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BANCO DE ESPAÑA

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ABBREVIATIONS

€	Euro
AIAF	Asociación de Intermediarios de Activos Financieros (Association of Securities Dealers)
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
CDS	Credit default swaps
CIs	Credit institutions
CNMV	Comisión Nacional del Mercado de Valores (National Securities Market Commission)
DIs	Deposit institutions
ECB	European Central Bank
EMU	Economic and Monetary Union
EU	European Union
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
LGD	Loss given default
m	Millions
MEFF	Mercado Español de Futuros y Opciones (Spanish Financial Futures and Options Market)
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
SPV	Special-purpose vehicle
TA	Total assets
VaR	Value at risk
WTO	World Trade Organisation

CONTENTS

Introduction

During 2005, against a background marked by a favourable economic situation, low interest rate levels and heightened competition, Spanish deposit institutions increased their profitability while maintaining their solvency ratios stable and, for yet another year, amply above the regulatory minimum levels. The sound performance of profitability was underpinned by the ongoing growth of activity, both in business in Spain and abroad, and by the cost-containment drive undertaken by institutions.

Notwithstanding the foregoing, the analysis is affected by the entry into force on 1 January 2005 of the new Banco de España accounting Circular (CBE 4/2004), which appreciably changes the focus that had previously been applied. However, the effect of the change in the accounting framework on the present Financial Stability Report (FSR) is much more limited than in the previous December 2005 edition. Accordingly, and while certain caveats are advisable in the comparison of the data with those of previous years, the conclusions drawn in the analysis should not be substantially affected.

Banking risks

The activity of Spanish institutions grew strongly in terms of business in Spain, due largely to the substantial buoyancy of the Spanish economy, which continued to post higher growth rates than those of the euro area as a whole. That was despite the pick-up in the euro zone in the second half of the year following the phase of sluggishness as from mid-2004. The forceful pace of activity shown by Spanish institutions was connected, once again, with the growth of financing to the resident private sector.

Under financing extended to the resident private sector, household consumer credit accelerated considerably during 2005. Nonetheless, the driving force of the brisk pace of credit to Spanish households and firms was, once more, financing granted to property sector-related activities. This encompassed both lending to households for house purchases, and that for construction and property development promotion activities. Two developments highlighted in previous FSRs were thus underscored. First, there was a strong dichotomy between financing extended to construction and property development companies and that to other corporations. Further, and as a result of the foregoing, there was an increase in the concentration of institutions' credit portfolios in this business segment.

The continuing high rate of expansion of lending activity in recent years, which has not been matched by the course of traditional banking deposits, means institutions must exercise great caution in lending new funds, particularly against a background in which the substantial looseness of monetary and financial conditions might begin progressively to abate.

The strong dynamism of financing for house purchases explains why there was a fresh deterioration in 2005 in the household debt ratio and in their financial burden relative to their gross disposable income. Nonetheless, and although certain risks persist regarding an increase in debt, the financial position of households remains sound. In any event, in relation to credit for house purchases and as highlighted in the previous FSR, certain bank products have been developed recently which give rise to some concern. Although these types of products have emerged more forcefully in markets other than Spain, the lengthening of maturity periods recently seen in Spain should not be ignored, entailing as it does significant challenges for institutions in respect of the need to appropriately value and manage risks at longer terms than has traditionally been the case.

The favourable course of business profits enabled non-financial corporations to increase their profitability ratios during 2005 and, indeed, the risk for institutions arising from companies with difficulties in terms of their profitability held at low levels. Although some increase in debt was detected, along with a slight increase in the credit risk premia negotiated on derivatives markets, such premia are still at moderate levels and the sector's financial position remains sound.

The growth of Spanish deposit institutions' activity was also boosted by business abroad, against the backdrop of the notably buoyant world economy and the depreciating trend of the euro against the Latin American currencies. Again in 2005, the risk profile of financial assets abroad diminished. There were two reasons for this: first, the change in the composition of financial assets abroad, with business in the European Union now accounting for greater weight; and second, the improvements in the credit rating of the sovereign debt of several Latin American countries, whose economies have sustained a favourable performance.

The dynamism shown by Spanish deposit institutions extends also, albeit with less intensity in 2005, to asset management – mutual funds in particular – and insurance, through the companies related to them. However, the sectoral information provided by the new accounting Circular and analysed for the first time in this FSR, which allows the relative significance within the consolidated groups of the activity of credit institutions, of insurance companies and of non-financial corporations to be distinguished, highlights the fact that, for Spanish groups, banking is the most important activity, confirming moreover the high presence of banks in the Spanish financial system.

As regards doubtful assets, developments show that once account is taken of the change brought about by CBE 4/2004, which tightened their definition, the increase therein was much more moderate and in line with the growth in economic activity and in employment, as well as with low nominal and real interest rates. In this respect, doubtful assets ratios and probabilities of default remain at very low levels. In addition, the risk profile of Spanish deposit institutions' credit portfolio fell further during 2005. Nonetheless, it should be recalled that there is a significant lag between credit granted by institutions and the risk materialising in doubtful assets. Accordingly, the current benign climate in terms of doubtful assets should be viewed with some caution.

Throughout 2005 and in 2006 to date, international financial markets have trended very favourably. As a result, the market risk to which institutions are exposed seems relatively ringfenced. However, a sudden change in investor risk perception might lead to an increase in instability, with a significant reduction in liquidity in some markets. In any event, during the period analysed in this FSR, particular pressures in respect of the liquidity of international markets have not been perceived. As already mentioned, against a backdrop in which financing to households and firms grew at a higher rate than that of traditional deposits, particularly in the household business segment, Spanish deposit institutions increased their resort to financing via the issuance of securities on wholesale markets, these liabilities generally proving more expensive than traditional deposits.

Profitability

The recent results of Spanish deposit institutions place their sound performance in previous years on a firmer footing. There was a sharp acceleration in the rate of increase of profits, apparent throughout the income statement, as the three main margins (net interest, net operating and gross) increased in absolute terms. This was partly due to the incorporation into the results for 2005 of the foreign institutions acquired, but it also highlights the fact that under the new accounting framework, in which fair value plays a more relevant role, greater rates of

change in results and, therefore, greater volatility in the profitability obtained by institutions must be expected.

In any event, the dynamism of banking activity, both in the provision of services and, essentially, in financing extended, helps explain the favourable course of results. The growth of the net operating margin, which stood in terms of average total assets at its 2004 level, shows that, following a trend observed in previous FSRs, institutions have made a considerable effort to contain operating costs. Indeed, a fresh improvement in the efficiency ratio was seen in 2005. The moderate growth of doubtful assets and the favourable macroeconomic setting explain why the increase in the value adjustments for impaired assets and in provisioning was limited, to the extent that it subtracted less from the net operating margin.

The performance of the income statement of Spanish deposit institutions was evidenced in an increase in the return on equity (ROE), whose spread over long-term public debt yields widened further in 2005.

Comparison of Spanish institutions' profitability with that of their European counterparts differs depending on the institution's size. In any event, however, Spanish banks figure prominently both in terms of return on equity and of efficiency. Generally, the bigger Spanish institutions are, the better their relative position compared with other European institutions.

The market information available reveals similar behaviour between the major Spanish and European institutions, entailing an upward trend in their stock market prices. The risk reflected in various indicators, such as betas, implied volatilities or risk premia taken from the credit derivatives markets show a position around the European average for Spanish institutions and, in any event, relatively low risk levels.

Solvency

Spanish deposit institutions' solvency ratios were very stable throughout 2005, with similar levels to the previous year and significantly up on the regulatory minimum required. Indeed, the greater capital requirements stemming from an increase in the pace of activity of Spanish institutions were offset virtually in their entirety by the dynamism of own funds.

Tier 1 capital was essentially driven by the increase in reserves, due to the robustness of institutions' results and to the stability in the proportion of those earmarked for dividends or the welfare fund. The increase in Tier 1 capital was also attributable to less goodwill, the result in part of the initial application of the new accounting Circular. Tier 2 capital grew, on one hand, because of the increase in subordinated debt, which remains by far its main component; and, on the other, due to the revaluation of tangible assets for which some institutions opted in the initial application of CBE 4/2004.

As indicated, capital requirements only slightly outgrew own funds, which made for stability in the solvency ratio. In any event the increase in requirements, apart from being due to the growth of those associated with the risk inherent in the held-for-trading portfolio, which now include more instruments than under the former Circular, was attributable above all to the increase in those associated with credit risk in a setting, as earlier explained, of strong growth in lending activity.

Despite the differences in the size of the institutions, the comparison with European banks indicates that in terms of the total solvency ratio, Spanish credit institutions as a whole are slightly above the average; however, when the comparison is made in terms of the Tier 1 ratio, it is somewhat less favourable, as Spanish banks are somewhat below the average. In any

event, and as mentioned, Tier 1 and total solvency levels are, for Spanish institutions, well above the minimum regulatory requirements and, what is more, the coverage level of impaired assets is very high.

In sum, the strong dynamism of business in Spain and also abroad, combined with the ongoing containment of operating costs pursued by Spanish institutions, enabled the latter to attain high profitability and efficiency levels during 2005. At the same time, the solvency ratio held at a comfortable level. Nonetheless, the strong growth of credit, and in particular the increased concentration of lending in activities related to the property market, requires that Spanish deposit institutions should pay particular attention to their lending policies, both in the acceptance of risk and in its subsequent management.

I.1 Introduction to Spanish deposit institutions' risk

In line with previous FSRs, the consolidated balance sheets of Spanish deposit institutions show more buoyant activity. This development is largely attributable to the growth of the financing granted to the private sector in business in Spain. At the same time, at a favourable moment for the world economy and against a background of appreciation of the Latin American currencies against the euro, foreign business is growing notably, and its relative weight in total business is increasing. Meanwhile, despite slight growth in doubtful assets, the doubtful assets ratio continued to fall, with a strengthening of the downward trend already noted in previous FSRs.

PUBLIC CONSOLIDATED BALANCE SHEETS

Apart from other considerations, the public consolidated balance sheet[1] includes insurance companies and other non-financial corporations within its scope of consolidation. Also, it presents financial instruments grouped by portfolio[2], which enables the assets and liabilities to be analysed on the basis of the management and measurement criteria applied by the institutions.

In December 2005, deposit institutions' total *assets* grew by 21.4%, confirming the expansion of activity that the sector is currently experiencing (Table I.1). This buoyancy is seen in the three main portfolios into which the financial assets are classified.

Thus, loans and receivables grew by 22.5%, so that their relative weight in the deposit institutions' balance sheet rose from 68.4% in December 2004 to 69% in the same month of 2005. The two main components of this portfolio are loans and advances to other debtors, which in December 2005 amounted to 87.7% thereof, and loans and advances to credit institutions, whose relative weight in the portfolio was, as at the same date, 10.5%. Both items contributed to the buoyancy of loans and receivables: loans and advances to other debtors grew by 23.5% and loans and advances to credit institutions by somewhat less, but also strongly (18.5%).

Available-for-sale financial assets, i.e. those in relation to which the institution has made no decision as to whether to hold them to maturity or to dispose of them in the short term, grew by 21.7%, which is in line with the growth of total assets. As a result, their relative weight in the balance sheet was unchanged at 10.5%. Both debt securities (which account for 78.5% of the total) and other equity instruments (which account for the other 21.5%) grew at high rates: the former by 23.3% and equity instruments by 16.2%.

The institutions' trading activity, i.e. that engaged in with a view to short-term profit, was also highly buoyant, against a favourable macroeconomic and financial market background. Thus, the increase in this portfolio was 26.2%, which enabled its relative weight in the balance sheet to increase by 4 bp, to 9.3% in December 2005. All its components grew at high rates, except loans and advances to credit institutions, which fell by 20%. Notable among the more buoyant elements were loans and advances to other debtors, which increased by 49.1%, and other equity instruments, which increased by 41.7%, although their relative weight in the total business of the institutions is small. The two main components of financial assets held for trading

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1. CBE 4/2004 has been applied in the compilation of the data presented in Table I.1. The data referring to December 2004 have been recompiled on the basis of the new criteria and should, therefore, be interpreted with some caution. **2.** See FSR 12/2005 for more details. The content of the assets and liabilities portfolios is explained in Table I.1 of that report, included as Table A.1 of the Explanatory Notes in this FSR.

