOVER AND MARIO IZQUIERDO: Quality-adjusted prices: hedonic methods and implications for National Accounts (2001). (The Spanish original of this publication has the same number.)
71 MARIO IZQUIERDO AND M.ª DE LOS LLANOS MATEA: An approximation to biases in the measurement of Spanish macroeconomic variables derived from product quality changes (2001). (The Spanish original of this publication has the same number.)
72 MARIO IZQUIERDO, OMAR LICANDRO AND ALBERTO MAYDEU: Car quality improvements and price indices in Spain (2001). (The Spanish original of this publication has the same number.)
73 OLYMPIA BOVER AND PILAR VELILLA: Hedonic house prices without characteristics: the case of new multiunit housing (2001). (The Spanish original of this publication has the same number.)
74 MARIO IZQUIERDO AND M.ª DE LOS LLANOS MATEA: Hedonic prices for personal computers in Spain during the 90s (2001). (The Spanish original of this publication has the same number.)
75 PABLO HERNÁNDEZ DE COS: Empresa pública, privatización y eficiencia (2004).
76 FRANCISCO DE CASTRO FERNÁNDEZ: Una evaluación macroeconométrica de la política fiscal en España (2005).

ECONOMIC HISTORY STUDIES

41 LLUIS CASTAÑEDA PEIRÓN: El Banco de España (1874-1900): la red de sucursales y los nuevos servicios financieros (2001).
42 SEBASTIÁN COLL AND JOSÉ IGNACIO FORTEA: Guía de fuentes cuantitativas para la historia económica de España. Vol. II: Finanzas y renta nacional (2002).
43 ELENA MARTÍNEZ RUIZ: El sector exterior durante la autarquía. Una reconstrucción de las balanzas de pagos de España, 1940-1958. Revised edition (2003).
44 INÉS ROLDÁN DE MONTAUD: La banca de emisión en Cuba (1856-1898) (2004).
45 ALFONSO HERRANZ LONCÁN: La dotación de infraestructuras en España, 1844-1935 (2004).
46 MARGARITA EVA RODRÍGUEZ GARCÍA: Compañías privilegiadas de comercio con América y cambio político (1706-1765) (2005).
47 MARÍA CONCEPCIÓN GARCÍA-IGLESIAS SOTO: Ventajas y riesgos del patrón oro para la economía española (1850-1913) (2005).
48 JAVIER PUEYO SÁNCHEZ: El comportamiento de la gran banca en España, 1921-1974 (2006).
49 ELENA MARTÍNEZ RUIZ: Guerra Civil, comercio y capital extranjero. El sector exterior de la economía española (1936-1939) (2006).
50 ISABEL BARTOLOMÉ RODRÍGUEZ: La industria eléctrica en España (1890-1936) (2007).
51 JUAN E. CASTAÑEDA FERNÁNDEZ: ¿Puede haber deflaciones asociadas a aumentos de la productividad? Análisis de los precios y de la producción en España entre 1868 y 1914 (2007).
52 CECILIA FONT DE VILLANUEVA: La estabilización monetaria de 1680-1686. Pensamiento y política económica (2008).

Note: The full list of each series is given in the Publications Catalogue.
All publications are available in electronic format, with the exception of miscellaneous publications and texts of the Human Resources Development Division.

53 RAFAEL MORENO FERNÁNDEZ: Los servicios de inspección del Banco de España: su origen histórico (1867-1896) (2008).
54 RAFAEL MORENO FERNÁNDEZ: El personal del Banco de España: desde su origen en el siglo XVIII hasta fin del siglo XIX. Vol. I: Banco de San Carlos (2009).

