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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
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
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
EU	European Union
FASB	Financial Accounting Standards Board
FSA	Financial Services Authority
FSAP	Financial System Assessment Program
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
IAS	International Accounting Standards
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
LBOs	Leveraged buy-out operations
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
MEFF	Mercado Español de Futuros y Opciones (Spanish Financial Futures and Options Market)
MiFID	Markets in Financial Instruments Directive
MMFs	Money market funds
NPISHs	Non-profit institutions serving households
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
VaR	Value at risk
WTO	World Trade Organisation

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

CONTENTS

Overview

Since the last Financial Stability Report (FSR), the setting in which financial institutions operate has been characterised by high uncertainty and instability. Difficulties persist on international financial markets and even institutions with good credit ratings have seen their access hampered, if not closed, to wholesale funding markets. That said, the public guarantees on debt issues implemented in many countries are contributing to alleviating this situation. There has been a swift and sharp deterioration in the real economy, and an unprecedented synchronisation of the cycle worldwide.

The gravity of the situation and its deterioration have led the authorities in different countries to adopt exceptional measures to support the financial system in order to avert its collapse. Indeed, since the last FSR, the need to bail out or lend public support to numerous institutions in various countries has continued. The US government has been injecting capital into many institutions, including the biggest banks, since the end of 2008. In Europe certain large banks have received direct State assistance. These measures have been complemented by expansionary fiscal and monetary policy action.

Initially, Spanish deposit institutions were relatively unaffected by the international financial crisis insofar as their retail banking model is different to the originate-to-distribute banking model at the root of the crisis. This, coupled with counter-cyclical provisions and the absence of off-balance sheet investment vehicles (conduits and SIVs), explain the lesser initial impact on the Spanish banking system.

However, Spanish institutions, like those in other countries, face the risks arsing from a much weaker and more uncertain economic situation. Growth in the euro area weakened substantially in 2008 Q4, while the forecasts for 2009 and 2010 were revised sharply downwards. The Spanish economy went into recession in late 2008, with unemployment rising significantly. And this, together with the adjustment in the real estate sector, is prompting a strong rise in bad debts.

The substantial deterioration in the real economy, which means lower customer demand for credit, and greater caution by banks in extending credit, given the higher risk profile of borrowers, account for how bank balance sheet risks are trending.

The growth of bad debts depends not only on the cyclical position of the economy but also on each institution's lending policy. Hence, although all institutions have expanded their balance sheets vigorously and, in particular, their loan portfolios, not all growth strategies have been the same. Even within the same strategy, not all institutions have made the same selection of credit risk. Finally, not all of them are showing the same ability to cope with the much more complex setting in place since August 2007.

Difficulties in obtaining funding on wholesale markets continue for international institutions, including Spanish ones. Several factors have helped ease bank's liquidity position, including most notably: the term structure of bank debt in Spain, centred on the medium and long term, despite this being more costly; government measures, including asset purchases and the provision of guarantees for issues by banks; and ECB action, in particular full allotment at a fixed rate for all maturities; and the ability of the Spanish banking system to step up deposit-taking.

The results of Spanish deposit institutions in 2008 were positive on the whole, though lower than the previous year. The fact they outperformed those posted by institutions from other banking systems in the developed countries largely reflects the traditional business of retail banking prevailing in Spain, which is based more on recurrent income as there is less reliance on that obtained from the financial markets.

However, the results of Spanish institutions will remain under downward pressure. In the short term this will be due to higher bad debts, resulting in the need for greater specific provisions (which will be only partly offset by general provisions). And in the medium term this will be because competition to raise funding will exert downward pressure on margins, which it will not be possible to offset against higher volumes of activity, since the deleveraging of the financial sector and that of the economy as a whole cannot be considered transitory, either in Spain or globally.

The longer it takes for the difficulties on financial markets to unravel, and the sharper and more durable the downturn in the real economy, the greater the pressure on earnings and the higher the number of institutions subject to such pressure will be. Thus, they must rationalise their cost structures either through reorganising the number and average size of their branches, or through solutions involving several institutions via the processes deemed appropriate.

Solvency generally remains above the minimum levels required by capital regulations, which have been transposed into Spanish law seeking the most prudent and demanding options. Similarly, the leverage of Spanish deposit institutions is lower than that recorded in other similar banking systems.

In short, the international financial environment is more difficult than in the last FSR, and the Spanish economy, like that of other countries, has begun to deteriorate very sharply and to a greater degree than was initially forecast. Spanish institutions must withstand higher bad debt ratios and increased pressure brought to bear on their results and capital against a backdrop in which activity will not grow at the same pace as in the past. In this respect, not all institutions are subject to the same degree to these pressures; there are differences in the lending policies they pursued during the upturn and in their risk management capacity, which in turn makes for differences in bad debts. Moreover, from the standpoint of the elements (profitability and solvency) that enable them to withstand the manifestation of the risks incurred, not all institutions have the same profit-generating capacity or the same attributes in terms of solvency. In any event, in the light of the current economic situation the Spanish banking system must restructure itself and adopt cost optimisation strategies.

The external environment remained extremely complex and continued to show strains…

Since the last FSR, the international setting in which Spanish credit institutions operate has been characterised by high uncertainty and instability, amid persistent difficulties in the financial arena aggravated by the notable turn for the worse in economic developments in 2008 Q4 and the poor growth outlook for 2009. The crisis, which is global in nature, is worsening gravely in certain developed countries in which the financial sector is particularly important.

… despite the numerous bail-out and fiscal stimulus measures adopted by economic authorities.

The gravity of and deterioration in the situation compelled national economic authorities to adopt numerous fiscal stimulus and support initiatives to underpin the financial system. The fiscal stimulus measures were essentially targeted at easing the effects of the crisis on activity and employment, while the support initiatives were aimed at sustaining the financial system. The latter resulted in various waves of rescue plans and a commitment to prevent the bankruptcy of all systemic institutions. Thus, among other measures, those guaranteeing bank deposits and other liabilities of credit institutions, the guarantees on medium- and long-term bond issues and the plans to inject public funds into credit institutions (see Box 1.1) should be highlighted.

In 2008 Q4 these measures provided some support to the capital markets, although respite was temporary as losses at some financial institutions proved higher than expected and the final implementation of some of the rescue plans was beset by uncertainty. Furthermore, market dynamics were influenced by fears that the economic recession would be deeper and more protracted which, if borne out, would lead to further deterioration in the financial sector balance sheet.

Some improvement in money and credit markets underpinned by authorities' actions…

… spurred a recovery in private fixed-income issues.

Some improvement was seen on money markets with respect to mid-September, although their behaviour is far from normal and in early 2009 fresh rises were recorded in risk premia (see Chart 1.1.A). The abundant supply of liquidity by central banks and, in certain cases direct intervention, such as the Federal Reserve's purchase of asset-backed commercial paper, were pivotal in bolstering these markets. These actions were accompanied by a significant reduction in official interest rates, which reached record lows, on occasions around 0%. A stop was also put to the deterioration of certain credit markets which had previously posted very substantial increases in interest rate spreads (see Chart 1.1.B). These conditions, together with the public-sector guarantees to back bank issues boosted the volume of activity on primary fixed-income markets at the beginning of 2009, especially in the United States.

Equities fell and there were doubts about the viability of certain financial institutions.

Stock market indices in the developed economies and in certain emerging areas once again posted heavy declines, with the financial sector showing the highest volatility (see Charts 1.1.C and 1.1.D). Bank share prices were influenced by the uncertainty surrounding the viability of certain institutions, the deterioration of the sector's earnings outlook and the envisaged cuts in dividends.

Government debt CDS spreads widened in the face of worsening public finances.

The measures to rescue the financial sector, tax stimulus programmes and the strong deterioration in activity gave rise to a worsening of public finances, giving credence to forecasts of high budget deficits in the future in most countries. These factors were reflected in the risk premia of sovereign debt credit derivatives, which increased significantly. Yields on public debt securities also rose, though not across the board. In certain countries, such as the United States, the upward impact on interest rates on the biggest issues linked to higher public sector borrowing requirements was amply offset by the strong demand for these securities as a safe haven.

Over the past year and in early 2009 there has been a succession of programmes to bail out ailing financial institutions. These programmes saved the financial system from collapse, though they have not sufficed to restore its functioning to a normal footing. The global nature of the crisis, the size of the losses, the uncertainty over the final scale of those losses and the urgency with which these programmes had to be devised and applied gave rise to some improvisation and, in certain cases, emulation in the responses adopted. Therefore, while some countries, such as the United States and the United Kingdom, were driven to respond almost in unison to the deterioration of their financial systems, other countries where the initial impact of the financial crisis was smaller had some leeway to design measures more tailored to the problems of their credit institutions.

Until September 2008 the US and UK authorities reacted on a case-by-case basis, supporting certain institutions considered systemic[1] and taking control of others[2]. As the year unfolded, the magnitude of the losses covered by capital contributions by the public sector increased and posted a sharp rise from 15 September, when Lehman Brothers was declared bankrupt, being unable to obtain private financing or government backing. This triggered a sudden and far-reaching rise in instability on financial markets globally for two reasons. First, it underlined the complex and interconnected nature of the international financial system and the difficulty of ascertaining the true scope of a bankruptcy of this size. And further, it emphasised the need for large-scale public sector involvement to restore confidence and avert an abrupt and disorderly adjustment in the sector.

Thereafter, the authorities applied a series of rescue plans aimed not only at isolated institutions but at all those deemed systemic, with the aim of restoring the functioning of financial markets and avoiding the repetition of a bout of extreme volatility like that following the bankruptcy of Lehman Brothers. Distinct stages can be discerned in these initiatives, underlining the difficulties of implementing an effective and swift response to the potential collapse of the financial system. The first phase began on 3 October with US Congressional approval of the Troubled Asset Relief Program (TARP). The main aim of this plan was to restore the market price formation mechanism through the purchase by the Treasury of assets with valuation problems and, at the same time, achieve some restructuring of balance sheets. However, the problems of implementing this measure in the short term soon became evident and this, together with the worsening market instability, meant that before it was applied other types of solutions were proposed.

Against this backdrop, on 8 October the UK Treasury announced a financial sector rescue plan aimed at improving banks' ability to raise capital. The main features of this plan were capital injections in the form of preference shares, making it possible to improve solvency ratios, and public guarantees for debt issued by banks. Several countries adopted initiatives inspired by this rescue plan. Thus, on 14 October, scarcely 11 days after the approval of the TARP, the US Treasury relaxed the criteria governing its application to permit capital injections and also announced a programme of guarantees backed by the Federal Deposit Insurance Corporation (FDIC) for bank debt issues (see accompanying panel).

1. Until mid-September public authorities supported rescue operations in coordination with the private sector at institutions such as Bear Sterns, Countrywide, Merrill Lynch and AIG. They also made available credit lines and injected public capital into Fannie Mae and Freddie Mac. **2.** Noteworthy in addition to the interventions in small banks, were those in Northern Rock and IndyMac.

MAIN FINANCIAL INSTITUTIONS WITH PUBLIC-SECTOR BACKING FOR THEIR CAPITAL

Country	Bank
UNITED STATES	
	American International Group
	Citigroup Inc.
	Bank of America Corp.
	Wells Fargo & Co.
	JP Morgan Chase & Co.
	Morgan Stanley
	Goldman Sachs Group Inc.
	Other TARP-related capital injections (528 banks)
	IndyMac Bank, Pasadena, CA
	Washington Mutual Bank, Henderson, NV and Washington
	Other FDIC-intervened banks (71 banks)
UNITED KINGDOM	
	Lloyds
	HBOS
	RBS
	Bradford & Bingley
	Northern Rock
GERMANY	
	Commerzbank / Dresdner
	HSH Nordbank
	Bayer LB
	Hypo Real Estate
	IKB

Country	Bank
FRANCE	
	Banques Populaires
	Caisse d'Épargne
	BNP Paribas
	Crédit Agricole
	Crédit Mutuel
	Société Générale
	Dexia
NETHERLANDS	
	ING
	Aegon
	SNS Reaal
	Fortis
BELGIUM	
	Ethias
	KBC
	Dexia
	Fortis
IRELAND	
	Allied Irish Bank
	Bank of Ireland
	Anglo Irish Bank

SOURCE: Market information.

INTERNATIONAL BANK RESCUE PLANS (cont'd) BOX 1.1

In EU countries the plans were designed within the framework of certain shared principles agreed by the Heads of State and of Government and included the following: an extension of deposit guarantee systems, the provision of public guarantees for bank issues, the purchase of bank assets and injections of public capital.

These initiatives managed to avert the collapse of financial markets but they did not restore confidence completely since the outlook for the sector remained very negative as a consequence of the deterioration in real activity and fresh losses linked to complex assets. At the same time, the first signs appeared of restrictions on the credit supply to the private sector, with the concomitant danger of feedback into the economic recession, even though credit stimulus measures had been included more or less explicitly in all the rescue programmes.