PUBLIC CONSOLIDATED BALANCE SHEET TABLE I.1

Deposit institutions

ASSETS	DEC-05 (€ m)	Relative weight in DEC-05 (%)	Relative weight in DEC-04 (%)	DEC-05/ DEC-04 (% change)
Cash and balances with central banks	45,312	1.8	1.6	37.8
Financial assets held for trading	226,849	9.3	8.9	26.2
Loans and advances to other creditors	*26,512*	*1.1*	*0.9*	*49.1*
Debt securities	*124,585*	*5.1*	*4.9*	*26.1*
Other equity instruments	*16,232*	*0.7*	*0.6*	*41.7*
Trading derivatives	*49,167*	*2.0*	*1.9*	*27.0*
Other	*10,353*	*0.4*	*0.6*	*-20.3*
Other financial assets at fair value through profit or loss	54,611	2.2	2.4	11.1
Available-for-sale financial assets	257,246	10.5	10.5	21.7
Debt securities	*201,966*	*8.2*	*8.1*	*23.3*
Other equity instruments	*55,281*	*2.3*	*2.4*	*16.2*
Loans and receivables	1,690,990	69.0	68.4	22.5
Loans and advances to credit institutions	*177,911*	*7.3*	*7.4*	*18.5*
Loans and advances to other creditors	*1,483,634*	*60.6*	*59.5*	*23.5*
Other	*29,444*	*1.2*	*1.5*	*-0.3*
Held-to-maturity investments	22,303	0.9	0.9	18.5
Changes in the fair value of the hedged items in portfolio hedges of interest rate risk	41	0.0	0.0	-18.0
Hedging derivatives	21,690	0.9	1.0	10.1
Non-current assets held for sale	1,220	0.0	0.1	-54.0
Investments	15,014	0.6	0.7	6.4
Insurance contracts linked to pensions	3,906	0.2	0.2	-3.9
Reinsurance assets	2,696	0.1	0.2	-15.3
Tangible assets	43,480	1.8	2.0	6.5
Intangible assets	19,694	0.8	0.9	12.3
Tax assets	26,981	1.1	1.3	4.2
Prepayments and accrued income	5,021	0.2	0.3	-8.3
Other assets	13,143	0.5	0.6	12.0
TOTAL ASSETS	**2,450,199**	**100**	**100**	**21.4**

LIABILITIES AND EQUITY	DEC-05 (€ m)	Relative weight in DEC-05 (%)	Relative weight in DEC-04 (%)	DEC-05/ DEC-04 (% change)
Financial liabilities held for trading	143,256	5.8	5.7	24.2
Deposits from credit institutions	*32,252*	*1.3*	*1.3*	*25.7*
Trading derivatives	*50,618*	*2.1*	*2.2*	*12.8*
Other	*60,387*	*2.5*	*2.2*	*34.9*
Other financial liabilities at fair value through profit or loss	14,434	0.6	0.9	-16.2
Financial liabilities at fair value through equity	35	0.0	0.0	59.1
Financial liabilities at amortised cost	1,959,306	80.0	78.6	23.5
Deposits from credit institutions	*274,208*	*11.2*	*10.7*	*27.4*
Deposits from other creditors	*1,176,031*	*48.0*	*49.8*	*17.0*
Debt certificates including bonds	*353,198*	*14.4*	*12.3*	*42.7*
Other	*155,869*	*6.4*	*5.9*	*31.0*
Changes in the fair value of the hedged items in portfolio hedges of interest rate risk	1,033	0.0	0.1	-16.1
Hedging derivatives	12,843	0.5	0.7	-2.2
Liabilities associated with non-current assets held for sale	159	0.0	0.0	-
Insurance contract liabilities	88,145	3.6	4.0	9.5
Provisions	38,561	1.6	1.8	6.7
Provisions for pensions and similar obligations	*26,015*	*1.1*	*1.3*	*2.3*
Provisions for taxes	*526*	*0.0*	*0.0*	*-16.2*
Provisions for contingent exposures and commitments	*2,308*	*0.1*	*0.1*	*29.0*
Other provisions	*9,711*	*0.4*	*0.4*	*17.2*
Tax liabilities	14,610	0.6	0.6	18.8
Accrued expenses and deferred income	8,424	0.3	0.4	-5.7
Other liabilities	8,121	0.3	0.5	-19.7
Capital having the nature of a financial liability	11,112	0.5	0.5	4.3
Total liabilities	**2,300,037**	**93.9**	**93.8**	**21.6**
Minority interests	8,251	0.3	0.3	29.4
Valuation adjustments	18,962	0.8	0.6	53.3
Own funds	122,948	5.0	5.3	14.8
Total equity	**150,161**	**6.1**	**6.2**	**19.5**
TOTAL LIABILITIES AND EQUITY	**2,450,199**	**100**	**100**	**21.4**

Source: Banco de España.

grew at more moderate rates, albeit of over 20%. Thus, debt securities, which account for almost 55% of the financial assets held for trading on the markets in the short term, grew by 26.1%, while trading derivatives (21.7% of the total) grew by 27%.

In short, the developments in the three main assets portfolios show that during 2005 there was a general expansion in banking activity, i.e. in both loans and receivables and financial assets held for trading in the short term.

On the *liabilities* side, which grew by 21.6%, the most important portfolio, in relative terms, is financial liabilities at amortised cost, with a weight of 80% in December 2005, 1.4 pp more than in the same month of 2004. That is to say, this portfolio increased by 23.5%, with all its components contributing to this growth. The largest contribution was made by deposits from other creditors since, despite growing at a lower rate than the total (17% as against 23.5%), the relative weight of this component within liabilities at amortised cost was 60%. Financing raised from credit institutions (which grew by 27.4%) was more buoyant, as was the issuance of debt certificates including bonds which, with a relative weight in the portfolio of 18%, grew at a rate of 42.7%.

Financial liabilities held for trading also displayed great buoyancy, growing by 24.2%. Trading derivatives, which account for 35% of such liabilities, grew by 12.8%, while deposits from credit institutions and other components grew more strongly (by 25.7% and 34.9% respectively).

Finally, insurance contract liabilities, connected with the inclusion within the scope of consolidation of the public statements of insurance companies, grew by 9.5%. This slow growth in comparison with that of the total explains why the relative weight of this item has fallen, albeit slightly (from 4% in December 2004 to 3.6%). Provisions, meanwhile, behaved similarly, growing less strongly than the total (6.7%)[3].

Equity grew by 19.5%, i.e. by slightly less than the balance sheet total. This was attributable to the weaker growth of own funds (14.8%), which are still by far the most significant item within equity, despite having declined somewhat in relative importance (from 85.2% to 81.9% in December 2005).

CONFIDENTIAL CONSOLIDATED BALANCE SHEETS

The confidential consolidated balance sheets[4] that deposit institutions submit to the Banco de España supplement the public ones, offering not only more detailed information, but also information more oriented towards analysis in terms of instruments. Also, they refer to the group of credit institutions, without including either insurance companies or non-financial corporations.

The total assets of all Spanish deposit institutions grew, in December 2005, by 23.4%, confirming the high rate of growth of activity already apparent in previous FSRs (Table I.2).

This increase in activity is seen, on one hand, in *business in Spain* which, representing 76.2% of the total, grew by 22.5%. This shows that, in an environment of more pronounced economic growth than in the other euro area countries, there was a certain acceleration with respect to the same period of the previous year.

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3. The provisions caption now includes those funds accumulated to cover the present obligations of institutions in relation to pensions and similar obligations, taxes, contingent exposures and commitments and others, such as those relating to litigation or the environment. **4.** CBE 4/2004 has been applied in the compilation of the data presented in Table I.2. As a result, those referring to December 2004 are not directly comparable with those published in previous FSRs and should be interpreted with some caution.

CONFIDENTIAL CONSOLIDATED BALANCE SHEET TABLE I. 2

Deposit institutions

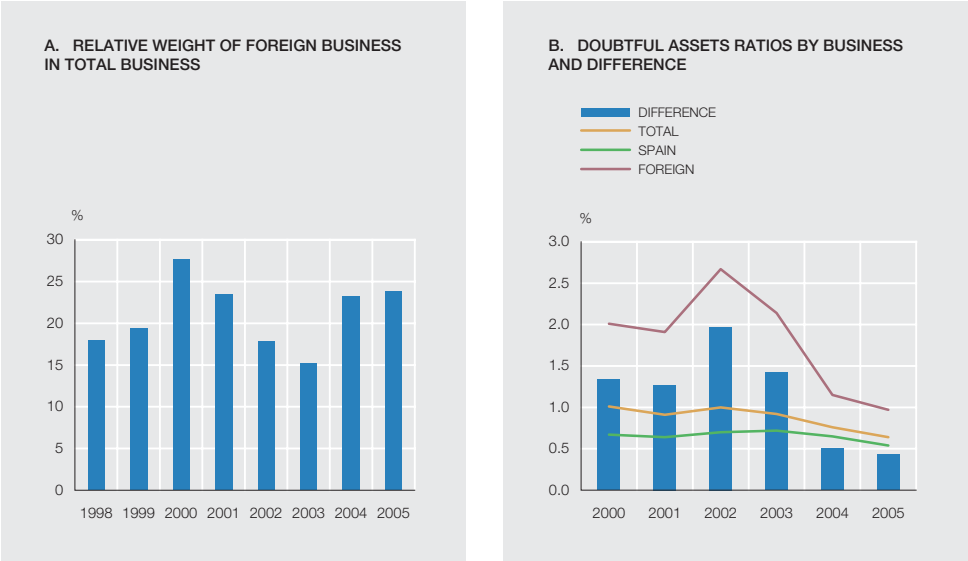
ASSETS	DEC-05	Relative weight in DEC-05	Relative weight in DEC-04	DEC-05/ DEC-04
	(€ m)	(%)	(%)	(% change)
Cash and balances with central banks	46,433	1.8	1.7	37.1
Loans and advances to credit institutions	223,202	8.9	9.4	17.0
Money market operations through counterparties	266	0.0	0.3	-94.9
General government	52,581	2.1	2.4	6.2
Other private sectors	1,500,913	59.7	58.5	25.9
Debt securities	390,635	15.5	15.1	26.8
Other equity instruments	77,221	3.1	3.4	12.0
Trading derivatives	50,598	2.0	2.0	26.9
Other financial assets	22,129	0.9	0.7	62.7
Changes in the fair value of the hedged items in portfolio hedges of interest rate risk	41	0.0	0.0	-18.0
Hedging derivatives	22,778	0.9	1.0	15.1
Non-current assets held for sale	977	0.0	0.0	15.2
Investments	28,539	1.1	1.0	36.4
Insurance contracts linked to pensions	9,746	0.4	0.4	12.4
Tangible assets	34,477	1.4	1.6	7.0
Intangible assets	19,358	0.8	0.9	11.6
Tax assets	26,249	1.0	1.2	4.2
Prepayments and accrued income	3,624	0.1	0.3	-37.1
Other assets	5,851	0.2	0.3	-6.1
TOTAL ASSETS	**2,515,617**	**100**	**100**	**23.4**
Memorandum items				
Financing to the private sector	1,626,262	64.6	63.4	25.8
Financing to general government	263,032	10.5	11.0	17.4
Total doubtful assets	13,839	0.55	0.65	4.5

LIABILITIES AND EQUITY	DEC-05	Relative weight in DEC-05	Relative weight in DEC-04	DEC-05/ DEC-04
	(€ m)	(%)	(%)	(% change)
Deposits from central banks	56,591	2.2	1.8	52.3
Deposits from credit institutions	431,157	17.1	16.4	28.7
Money market operations through counterparties	79	0.0	0.3	-98.5
General government	68,301	2.7	2.5	32.8
Other private sectors	1,155,099	45.9	49.5	14.4
Debt certificates including bonds	386,027	15.3	12.2	54.8
Trading derivatives	54,350	2.2	1.1	144.6
Short positions	25,337	1.0	0.2	619.8
Subordinated liabilities	64,018	2.5	2.9	9.9
Other financial assets	34,350	1.4	0.7	141.3
Changes in the fair value of the hedged items in portfolio hedges of interest rate risk	1,033	0.0	0.7	-93.1
Hedging derivatives	13,726	0.5	1.9	-64.6
Provisions	36,458	1.4	1.7	3.4
Tax liabilities	14,043	0.6	0.6	21.3
Accrued expenses and deferred income	8,717	0.3	0.5	-6.3
Other liabilities	5,713	0.2	0.3	5.4
Capital having the nature of a financial liability	11,263	0.4	0.5	6.0
Total liabilites	**2,366,264**	**94.1**	**93.8**	**23.7**
Minority interests	6,432	0.3	0.3	25.6
Valuation adjustments	18,759	0.7	0.6	47.3
Own funds	124,162	4.9	5.3	14.0
Total equity	**149,353**	**5.9**	**6.2**	**17.8**
TOTAL LIABILITIES AND EQUITY	**2,515,617**	**100**	**100**	**23.4**

SOURCE: Banco de España.