WORKING PAPERS

0924 GONZALO FERNÁNDEZ-DE-CÓRDOBA, JAVIER J. PÉREZ AND JOSÉ L. TORRES: Public and private sector wages interactions in a general equilibrium model.
0925 ÁNGEL ESTRADA AND JOSÉ MANUEL MONTERO: R&D investment and endogenous growth: a SVAR approach.
0926 JUANA ALEDO, FERNANDO GARCÍA-MARTÍNEZ AND JUAN M. MARÍN DIAZARAQUE: Firm-specific factors influencing the selection of accounting options provided by the IFRS: Empirical evidence from Spanish market.
0927 JAVIER ANDRÉS, SAMUEL HURTADO, EVA ORTEGA AND CARLOS THOMAS: Spain in the euro: a general equilibrium analysis.
0928 MAX GILLMAN AND ANTON NAKOV: Monetary effects on nominal oil prices.
0929 JAVIER MENCÍA AND ENRIQUE SENTANA: Distributional tests in multivariate dynamic models with Normal and Student *t* innovations.
0930 JOAN PAREDES, PABLO BURRIEL, FRANCISCO DE CASTRO, DANIEL GARROTE, ESTHER GORDO AND JAVIER J. PÉREZ: Fiscal policy shocks in the euro area and the US: an empirical assessment.
0931 TERESA LEAL, DIEGO J. PEDREGAL AND JAVIER J. PÉREZ: Short-term monitoring of the Spanish Government balance with mixed-frequencies models.
0932 ANTON NAKOV AND GALO NUÑO: *Oil*gopoly: a general equilibrium model of the oil-macroeconomy nexus.
0933 TERESA LEAL AND JAVIER J. PÉREZ: Análisis de las desviaciones presupuestarias aplicado al caso del presupuesto del Estado.
0934 JAVIER J. PÉREZ AND A. JESÚS SÁNCHEZ: Is there a signalling role for public wages? Evidence for the euro area based on macro data.
0935 JOAN PAREDES, DIEGO J. PEDREGAL AND JAVIER J. PÉREZ: A quarterly fiscal database for the euro area based on intra-annual fiscal information.
1001 JAVIER ANDRÉS, ÓSCAR ARCE AND CARLOS THOMAS: Banking competition, collateral constraints and optimal monetary policy.
1002 CRISTINA BARCELÓ AND ERNESTO VILLANUEVA: The response of household wealth to the risk of losing the job: evidence from differences in firing costs.
1003 ALEXANDER KARAIVANOV, SONIA RUANO, JESÚS SAURINA AND ROBERT TOWNSEND: No bank, one bank, several banks: does it matter for investment?
1004 GABRIEL PÉREZ-QUIRÓS AND HUGO RODRÍGUEZ MENDIZÁBAL: Asymmetric standing facilities: an unexploited monetary policy tool.
1005 GABRIEL JIMÉNEZ, JOSÉ A. LÓPEZ AND JESÚS SAURINA: How does competition impact bank risk-taking?
1006 GIUSEPPE BERTOLA, AURELIJUS DABUSINSKAS, MARCO HOEBERICHTS, MARIO IZQUIERDO, CLAUDIA KWAPIL, JEREMI MONTORNÈS AND DANIEL RADOWSKI: Price, wage and employment response to shocks: evidence from the WDN Survey.
1007 JAVIER MENCÍA: Testing non linear dependence in the Hedge Fund industry.
1008 ALFREDO MARTÍN-OLIVER: From proximity to distant banking: Spanish banks in the EMU.
1009 GALO NUÑO: Optimal research and development expenditure: a general equilibrium approach.
1010 LUIS J. ÁLVAREZ AND PABLO BURRIEL: Is a Calvo price setting model consistent with micro price data?
1011 JENS HAGENDORFF, IGNACIO HERNANDO, MARÍA J. NIETO AND LARRY D. WALL: What do premiums paid for bank M&As reflect? The case of the European Union.
1012 DAVID DE ANTONIO LIEDO: General Equilibrium Restrictions for Dynamic Factor Models.
1013 JAMES COSTAIN, JUAN F. JIMENO AND CARLOS THOMAS: Employment fluctuations in a dual labor market.
1014 LUIS M. VICEIRA AND RICARDO GIMENO: The euro as a reserve currency for global investors.
1015 PALOMA LÓPEZ-GARCÍA AND JOSÉ MANUEL MONTERO: Understanding the Spanish business innovation gap: The role of spillovers and firms' absorptive capacity.
1016 AITOR LACUESTA AND SERGIO PUENTE: El efecto del ciclo económico en las entradas y salidas de inmigrantes en España.
1017 REBEKKA CHRISTOPOULOU, JUAN F. JIMENO AND ANA LAMO: Changes in the wage structure in EU countries.
1018 THOMAS BREUER, MARTIN JANDAČKA, JAVIER MENCÍA AND MARTIN SUMMER: A systematic approach to multi-period stress testing of portfolio credit risk.
1019 LUIS J. ÁLVAREZ AND PABLO BURRIEL: Micro-based estimates of heterogeneous pricing rules: The United States vs. the euro area.
1020 ALFREDO MARTÍN-OLIVER AND VICENTE SALAS-FUMÁS: I.T. investment and intangibles: Evidence from banks.
1021 LUISA LAMBERTINI, CATERINA MENDICINO AND MARIA TERESA PUNZI: Expectations-driven cycles in the housing market.
1022 JULIÁN MESSINA, PHILIPP DU CAJU, CLÁUDIA FILIPA DUARTE, NIELS LYNGGARD HANSEN AND MARIO IZQUIERDO: The incidence of nominal and real wage rigidity: an individual-based sectoral approach.
1023 ALESSIO MORO: Development, growth and volatility.
1024 LUIS J. ÁLVAREZ AND ALBERTO CABRERO: Does housing really lead the business cycle?
1025 JUAN S. MORA-SANGUINETTI: Is judicial inefficiency increasing the house property market weight in Spain? Evidence at the local level.