At the end of 2008 and the beginning of 2009, a new, more ambitious stage of the rescue plans began, in terms of both amount and scope. Several countries adopted public initiatives aimed at directly stimulating credit to the private sector. Further, attempts were made to restore confidence in financial institutions through measures to isolate and limit the losses which might arise on certain investments. To this end, initiatives were announced based on the creation of funds to purchase troubled assets and remove them from balance sheets (such as the public/private fund in Geithner's plan), and schemes were set up based on the coverage by the public sector of losses on portfolios on banks' balance sheets, in the style of the UK asset protection scheme. More recently, governments are exerting greater influence on the decisions adopted by those institutions which have received a significant volume of funds. Thus, although the formal nationalisation of certain banks has not yet been considered, the replacement of preference shares by ordinary shares has been announced, which will give governments a greater ability to oversee such institutions.

Strong slowdown in activity and downward revisions of economic growth and inflation expectations…

During this period, economic activity indicators took a strong turn for the worse, setting the scene for a recession in most developed countries and a strong deceleration in the emerging economies. Thus, for example, in the United States and in the United Kingdom the annualised quarterly GDP growth rate in Q4 dropped by around 6%, while the contraction in Japan was of the order of 12.1%. Against this backdrop, there was a substantial downward revision of growth expectations for 2009, when global activity is expected to contract for the year as a whole, with very sharp declines in the main developed economies.

… made for a looser monetary policy stance.

Some central banks adopted unconventional measures.

Inflation expectations also declined notably and, in some cases, such as Japan and the United States, prices are indeed expected to fall this year. In this scenario, the monetary policy of numerous central banks gave a more prominent role to stimulating activity while taking measures to ease financial strains. Indeed, some adopted unconventional measures such as liquidity facilities for troubled assets, loans for ailing non-bank financial institutions and, more recently, purchases of public and private debt by the Bank of England and the Federal Reserve.

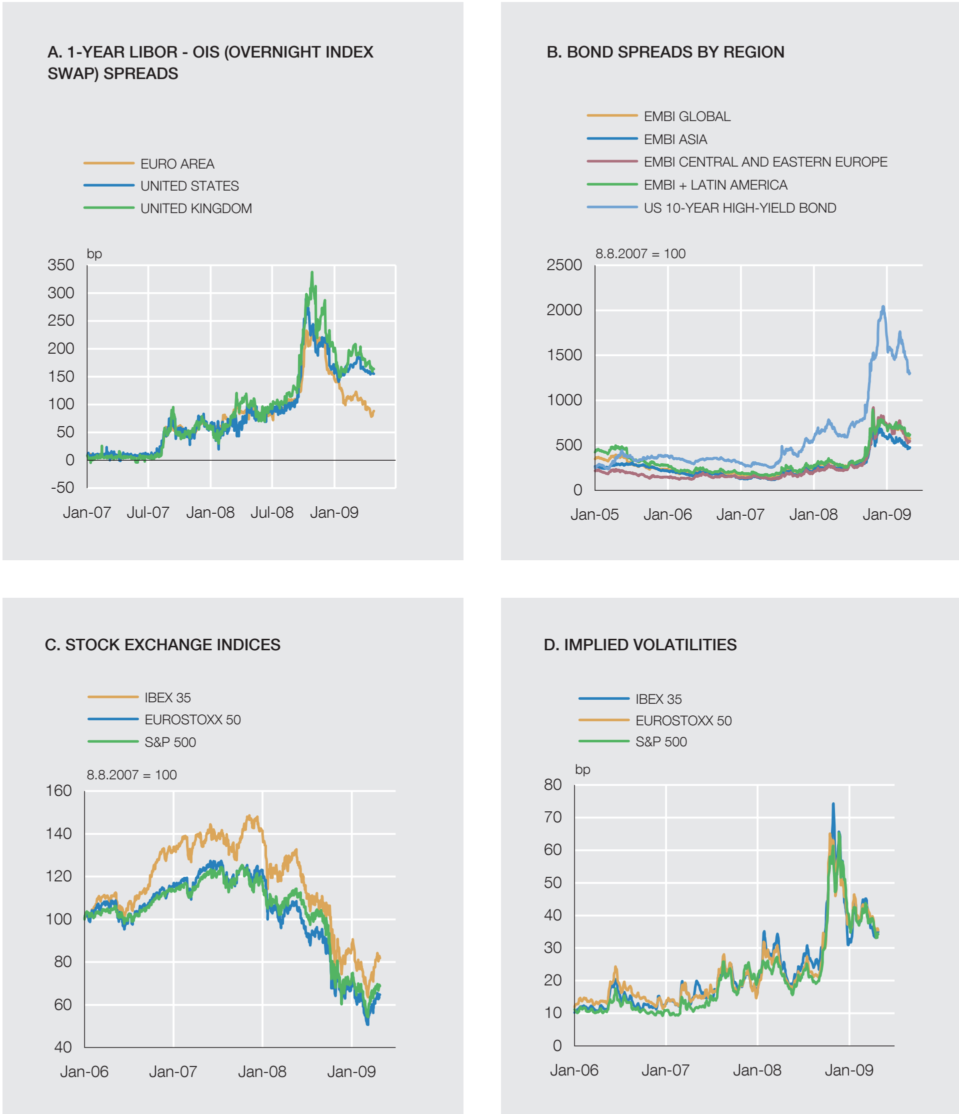
Emerging countries are not immune to the significant global economic and financial deterioration.

In the emerging countries there were similar, though less marked, trends to those in the developed countries, thus confirming that the economies of the former are not immune to the effects of the economic crisis. These impacts were particularly strong in Eastern Europe, where growth in recent years was based on foreign-currency-denominated external financing to the private sector.

Economic growth in the euro area weakened notably in 2008 Q4 and macroeconomic projections for 2009 and 2010 were revised downwards.

In the euro area economic activity weakened sharply in Q4. Eurostat data show that euro area GDP fell 1.6% in quarter-on-quarter terms (down 1.5% on the same period in 2007), following the 0.3% drop in Q3. This fall reflects the impact of the international financial crisis through tighter financial conditions, low confidence levels and lower external demand. These developments led to an expansion in GDP of 0.7% for the year as a whole, almost 2 pp lower than the 2007 figure (see Chart 1.2.A). Against this background, the ECB revised downwards its macroeconomic projections for this year and the next to growth rates of between –2.2% and –3.2% in 2009 and between 0.7% and –0.7% in 2010.

MARKETS CHART 1.1



SOURCE: Datastream.

a. Five-day moving averages.

The Spanish economy also went into recession, leading to a sharp rise in unemployment.

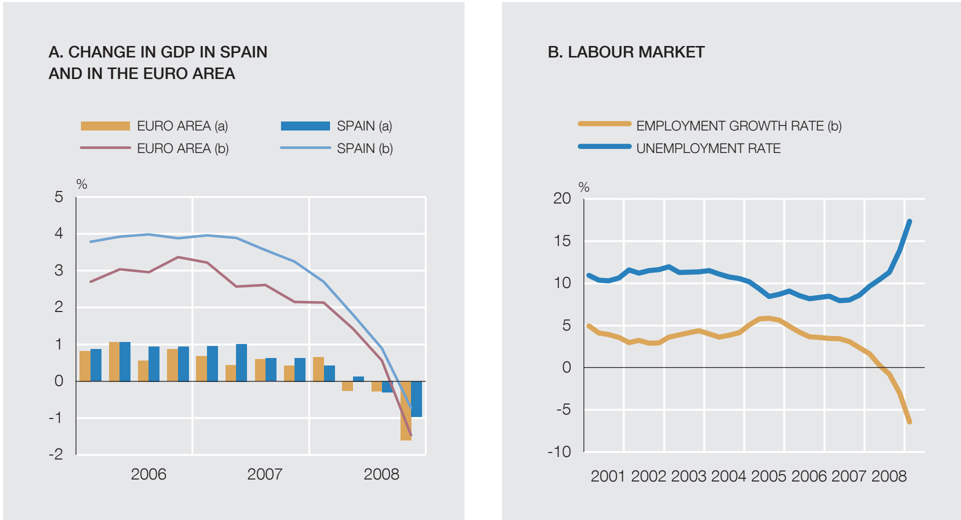
In Spain, at the tail-end of 2008 the weakness of economic activity became more acute. In 2008 Q4, GDP posted a year-on-year fall of 0.7%, compared with a rise of 0.9% in Q3 (see Chart 1.2.A). In quarter-on-quarter terms it dropped by 1%, following the decline of 0.3% the previous quarter. For the first time since 1993, then, this meant two quarters of consecutive falls. Behind these developments was the contraction of domestic demand at a year-on-year rate of 2.8%, which was partly offset by net external demand, whose contribution to the rise in GDP (2.3 pp) was positive, since although there was a notable decline in exports (–7.9%), imports (–13.2%) fell on a greater scale. The fall-off in output was accompanied by a sharper rate of job destruction, which on EPA (Spanish Labour Force Survey) figures fell 3% in year-on-year terms in Q4, placing the unemployment rate at end-2008 at 13.9%, more than 2.5 pp up on September (see Chart 1.2.B). The latest data indicate that this trend will continue during the early months of 2009.

The further tightening of credit supply together with

The deterioration of the macroeconomic outlook and of consumer solvency perceived by financial institutions has continued to be reflected in their more cautious credit standards. Oth-

MACROECONOMIC DEVELOPMENTS

CHART 1.2



SOURCES: INE, Eurostat and Banco de España.

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

the decline in demand for financing have begun to see a stabilisation of household and corporate debt ratios. The interest burden continued to climb, although it will tend to fall over the coming months due to lower EURIBOR rates.

er factors such as funding difficulties on wholesale markets may have contributed to this, albeit to a lesser degree (according to the Bank Lending Survey - BLS). [1] At the same time, the demand for bank financing was once again contractionary during 2008 H2. In recent months, however, the cuts in official interest rates have begun to feed through to the cost of new business, and in this way they have softened the tighter financial conditions. Against this backdrop, the slowdown in financing to the non-financial private sector has continued. As a result, debt ratios tended to stabilise or fall slightly in 2008 Q4. However, the interest burden continued to increase owing to the higher average interest rates on outstanding loans, although the recent drop in EURIBOR rates will contribute over the coming months to reducing debt repayments. The latest data on household net wealth, for 2008 Q3, show a decline in its share of gross disposable income, a trend which, judging by developments in financial asset and property prices, is estimated to have continued until year-end.

The recession is increasing the proportion of agents subject to a high level of financial pressure.

In short, during 2008 H2 the Spanish economy experienced a very severe adjustment which has been reflected in a sharp rise in unemployment. As a result, the proportion of agents subject to a high degree of financial pressure increased, as manifest in the sizeable increase in the bad debts ratio. This situation will not foreseeably improve over the next few quarters in the light of the Banco de España's latest macroeconomic projections of GDP growth of –3% in 2009 and –1% in 2010.[2]

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1. For more details see J. Martínez Pagés (2009), "Encuesta sobre Préstamos Bancarios en España: enero de 2009", *Boletín Económico,* February, Banco de España. **2.** For more details see "Spanish economic projections report" (2009), *Economic Bulletin,* April, Banco de España.

2.1 Deposit institutions

2.1.1 BANKING RISKS

The situation of international financial markets and the world economy remains very complex.

As analysed in Chapter 1, the environment in which financial institutions are operating is very adverse. First, instability continues on international financial markets, which has led to the need for public authorities in various countries to take control of many institutions, some of which large. Next, conditions on wholesale funding markets remain tough, even for institutions with good credit ratings. And further, the world economy is experiencing very hard times and there has been an unprecedented synchronisation of the cycle worldwide.

Spanish institutions have been affected by the closure of wholesale funding channels, partly alleviated by the authorities' measures and the capture of deposits, with the latter process running the risk of petering out.

Spanish deposit institutions have been affected by the international financial crisis because of the evaporation of the wholesale funding channel, which in the years prior to the summer of 2007 had contributed to funding a significant portion of growth in activity. This development, common to other euro area countries, has been alleviated by the measures adopted by the Spanish government regarding guarantees to bank debt issues and the fund for the acquisition of high-quality assets, and by the actions of the monetary authorities (see Chapter 3). Spanish deposit institutions have stepped up traditional deposit-taking, in particular time deposits, a process made easier due to their retail banking business model. However, stepping up deposit-raising is hardly sustainable in the medium term and involves higher costs associated with these deposits, which put institutions' results under pressure against a backdrop of lower activity.

Compounding the foregoing are the risks of a worsening of the real economy, with bad debts posing a risk whose management will be crucial this year and next.

Adding to the foregoing are the risks of a much weaker and uncertain macroeconomic situation in Spain and abroad. The difficulties of the real economy have resulted in significant rises in bad debts, whose management will be crucial this year and next. In this setting, together with lower demand for credit, institutions are more cautious regarding loan approvals and are discriminating to a greater degree across sectors and borrowers. This process of adjustment of bank balance sheets will be difficult and will take some time in the current circumstances. The high levels of returns, provisions and solvency marking the point of departure for the Spanish banking system do not mean this adjustment will be fully uniform across institutions or that it will not be costly, not affect results and capital ratios, and that it does not require strengthening certain courses of action, such as increasing efforts to rationalise cost structures to a greater extent.

The growth of total assets slowed….

Against this backdrop, the *consolidated balance sheet* of Spanish deposit institutions showed moderate growth of activity. Thus, *total assets* increased 8.8% in December 2008 (14.7% in December 2007; see Table 2.1).

…due to lower growth in financing to the private sector.