FOREIGN BUSINESS. IMPORTANCE AND DOUBTFUL ASSET RATIOS CHART I.1

Deposit institutions



SOURCE: Banco de España.

Foreign business[5] grew by 26.2%, in line with the favourable economic situation of the world economy, in general, and of certain areas in which the activity of Spanish institutions is significant, in particular. The greater buoyancy of foreign business, which grew by 3.7 pp more than activity in Spain, means that its relative weight increased from 23.2% of total assets in December 2004 to 23.8% in December 2005 (Chart I.1A). This confirms the change in trend in the relative weight of foreign business, which had been downward from end-2000 until, in December 2004, a large foreign institution was acquired by a Spanish one. The appreciation of the Latin American currencies against the euro during 2005 also contributed to the increase in the relative weight of foreign business.

As regards the structure of the *assets,* financing to the private sector[6] grew by 25.8%, 2.4 pp more than total assets, while its relative weight increased from 63.4% in December 2004 to 64.6%. This buoyancy is largely explained by business in Spain, where such financing grew by 25.1%. The most prominent item here, in line with previous FSRs, was loans secured by real estate, which increased, in December 2005, by 28.4%.

The trend in financing to the private sector was strengthened by the behaviour of this variable in foreign business, where it increased by 28.4%, with its relative weight rising from 57.9% to 58.8%. The buoyancy of this activity in foreign business is attributable both to the growth of debt securities (62.5%, with a relative weight in the balance sheet of 4.1%), and to credit extended (up 26.5%, with a weight in total assets of 53.9%).

Meanwhile, total *doubtful assets* grew by 4.5% in December 2005. However, as a result of the high rate of growth in the sector's activity, the total doubtful assets ratio, for total business, fell by 0.12 bp, to 0.6% (Chart I.1B). When business in Spain and foreign business are distin-

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5. The separation between business in Spain and foreign business should be interpreted with some caution for December 2004, since, for institutions that present only individual financial statements, CBE 4/2004 did not establish a requirement to compile their balance sheet for business in Spain as at that date using the criteria of the new Circular. It has been assumed that these institutions had no foreign business, which is very close to the actual situation. **6.** Financing to the private sector includes doubtful assets in the case of credit granted to the private sector, but not in that of debt securities since, in the former case, the doubtful assets are not sectorised. In any case, their amount is small.

guished, their trends are seen to be very similar. Thus, doubtful assets grew in foreign business by 6.1% and they also grew, somewhat more moderately, in business in Spain (3.8%). The doubtful assets ratio fell in both cases: in business in Spain from 0.6% to 0.5%, and in foreign business from 1.2% to 0.97%.

Having displayed a negative rate of change in December 2004, financing to general government increased by 17.4%. The growth in financing to general government, in total business, is the result of two somewhat different trends. In business in Spain, the growth of financing to general government rose from negative rates in December 2004 to 18.5% in December 2005, while in foreign business, financing to general government slowed, to 14.3% in December 2005. In any case, in total business, given that financing to general government grew less strongly than total assets, its relative weight fell slightly, from 11% in December 2004 to 10.5% in the same month of 2005.

Other equity instruments, against a background of favourable stock market developments, increased by 12%. However, owing to the higher growth of total assets, their relative weight in the balance sheets of deposit institutions fell slightly, from 3.4% to 3.1% in December 2005. The relative weight of trading derivatives, which grew by 26.9%, was unchanged at around 2%.

Total *liabilities* grew at a rate of 23.7%, almost 6 pp more than equity (17.8%). This means that the relative weight of liabilities in the total balance sheet increased slightly, to 94.1% in December 2005.

As regards the structure of liabilities, private-sector deposits continued a trend already observed in previous FSRs, their relative weight in the deposit institutions' balance sheet declining from 49.5% in December 2004, to 45.9% in December 2005[7]. This behaviour occurred against a background in which the deposits raised from the private sector did not fall, but rather grew more slowly than liabilities and total equity (14.4%, as against 23.4%). Similar growth rates were recorded in the case of business in Spain (15.1%) and in that of foreign business (12.3%), although the decline in relative weight was larger in the latter case: 6.4 pp, to 49.3%, as against 3 pp, to 44.7%.

Interbank financing grew by 28.7%, with an increase in its relative weight of 0.7 bp, to 17.1%. This expansionary behaviour by financing from the deposits of credit institutions was observed both in foreign business (with growth of 19.9%) and, more strongly, in business in Spain (30.9%).

Against a background of higher growth in financing to the private sector than in funds raised in the form of deposits from that sector (Chart I.2A), the institutions not only financed themselves by resorting to a greater extent to the interbank market (Chart I.2B), but also through debt certificates including bonds which, in line with the trend observed in previous FSRs, grew by 54.8%. The relative weight of this item increased from 12.2% to 15.3% in December 2005. Distinguishing between business in Spain and foreign business, issuance was observed to be buoyant both in the former (71%) and, albeit less strongly, in the latter (20.9%).

For their part, subordinated liabilities, with a relative weight of 2.5%, grew by 9.9%, while trading derivatives were 2.5 times higher, their relative weight rising from 1.1% in December 2004

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7. Note that the relative weights of each item are calculated with respect to total liabilities plus equity, instead of those of the liabilities items being calculated with respect to total liabilities and those of the equity items relative to total equity.

TRADITIONAL POSITION AND LIQUIDITY POSITION CHART I.2

Deposit institutions

SOURCE: Banco de España.

to 2.2%. Provisions grew by 3.4%, with a slight fall in their relative weight from 1.7% to 1.4% in December 2005.

Finally, all three components of *equity* grew: minority interests (25.6%), valuation adjustments (47.4%) and own funds (14%). The lower rate of growth of own funds explains why their relative weight in equity fell from 85.9% to 83.1%, while the relative importance of valuation adjustments rose (from 10.1% in December 2004 to 12.6%). Within these valuation adjustments, the main item responsible for their increase was available-for-sale financial assets, since the changes in their fair value are not recorded in the income statement until the asset has been derecognised from the balance sheet or impaired.

In any event, and inevitably, the most important item within equity, by far, is own funds. Despite having grown by 14%, own funds fell by 4 bp in terms of the balance sheet total, to stand at 4.9%. The main elements of own funds in terms of their contribution to growth were the reserves and the profit or loss for the period.

SECTORAL ANALYSIS

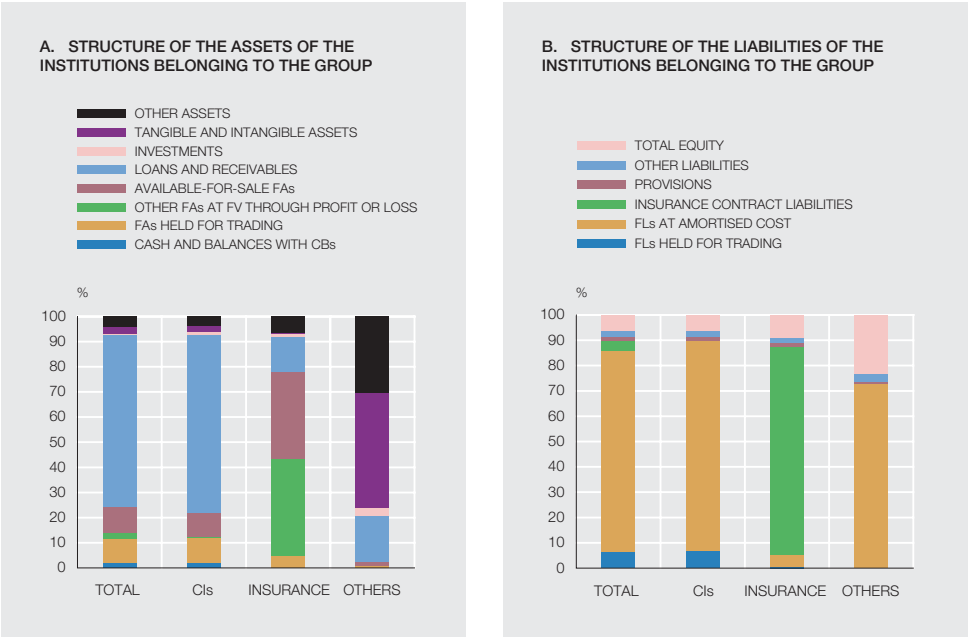
The new accounting Circular has, in relation to the public statements, broadened the scope of consolidation of credit institutions. In addition to the consolidable group of credit institutions, which includes all subsidiary financial institutions except insurance companies, it is now necessary to consolidate insurance companies and non-financial corporations forming part of a decision-making unit, even if no ownership interest is held in them[8].

The information available as at December 2005 on groups of institutions, distinguishing between the three aforementioned elements (consolidable groups of credit institutions, insurance companies and other non-financial corporations) shows that the contribution of insurance companies and non-financial corporations to the balance sheets and income statements of

8. The consolidable group of credit institutions includes subsidiaries and jointly controlled entities that are credit institutions, securities-dealer companies, securities agencies, real estate investment companies, companies managing collective investment undertakings, companies managing pension funds, portfolio management companies, venture capital companies and holders of equity instruments. A decision-making unit is presumed to exist if, among other things, a credit institution holds a majority of the voting rights in a subsidiary, it can appoint or remove a majority of the members of the board of directors or one or more companies are under the same management.

CHART I.3

Deposit institutions. Consolidated group



SOURCE: Banco de España.

groups of deposit institutions is very small. Thus, of the assets of groups of deposit institutions, 96% belong to consolidable groups, 4.8% to insurance companies and 0.8% to non-financial corporations, while account harmonisation adjustments and intra-group eliminations subtract 1.7% from the total. As regards the profit or loss after tax for the period, consolidable groups contributed 98.6%, insurance companies 6.5% and non-financial corporations 3%, while adjustments and eliminations subtract 8.2%. This composition is very similar for commercial banks and savings banks.

Accordingly, the composition of the *assets* of groups of deposit institutions by portfolio (Chart I.3A) is virtually identical to that of consolidable groups, owing to the low weight of insurance companies and non-financial corporations. However, given the different composition of the assets of the latter two types of firm, the financial assets held for trading and loans and receivables of groups of deposit institutions were slightly lower (9.8% and 68.3%, respectively) than those of consolidable groups of credit institutions (10.1% and 70.7%), while the portfolios and assets with the highest weight in the other types of institution were slightly higher. Thus, other financial assets at fair value through profit or loss represented 2.3% of the assets of groups of deposit institutions as against 0.4% of those of consolidable groups and available-for-sale financial assets 10.4% as against 9.5%, owing to the weight of these portfolios in insurance companies. In terms of instruments, these portfolios are concentrated in debt securities and other equity instruments. The main contribution of non-financial corporations to group assets are tangible assets and other assets, which include inventories. However, given the low weight of these firms, their impact is practically negligible.