1026 MÁXIMO CAMACHO, GABRIEL PÉREZ-QUIRÓS AND PILAR PONCELA: Green shoots in the Euro area. A real time measure.
1027 AITOR ERCE AND JAVIER DÍAZ-CASSOU: Creditor discrimination during sovereign debt restructurings.
1028 RAFAEL REPULLO, JESÚS SAURINA AND CARLOS TRUCHARTE: Mitigating the pro-cyclicality of Basel II.
1029 ISABEL ARGIMÓN AND JENIFER RUIZ: The effects of national discretions on banks.
1030 GABRIEL JIMÉNEZ, STEVEN ONGENA, JOSÉ-LUIS PEYDRÓ AND JESÚS SAURINA: Credit supply: identifying balance-sheet channels with loan applications and granted loans.
1031 ENRIQUE MORAL-BENITO: Determinants of economic growth: A Bayesian panel data approach.
1032 GABE J. DE BONDT, TUOMAS A. PELTONEN AND DANIEL SANTABÁRBARA: Booms and busts in China's stock market: Estimates based on fundamentals.
1033 CARMEN MARTÍNEZ-CARRASCAL AND JULIAN VON LANDESBERGER: Explaining the demand for money by non-financial corporations in the euro area: A macro and a micro view.
1034 CARMEN MARTÍNEZ-CARRASCAL: Cash holdings, firm size and access to external finance. Evidence for the euro area.
1035 CÉSAR ALONSO-BORREGO: Firm behavior, market deregulation and productivity in Spain.
1036 OLYMPIA BOVER: Housing purchases and the dynamics of housing wealth.
1037 DAVID DE ANTONIO LIEDO AND ELENA FERNÁNDEZ MUÑOZ: Nowcasting Spanish GDP growth in real time: "One and a half months earlier".
1038 FRANCESCA VIANI: International financial flows, real exchange rates and cross-border insurance.
1039 FERNANDO BRONER, TATIANA DIDIER, AITOR ERCE AND SERGIO L. SCHMUKLER: Gross capital flows: dynamics and crises.
1101 GIACOMO MASIER AND ERNESTO VILLANUEVA: Consumption and initial mortgage conditions: evidence from survey data.
1102 PABLO HERNÁNDEZ DE COS AND ENRIQUE MORAL-BENITO: Endogenous fiscal consolidations.
1103 CÉSAR CALDERÓN, ENRIQUE MORAL-BENITO AND LUIS SERVÉN: Is infrastructure capital productive? A dynamic heterogeneous approach.
1104 MICHAEL DANQUAH, ENRIQUE MORAL-BENITO AND BAZOUMANA OUATTARA: TFP growth and its determinants: nonparametrics and model averaging.
1105 JUAN CARLOS BERGANZA AND CARMEN BROTO: Flexible inflation targets, forex interventions and exchange rate volatility in emerging countries.
1106 FRANCISCO DE CASTRO, JAVIER J. PÉREZ AND MARTA RODRÍGUEZ VIVES: Fiscal data revisions in Europe.
1107 ÁNGEL GAVILÁN, PABLO HERNÁNDEZ DE COS, JUAN F. JIMENO AND JUAN A. ROJAS: Fiscal policy, structural reforms and external imbalances: a quantitative evaluation for Spain.
1108 EVA ORTEGA, MARGARITA RUBIO AND CARLOS THOMAS: House purchase versus rental in Spain.