This performance of assets was due in particular to the slowdown in financing to the private sector (credit and fixed income), which posted growth of 7.8% in December 2008 (16.1% one year earlier). This is explained by demand as well as supply factors, partly due to institutions' greater caution in extending credit in an adverse and uncertain context, in which bad debts are increasing sharply, and, to a lesser extent, to institutions' difficulties in obtaining wholesale funding.

Bad debts continued to rise sharply.

Doubtful assets at the consolidated level[1], which started out from very low levels (the total ratio at consolidated level stood at 0.78% in December 2007), continued to grow at a very high rate. That, coupled with the moderation in credit, took the bad debt ratio[2] to 2.48% in Decem-

1. 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. **2.** In the FSR, the terms bad debts and doubtful assets are used as synonyms, although technically doubtful debts include others in addition to impaired assets.

CONSOLIDATED BALANCE SHEET
Deposit institutions

TABLE 2.1

ASSETS	DEC-08	CHANGE DEC-08/ DEC-07	RELATIVE WEIGHT DEC-07	RELATIVE WEIGHT DEC-08
	(€m)	(%)	(%)	(%)
Cash and balances with central banks	102,967	16.2	2.7	2.9
Loans and advances to credit institutions	230,420	-7.6	7.5	6.4
General government	60,920	22.2	1.5	1.7
Other private sectors	2,368,807	7.1	66.7	63.6
Debt securities	394,056	10.8	10.7	10.9
Other equity instruments	70,939	-32.7	3.2	2.0
Investments	38,493	-29.2	1.6	1.1
Derivatives	196,097	113.0	2.8	5.4
Tangible assets	41,118	14.3	1.1	1.1
Other (a)	104,562	41.6	2.2	2.9
TOTAL ASSETS	3,608,379	8.8	100	100
MEMORANDUM ITEMS				
Financing to private sector	2,505,261	7.8	70.1	69.4
Financing to general government	230,105	12.6	6.2	6.4
Total doubtful assets	75,434	238.8	0.7	2.1
Total doubtful assets ratio	2.48	170,0 (c)	-	-
Provisions for bad debts and country risk	54,402	29.4	1.3	1.5

LIABILITIES AND EQUITY	DEC-08	CHANGE DEC-08/ DEC-07	RELATIVE WEIGHT DEC-07	RELATIVE WEIGHT DEC-08
	(€m)	(%)	(%)	(%)
Balances from central banks	133,783	45.5	2.8	3.7
Deposits from credit institutions	478,773	2.2	14.1	13.3
General government	93,079	4.1	2.7	2.6
Other private sectors	1,644,881	12.0	44.3	45.6
Marketable debt securities	631,154	-4.3	19.9	17.5
Derivatives	178,201	68.3	3.2	4.9
Subordinated debt	90,544	1.2	2.7	2.5
Provisions for pensions, tax and other	35,669	5.9	1.0	1.0
Other (a)	122,347	21.1	3.0	3.3
TOTAL LIABILITIES	3,408,431	9.7	93.7	94.5
MEMORANDUM ITEMS				
Eurosystem net lending (b)	63,598	44.3	1.33	1.76
Minority interests	9,848	-9.5	0.3	0.3
Valuation adjustments relating to total equity	-9,713	-	0.5	-0.3
Own funds	199,814	10.7	5.4	5.5
TOTAL EQUITY	199,948	-4.0	6.3	5.5
TOTAL LIABILITIES AND EQUITY	3,608,379	8.8	100	100

SOURCE: Banco de España.

a. The remaining assets and liabilities entries not explicitly considered, including valuation adjustments, are included in "Other".
b. Difference between funds received in liquidity providing operations and funds delivered in absorbing operations.
c. Difference calculated in bp.

ber 2008, confirming its significant rise, as had been foreseen in the last FSR. In a macroeconomic context such as the current one, this trend will persist in the future.

There was also a fall, in absolute values, in equities and investments, which is accounted for by strategies to reduce asset positions and by valuation effects at a very unfavourable time on stock markets worldwide. The relative weight of derivatives in total assets grew, due mainly to the rise in hedging transactions.

ECB financing continued on a growing trend but its weight in bank balance sheets is low...

As for *liabilities,* following the trend seen in previous FSRs, central bank deposits grew sharply. However, the liquidity obtained from the Eurosystem should be assessed by considering the net loan (the funds received in liquidity providing operations less those delivered in liquidity absorption operations). In a situation in which interbank markets are still not working normally and following the ECB's decision on 15 October 2008 to satisfy all demand for liquidity at a fixed rate, the net loan to Spanish institutions remained on a rising course. However, its relative weight in consolidated balance sheets remains low (1.76% in December 2008) and is below the relative size of the Spanish banking system in the euro area as a whole.

The persisting dysfunctions on wholesale funding markets explain why the raising of funds via marketable securities posted a negative rate of change in December 2008 (–4.3%), while growth in subordinated debt was very moderate (1.2%).

… while deposits grew more sharply than credit.

Using an extensive branch network that permits greater proximity to customers, Spanish institutions have stepped up their deposit-taking, especially that of time deposits (which show growth of over 25%), which also afford a more stable financing structure than that based on sight deposits, notwithstanding the fact that greater competition in attracting such deposits is diminishing such stability. Total private-sector deposits grew more sharply than credit (12% against 7.1%, respectively, in December 2008). This contributed to easing institutions' funding needs. However, the higher funding costs arising from the growing weight of time deposits will adversely affect their income statements, and a tapering off of sharp deposit growth is discernible.

Own funds grew 10.7% in December 2008 in relation to the same period in 2007, which slightly increased their weight in bank balance sheets (5.5%). Practically all of the negative amount of equity valuation adjustments was attributable to exchange rate differences due to Spanish institutions' business abroad.

The risk profile of business abroad only increased moderately and exposure to Eastern European countries is marginal.

The weight of business abroad in the consolidated balance sheets remained similar to that in December 2007 (21.7%). The current difficulties of the world economy mean the risk of business abroad is also increasing. Although Spanish institutions have a presence, through their subsidiaries, in emerging countries, exposure to eastern European countries that are experiencing greater problems is currently very low.

Credit continued to slow,…

Credit to the resident private sector in Spain continued to slow with a year-on-year growth rate of 6% in December 2008 compared with 11% in June 2008 (16.6% in December 2007 and 25.8% in December 2006). The latest data (February 2009) confirm this trend (with an increase of 4.5%).

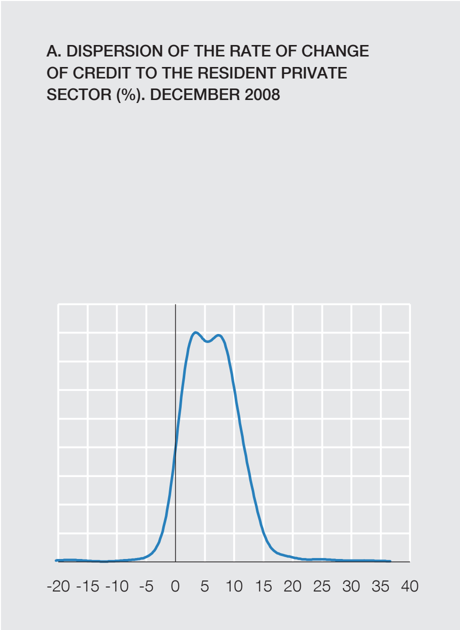
… due to lower demand and institutions' greater caution in an unfavourable and uncertain macroeconomic context..

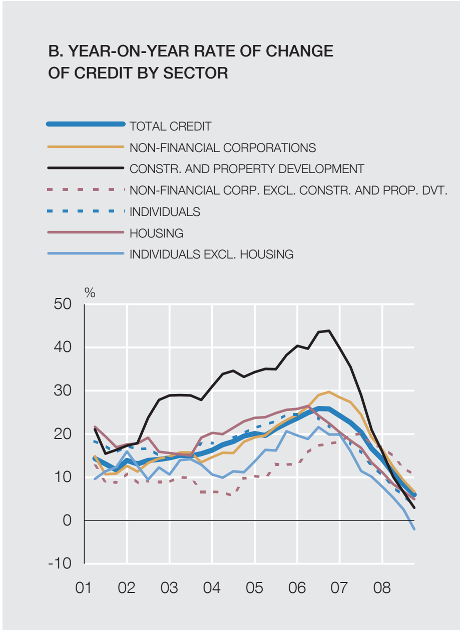
Lending is closely related to the economic cycle. Consequently, its gradual adjustment since 2006 has been in response to a situation which, especially in the property sector, was starting to reflect lower growth. Similarly, easing can also be perceived on the credit supply side (see Chapter 1). For one thing, difficulties in obtaining funding on international wholesale markets persist. For another, and more importantly on the basis of the information available, institutions are exercising greater caution in assessing borrowers during an economic recession. Yet the dispersion in the rates of change in lending indicate that, although it slowed in general, this slowdown is not even across institutions (see Chart 2.1.A).

The slowdown in credit to the resident private sector in Spain is proving sharper in sectors related to the real estate market (see Chart 2.1.B), and especially at construction and prop-

CREDIT BY SECTOR AND DISPERSION
Deposit Institutions. ID

CHART 2.1





SOURCE: Banco de España.

erty development firms (it grew by 36% in June 2007, 21% in December 2007, 10.3% in June 2008 and posted marginal growth of 2.9% in December 2008). That is to say, in sectors in which credit growth was sharper and in which a greater adjustment is currently taking place, the slowdown in credit was more pronounced. For non-financial corporations as a whole excluding construction and property development firms, growth at the end of 2006 (18.5%) and the current slower pace (10.6% in December 2008) reveal greater moderation. In a weaker economic situation, lending to households for purposes other than house purchase (basically consumption) has slowed sharply and even posted negative year-on-year rates of change in December 2008 (–2%), while in December 2006 it was growing at 19.9% (see Chart 2.1.B).

However, not all institutions or lending to the various sectors of activity showed the same intensity of growth…

…and nor were all customers affected to the same extent.

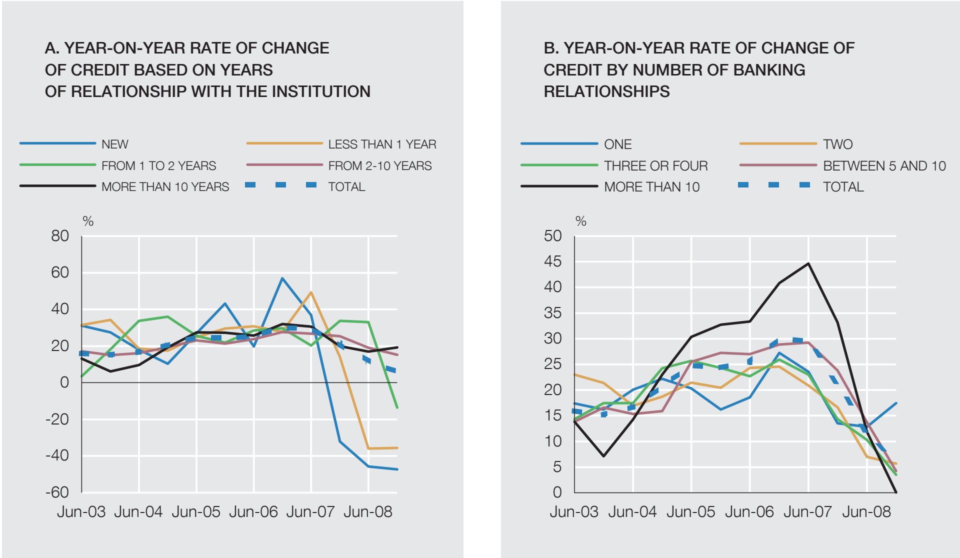
The slowdown in credit has not affected all borrowers to the same extent. At a time when default probabilities are rising, insofar as long-term relationships between institutions and their customers reduce information differences for both parties, the pace of loan approval for borrowers who have been with an institution for longer may be expected to differ from that for customers of whom the institution has less knowledge.

The information for non-financial corporations obtained from the Central Credit Register (CCR) confirms this. Corporations that have seen a greater contraction of credit are those which have been receiving credit from the same institutions for fewer years (see Chart 2.2.A). These results generally remain the same when construction and development firms are separated from other corporations and when corporations are broken down by size.

It can also be seen that the slowdown in total credit differs greatly depending on the number of lending banks a firm has (see Chart 2.2.B). Corporate credit increases significantly in year-on-year terms if a firm only works with one bank. The higher the number of banks a firm works with, the greater the slowdown in credit. This contrasts with developments around the height of the credit boom, when the credit which grew most was that extended by many banks. Possibly, at that time

CREDIT TO NON-FINANCIAL CORPORATIONS
Deposit institutions. ID

CHART 2.2



SOURCE: Banco de España.

the overriding aim was to gain market share, whereas customer knowledge and institutions' commitment to their customers, understood as a long-term relationship, currently prevails.

The pace of growth of the *doubtful assets* of banking business in Spain continued to quicken, but as argued in previous FSRs, in view of their low starting point (in December 2007 the ratio of total doubtful assets in business in Spain was 0.61%), the growth rates are affected by a question of scale. The *doubtful loans ratio,* which in December 2008 continued to grow sharply, stood at 2.4%.