With regard to the *liabilities* (Chart I.3B), financial liabilities held for trading and financial liabilities at amortised cost were slightly lower for groups of deposit institutions than for consolidable groups (6.8% as against 6.5% and 83% compared to 79.5%, respectively), reflecting a relatively higher weight for the typical liabilities of other group firms. Thus, insurance contract liabilities or insurance technical provisions represent 3.8% of the assets of groups of deposit institutions, while they do not exist in the case of consolidable groups. Meanwhile, *equity* rep-

resents 5.1% of the assets of consolidable groups as against 4.9% in the case of groups of deposit institutions owing to the elimination of double counting of capital attributable to the ownership interests in group companies and the elimination of subsidiaries' reserves.

The situation observed in relation to the assets and liabilities of groups of deposit institutions is confirmed by the *income statement.* The margins and results of the groups are mainly generated by their consolidable groups, since the contributions of insurance companies and non-financial corporations are negligible. Thus, 99.5% of net interest income comes from credit institutions, as does 99.6% of gross income, which includes insurance activity. To net operating income, consolidable groups contributed 99.8%, insurance companies 4.7%, non-financial corporations 2.3% (arising from sales net of costs) and, finally, adjustments and eliminations subtracted 5.7% from the group total. In the case of profit before tax, consolidable groups contributed 98%, insurance companies 6.2% and non-financial corporations half that percentage. Finally, to group net income, deposit institutions contributed 100.1%, insurance companies 7% and non-financial corporations 3%, the deduction for adjustments and eliminations being 10.1%.

The sectoral information provided by the new accounting Circular, analysed for the first time in this FSR, confirms the high presence of banks in the Spanish financial system and the low weight of the activity of subsidiary insurance companies and non-financial corporations that form a decision-making unit with the credit institution, in comparison with that of consolidable groups of credit institutions.

INSURANCE COMPANIES

The assets of insurance companies resident in Spain (excluding Community branches), in December 2004 (latest data available), totalled €171,893 million, up 8.7% from December 2003. Such assets represent 10% of the total assets of resident credit institutions, which again shows the importance of banks in the Spanish financial system. Life insurance accounts for 23.8% of the total assets, non-life for 10.2% and mixed companies for 64.7%. Insurance companies that are subsidiaries of credit institutions accounted for 37.4% of the total assets of all insurance companies; 60% of companies exclusively in the life business (9% commercial banks and 43% savings banks), 6.3% of those specialised solely in non-life business (4.2% commercial banks and 0.8% savings banks), and 35% of mixed companies (16% commercial banks and 18% savings banks), which engage in both types of business[9].

The assets of *life insurance companies,* in 2004, amounted to €41 billion, up 19.5% from 2003. Financial investments represented 82.7% of total assets, increasing by 23.2%. Likewise, the technical provisions represented 78% of the liabilities and grew by 19.2%. Fixed investments plus tangible fixed assets represented 0.6% of the assets of life insurance companies, which indicates a low exposure to developments in the property market. As for the composition of financial investments, in 2004, fixed-income represented 68.7% and equities, which have always had a low weight, 3.8%, despite the improvement in stock markets. Equities together with indexed securities represent 5.7%, so that life insurance companies are not greatly exposed to price risk in the equity market. Loans represent 3.1% of assets, so that, if life insurance companies are demanding with regard to the credit rating of their fixed-income investments, they will not be very exposed to credit risk.

The return on equity (ROE) after taxes in 2004, for life insurance as a whole, was 7.7%, slightly down from the previous year (Chart I.4A). However, there were notable differences

9. A more detailed analysis of insurance companies is included in the unpublished paper by C. Luna entitled "Las entidades de seguros españolas".

INSURANCE COMPANIES CHART I.4

SOURCES: DGSFP and Banco de España.

between groups of institutions. Thus, the highest ROE was obtained by companies that are subsidiaries of commercial banks (18.8%) and the lowest by those that are not subsidiaries of credit institutions (3.5%), while those that are subsidiaries of savings banks are in an intermediate position (9.5%).

The uncommitted assets or solvency margin stood, in 2004, at €3,873 million, up 15.1% from the previous year. Of these, tier 1 capital represented 97.2%. The minimum amount of the solvency margin (requirements) stood at €1,488 million, up 17.8%, so that the coverage of the solvency margin (ratio of uncommitted assets to requirements) was 260% (Chart I.4B). This coverage has tended to converge towards a very high level for all groups of institutions, with a particular drive in recent years by the subsidiaries of commercial banks.

In 2004, *mixed insurance companies* had assets of €111,000 million, up 5.3%. The growth of financial investments continued to slow, but they still increased by 8.5%, representing 78% of the assets, while technical provisions, with a weight of 78.4%, only increased by 4%. Fixed

investments, together with tangible fixed assets, only represented 3% of assets. Financial investments, which have been falling since 2002, represented 78.6% of assets in the case of subsidiaries of commercial banks, 90.6% in the case of subsidiaries of savings banks and 74.5% in the case of non-subsidiaries, which suggests that the more the company is specialised in the non-life sector, the lower the weight of these investments. All of them have a clear preference for fixed-income, which is more marked in the case of subsidiaries of commercial banks, while companies that are not subsidiaries of credit institutions have a somewhat more diversified portfolio.

The ROE after taxes of all the mixed insurance companies was 10.24%, a significant improvement on the previous year (Chart I.4C). Companies that are subsidiaries of commercial banks and savings banks have a higher ROE (12.9% and 12.4%, respectively).

The uncommitted assets of mixed insurance companies, both in the life and non-life sectors, are almost entirely tier-1 capital. In the life business of mixed insurance companies, the solvency margin was €5,801 million, up 0.3%, while requirements rose by 4.2%, to €3,313 million. As a result, the ratio of uncommitted assets to requirements fell to 175%. In fact, the life business of mixed insurance companies traditionally has the lowest cover ratio of all insurance companies, although usually a comfortable one. Of these companies, those with the lowest ratios are subsidiaries of commercial banks, with a ratio of 127.2%, followed by those controlled by savings banks with a ratio of 163% (Chart I.4D).

ASSET MANAGEMENT

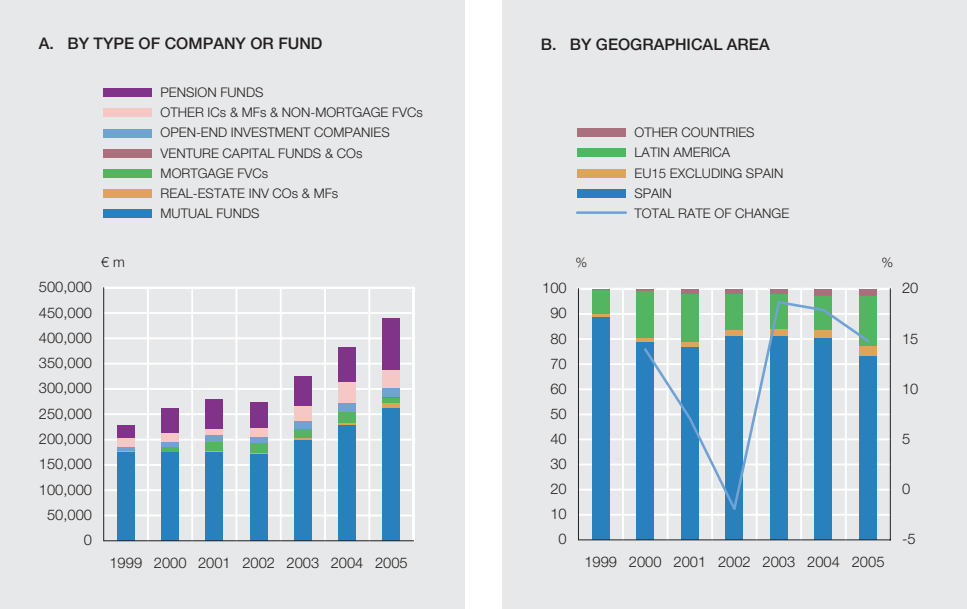
The assets managed by management companies that are subsidiaries of deposit institutions amounted, in December 2005, to €439,550 million, up 14.8% from the previous year. Of these, commercial banks managed 79.6%, savings banks 19.4% and credit co-operatives the rest. The increase last year was smaller than in 2004; the contributions to this increase by the managed assets of mutual funds and pension funds were almost equal, while there was a fall in the managed assets of financial vehicle corporations *(sociedades de titulización* and *fondos de titulización)* created to hold securitised mortgage assets or securitised non-mortgage assets, connected with the new accounting standards on asset transfers (Chart I.5A)[10]. In terms of the geographical area of the country of residence of the managed company or fund, the managed assets of Latin American companies and funds increased by 67.2%, as against 4.4% in the case of the Spanish ones (Chart I.5B). However, the growth in Latin America is partly a result of the general and significant appreciation of their currencies against the euro.

The assets of companies and funds managed by *commercial banks* increased by 14.4% to €350,000 million. Of these, 67.8% belonged to Spanish companies and funds, their share having fallen by 9.5 pp from December 2004, 25.4% to Latin American ones, with a gain of 8 pp, 4.6% to the EU-15 excluding Spain, which made almost all the rest of the gains, and 2.2% to the rest of the world. The managed assets of Spanish companies and funds increased by only 0.3%, mainly as a result of the sharp fall in the management of securitised assets, since mutual funds, with a weight of 65.5%, grew by 4.7% and pension funds, with a weight of 12.9%, grew by 14.7%. Deducting the returns from these increases shows that the assets managed by mutual funds did not grow much and the increase in those of pension funds is partly explained by organic growth. However, the managed assets of Latin American companies and funds, even corrected for the exchange rage, grew by around 35%. Of these assets,

10. As a result of the new accounting Circular many securitised assets have been reinstated in the balance sheet as there had been no transfer of risk. To avoid double counting, such assets are not included in the assets managed by the entities.

MANAGED ASSETS CHART I.5

Deposit institutions



SOURCES: CNMV and Banco de España.

64.7% belonged to pension funds and 33.5% to mutual funds. Accordingly, commercial banks are pursuing a more aggressive policy to capture clients in that market.

As for *savings banks,* their managed assets amounted to somewhat more than €85 billion, in December 2005, up 15% from 2004. Of these, those of Spanish companies and funds represented 94.8%, those of countries of the old EU excluding Spain 1% and the rest of the world 4.2%. In terms of the type of company or fund, 70% of the managed assets belonged to mutual funds, 13.4% to pension funds and 6.2% to financial vehicle corporations created to hold securitised mortgage assets. The growth of managed assets was basically attributable to the strong increase (95.5%) in the assets of pension funds, which contributed 7.5 pp to the overall growth rate. This growth occurred because many savings bank are reporting this activity for the first time[11]. Meanwhile, the increase in the managed assets of mutual funds was more in line with the growth in total managed assets. However, the assets of financial vehicle corporations created to hold securitised mortgage assets fell significantly (by almost 36%).

RISKS

Credit continued to accelerate during 2005 in all segments of business in Spain (Chart I.6A), in line with the expansionary trend in economic activity[12]. The greatest acceleration was in the financing of household consumption, the growth rate of which more than doubled between December 2004 and December 2005, although it accounted for only 5.5% of the institutions' total credit portfolio. Financing to households for house purchase continued to accelerate (24.2% in December), against a background of low interest rates, strong competition between credit institutions and a certain slowdown in house prices[13].