OCCASIONAL PAPERS

0804 JAVIER DÍAZ-CASSOU, AITOR ERCE-DOMÍNGUEZ AND JUAN J. VÁZQUEZ-ZAMORA: Recent episodes of sovereign debt restructurings. A case-study approach.
0805 JAVIER DÍAZ-CASSOU, AITOR ERCE-DOMÍNGUEZ AND JUAN J. VÁZQUEZ-ZAMORA: The role of the IMF in recent sovereign debt restructurings: Implications for the policy of lending into arrears.
0806 MIGUEL DE LAS CASAS AND XAVIER SERRA: Simplification of IMF lending. Why not just one flexible credit facility?
0807 MIGUEL GARCÍA-POSADA AND JOSEP M.ª VILARRUBIA: Mapa de exposición internacional de la economía española.
0808 SARAI CIRADO AND ADRIAN VAN RIXTEL: Structured finance and the financial turmoil of 2007-2008: An introductory overview. (There is a Spanish version of this edition with the same number.)
0809 FRANCISCO DE CASTRO AND JOSÉ M. GONZÁLEZ-MÍNGUEZ: La composicion de la finanzas públicas y el crecimiento a largo plazo: Un enfoque macroeconómico.
0810 OLYMPIA BOVER: The dynamics of household income and wealth: results from the panel of the Spanish survey of household finances (EFF) 2002-2005. (There is a Spanish version of this edition with the same number.)
0901 ÁNGEL ESTRADA, JUAN F. JIMENO AND JOSÉ LUIS MALO DE MOLINA: The Spanish economy in EMU: the first ten years. (There is a Spanish version of this edition with the same number.)
0902 ÁNGEL ESTRADA AND PABLO HERNÁNDEZ DE COS: Oil prices and their effect on potential output. (There is a Spanish version of this edition with the same number.)
0903 PALOMA LÓPEZ-GARCÍA, SERGIO PUENTE AND ÁNGEL LUIS GÓMEZ: Employment generation by small firms in Spain.
0904 LUIS J. ÁLVAREZ, SAMUEL HURTADO, ISABEL SÁNCHEZ AND CARLOS THOMAS: The impact of oil price changes on Spanish and euro area consumer price inflation.
0905 CORAL GARCÍA, ESTHER GORDO, JAIME MARTÍNEZ-MARTÍN AND PATROCINIO TELLO: Una actualización de las funciones de exportación e importación de la economía española.
1001 L. J. ÁLVAREZ, G. BULLIGAN, A. CABRERO, L. FERRARA AND H. STAHL: Housing cycles in the major euro area countries.
1002 SONSOLES GALLEGO, SÁNDOR GARDÓ, REINER MARTIN, LUIS MOLINA AND JOSÉ MARÍA SERENA: The impact of the global economic and financial crisis on Central Eastern and SouthEastern Europe (CESEE) and Latin America.
1101 LUIS ORGAZ, LUIS MOLINA AND CARMEN CARRASCO: El creciente peso de las economías emergentes en la economía y gobernanza mundiales. Los países BRIC.

MISCELLANEOUS PUBLICATIONS[1]