Doubtful assets continued to grow sharply,

The sharp increase in the doubtful assets ratio has been centred on credit to the resident private sector in Spain, whose doubtful assets accounted in December 2008 for 94% of total assets. The doubtful assets ratio of credit to the resident private sector climbed from 0.84% in December 2007 to 3.3% in December 2008. The latest data (February 2009) indicate that this rising trend is holding (4.10%) and will persist in the coming quarters, largely due to the sharp turnaround in the business cycle.

As a result of this rise in doubtful assets, the ratio for the resident private sector of business pursued in Spain recorded by the Spanish banking system, which departed from significantly lower levels, is now close to those of other banking systems in the developed world. In December 2008, the ratio stood at 3.6% for the French banking system and at 4% for Italy's, two countries where, as in Spain, the traditional retail business model is predominant. Admittedly, the low doubtful assets ratios displayed by the Spanish banking system in recent years represented an exceptional situation in the international context.

… in step with the strong deterioration in the Spanish economy..

The rapid and sharp rise in doubtful assets is consistent with the strong pace at which activity is deteriorating and the substantial increase in the unemployment rate. Despite still being at default levels far removed from those of 1993, bad debts are strongly related to the phase of the business cycle, increasing when the latter turns down (see Chart 2.3.A). Nonetheless, the substantial cuts in interest rate levels are counteracting this effect by easing the interest burden on borrowers.

DOUBTFUL ASSETS RATIO OF THE RESIDENT PRIVATE SECTOR
Deposit institutions. ID

CHART 2.3

SOURCES: INE and Banco de España.

As is habitual in downturns, the dispersion between institutions is increasing, though is still far off that seen in 1993.

Notwithstanding the close link between the business cycle and bad debts, it is the case that not all products or sectors incorporate the same levels of risk, and that not all institutions have taken on or managed such risk equally. The dispersion of doubtful asset ratios rises in recessions, since the differences in the lending policy decisions taken in boom periods become clearly manifest when the economy worsens (see Chart 2.3.B). The breakdown of credit in terms of default in December 2008 reflects this, although the degree of dispersion is still far off that in 1993 (see Chart 2.3.C).

The increase is sharp in the construction and property development sector,…

As has been reiterated in the FSRs to date, the construction and property development sectors show a more pronounced and cyclical profile. That is to say, the attendant doubtful assets ratio is significantly above the average (around double) when the economy turns down. It is for these activities, in which credit grew most sharply, moreover, in the past, that bad debts have risen to a greater extent, largely exceeding the doubtful assets ratio for total credit (see Chart 2.3.D). The related ratio for credit to construction and property development companies thus reached 5.71% in December 2008 (0.58% in December 2007). However, not all banks have

DISTRIBUTION OF DOUBTFUL ASSETS RATIO BY INSTITUTION AND SECTOR CHART 2.4

Deposit intitutions. ID

SOURCE: Banco de España.

financed construction and property development firms to the same degree of intensity (see Chart 2.4.A), which partly explains the dispersion of doubtful assets associated with these activities.

… but there is dispersion in the doubtful assets ratio vis-à-vis this sector not only due to differences in the degree of exposure, but also due to how the risks incurred have been managed and to the different lending policies applied.

Further, even for those institutions with greater exposure to certain more cyclically sensitive products or sectors, there is dispersion in their doubtful assets ratios. This is so because different lending policies, despite the level of specialisation or of concentration, lead to different results. This can be seen on analysing the dispersion in the doubtful assets ratios of credit to construction and property development in 1993 for institutions with exposure to the sector that is greater than the average exposure of deposit institutions as a whole. For this sub-set of more exposed institutions, therefore, the dispersion in doubtful assets ratios remains high. The same can be seen in December 2008, although the dispersion is still considerably lower (see Chart 2.4.B).

Doubtful assets are rising sharply in consumer credit,…

The impact of the worse economic situation is also being felt in the doubtful assets ratio of credit to individuals, which rose from 1% in December 2007 to 2.8% in December 2008 (see Chart 2.3.D). Consumer credit, given its nature and the strong increase in unemployment, stood at a level (ratio of 4.5% in December 2008) and showed an increase in its doubtful assets ratio (2.42 pp from December 2007) that was sharper than that for credit for house purchase (2.33% in December 2008, 1.64 pp up on December 2007).

… and less so in housing credit, given the particular characteristics of mortgage financing in Spain..

As noted in previous FSRs, the doubtful assets ratio for credit for house purchase (36% of total credit) has historically been low (at end-1993 it stood at 3.85%[3], with the related ratio for total credit at 8.5%). The reasons for this have to do with the importance of home ownership for Spanish households, with the regulations in force concerning defaults and with the banking model developed in Spain.

Housing is therefore a very important asset under household wealth and it is usually used as the habitual residence, in a country in which the percentage of owner-occupied housing stands at around 80%. The type of business pursued by institutions also contributes to doubtful assets ratios being low for this type of product. First, because institutions select and carefully monitor borrowers, who usually use other products and services of the institution. And further, buy-to-rent business or the use of the mortgage guarantee to finance consumer credit has not been common, as has been the case in other banking systems. Recently, institutions using the most advanced methodologies for measuring credit risk have adopted highly detailed capital assignment systems, enabling them to better discriminate the risk each transaction entails and, consequently, to assign capital more proportionately to the risk incurred (see Box 2.1).

However, under mortgage credit, too, there are riskier segments; though these have little weight in investment portfolios,…

As previously noted, even under a general credit category, different business segments entail different risks. This is the case, as highlighted in the previous FSR, of mortgage credit extended to foreign residents.[4] Although the weight of this item is small relative to credit for house purchase in Spain (slightly over 6%), the related doubtful assets ratio is significantly greater than that for other residents. In December 2008, the doubtful assets ratio for foreign residents was 12.5%, while that for other residents stood at 1.6%. There are also differences across institutions in this case, both in terms of their level of exposure and of their doubtful assets ratio (see Charts 2.4.C and D).

… it is apparent that expanding into new sectors on which there is less information involves greater risks. In this case too, however, bad debts vary depending on the policies applied by each institution.

Higher doubtful assets ratios under mortgage lending to foreign residents is probably due to the fact that this is a relatively new business area for Spanish institutions, since the foreign resident population has grown sharply in recent years. Accordingly, banks have less knowledge of these borrowers, revealing that financial innovation is not only a question of new products, but also of new business segments. That is to say, banks must not only be cautious when designing new and innovative financial products, but also when they move into unknown segments of activity, or into new geographical regions, even when they are marketing traditional products of which they have proven experience.

In sum, bad debts are strongly correlated to the business cycle. Also behind the behaviour of doubtful assets is the credit policy of each institution. This is so first, because not all banks have decided, for example, to grow with the same intensity in specific sectors of activity; and second, because even for those banks more exposed to a specific sector, there will be differences in doubtful assets based on their loan-extension and risk management and control policies.

3. An approximate figure that draws on information from the CCR. **4.** This category includes both resident emigrants and those other borrowers (e.g. retired foreigners from other European countries) who have taken up residence in Spain. It is not possible to discern the relative percentages for each of these groups within the overall total of foreign residents analysed in the FSR. This should be borne in mind when drawing conclusions from the analysis.

RESIDENTIAL MORTGAGE PORTFOLIOS: CAPITAL AND LOAN-TO-VALUE (LTV) RATIO

BOX 2.1

In mortgage loan portfolios in Spain, the most advanced institutions have made a notable effort to achieve greater discrimination of risk in their internal models for credit risk measurement. As a result, the calculation of capital requirements under CBE 3/2008 for these institutions is producing highly granular capital distributions.

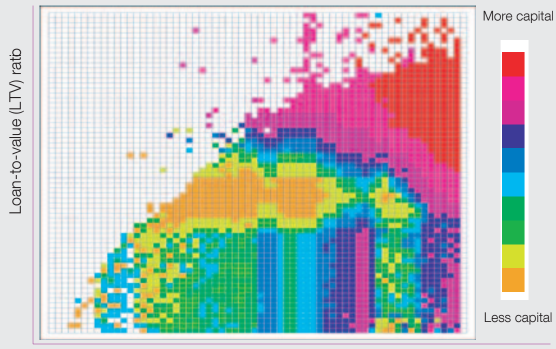
The accompanying Chart provides, for a given portfolio and reporting date, an example which illustrates the relationship between transaction LTV, the origination date and the minimum required capital allocated internally by the institution on the basis of its internal parameters.

The x-axis shows the origination date of the mortgage loan and the y-axis indicates the loan-to-value (LTV) ratio of that transaction at the reporting date, calculated using the exposure value at the reporting date and the appraisal value of the mortgaged asset at the origination date.

The colour code represents average values of the capital ratio assigned to the loans classified in the related cell (associated with a specific origination quarter and LTV range), based on deciles of the distribution of these average values.

It can be seen that recent loans (associated with cells to the right) with higher LTVs (located in the upper cells) have, on average, higher capital allocations.

CAPITAL AND LTV FIGURES FOR RESIDENTIAL MORTGAGE PORTFOLIO ACCORDING TO LOAN ORIGINATION DATE



SOURCE: Banco de España.

Countercyclical provisions have begun to be used in view of the increase in bad debts.

Countercyclical provisions, which led the coverage ratios (loan loss provisions over doubtful assets) in December 2007 to close to 210%, have begun to be used, given the rise in bad debts. That, combined with the greater volume of doubtful assets, means that in December 2008 the coverage ratios stood at slightly higher than 60%. It should be borne in mind that coverage ratios around these levels or even below them are quite common in times of recession and even in boom times in those countries which do not have countercyclical provisions. The amount of total doubtful assets (the denominator of the ratio) is not directly assimilable to a loss, since recoverability must be considered, especially in secured loans (such as mortgage loans for house purchase). Indeed, in recent years much of the credit that has grown most sharply is backed by such guarantees. The very mechanics of the system of countercyclical provisions introduce these oscillations into coverage ratios almost automatically. What is logical is that coverage should be very high during the upswing, and vice versa in the downturn.

Given the intensity of the current crisis, there is no certainty that the countercyclical provisions will absolutely guarantee the absence of difficulties for institutions.

The intensity and depth of the current economic crisis in Spain and in most of the developed countries mean that a mechanism such as the general countercyclical provisions are not an absolute guarantee that institutions will face no difficulties. As in the credit slowdown, and in the structure of the lending portfolio and in developments in bad debts, there are differences across institutions in terms of the extensive use of these provisions, which respond to the intensity of the specific provisions that must be made on the basis of the increase in their bad debts. In this respect, the general provision set aside by Spanish deposit institutions is designed in a way that has enabled the effects arising from the rising bad debts to be cushioned, especially in the early stages when they rose sharply. But as there are differences in how bad debts impact each specific institution, there are also differences in the scope for the future use of this general provision.

Institutions' difficulties in obtaining funding on the wholesale markets persist,…

As in other banking systems, another risk Spanish banks face is the *persistence of the difficulties on international wholesale markets.* Although Spanish banks have not encountered significant difficulties obtaining funding on the short-term markets (commercial paper), medium and long-term wholesale funding continues to pose difficulties, while other international markets, such as those for securitisations, remain closed.

… although Spanish institutions' term structure is concentrated in the longer-dated segments.

When resorting to the international wholesale markets, Spanish institutions did so pursuing a funding policy based on medium and long-term maturities, and that despite the higher cost this entailed in comparison with shorter-dated funding. The maturities for medium and long-term debt are concentrated in the period as from 2013 (almost 63%), while 9.3% of the outstanding balance in January matures in 2009, 11.6% in 2010 and 16.4% between 2011 and 2012 (see Chart 2.5.A). Spanish and international banks' funding requirements have been eased in part by the decisions taken by governments and monetary authorities.

The measures taken by governments…

In relation to governments' decisions, State guarantee arrangements have generally been set up for issues by banks. These plans have been used, to differing degrees of intensity, by institutions in several countries, including some from Spain. At the time of this report going to press, 15 institutions had made State-backed issues for an amount of €16,246 million. Unlike in other countries, the Spanish government decided to set in place a high-quality asset acquisition programme, which has also contributed to easing these funding requirements. To date four auctions have taken place, allotting an amount of €19,341 million, with 53 institutions obtaining funding through this channel, albeit to differing degrees.

… and by central banks have partly eased the problem.

Central banks have also been playing an active role in providing liquidity to the financial system since the difficulties began in the summer of 2007. Indeed, from 15 October 2008, given the persistence of the notable difficulties on euro area interbank markets, the Eurosystem took the decision to meet all demands for liquidity, at a fixed rate, without limits (see Chapter 3). Spanish institutions have resorted to ECB financing to a greater extent than in the past. Nonetheless, the proportion of financing obtained by the Spanish banking system from the ECB is slightly lower than the system's weight in terms of its size. Likewise, the weight of the net loan relative to the system's balance sheet remains at a low level (1.33% in December 2007 and 1.76% in December 2008).