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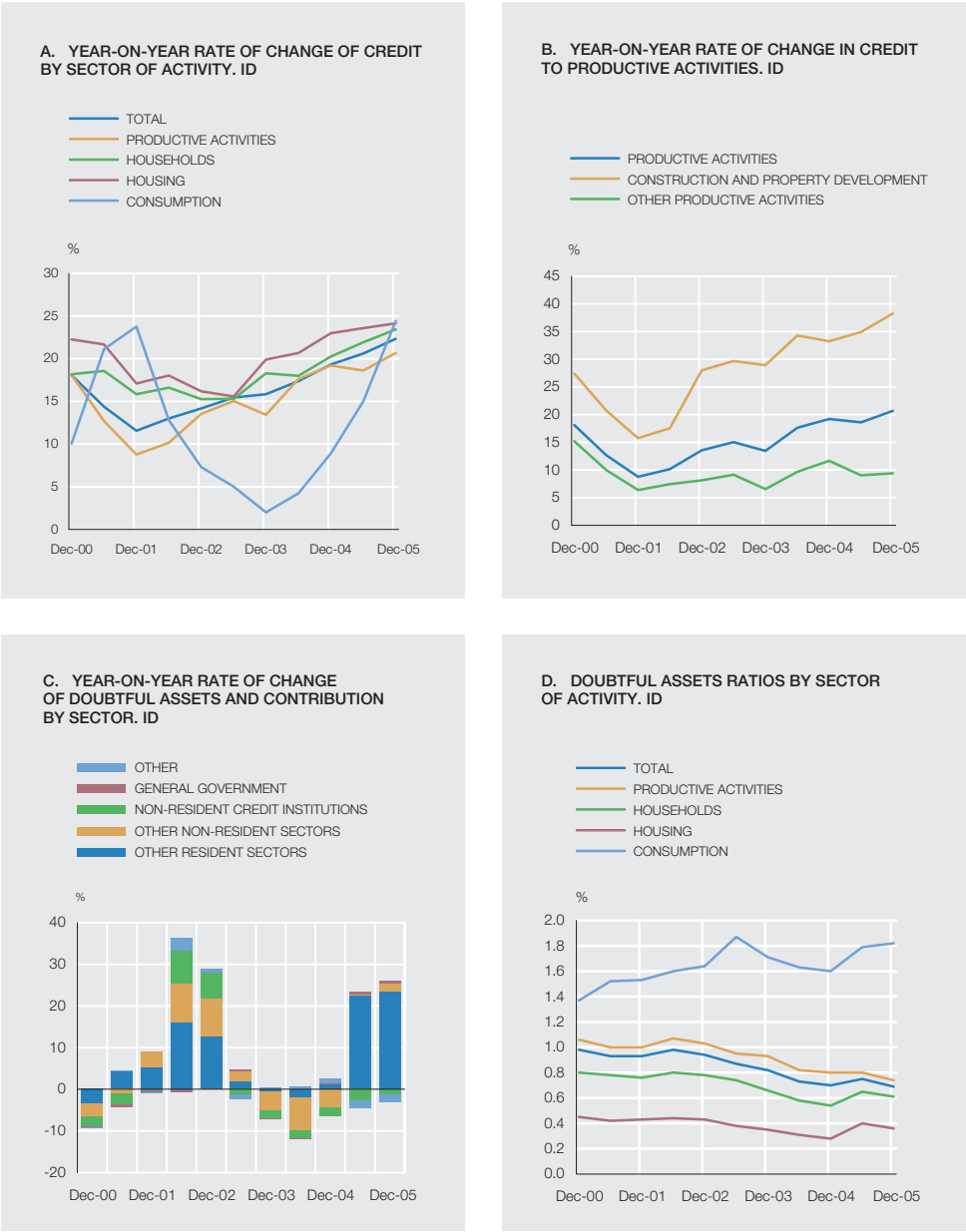
11. Savings banks that previously reported the management of this type of assets have generally reported relatively stable and moderate growth rates. **12.** The series have been adjusted to reflect estimated data for securitised assets maintained on the balance sheet for dates prior to June 2005. This estimation was carried out by applying the proportions of securitised assets maintained on the balance sheet and derecognised, as at June 2005, to the data for total securitised assets prior to that date. The productive activities series has been adjusted to reflect the estimates for non-mortgage securitisations; the households and housing series have been adjusted to reflect the estimates of mortgage securitisation; and the total credit series reflects both estimates. The consumption series is not adjusted. **13.** Box I.1 analyses recent trends in the US and British mortgage markets, indicating some prudential implications for both countries.

CREDIT, DOUBTFUL ASSETS AND DOUBTFUL ASSETS RATIOS CHART I.6

Deposit institutions. ID



SOURCE: Banco de España.

Financing to firms continued to accelerate (from 19.2% in December 2004 to 20.7% in December 2005), although, as observed in previous FSRs, there was a marked dichotomy between the financing to firms linked to the property sector and to the rest (Chart I.6B). While credit to construction firms and property developers grew at a rate of 38.3%, that to other firms grew by 9.4%. In particular, in December 2005, the rate of growth of financing to property developers rose to 44.8%. This business segment has been growing at year-on-year rates of more than 40% since mid-2003.

The strong growth differential in credit to property developers in recent years has increased the concentration of the credit portfolios of the institutions in that business segment. Adding credit to construction firms, financing to firms linked to the property sector rose from 27.2% of the total credit extended by Spanish deposit institutions to non-financial corporations in Decem-

TRENDS IN THE GRANTING OF MORTGAGE CREDIT IN THE UNITED STATES AND IN THE UNITED KINGDOM: CERTAIN PRUDENTIAL IMPLICATIONS

Advances in financial technology and in risk-management techniques, along with the parallel development of the credit derivatives markets, have enabled credit institutions to widen the range of mortgage products they offer their customers. These trends have been observed in all countries with developed financial markets, especially those in which there has been significant ongoing growth in house prices against a background of low interest rates and fierce competition between institutions[1].

Many of these products involve a risk for institutions greater than that associated with other traditional products for two reasons: a) owing to the characteristics of their design there is greater uncertainty regarding the customer's ability to meet the future payments, as they allow the debt burden to be deferred, and b) because they give access to credit to groups who would otherwise have difficulty obtaining financing on the basis of traditional products.

Various supervisors, international organisations and analysts have expressed concern at these developments and their implications and have issued recommendations to institutions in relation to these products. These recommendations focus on strengthening their credit policy and risk management, as well as protecting the consumer[2].

Among the products that are being marketed in most mature mortgage markets, the following are notable: a) *interest only loans,* which enable the borrower to pay interest only without making any payment of principal for several years, b) *negative amortisation adjustable rate loans* in which borrowers can choose between different options to adjust their debt burden over time, subject to certain restrictions, such as paying at least the interest and limits on the level the LTV may reach at any time, c) *accordion adjustable mortgages* which are floating-rate loans with periodic fixed payments and an uncertain term, which will be adjusted according to the rate of interest, although there is usually a limit (40 or 50 years), and d) *savings or equity mortgages* which are designed in such a way that the part of the payments that is not interest (payment of principal) is deposited in a savings or securities account, and these amounts, together with their yield, are used to repay the principal. These products offer customers a high degree of flexibility in the distribution of the debt burden, but it should be noted that many of them involve a significant increase in the total debt burden.

In the United States and in the United Kingdom there is a great variety of products that enable borrowers to choose the characteristics of the flows of principal and interest payments that best suit them and that do not require any fee to be paid if the borrower wishes to repay the loan early (e.g. to take out another loan with different characteristics). In the United States, most loans tend to be fixed-rate, with the possibility of prepayment. Institutions try to cover the interest rate risk using the wide range of derivatives available, as well as the interest rate applied to the transaction. By contrast, in the United Kingdom, most mortgages are floating-rate loans.

In both these countries, credit institutions make extensive use of mortgage brokers who capture customers and grant them financing obtained from large financial institutions. The variety of the mortgage products they offer has grown significantly in recent years, especially as regards the granting of loans with high LTVs or aimed at customer segments with high debt/income ratios. At the same time, these brokers are very active in credit consolidation, offering financing aimed at groups with problems paying their debts. In some cases, this consolidation involves the "cleaning up" of default records and the subsequently obtainment of financing from credit institutions. Moreover, numerous products are offered in these countries which aim to finance customers who have seen their houses rise in value and who wish to use these capital gains *(mortgage equity withdrawals).* These products are sometimes packaged as second mortgages *(second lien loans)* or as lines of mortgage credit that can be used for other purposes. This type of financing is important both in the United States and in the United Kingdom and seems partly to help explain the decline in saving and patterns of consumption[3].

In parallel with these developments, so-called *sub-prime mortgage loans,* a category that includes loans with high credit risk, have grown very significantly in both the United States and the United Kingdom. The high risk is the result of the low credit quality of the borrower, which is reflected sometimes in a prior record of default or in failure to meet the standard requirements normally made by institutions to grant a loan. Also usually included in this category are loans that are not sufficiently documented. The scores assigned by the risk rating systems of the institutions to these credits are, therefore, low. Sub-prime loans usually have high interest rates , given the greater risk involved. Their ex-post probability of default is high: in the United States, around 7%, as against 1% for other mortgage loans.

According to the information available, *sub-prime loans* are growing in these two countries at a higher rate than other loans. It seems that the institutions most active in this market are specialised financial institutions, that are either independent or the subsidiaries of large commercial banks, finance companies or investment banks. In the United States almost all *sub-prime loans* are securitised, the agencies Fannie Mae and Freddie Mac playing an increasingly important role in such securitisation.

The growth of *sub-prime loans* in these countries is a reflection of how more competitive market conditions have not only improved economic agents' access to credit, but have also involved an increase in the risk assumed by the system.

In short, insofar as the new range of credit products is giving greater access to credit to groups that were previously more constrained owing to the more rigid conditions of the products existing, the new

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1. See, BIS (2006): "Housing finance in the global financial market". CGFS report. **2.** See, for example, "Interagency Guidance on Nontraditional Mortgage Products", Joint release, OCC, Federal Reserve, FDIC, OTS, NCUA, December 2005.

3. See, for example, Remarks by A. Greenspan "Mortgage Banking" September 26, 2005.

products may be contributing, together with the traditional determinants of the demand for credit, to explain the high rates of growth of bank credit in recent years.

At the same time, the greater and improved access to certain types of credit and the possibility of mobilising households' real-estate wealth, amid strong competition between financial institutions, may have led to an excessive concentration of risk in certain markets and/or sectors. In turn, the improvement in the conditions of access to credit and the greater indebtedness of households have tended to increase the sensitivity of spending decisions to interest rates and to the value of their net assets. An adverse environment (significant increase in interest rates, a slowdown in economic activity and downward adjustments to property prices) in those markets that have been using these products extensively for some time (USA and UK) may exacerbate the direct negative effects on aggregate expenditure in the economy and on the activity and profitability of financial institutions.

ber 2000, to 45.9% in December 2005. The proportion of financing to developers was 12.1% in December 2000 and 28.5% in December 2005.

It was explained in the last FSR that the accounting changes (between Banco de España Circulars 4/1991 and 4/2004) had led to an increase in *doubtful assets,* most of which relate to the financing of firms and households resident in Spain (Chart I.6C).

The very significant one-off rise in doubtful assets in June 2005 led to a slight increase in the doubtful assets ratio as at that date. The strong growth in credit and much more moderate growth, from July 2005, in doubtful assets resulted in a return to the downward path of the doubtful assets ratio in December 2005 for the various groups of institutions in almost all segments of activity (Chart I.6D). However, despite the strong growth in consumer credit, the doubtful assets ratio in this business segment increased slightly during 2005. Following incorporation of the effects of the accounting changes, the other business segments continued to have low levels of doubtful assets and financing to households for house purchase continued to have a lower doubtful assets ratio than financing to firms.

The *risk profile of the foreign financial assets*[14] of Spanish deposit institutions fell again in 2005, having peaked in 2001 at the time of the Argentine crisis (Chart I.7A). The growth of the world economy and, in particular, the favourable developments in the Latin American economies, explain a large part of this change, so that in 2005, and in 2006 to date, there have been improvements in the credit rating of the sovereign debt of many Latin American countries. The economic conjuncture and the abundance of liquidity in international financial markets explain the additional reduction in sovereign spreads, which are already at historically very low levels. As already mentioned in the last two FSRs, the downward path of the risk profile has been accompanied, since end-2004, by a significant change in the geographical composition of foreign financial assets and in their breakdown by type of business. In December 2005, around two thirds of such assets were located in the European Union, more than half of which were in the UK, while Latin America accounted for somewhat less than 30% (Chart I.7B).