JUAN LUIS SÁNCHEZ-MORENO GÓMEZ: Circular 8/1990, de 7 de septiembre. Concordancias legales (1996). €6.25.
BANCO DE ESPAÑA: La Unión Monetaria Europea: cuestiones fundamentales (1997). €3.01.
TERESA TORTELLA: Los primeros billetes españoles: las «Cédulas» del Banco de San Carlos (1782-1829) (1997). €28.13.
JOSÉ LUIS MALO DE MOLINA, JOSÉ VIÑALS AND FERNANDO GUTIÉRREZ (Eds.): Monetary policy and inflation in Spain (1998) (***).
VICTORIA PATXOT: Medio siglo del Registro de Bancos y Banqueros (1947-1997) (1999). Book and disquette: €5.31.
BANCO DE ESPAÑA (Ed.): Arquitectura y pintura del Consejo de la Reserva Federal (2000). €12.02.
PABLO MARTÍN ACEÑA: El Servicio de Estudios del Banco de España (1930-2000) (2000). €9.02.
TERESA TORTELLA: Una guía de fuentes sobre inversiones extranjeras en España (1780-1914) (2000). €9.38.
VICTORIA PATXOT AND ENRIQUE GIMÉNEZ-ARNAU: Banqueros y bancos durante la vigencia de la Ley Cambó (1922-1946) (2001). €5.31.
BANCO DE ESPAÑA: El camino hacia el euro. El real, el escudo y la peseta (2001). €45.
BANCO DE ESPAÑA: El Banco de España y la introducción del euro (2002). Free copy.
BANCO DE ESPAÑA: Spanish banknotes 1940-2001 (2004). €30. (In Spanish and English.)
NIGEL GLENDINNING AND JOSÉ MIGUEL MEDRANO: Goya y el Banco Nacional de San Carlos (2005). Bound edition: €30; paperback edition: €22.
BANCO DE ESPAÑA. SERVICIO DE ESTUDIOS (Ed.): The analysis of the Spanish economy (2006) (*). (In Spanish and English.)
BANCO DE ESPAÑA: Billetes españoles 1874-1939 (2005). €30.
BANCO DE ESPAÑA: 150 years in the history of the Bank of Spain, 1856-2006 (2006). €30. (In Spanish and English.)
BANCO DE ESPAÑA: Secretaría General. Legislación de Entidades de Crédito. 5.ª ed. (2006) (****).
SANTIAGO FERNÁNDEZ DE LIS AND FERNANDO RESTOY (Eds.): Central banks in the 21st century (2006). Free copy.
JUAN F. JIMENO (Ed.): Spain and the euro. The first ten years (2010). Free copy.
TERESA TORTELLA: El Banco de España desde dentro. Una historia a través de sus documentos. Bound edition: €30; paperback edition: €24.

Statistics

Boletín de Operaciones (daily) (available only in electronic format on the website)
Boletín del Mercado de Deuda Pública (daily) (available only in electronic format on the website)
Boletín Estadístico (monthly, available only in electronic format on the website[2])
Central de Balances. Resultados anuales de las empresas no financieras (annual monograph)
Financial Accounts of the Spanish Economy (bilingual edition: Spanish and English) (annual and quarterly series[3])

Financial legislation and official registers

Circulares a entidades de crédito[4]
Circulares del Banco de España. Recopilación (four-monthly)
Registros de Entidades (annual) (available only in electronic format on the website)

Training

BANCO DE ESPAÑA: Cálculo mercantil (con ejercicios resueltos).
PEDRO PEDRAJA GARCÍA: Contabilidad y análisis de balances en la banca (tomo I) (1999).
PEDRO PEDRAJA GARCÍA: Contabilidad y análisis de balances en la banca (tomo II) (1998).
JESÚS MARÍA RUIZ AMESTOY: Matemática financiera (2001).
UBALDO NIETO DE ALBA: Matemática financiera y cálculo bancario.
LUIS A. HERNANDO ARENAS: Tesorería en moneda extranjera.

EUROPEAN CENTRAL BANK PUBLICATIONS

Spanish editions of:
- Annual Report
- Monthly Bulletin
- Other publications

1. All publications are distributed by the Banco de España, except those indicated with (*), (**), (***) or (****), which are respectively distributed by Alianza Editorial, Editorial Tecnos, Macmillan (London) and Thomson-Aranzadi. Prices include 4% VAT. **2.** Moreover, it is updated daily in the Statistics section. **3.** A quarterly update of the tables of this publication is also disseminated on the Internet. **4.** Available only on the Banco de España website until it is included in the publication *Circulares del Banco de España. Recopilación.*

BANCO DE ESPAÑA Eurosistema	Unidad de Publicaciones Alcalá 522, 28027 Madrid Telephone +34 91 338 6363. Fax +34 91 338 6488 E-mail: publicaciones@bde.es www.bde.es