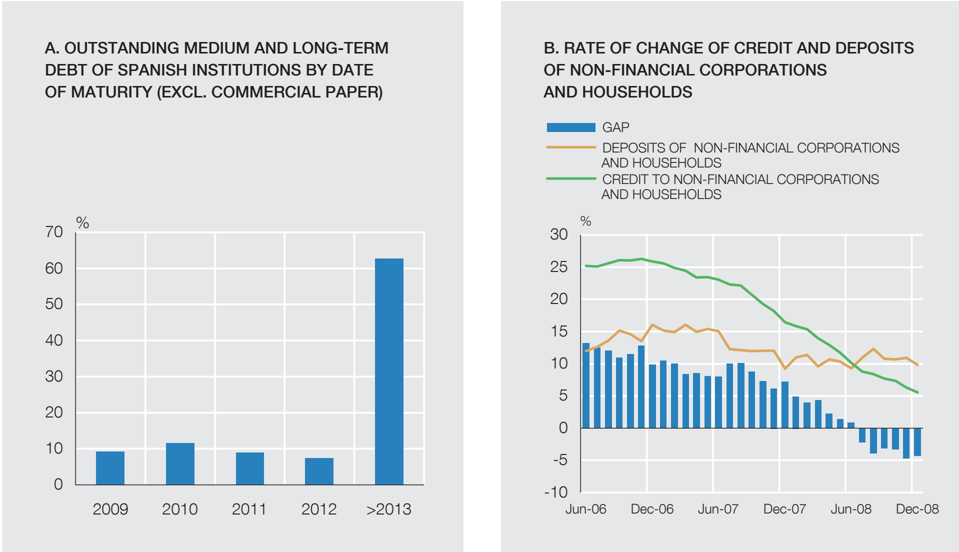
The measures adopted by the ECB and by different governments provide relative alleviation for institutions; but they nevertheless face a situation regarding their funding possibilities that should still be viewed as very complex and which entails a risk that needs to be properly managed. What is more, these measures should be viewed as temporary, and may have been adopted at an unprecedented juncture marked concurrently by a crisis on international financial markets and a crisis affecting the real economy across countries in a synchronised fashion. The ideal solution, therefore, would be for the markets to move progressively back onto a normal footing, once again performing their economic function of channeling resources among the economy's various agents. In any event, with the experience acquired during the current crisis, the proper management of liquidity risk is vital for the medium-term survival of any institution.

Spanish institutions have reformed their funding structure by raising time deposits, to which their banking model has proven conducive,…

Spanish institutions are stepping up deposit-taking, reinforcing their traditional retail funding base. Retail banking based on long-term relationships with customers, favoured by customer proximity, allows deposit institutions a close relationship with customers. Spanish banks have a notable presence in the marketing of other saving products (certain types of insurance, pension funds and investment funds). The conjunction of these two characteristics means that, at a specific point in time, institutions can adjust the mix of products they offer, prioritising deposits at the expense of other alternative products for the placement of customers' savings. The foregoing has translated into strong growth in time deposits (25% in December 2008). This change in tack on the liabilities side towards more traditional funding has further been accom-

WHOLESALE FINANCING AND DEPOSITS
Deposit institutions. ID

CHART 2.5



SOURCES: Market information and Banco de España.

panied by the lower pace of growth of activity, meaning that the difference between the growth rates of lending and deposits turned negative in 2008 (see Chart 2.5.B).

… although that entails higher costs and there is a risk the process will peter out.

Nonetheless, the sharp expansion of time deposits cannot go on indefinitely, so there is a risk the process will peter out. Indeed, and despite the high growth rate of time deposits, the figures for recent months show some slowing in this rate. The growth of time deposits has been able, in part, to come about at the expense of a reduction in sight deposits. That entails higher financial costs for institutions, which exert downward pressure on their income at a time when it will not be offset by a greater volume of activity.

2.1.2 PROFITABILITY

Results are subject to downward pressure: in the short term due to higher provisioning requirements, and in the medium term to lower volumes of activity.

In an economic and financial setting as complex as that described in this FSR, with many international financial institutions posting heavy losses and significant reductions in earnings, Spanish deposit institutions ended 2008 with group net income totalling €23,936 million (see Table 2.2).[5] This largely reflects the retail banking model pursued by Spanish institutions, which allows for more recurring income, all the more so when compared with other banking models that are more dependent on the financial markets to generate their income. That said, Spanish institutions' income statements are declining. This is due in the short term mainly to higher specific provisions owing to the increase in bad debts. In the medium term, the reason is that volumes of activity are not as high as in the past, since the deleveraging of the financial sector, and in general of the economy, both in Spain and worldwide, will be a permanent fixture. The longer the difficulties on international markets take to be resolved and the sharper the macroeconomic deterioration proves, the greater the pressure will be on income statements and the higher the number of institutions that will experience these reductions.

5. The income statement presented in this FSR is consistent with the changes introduced by CBE 6/2008. The most notable change is that the newly defined net interest margin does not now include yields on equity instruments. The newly defined gross margin considers other operating results, while it considers the result on operating activity, which includes provisions and impairment losses on assets associated with loans. For readier comparison with previous FSRs, a net operating margin (the difference between gross income and operating expenses) has been introduced. Although the changes are not, given their size and impact, comparable with those introduced by CBE 4/2004, insofar as the figures for 2007 have been reconstructed taking into consideration the amendments of the new Circular, the year-on-year comparison should be viewed with some caution.

INCOME STATEMENT
Deposit institutions

TABLE 2.2

	DEC-08		DEC-07	DEC-08
	€m	% CHANGE DEC-08/ DEC-07	% ATA	% ATA
Financial revenue	174,667	21.1	4.96	5.52
Financial costs	117,235	24.9	3.23	3.70
Net interest income	57,432	14.1	1.73	1.81
Return from capital instruments	2,720	8.2	0.09	0.09
Share of profit or loss of entities accounted for using the equity method	4,529	4.5	0.15	0.14
Net commissions	21,904	-0.7	0.76	0.69
Gains and losses on financial assets and liabilities	8,497	-27.7	0.40	0.27
Other operating income	664	-14.1	0.03	0.02
Gross income	95,746	4.3	3.16	3.02
Operating expenses	43,660	7.5	1.40	1.38
Net operating income	52,086	1.8	1.76	1.65
Asset impairment losses (specific and general provisions)	21,822	77.3	0.42	0.69
Provisioning expense (net)	3,965	90.8	0.07	0.13
Operating Profit	26,299	-28.5	1.27	0.83
Asset impairment losses (assets other than loans and credits)	2,016	12.4	0.06	0.06
Income from disposals (net)	5,741	18.3	0.17	0.18
Profit before tax	30,024	-24.6	1.37	0.95
Net income	25,427	-20.5	1.10	0.80
MEMORANDUM ITEM				
Income attributable to the controlling entity	23,936	-21.7	1.05	0.76

SOURCE: Banco de España.

Income fell relative to 2007, albeit to differing degrees of intensity across institutions.

Group net income fell by 21.7% in 2008 on 2007. The progressive worsening of the real economy over the course of 2008 and the persistence of the international financial crisis explain why Spanish deposit institutions' results have trended downwards (in June 2008 they had fallen only by 2.5% on the same month in 2007). The decline in results, despite being the general trend, was not uniform across institutions, which reflects their different business strategies and risk profiles (see Chart 2.6.A).

The return on assets and on equity fell.

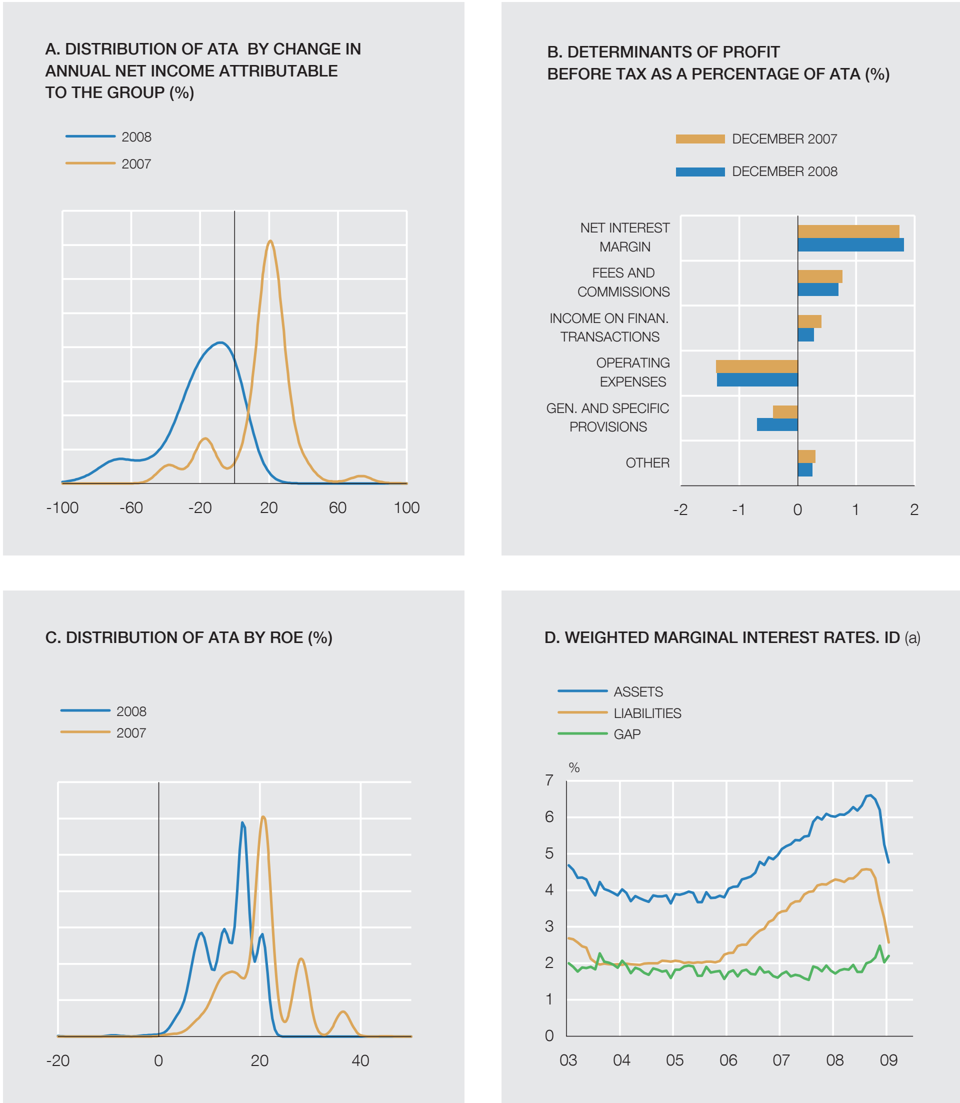
The decline in income can be explained by the fact that, despite the growth of net interest income, fees and commissions were lower, the results on financial transactions worsened and provisions for loan losses increased, in a year in which bad debts surged (see Chart 2.6.B). The fall in group net income fed through to the ROE (12.9% in December 2008 against 19% in 2007) and to the ROA (0.76% in December 2008 compared with 1.05% in December 2007), although to differing degrees of intensity across institutions (see Chart 2.6.C).

The net interest margin grew, demonstrating the recurring nature of income, which depends little on securities market developments.

The *net interest margin* grew at a rate of 14.1%, chiefly as a result of financial revenue stemming from lending to customers. That offset higher financial costs, which grew especially in relation to the raising of deposits (greater competition among institutions). As noted, the favourable trend of the net interest margin highlights the recurring nature of the Spanish banking system's income, the system's dependence on income tied to financial market performance being limited. Based on the high proportion of loans at floating rates, this further reflects how Spanish institutions have been able to adjust interest rates more rapidly to the new setting (see Chart 2.6.D).

RESULTS AND THEIR DISPERSION ACROSS INSTITUTIONS
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.

However, funding costs tend to exert downward pressure, which will not be offset by greater activity.

However, from a medium-term perspective, against a background of significant interest rate cuts, but one in which competition among banks to raise deposits persists, the net interest margin might be subject to downward pressure. Further, in a low interest rate scenario, the cost of liabilities has a floor, which also influences the narrowing of margins. Moreover, if activity moderates to a greater extent than in the recent past, the pressure on results in the coming years will increase.

Fees and commissions remained flat and the results on financial operations declined.

The favourable performance of the net interest margin did not pass through in full to the *gross margin* (growth of 4.3%). Fees and commissions were flat, reflecting the sluggishness of financial markets and the greater emphasis on raising deposits (fewer fees and commissions from securities services and from the marketing of non-bank financial products), along with a slower pace of activity (flatness of fees and commissions from collection and payment services).

EFFICIENCY AND PROVISIONS
Deposit institutions

CHART 2.7

SOURCE: Banco de España.

The reduction in results on financial transactions was essentially due to the difficulties on international financial markets, and partly to sales of holdings in 2007. However, in the case of Spanish deposit institutions, the results on financial transactions arising from the trading book were, despite falling, positive in 2008. This highlights the fact that not only is the valuation principle (fair value in this case) applied signifiant, but also the instruments making up the portfolio and the business model developed by institutions.

Efficiency deteriorated slightly.

Operating expenses grew by 7.5%, a still-high rate and one, in any event, higher than that of the growth margin, which accounts for the weak growth of the *net operating margin* (1.8%). The growth of operating expenses was observable in their three main components: staff costs (6.7%, with a relative weight of 58%), administrative expenses (9.2%) and depreciation (6.2%). Combined with the moderate increase in gross income, this made for a slight worsening in the efficiency ratio (45.6% against 44.25% in December 2007). The improvement in efficiency, which remains at a very high level, and the reduction in operating expenses as a proportion of ATA were checked in 2008 (See Chart 2.7.A).