I.2 Credit risk

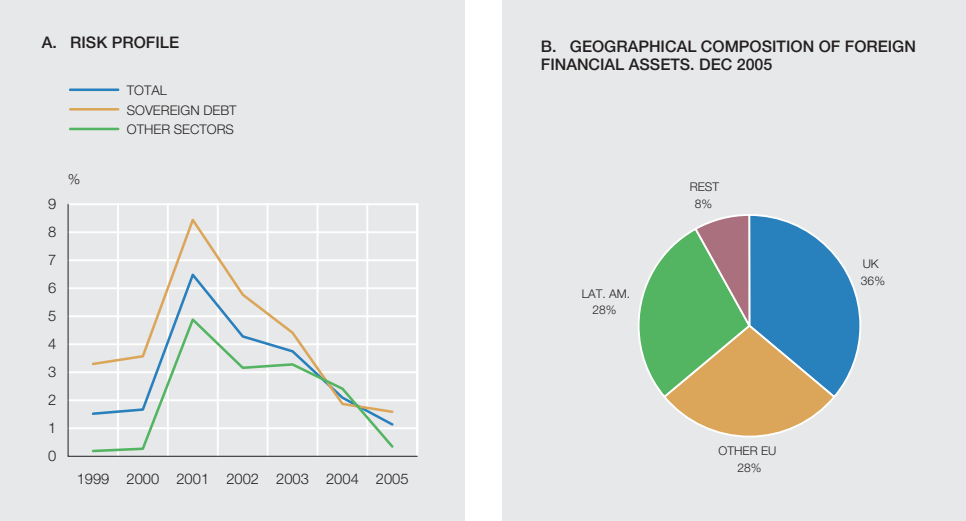
I.2.1 IMPACT OF THE MACROECONOMIC BACKGROUND

During the second half of 2005, economic activity in the euro area picked up from the slack phase that began in the second half of 2004. Thus, between October and December GDP grew by 1.7% year-on-year, while in quarter-on-quarter terms it grew by 0.3%, as against 0.6% in Q3 (Chart I.8A). The Spanish economy, meanwhile, remained highly buoyant, basi-

14. For the details of how this profile is calculated see the paper by R. Lago and J. Saurina entitled "Activos financieros en el exterior e indicadores de riesgo" published in *Estabilidad Financiera,* No. 7, Banco de España, pp. 111-126, 2004.

FOREIGN ASSETS CHART I.7

Deposit institutions



SOURCE: Banco de España.

a. The risk profile is an approximation of the weighted probability of default for foreign financial assets.

a. Spain and the euro area

cally as a result of the strength of domestic demand. According to the latest QNA estimates GDP growth in this period was 3.5% year-on-year and 0.9% quarter-on-quarter.

Despite this favourable environment, there persist certain elements of risk indicated in previous FSRs that may have a bearing on the buoyancy of the Spanish economy in the medium term. These include both those related to external factors, like the global imbalances and oil prices, and those of domestic origin, in particular, those related to problems of competitiveness and to household debt.

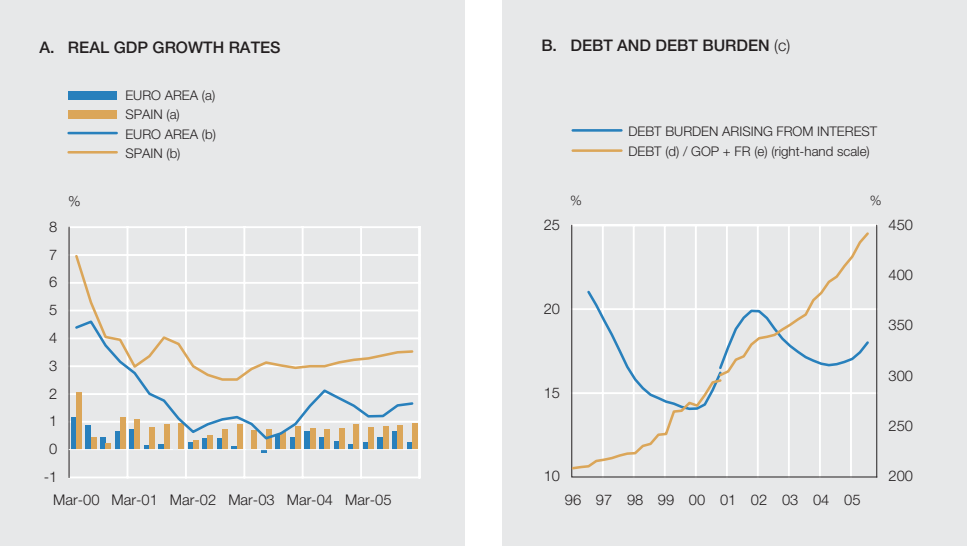
Non-financial corporations

In 2005, the gross operating profit of the firms reporting to the Central Balance Sheet Data Office Quarterly Survey increased by 5.2%, 2.8 pp less than in 2004. This moderation was a consequence of the lower rate of growth of activity in all sectors, except energy and, more specifically, oil refining. Ordinary net profit grew at a high rate, above 12%, thanks to the favourable behaviour of financial revenues and, in particular, of the dividends of foreign subsidiaries, which offset the increase in financial costs. Net profit grew at an even higher rate, exceeding 26%, as a consequence of the recovery in extraordinary earnings owing to lower provisions. Analysts' expectations of growth over the next 12 months in the profits of non-financial corporations remained high, slightly exceeding those of end-2004.

This behaviour by company profits enabled profitability ratios to be sustained or even increased in the first three quarters of 2005. Thus, the returns on investment and on equity were higher than in the same period of 2004, reaching 9.5% and 14.6%, respectively. This, along with the low level of interest rates, led to a widening in the spread between profitability and the cost of debt to 5.7%, up 1.3 pp from the same period of 2004.

In the second half, the external financing of non-financial corporations remained on the accelerating course of the first half, so that the year-on-year growth rate of these liabilities in December 2005 was above 20%, up 7 pp from end-2004. By branch of activity, the information of resident institutions on credit by purpose for Q4 continued to show highly buoyant lending to construction and property development, which grew at high rates, as already men-

REAL GDP (%), DEBT RATIO AND DEBT BURDEN OF FIRMS CHART I.8



SOURCES: INE and Eurostat.

a. Quarter-on-quarter rates.
b. Year-on-year rates.
c. From 2000, a provisional estimate of revenues consistent with Spanish National Accounts, base 2000, is used.
d. Interest-bearing borrowing.
e. Gross operating profit plus financial revenues.

tioned. This expansionary behaviour by borrowing led to a further increase in the sector's aggregate debt and debt-burden ratios in Q4, to 461% and 19% of gross operating profit plus financial revenues, respectively (Chart I.8B).

Meanwhile, the credit risk premiums negotiated on the derivatives markets rose slightly during the latter months of 2005 and in the first few months of 2006, although they are still at moderate levels.

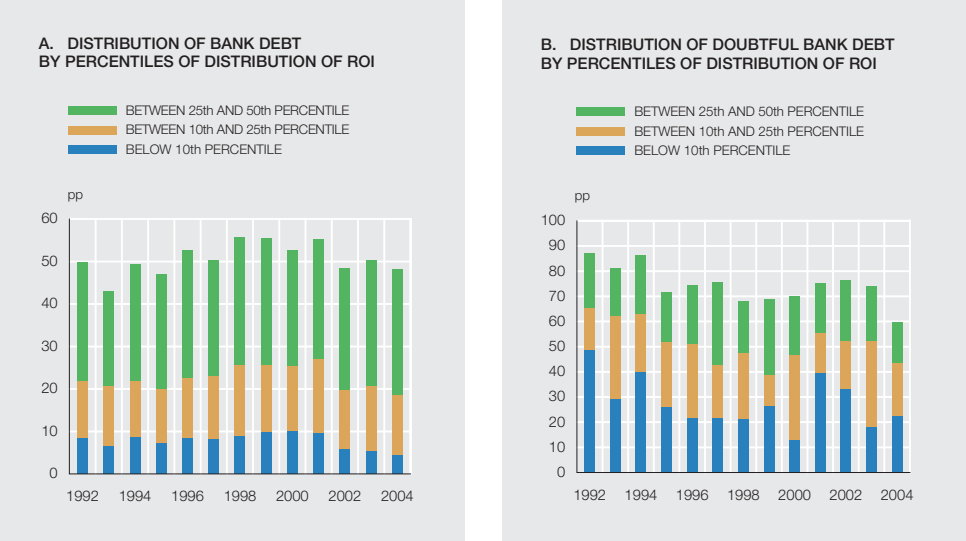
In short, the financial position of the sector continues to be solid, although the increase in debt has increased its exposure to changes in the macroeconomic environment and to rises in financing costs.

Previous FSRs have analysed the behaviour of *financial fragility indicators*[15] which assess the degree of exposure of the financial sector, measured in terms of the total and doubtful bank debt of firms with a high economic risk. On this occasion, the firms have been assigned to different categories of economic risk depending on the percentile of the distribution of the ROA to which they belong, and the two financial fragility indicators associated with such categories have been constructed (Charts I.9A and B).

The financial risk arising from the presence of firms with profitability problems has remained at the lowest levels of the period. This is shown by the level of the ex-ante financial risk indicator, which is defined as the proportion of bank debt corresponding to firms in the lowest quartile

15. The indicators analysed are based on the paper by S. Ruano and V. Salas "Indicadores de riesgo basados en la información contable de las empresas", *Estabilidad Financiera,* No. 7, November 2004. Also, the relationship between the indicators of business fragility and the risk of default on bank debt is modelled on the unpublished paper by the same authors "Bank loan defaults as indicator of business failure: A selection model approach".

NON-FINANCIAL CORPORATIONS CHART I.9



SOURCES: Mercantile Registry, Informa and Banco de España.

of the ROA distribution. This indicator stood at 18.5%, the lowest level of the period (Chart 1.9A). The ex-post indicator of debt at risk, defined as the proportion of doubtful debt corresponding to the 25% of firms with the lowest returns (Chart I.9B), fell to 44%, but continues to display a high concentration of doubtful bank debt in firms with the lowest levels of profitability, evidencing a close relationship between the deterioration in profitability and banks' non-performing loans. This concentration has increased, according to the latest available data, in the first decile which, in 2004, accounted for practically a quarter of doubtful debt.

Households

In the second half of the year, financing received by households continued to grow at a high rate of more than 20% year-on-year, mainly as a consequence of the notable buoyancy of credit for house purchase which, in December 2005, grew at a rate of close to 25%.

This expansionary behaviour on the part of funds received by households led to a further deterioration in the financial pressure indicators so that both the debt ratio and the debt-burden ratio, relative to gross disposable income, continued to rise during the second half to stand at the year-end at close to 114% and above 14%, respectively.

House prices slowed during 2005 (their year-on-year rate falling by 4.4 pp to 12.8%), which provides support for the expected scenario of a gradual and orderly correction to the current overvaluation of the property market. These developments, together with the revaluation of financial assets, continued to drive the increase in household net wealth.

Accordingly, although the aggregate wealth position of households is still robust, the elements of risk indicated in previous FSRs, linked to the increase in debt, persist.

b. Rest of the world

Economic developments outside the euro area during the second half of 2005 and in the first few months of 2006 were characterised by a robust rate of activity. Moreover, a favourable element that should be emphasised is that the growth of the world economy tended to be distributed in a more balanced fashion, with a slight reduction in the dependence on the United States. Meanwhile inflationary pressures remained relatively contained, although in many economies the high level of utilisation of productive resources has reduced the leeway to accommodate possible increases in aggregate demand. Thus, within a positive overall con-

text, the high oil prices, which fluctuated around the USD 60 level, along with the absence of any correction of the global imbalances, seem to be the main macroeconomic risks. Other risks to the international economy would relate to the capacity to sustain the rate of growth of private consumption, especially in countries where it has been significantly based on gains in household wealth. Against this background, much attention has been paid in recent months to the consequences of a possible slowdown in the rate of real estate activity in certain countries, such as the United States.