Institutions should seek to rationalise their cost structures to a greater extent,…

Against a backdrop of higher financial costs, lower volumes of activity and greater loan loss provisioning, rigour in the control of costs should be stepped up. The rate of expansion of branch offices and employees, which has been very strong in recent years (see Chart 2.7.B), is out of step with the new environment facing the banking sector. The specific strategies should be defined by institutions, but the necessary restructuring of the sector will mean that different options for the rationalisation of operational and structural costs must be analysed. Downsizing the network by means of fewer branch offices, increasing the productivity of those remaining or devising transversal optimisation processes across institutions are some of the options for consideration. A thoroughgoing cost rationalisation process, within each institution and across institutions, is necessary in order to ease the pressure on the results and profitability of institutions in the coming years. However, quite possibly for a large number of institutions, the necessary and unavoidable management of costs will not be enough to achieve sufficient profitability in the medium-term; accordingly, it may be necessary to consider other restructuring processes that go beyond individual management of cost structures.

Operating results, which include asset impairment losses arising from lending (general and specific provisions), and other provisions (basically for tax, pension funds and contingent risks and commitments), fell by 28.5% in relation to the December 2007 figure.

… since loan loss provisions will continue to exert downward pressure on income statements.

The reason was the sharp increase in the *general and specific provisions,* which grew by 77.3%. Although this growth differed across institutions (see Chart 2.7.C), these provisions consume an increasingly larger portion of the net operating margin (see Chart 2.7.D). This is due to the increase in specific provisions, given the strong rise in bad debts in 2008, cushioned only in part by general provisions, which some institutions have begun to use (the general provision, at the consolidated level, declined by 21.4% in December 2008). Nonetheless, some of the increase in the provisions is due to the fact that certain institutions have increased them in the face of an adverse and uncertain economic climate. It should be borne in mind that the timetables set under Spanish regulations in relation to specific provisions refer to a minimum that institutions must meet; consequently, they may set aside provisions above these minimum levels if they deem it necessary.

The results of large Spanish institutions were better than in other banking systems in the developed world,…

When the results of large Spanish institutions are compared with those of their counterparts in *banking systems in the developed world,* the direct impact of the international financial crisis is apparent. This is specifically so in the case of investment in highly complex and relatively opaque investment products that have recorded notable losses, which translates into a sizeable impact on income statements or into notable reductions in profits. For those large Spanish deposit institutions which, like other Spanish entities, did not invest in these products, no losses were recorded in 2008, and results diminished to only a modest extent[6] (see Chart 2.8.A).

… as reflected in their better stock market performance to end-2008; however, the difference is being erased as a result of the general deterioration in the economy..

On the stock market the performance of the banking sector was, despite some correction in recent weeks, most adverse, and the main institutions saw their stock market capitalisation fall significantly. Their market value relative to their book value reflected this notable correction. Throughout 2008, the stock market performance of the biggest Spanish institutions was better than that of their peers in other banking systems (see Chart 2.8.B), due largely to the direct impact of the international financial crisis on the latter. Nonetheless, since early 2009 this difference has disappeared (see Chart 2.8.B), which probably reflects the general bleak macroeconomic outlook.

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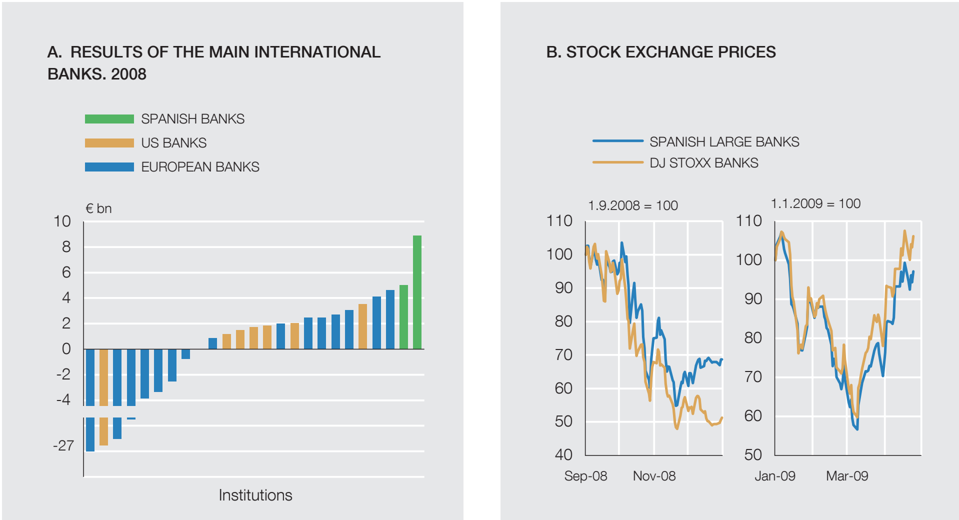
6. It should be borne in mind, moreover, that institutions in some countries have made use of the asset reclassification recently permitted by the accounting authorities (IASB). That has contributed to limiting how the losses on such assets are reflected in income statements for 2008.

INTERNATIONAL COMPARISON
Large institutions

CHART 2.8



SOURCES: Company reports, Datastream and Banco de España.

In terms of default risk derived from CDS spreads, the trend for the biggest institutions in banking systems in the developed world, including Spain's, is relatively similar, with Spanish banks around the average.

2.1.3 SOLVENCY

Solvency ratios remain well above the minimums,…

The end-2008 solvency ratios of Spanish deposit institutions as a whole substantially exceeded the regulatory minimum requirements, in a year in which EU Directives 2006/48/EC and 2006/49/EC (based on Basel II) were transposed to Spanish law (CBE 3/2008). The total *solvency ratio* in December 2008 stood at 11.3%, 67 bp more than a year earlier, while the tier 1 ratio was 8.4%, representing a year-on-year increase of 89 bp (see Chart 2.9.A).

The improvement in the total solvency ratio and in the tier 1 ratio was relatively widespread across institutions. However, in addition to other considerations, the management strategies followed by each institution are also reflected in their regulatory capital ratios, so there are substantial differences between them insofar as their regulatory capital levels are concerned (see Chart 2.9.A), as well as in the quality of that capital. The latest solvency data available show that the total solvency ratio of one institution did not meet the required minimum level for regulatory purposes (Box 2.2).

… and requirements decreased due to the slower lending,…

The substantial slowdown in lending brought a decline in risk-weighted assets and, consequently, in capital *requirements* (–2.1%, against 12.7% in December 2007). The downturn in requirements for credit risk (–10.1%), which have a weight of nearly 88% (see Chart 2.9.C), negatively affected the behaviour of total capital requirements, partly offset by the introduction of new requirements for operational risk and by temporary requirements.[7] (Box 2.3).

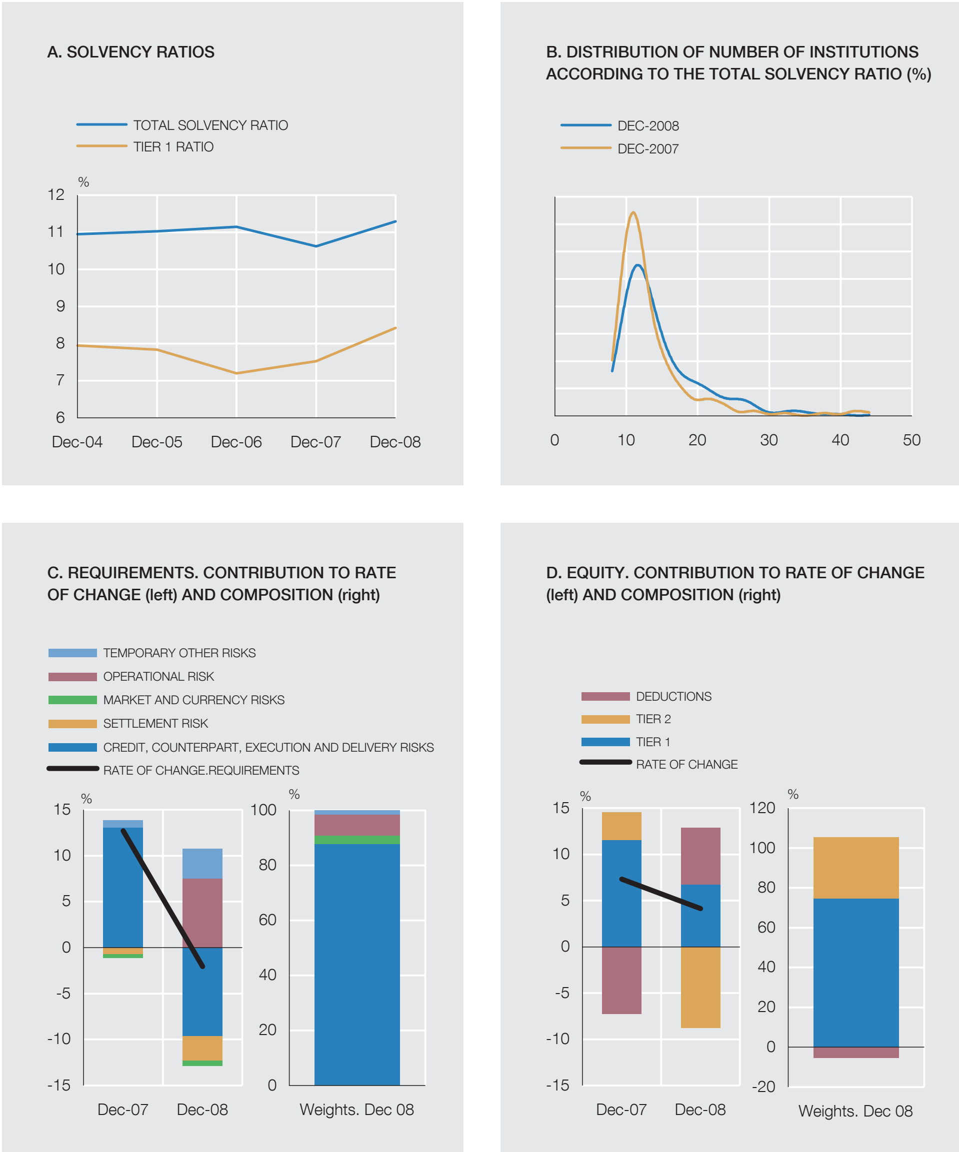
… as did, to a lesser extent, own funds.

The growth of t*otal own funds* slowed to a rate of 4.1%, down 3 pp from December 2007, impacted by the sharp moderation in tier 1 capital, which went from growth of 17.8% in December 2007 to 9.5% a year later, and by a significant fall in tier 2 capital (–21.6%), partly offset by the smaller deductions (see Chart 2.9.D).

7. As a temporary requirement, institutions using internal models have to meet additional requirements set at 90% and 80% of the requirements that would apply to them under Circular 5/1993 in 2008 and 2009, respectively. The actual purpose is to set floors to the potential decrease in capital requirements.

SOLVENCY
Deposit institutions

CHART 2.9



SOURCE: Banco de España.

The solvency of the larger Spanish institutions is in line with that of their counterparts in other European countries,…

International comparison of the solvency levels of the larger institutions shows that the position of Spanish banks, measured in terms of tier 1 ratio, is in line with that of peer institutions in other European banking systems. The comparison is more favourable for Spanish institutions when general provisions are considered (see Chart 2.10.A). Also, it should be kept in mind that the governments of most EU countries have injected capital, via diverse instruments, in their financial institutions, particularly in the larger ones (Box 1.1).

International comparison of capital ratios should be interpreted with some caution because the transposition of EU directives can give rise to particularities when they are specifically applied. Thus Spanish legislation is more demanding and stricter than if the directives were applied directly. For example, in regard to requirements for higher quality capital and, in particular, that included in the calculation of the tier 1 ratio, Spanish legislation sets additional limits on eligible equity instruments issued by foreign subsidiaries and, furthermore, it limits the preference shares included in tier 1 capital to 30% of total tier 1 capital.

ACTION OF THE BANCO DE ESPAÑA REGARDING CAJA CASTILLA-LA MANCHA

BOX 2.2

On 28 March 2009 the Executive Commission of the Banco de España decided to replace the board of directors of Caja Castilla-La Mancha (CCM) and designate three provisional administrators, in application of Law 26/1988 on the discipline and intervention of credit institutions.

Also, after notification by the Banco de España to the Ministry of Economy and in response to the need to provide extraordinary financing to enable the institution to overcome its temporary liquidity difficulties, on 29 March an extraordinary meeting of the Council of Ministers approved Royal Decree-Law 4/2009 authorising the State to grant guarantees deriving from such funding as may be provided by the Banco de España to CCM, up to a maximum of €9 billion.

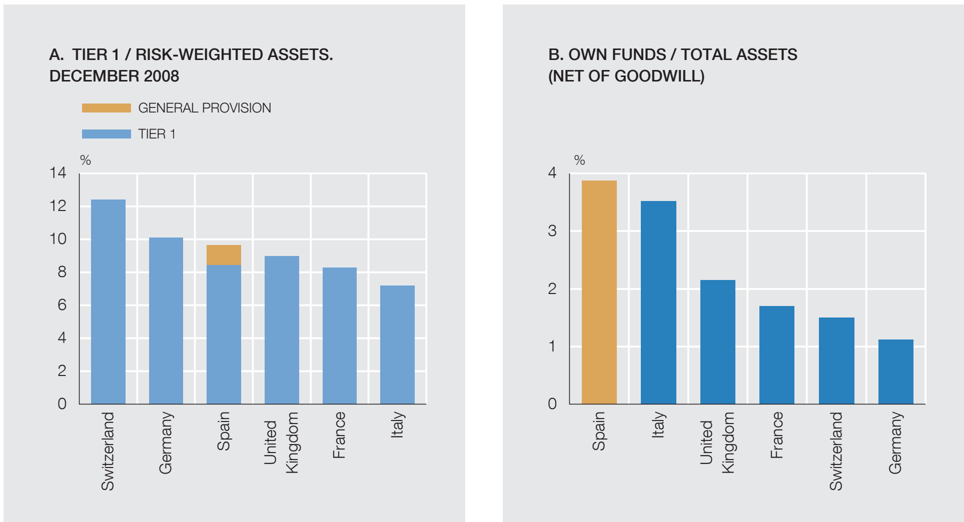
These decisions were taken after it became clear that a "private" solution could not be reached to CCM's problems within the framework of the savings bank Deposit Guarantee Fund. In any event, the Banco de España's action aimed to prevent the institution's progressive deterioration from resulting in a crisis of confidence in it, a market convulsion and, ultimately, higher costs for taxpayers. These preventive measures have enabled CCM to continue operating normally and meet its payment obligations and commitments, assuring the position of its depositors and creditors.

Caja Castilla-La Mancha is a solvent institution as it has a positive net worth, i.e. its net assets exceed its debts. However, the institution was in serious difficulty. First, its regulatory capital ratio was below the required minimum of 8%. At the same time, its financial outlook was unfavourable, since it had substantial doubtful assets and its profits (the first line of defence when difficulties appear) were scant, both in terms of total assets as a percentage of equity.

The Banco de España's decision is fully consistent with the action taken on other occasions to deal with other institutions in difficulty, and with the principles established in the motion passed in Parliament on 17 March on the strategy for restructuring the Spanish financial system.

INTERNATIONAL COMPARISON OF SOLVENCY
Sample of large banks

CHART 2.10



SOURCES: NOMURA, company reports and Banco de España.

The international financial crisis has shown how institutions with strong capital ratios, including that for the highest quality capital, have encountered notable difficulties requiring the intervention, in one form or another, of the public authorities. Among other shortcomings, this reflects the insufficiency of capital for covering the risk associated with certain assets, particularly for some of those included in the trading book which have a large credit-risk component. This is reflected in the BCBS's work on the treatment of the trading book.

… while their leverage is lower,…

The degree of leverage (own funds to total assets) of financial institutions is a highly significant variable. In a recent communication, the BCBS indicated that practices of this type, among others, will have to be taken into account when assessing institutions' solvency requirements.

CBE 3/2008 ON THE DETERMINATION AND CONTROL OF OWN FUNDS AND ITS IMPACT ON CAPITAL REQUIREMENTS

BOX 2.3

CBE 3/2008 adapts Spanish legislation to the Basel II rules, transposing the EU directives in this respect. One of the main aims of the Basel II Accord is to make capital requirements more sensitive to risk, and, to this end, the range of risks to be covered has been extended and institutions are permitted, upon authorisation from the Banco de España, to use their own calculation methodologies (internal models) to determine the minimum capital requirements to be met.

The requirements are classified into four broad groups: those for credit, counterparty, dilution and delivery risk (with a weight in December 2008 of 88%, practically all for credit risk); those for liquidation risk (barely significant); those for market and exchange risk (weight of 3%); those for operational risk (weight of 8%); and other (weight of 1%).

As regards *credit risk requirements,* 65% arise from the standardised approach, and the other 35% from the internal ratings based (IRB) approach. In terms of the exposures subject to requirements for credit risk, these percentages are 60% and 40%, respectively. Ten institutions use the IRB approach, two of which are subsidiaries of foreign banks. Within the *IRB approaches,* most noteworthy by type of obligor are the retail portfolio, which consists of lending to individuals (both consumer credit and residential mortgage loans) and SMEs (exposure of less than €1 million), with a weight of 41% (24% according to requirements), other corporates (which include all other companies and businesses whose debt to the institution exceeds €1 million), with a weight of 45% (61% on the basis of requirements) and financial institutions, with a weight of 10% (5% in terms of requirements). For institutions applying the *standardised approach,* 39% of exposures are weighted at 100% (exposures to large firms and SMEs of more than €1 million, among others), 18% at 75% (SMEs with bank debt of less than €1 million to the institution and consumer credit) and 16% at 35% (residential mortgage loans with LTV below 80%).

The scant weight of the exposure subject to external credit ratings under the standardised approach and the greater sensitivity of the parameters which determine capital requirements under the IRB approach (PD, but also LGD and EAD) mean that the distribution of capital requirements may vary significantly across groups of institutions during a business cycle, depending on the approach (standardised or IRB) applied by each institution. The procyclicality of Basel II capital requirements is analysed in more detail in Chapter 3.

With regard to requirements for *market risk and exchange risk,* two methodologies may be distinguished: the standardised approach and internal models. The latter are of little importance in terms of both the number of institutions using them (4) and their relative weight within the requirements for this type of risk (26%).

Operational risk requirements can be calculated by the basic indicator approach, the standardised and alternative standardised approaches or the advanced approach. In December 2008, 15 institutions were using the standardised or alternative standardised approach and only two (again, subsidiaries of foreign banks) were using internal models. In terms of volume, the basic indicator approach accounts for 68% of total requirements, against 32% for the standardised or alternative standardised approach.

Regardless of the yardstick used, the data on Spain's larger institutions show them to be among the least leveraged in comparison with those of other European banking systems (see Chart 2.10.B).

… which does not mean that the solvency position of Spanish institutions as a whole does not have to be carefully assessed.

However, while Spanish deposit institutions have capital ratios above the regulatory minimums and they compare favourably with large institutions in other countries, there is no doubt that the environment in which they have to operate in the coming quarters will be very difficult. Therefore, irrespective of the role played by the supervisor, institutions have to carefully judge the regulatory capital position which will allow them, acting prudently and in the medium term, to face the risks to which they are exposed.

2.2 Insurance companies, investment funds and pension funds

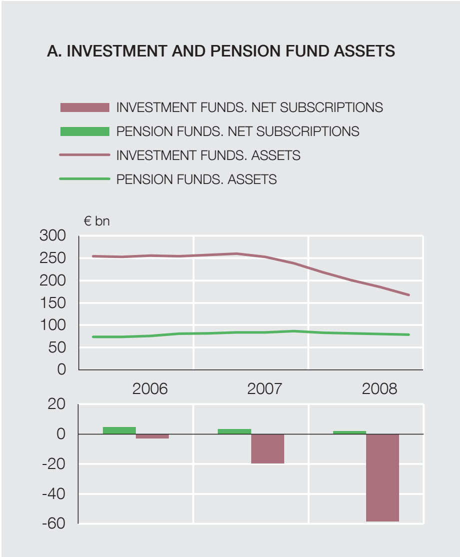
2008 was a complicated year for the European insurance sector,…

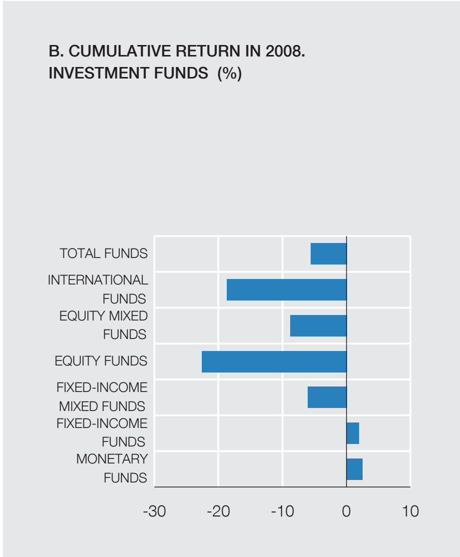
In Europe, 2008 was a complicated year for the *insurance sector.* Direct exposures to complex structured products and to the private fixed-income securities of financial institutions with serious difficulties in 2008 are limited[8], but the international crisis and the extremely complicated economic situation have weakened the position of the sector. The stock market performances and the behaviour of risk premiums implicit in the CDS spreads of the main European companies reflect these difficulties. In 2009 the risks associated with the persistence of the financial crisis and with an adverse economic situation remain a threat.

8. Financial Conditions and Financial Stability in the European Insurance and Occupational Pension Fund Sector 2007-2008, CEIOPS, December 2008.

INVESTMENT AND PENSION FUNDS

CHART 2.11





SOURCES: INVERCO and Banco de España.

… and also for the Spanish insurance sector, which, although less exposed to the stock markets,…

… has to face a more adverse economic situation.

The Spanish insurance sector shares some of these elements of risk with the rest of Europe. Nevertheless, as noted in previous FSRs, equity securities have a very low weight (around 2.5%) in the balance sheets of Spanish insurance companies, and this explains why they are less sensitive to equity markets. The international financial difficulties interact with the difficult situation besetting the real economy, which puts downward pressure on premiums in the sector and on insurers' profits and solvency, which nonetheless remains high. The latest available data indicate that the solvency margin is around 180% for life and 330% for non-life.

In the life segment, demand will probably trend downwards, and at the same time this line will have to adjust to the stronger competition for household and corporate savings from banks and to the interest rate environment. In non-life, the weaker economic activity affects home multi-risk insurance linked to house purchase mortgages, unemployment insurance due to the sharp rise in job losses and automobile insurance due to lower sales and the fewer policies taken out, along with the more intense competition between companies amidst decreasing claims. Also, against a background of sharply increasing defaults, claims in credit and suretyship insurance are increasing significantly.

Investment funds report significant falls in net assets,…

The international financial crisis has adversely affected *investment funds.* Their net assets decreased progressively in 2008 (-29.8% in December 2008). This fall in net assets was caused by a large net outflow of funds (see Chart 2.11.A) due to the trend in returns, which in 2008 was negative for nearly all types of investment funds (see Chart 2.11.B), and to the heightened competition for private-sector savings.

… which were milder in the case of pension funds.

Nearly all types of *pension funds* also recorded negative returns in 2008, although, given their characteristics as a product more focused on long-term saving, the decrease in their net assets was not so significant (year-on-year fall of 9.3% in December 2008; Chart 2.11.A).

3 Other issues

3.1 Anti-crisis measures adopted by the European Central Bank

Central banks have significantly cut reference rates and increased the amounts injected.

In the last year, the leading central banks around the world have undertaken many actions targeted at combating the effects of the international financial crisis. These actions have included measures which fall within conventional monetary policy and others which can be described as unconventional (see Box 3.1). Noteworthy among the former are widespread reductions in official rates which in some cases have left no further leeway for additional rate cuts. Thus, the reference rates of the Federal Reserve, the Bank of England and the Bank of Japan stood, at the cut-off date of this report, at 0.00% - 0.25%, 1.00% and 0.10%, respectively. The volumes of liquidity injected into the financial system have also increased significantly.

The ECB cut the minimum rate and introduced supplementary operations, increasing the liquidity injected…

The ECB reduced the minimum rate for the main refinancing operations to 1.25% in April. Furthermore, in order to place the euro area money market back on a normal footing, in March 2008 it decided to conduct three-month and six-month longer-term supplementary refinancing operations, without affecting the regular three-month operations. Subsequently, in September it introduced a special refinancing operation with a maturity of one month which coincides with the minimum reserve maintenance period.

… at a fixed rate and with full allotment,…

The decision was also taken to change the allotment procedure of tenders. From October 2008 tenders have been carried out through a fixed-rate procedure with full allotment for all maturities. The ECB has undertaken to maintain this exceptional measure at least until the beginning of 2010, at the same time as it will continue with the current frequency and maturity profile of supplementary refinancing operations.

… and expanded the list of eligible collateral, including assets not previously eligible and lowering the acceptable quality threshold.

Another particularly important measure was the expansion of the list of assets eligible as collateral in Eurosystem monetary policy operations (15 October 2008), which will remain in force until the end of 2009. The expansion comprised, on the one hand, the inclusion of assets which had not been eligible until then, and, on the other hand, the lowering of the credit rating threshold. The new assets added to the list were: (i) marketable debt instruments denominated in the US dollar, the British pound and the Japanese yen, provided that they are issued and held or settled in the euro area and that the issuer is established in the European Economic Area; (ii) debt instruments issued by credit institutions, which are traded on certain non-regulated markets, including certificates of deposits; (iii) subordinated debt instruments when they are protected by an acceptable guarantee; (iv) fixed-term deposits of counterparty institutions in the Eurosystem; and euro-denominated syndicated credit claims governed by English and Welsh law. The eligibility of the latter was terminated in November 2008. Also, the credit threshold of the Eurosystem for assets eligible as collateral was lowered from A- to BBB- or an equivalent grade, for marketable and non-marketable assets, with the exception of asset-backed securities which maintain a credit threshold of A-.