In the *United States,* GDP grew in 2005 Q3 at an annualised quarter-on-quarter rate of 4.1%, although in Q4 this rate fell to 1.7%, possible affected by the delayed effects on consumption of Hurricane Katrina. GDP growth, for the year as a whole, thus declined from 4.2% in 2004 to 3.5% in 2005 (Chart I.10A). Notable in the comparison of these two years is the reduction in the rate of growth of gross capital formation, from 11.9% to 6%, owing to the decline in residential investment and the contraction in inventories. For its part, the current account deficit reached 6.4% of GDP, an increase of 0.7 pp from 2004. As for prices, the inflation rate has shown some volatility in recent months, standing in February at 3.6% year-on-year, basically as a consequence of the strong increase in energy prices. However, this increase has barely been passed through to underlying inflation, which remains at low levels (2.1%).

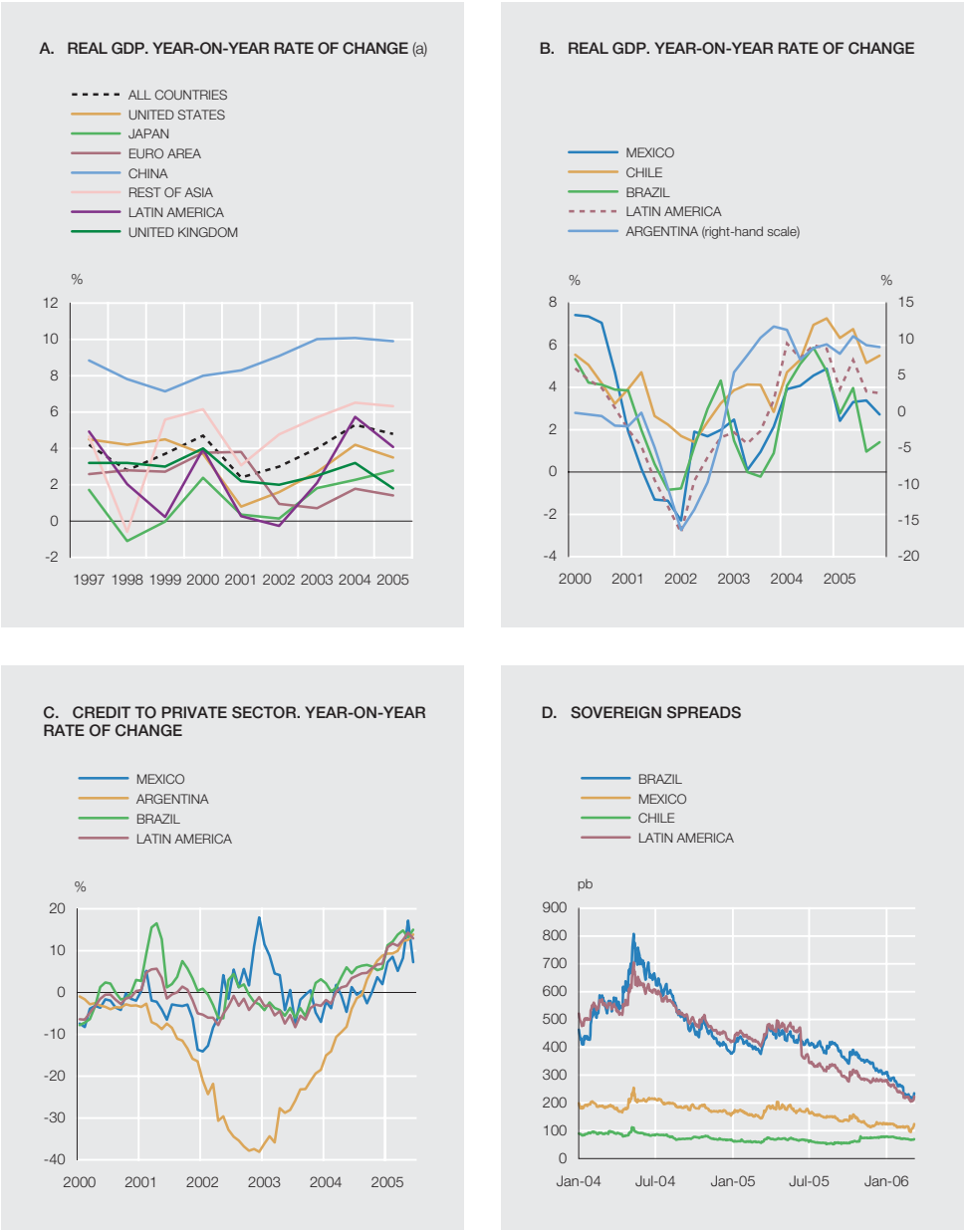
In *Japan,* GDP grew by 2.7% in 2005, as against 2.3% in 2004. Growth accelerated significantly in Q4, buoyed by domestic demand, which recorded notable growth in private consumption and in non-residential fixed capital formation, and by a positive contribution from the external sector. These data confirm the path of recovery being followed by the Japanese economy. For its part, the GDP deflator and the consumer price index grew at negative rates in 2005 (–1.3% and –0.3%, respectively), although in January consumer prices rose at a year-on-year rate of 0.5%.

In the *United Kingdom,* GDP grew by 1.8% year-on-year in 2005 Q4, exactly the same rate as in Q3. The composition of growth was characterised by a lower contribution from domestic demand, despite the acceleration in private consumption, as that was offset by the deceleration in investment, and by the strengthening of the external sector. During the second half of the year house prices tended to recover moderately, following their sharp slowdown in the first half. This fall may have contributed, to some extent, to the notable slowdown in activity in recent quarters. In any case, house prices rose in 2005 by 5.4%, well below their 18.7% growth in 2004. At the beginning of 2006, however, the growth of prices showed a certain uptrend, to stand at a rate of 6.4% in February. In terms of activity, the data on private-sector house starts during the year were weak (–0.8 in 2005), although in Q4 there was a certain upturn in line with prices. Official interest rates fell in August by 25 bp, to 4.5%, where they have stayed since.

In *China,* GDP growth in 2005 Q4 was 9.9%, the same rate as in the year as a whole, as against 10.1% in 2004. This growth was based on the buoyancy of the external sector and of investment. The methodological reforms to the national accounts involved an increase in the weight of the tertiary sector in activity, as well as an average rise of half a percentage point in the annual growth figures since 1993. As a result, the size of the Chinese economy has been revised, making it the fourth largest in the world, measured at market exchange rates, and the second largest, in terms of purchasing power parity. During this period, the renminbi held very steady at around the level announced after the revaluation.

In *Latin America,* activity tended to moderate very gradually in the second half. The estimate for GDP growth in the seven main economies of the region in 2005 Q4 was around 3.7% year-

GDP, CREDIT GROWTH AND SOVEREIGN SPREADS CHART I.10



SOURCES: IFS and Datastream.

a. Latest figure for all countries is an IMF forecast.

on-year, while the average annual rate of growth was close to 4.2%, down 1.6 pp from 2005 (Chart I.10B). This moderation particularly affected the two main countries in the region, Mexico and, especially, Brazil, while in the rest of the countries the growth was the same or greater than in the previous year. Argentina and Venezuela stood out, with growth rates of around two digits.

Although the buoyancy of *domestic demand* moderated, it was still the engine of growth in the second half. The exception to this behaviour was Brazil, where there was greater weakness, related to the notable stagnation of investment. External demand gradually increased its negative contribution to GDP growth, deducting around 1 pp in the year as a whole. However, the favourable performance of exports enabled Latin America to record a current account surplus for the third year running. The region's aggregate *inflation* continued to moderate gradually in

the second half, ending the year slightly below 6%. A downswing in official interest rates commenced in Brazil, Mexico and Colombia, while the upswing continued in the rest of the countries. In Argentina, the reaction of monetary policy to the worrying price developments was timid. In 2005, the *public deficit* of the region continued to be reduced, falling to 1.2% of GDP. This was attributable, in particular, to the widening of the primary surplus, a very favourable circumstance when elections are due to be held in 2005 or 2006 in most of the countries of the region.

Against this background, the growth of *domestic credit to the private sector* accelerated to 17% year-on-year, from 13% in mid-2005 (Chart I.10C). In Brazil, growth rates of over 20% were recorded, and in Mexico, if we exclude the securities associated with the restructuring programmes subsequent to the 1994-1995 crisis, the growth of credit is much higher than indicated in the chart (around 25%), with credit to households especially buoyant.

Sovereign spreads narrowed significantly after remaining relatively stable in the first half. In early 2006, this decline actually accelerated, and new historic lows were reached (Chart I.10D). In March, however, the decline came to a halt. The changes in the regional EMBI display distortions basically linked to the change in its composition following the restructuring of Argentine debt (in June 2005) and the subsequent stripping of the GDP-indexed coupons from Argentine bonds in November. Among the possible determinants of the recent further narrowing in sovereign spreads would be the perception of less financial vulnerability in the region, although the search for returns at the global level, prompted by the ample amount of liquidity, continued to play a very important role. Against this background, there were further improvements in the credit rating of several countries in the region: Brazil, in October 2005 and March 2006; Mexico, in December last year, and Venezuela, in November 2005 and January 2006. Also, there were various improvements in the outlook for credit ratings, a step that precedes their raising, and only in Ecuador were they reduced.

I.2.2 IMPACT OF INSTITUTIONS' CREDIT POLICY

Credit growth

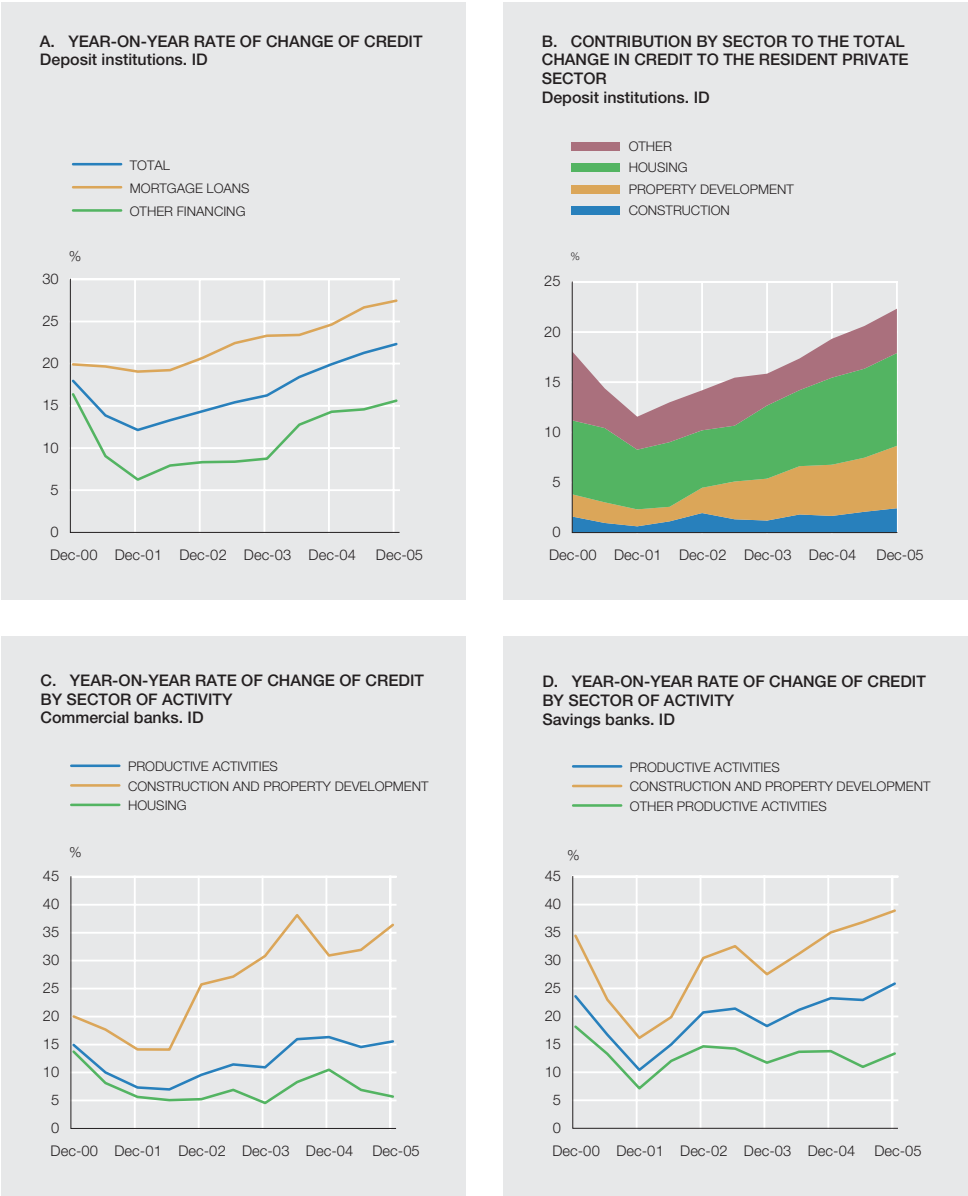
Financing to the resident private sector (credit plus debt securities) accelerated in 2005, as did both mortgage and other transactions (Chart I.11A). However, the former grew at significantly higher rates in business in Spain (27.5%, as against 15.6%). Such differences are largely explained by the growth of financing to real-estate activities, including to construction firms and property developers and households for house purchase. In December 2005 (Chart I.11B) around three quarters of the growth in credit in business in Spain of all deposit institutions is explained by the three business segments mentioned. The contribution of financing to property developers has been growing in recent years, reaching around 23.5% in December 2005.