3.2 Procyclicality of Basel II: measurement and correction

The exceptional nature of the international financial crisis has prompted various organisations to analyse its causes and to propose different measures (see Box 3.2). From the standpoint of capital regulations of credit institutions, Basel II was not in force in any country at the onset of the crisis. This does not mean that the Basel Committee (BCBS) is not revising the Accord in the light of the lessons learnt.

The procyclicality of capital requirements is still under debate.

Procyclicality is among the issues under debate. The financial system is procyclical: during booms agents tend to underestimate risks, while when the cycle changes they tend to react abruptly. This behaviour is called procyclical because it amplifies the economic cycle. The

Last year the leading central banks around the world implemented initiatives which are not included in the conventional monetary policy toolbox. These measures are a response to an exceptional situation in which the leeway for additional rate cuts has been used and failures in the monetary policy transmission mechanism must be overcome against a backdrop of uncertainty and faltering confidence. This box focuses on the Federal Reserve (the Fed), the Bank of England and the Bank of Japan, although other central banks also adopted unconventional measures.

The *Fed* arranged swap lines with many central banks to provide them the dollar liquidity they require to meet their programmes to inject foreign currency liquidity. The Fed, with the guarantee of the Treasury, began in September 2008 to buy from market-makers the short-term debt which had been issued by Fannie Mae, Freddie Mac and Federal Home Loan Banks, to reduce the cost of refinancing it. Similarly, in January 2009 a Treasury-backed programme was launched to buy assets, in order to stimulate the granting of credit to ultimate borrowers, in general, and home purchase loans, in particular. $100bn of debt issued by Fannie Mae, Freddie Mac and Federal Home Loan Banks will be purchased; and $500bn (extended to $1.25tn in March 2009) of mortgage-backed assets guaranteed by Fannie Mae, Freddie Mac and Ginnie Mae. It has also implemented various facilities which are also backed by the Treasury:

1 Term Securities Lending Facility, March 2008: exchange of assets with institutions. Weekly auction of one-month loans of Treasury assets to market-markers against other less liquid assets.

2 Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, September 2008: loans without recourse to institutions to buy asset-backed commercial paper from money market mutual funds. The aim is to assist these funds to meet demand for redemptions and to foster liquidity in money markets in general.

3 Commercial Paper Funding Facility, October 2008: purchase of quality unsecured or asset-backed commercial paper directly from eligible issuers on the primary market through a public special purpose vehicle (SPV) financed by the Fed in order to provide them liquidity.

4 Money Market Investor Funding Facility, November 2008: funding for a series of SPVs set up with the private sector to purchase certain short-term assets from given US money market investors, to serve as a source of liquidity for them.

5 Term Asset-Backed Securities Loan Facility, March 2009: three-year loans without recourse and the need for an auction (global amount of up to $1tn) to holders of AAA-rated asset-backed securities by newly originated loans to the real sector of the economy. Its objective is to increase the availability of credit and to support economic activity by facilitating the issuance of securitisations backed by a broad range of loans.

Another recent initiative of the Fed (March 2009) has been to begin a policy to buy medium and long-term government debt on the secondary market (overall amount of up to $300bn).

The *Bank of England* maintained between April 2008 and January 2009 the Special Liquidity Scheme, a facility to swap high-quality illiquid assets for Treasury bills with credit institutions. The risk of losses remains with the credit institutions. The initial period of the operations was one year which may be renewed up to a maximum of three years. In September 2008 it also began to inject dollar liquidity into the overnight market and then extended the maturity to one week, one month and three months (from October auctions have been conducted at a fixed rate with full allotment).

Also, in January 2009 it launched the Asset Purchase Facility in order to increase the availability of corporate credit. It is a facility to purchase private assets totalling £50bn whereby for the time being it acquires high-quality commercial paper on the primary and secondary markets, although it plans to buy corporate bonds on the secondary market and is studying the possibility of acquiring bank paper issued with a guarantee of the State, syndicated loans and asset-backed securities. This programme is guaranteed by the Treasury. Finally, in March 2009 it began to buy medium and long-term government debt on the secondary market.

In September 2008 the *Bank of Japan* began to inject dollar liquidity into its counterparties (from October 2008 at a fixed rate with full allotment) and in January 2009 it implemented a programme to purchase private assets. it has begun to purchase unsecured or asset-backed commercial paper for an overall amount of up to JPY 3tn and JPY 1tn, respectively. Unlike the Fed and the Bank of England, the Bank of Japan does not have the guarantee of its Treasury.

In spite of the unconventional measures adopted, the economic and financial situation has not yet returned to normal. Continuing to use unconventional measures, thus increasing the lending activity of central banks, involves raising their on-balance sheet risk. In order to lower this risk, Treasury support is an alternative (the Fed and the Bank of England), but at the same time it poses a threat for the independence of the central bank. In the particular case of the Eurosystem, the non-existence of a single tax authority makes this possibility difficult.

THE FINANCIAL CRISIS AND WORK AT INTERNATIONAL FORA

BOX 3.2

In October 2007 the *G7* Finance Ministers and Central Bank Governors asked the *Financial Stability Forum* (FSF) to analyse the causes of the financial turbulence which had begun in July that year. They also requested the FSF include recommendations to increase the resilience of markets and institutions.

The FSF published its report in April 2008 and included a wide-ranging list of recommendations in five areas: i) strengthened prudential oversight of capital, liquidity and risk management; ii) enhancing transparency and valuation of financial products; iii) changes to credit rating agencies; iv) strengthening the authorities' responsiveness to risks; and v) arrangements between regulators for dealing with stress in the financial system.

During 2008 the financial crisis intensified, ultimately affecting the emerging economies. For this reason, the decision was taken for the leaders of the *G-20,* which includes the G7 countries and emerging countries, to meet at the *Washington Summit* on 15 November 2008 to seek global solutions to the crisis. In the final statement, the G20 leaders undertook to cooperate to identify and implement the reforms required to improve the functioning and solvency of the world's financial systems. A detailed plan of action was included with immediate tasks to be completed by the end of March 2009 and others to be finished in the medium term. Most of the points included in the action plan had already been covered by the FSF's recommendations and were being addressed by international banking, securities and insurance committees, accounting regulators and the finance industry. However, other points involve new work.

On 2 April 2009 the G20 leaders met again at the *London Summit*[1] to review the work that should have been finished and the validity of the decisions taken previously. The final statement notes that the action plan agreed in Washington is being implemented, as are, in particular, the following specific measures: to strengthen prudential regulation and international cooperation; to extend regulation to all systemically important financial institutions, instruments and markets; to effectively oversee credit rating agencies; and to improve compensation systems and accounting regulation. Furthermore, the decision was taken to establish a new Financial Stability Board, which replaces the FSF and will include all G20 countries, FSF members, the European Commission and Spain.

In the area of banking regulation, the *Basel Committee* (BCBS) is entrusted with implementing the FSF's recommendations and the action plan included in the G20 statement in November and confirmed in the statement in April. To that end, it established as priorities in its work programme: strengthening capital requirements; implementing and improving liquidity risk management; promoting improvements in institutions' risk management and in their supervision; enhancing transparency and market information, improving supervisory cooperation for international banks and, finally, strengthening the macro-prudential approach of supervision.

In January 2009 the BCBS published a package of measures for public consultation. Under pillar 1, it proposes increasing the capital requirements of certain complex products such as resecuritisations and liquidity lines to ABCP conduits, and instruments included in the trading book. Under pillar 2, standards are proposed to promote more rigorous supervision and management of risk concentrations, off-balance sheet exposures, securitisations and related reputational risks. Also proposed are improvements to valuations of complex instruments, the management of liquidity risks and firm-wide stress testing practices. Finally, under pillar 3, enhancements are proposed for market disclosure requirements for securitisations and off-balance sheet vehicles. Also, in December 2008 the BCBS published a report reviewing the regulations on the resolution of troubled institutions and their cross-border application.

The BCBS has not forgotten the tasks which must be completed in the medium term. The first objective is for institutions to have higher liquidity and capital buffers. Additionally, it aims to promote healthier risk management and corporate governance practices, to limit risk concentration at and among credit institutions, and to strengthen market information.

In Europe a parallel process was followed to that undertaken globally. Thus, in October 2007 the *ECOFIN* agreed various actions and drew up a work programme with a "roadmap" for negotiating the turmoil, with similar objectives to those described above.

As a result of the G20 Summit, the Economic and Finance Committee, as required by the ECOFIN, drafted a new work programme with the aim of preparing the contribution of the European presidency to the forthcoming G20 summits.

The CEBS, as the committee of banking supervisors, also adapted its work programme to embrace the points of the G20 action plan which affect it, working, among other issues, on colleges of supervisors, employee compensation, capital valuation, liquidity and procyclicality.

1. Spain was invited to take part in both summits.

subject for debate is whether capital regulations intensify this inherent behaviour of financial agents. In particular, Basel II pursues better risk measurement and management. To this end, it uses a wide-ranging set of instruments, which include the greater sensitivity of capital requirements to the risks assumed by institutions.

The measurement of capital requirements proposed by Basel II is based on a series of parameters (for example, probability of default or PD) which increases during recessions along with capital requirements. Institutions can react by attempting to reduce requirements, and, for this purpose, they may restructure loan portfolios and lower credit volume, consequently deepening the recession and thus further worsening the probability of default.

There are theoretical proposals to reduce it within the framework of Basel II…

Currently under debate are the available alternatives for maintaining a model which accurately reflects the risks assumed by institutions (Basel II) but which is less procyclical. In particular two alternatives are proposed: (1) to fine-tune the calculation parameters (for example PD) to include the effect of the cycle; (2) to leave unchanged the calculations of these parameters and to fine-tune the final requirement arising from the Basel II formulae through a multiplier which smoothes their cyclical behaviour.

… which in the case of Spain have been estimated quantitatively.

Aside from this necessary theoretical debate the results and implications of the various alternatives have not been evaluated quantitatively. However, this has been done in the case of Spain using data from the Central Credit Register of corporations from 1987 to 2008. The methodology used was to compute what the capital requirements in the period would have been, had Basel II been in force, and to compare to what extent their procyclicality would be reduced by applying the various theoretical proposals.[1]

The requirements obtained from Basel II are procyclical, but this can be mitigated by using a GDP-based multiplier or calculating default probabilities over the cycle.

The direct application of Basel II formulae results in procyclical requirements. The adjustments made through a multiplier (which evolves with the cycle) to the requirements obtained from the direct application of the Basel II formulae reduce procyclicality. The most effective multiplier depends on GDP. The growth of credit, stock market indices and other adjustment procedures offer less satisfactory results. If the default probabilities are calculated over the cycle, procyclicality is also reduced. The use of a mechanism like the GDP multiplier is straightforward and transparent, with the advantage of being practically automatic.

Dynamic provisions can also help to mitigate procyclicality.

The foregoing must be considered from the perspective of establishing minimum capital requirements and of how, from the regulatory standpoint, calculating them should not increase procyclicality. The level of capital required and how institutions adjust it to their specific features is another matter. For this purpose, the above-mentioned mechanisms can be complemented with counter-cyclical provisions (in use in Spain since mid-2000). The form these provisions must take is an issue open to international debate, as is how they fit into the current accounting framework, although they must be transparent, as they have been in Spain, to convey all the important information to investors.

3.3 The Spanish system of provisions as an example

Certain figures can shed light on Spain's dynamic provisions, given the interest the latter have aroused internationally. Total consolidated loan loss provisions at end-2007 represented 1.3% of the total consolidated assets of Spanish deposit institutions, excluding the EU branches which are not subject to Spanish provision requirements. This figure compares with an equity-to-consolidated assets ratio of 5.8%. Therefore, cumulative loan loss provisions represented 26.6% of tier 1 capital as of that date. When evaluating these figures, it must be taken into account that, unlike other banking systems, the percentage of off-balance sheet assets of Spanish institutions is very low since they have not developed conduits and SIVs.

Not all the assets on a bank's balance sheet require credit risk provisions. If we focus our attention on assets subject to general provision requirements and we relate them solely to the general provision through the dynamic provision system, at end-2007 the coverage of lending to the private non-financial sector stood at 1.44% at consolidated level. This coverage has

1. See the paper by R. Repullo, J. Saurina and C. Trucharte, "Mitigating the Procyclicality of Basel II", in the CEPR's electronic book for the G20, "Macroeconomic Stability and Financial Regulation: Key Issues for the G20".

dropped in 2008, since institutions have begun to use this general provision due to the increase in specific provisions. It should be taken into account that Spain together with the United States and Canada is, with the information collected by the Basel Committee, one of the few countries in which in June 2008 total loan loss provisions amply exceeded the expected losses calculated as at that date.

If the analysis is performed only for the Spanish credit market, the ratio of general loan loss provisions to total credit at individual balance sheet level at end-2007 was 1.2%. If exposures with 0% requirements are excluded (public sector and interbank), coverage rises to 1.6%.

Provision requirements vary according to the type of credit. There are six categories, with most exposures centring on the first four lower risk tranches. The parameters imply, for example, that for a mortgage loan on a principal residence (with an LTV of less than 80%), institutions have to record a provision for 0.71% of the amount extended which, assuming a loss given default (LGD) of 15%, means effective coverage of a bad debt ratio of up to 4.75%, which compares with this ratio's peak of 3.85% in 1993 in the last recession when LGD was around zero.

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