The growth of credit granted by *commercial banks and by savings banks* to the resident private sector was relatively similar. However, savings banks, on average, recorded higher rates of growth than commercial banks in their financing to firms, both those linked to the real-estate sector and, especially, those engaged in other activities (Chart I.11C and D). The dichotomy between the financing of construction and property development and that of other business activities, that has been characteristic of credit to firms, in business in Spain, in recent years, seems equally marked in both groups of institutions, although its impact on total credit to firms is different on account of the difference that still exists between the lending specialisation of commercial banks and savings banks.

The strong growth in *credit to property developers* over the last three years has considerably increased the importance of this business segment in the institutions' credit portfolios. In December 2005, in the business in Spain of all deposit institutions, this segment accounted for

CREDIT RESIDENT PRIVATE SECTOR CHART I.11

Business is Spain. ID



SOURCE: Banco de España.

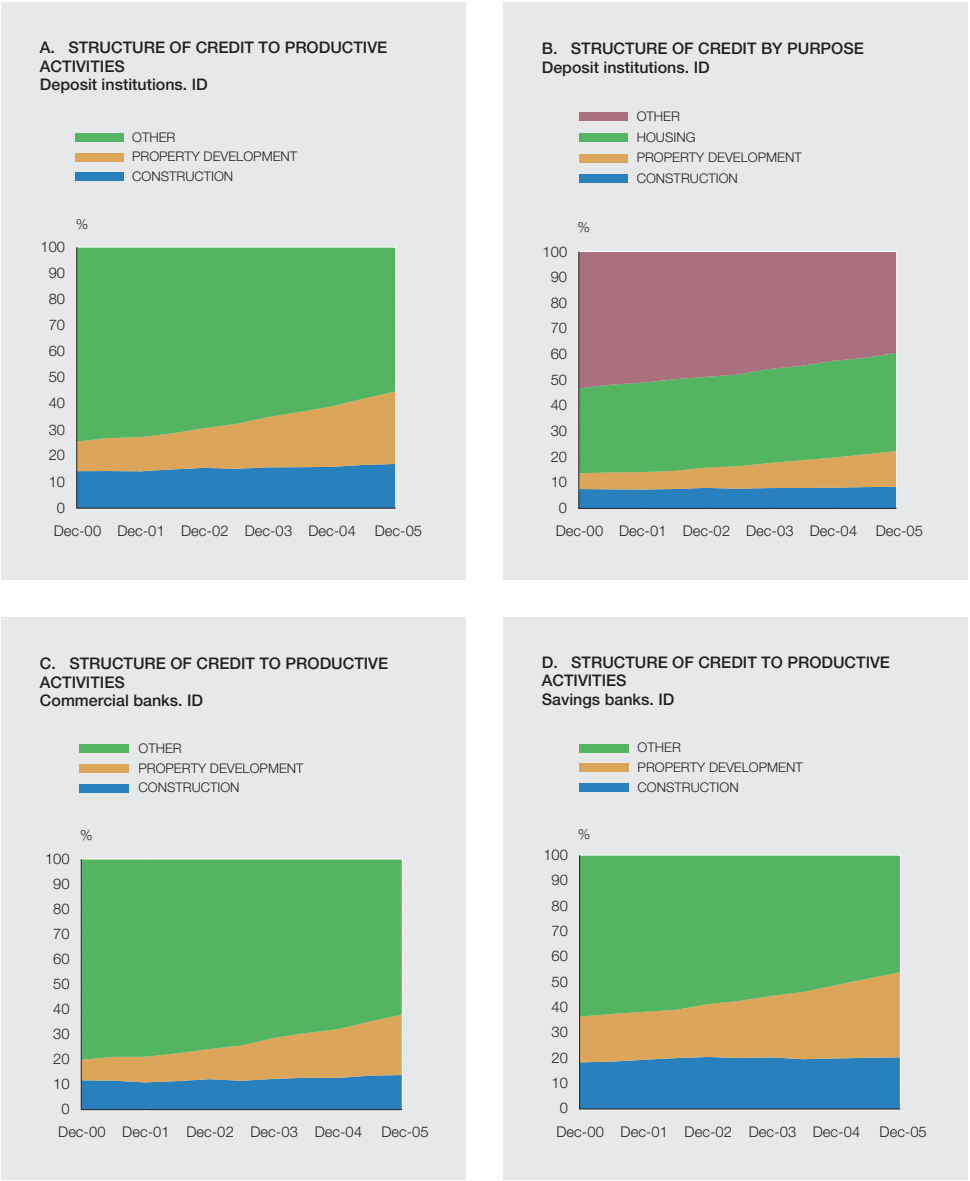
27.8% of financing to firms (Chart I.12A) and 13.9% of credit to residents (Chart I.12B). For historical reasons, savings banks have specialised to a greater extent in the financing of construction firms and property developers than commercial banks, and this situation has remained unchanged in recent years[16]. During 2005, the difference in the growth of financing to these two business segments meant that, for the first time, they accounted for more than half of the credit of savings banks (53.9%), while they accounted for 38% of that of commercial banks (Chart I.12C and D).

The concentration of institutions' credit portfolios in the real-estate sector has increased significantly in recent years (Table I.3). In December 2002, 34 institutions, accounting for 9.1% of

16. Banco de España Working Paper 0606 by J. Delgado, V. Salas and J. Saurina entitled "The joint size and ownership specialization in banks' lending" shows the differences in behaviour between the different types of institution, taking into account their size, the implications in terms of lending policies and selection of borrowers (firms in this case).

CREDIT TO RESIDENT PRIVATE SECTOR CHART I.12

Business in Spain. ID



SOURCE: Banco de España.

all the credit to the resident private sector, had more than half of their business financing committed to construction firms or property developers. In 2005, 55 institutions were in this situation, with a market share of 44.8%. Considering financing to property developers on its own, in December 2005, 23 institutions, with a market share of 27.1%, had more than 40% of their business financing committed to this type of firm, as against 16, with a share of 1.7% in December 2002. The historical relationship existing between the growth of financing to the real-estate sector and the credit risk assumed by institutions has already been referred to in previous FSRs.

Securitisation

The volume of assets securitised by Spanish deposit institutions continued to grow significantly in 2005 (Chart I.13A). Securitisation is concentrated in mortgage transactions, which in December 2005 accounted for 70.8% of all securitised assets. The last FSR indicated that the new accounting standards, as was to be expected, had no impact on this process, which is driven by the institutions' needs for funds to finance the strong growth in credit. The outstand-

DISTRIBUTION BY INSTITUTIONS OF THE WEIGHT OF CREDIT TO CONSTRUCTION AND PROPERTY DEVELOPMENT IN TOTAL CREDIT TO NON-FINANCIAL CORPORATIONS

TABLE I.3

Business in Spain. ID

BRACKET	DEC-02		DEC-05	
	% OF TOTAL CREDIT	NO. OF INSTITU-TIONS	% OF TOTAL CREDIT	NO. OF INSTITU-TIONS
NO ACTIVITY	1.3	62	0.9	51
0% - 10%	1.2	30	1.3	22
10% - 15%	1.2	19	0.5	13
15% - 20%	4.4	24	2.9	18
20% - 25%	13.7	27	0.9	16
25% - 30%	18.7	22	1.6	26
30% - 40%	28.0	32	32.5	48
40% - 50%	22.5	18	14.6	19
Over 50%	9.1	34	44.8	55

SOURCE: Banco de España.

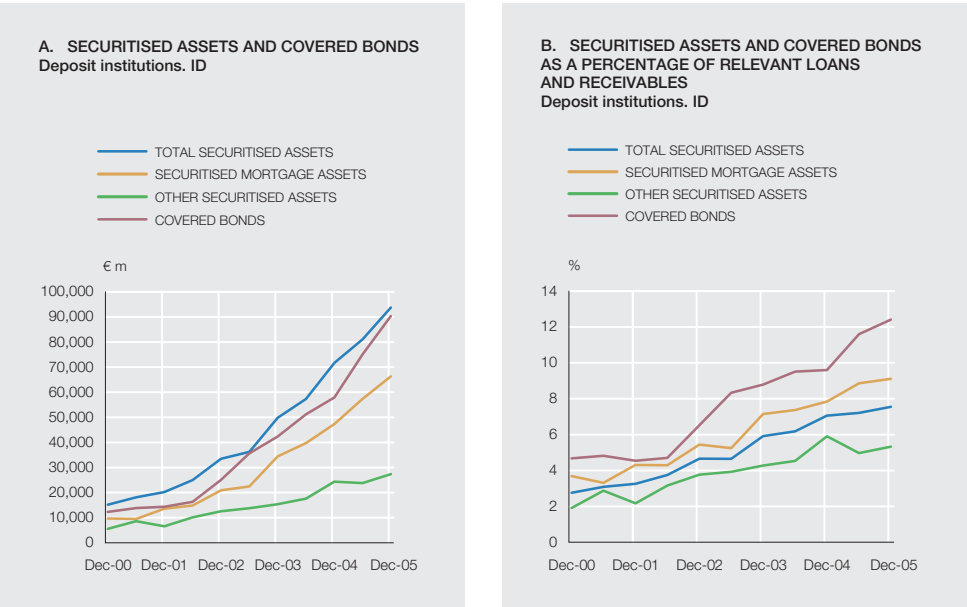
ing volume of covered bonds also continued to rise, especially those of the commercial banks[17].

In relative terms, deposit institutions' securitised assets (Chart I.13B) represented 7.5% of their credit portfolio, in December 2005 (8.7% in the case of commercial banks as against 6.2% in that of savings banks), while covered bonds now account for 12.4% of mortgage loans (21.9% of those of commercial banks, as against 7.2% of those of savings banks). The differences

SECURITISATION

CHART I.13

Deposit institutions. ID



SOURCE: Banco de España.

17. Box I.2 analyses reforms in the German securitisation market.

REFORMS IN THE GERMAN SECURITISATION MARKET

BOX I.2

Covered bonds are a category of securities that arises from the securitisation of assets through the balance sheet of an originator institution. Their distinctive feature is that the credit quality of this class of assets is essentially based on a narrow regulatory framework for such origination activity. The German market for covered bonds, also known, generically, as the *Pfandbriefe* market, has been one of the main points of reference for the development of similar markets in other European countries, such as that for *Cédulas Hipotecarias* in Spain. On 19 July 2005 new legislation regulating the *Pfandbriefe* market came into force, which makes some notable changes to the conditions of access to the market and its regulation. The new law involves the unification of the three legal provisions existing hitherto in relation to the issuance of fixed-income securities covered by property mortgages (mortgage *Pfandbriefe),* by ship mortgages (ship *Pfandbriefe)* or by loans to the public sector (public *Pfandbriefe).*

Besides this simplification of the law, the reform includes changes of greater practical relevance, eradicating the criterion for access to the market for the issuance of securities backed by property mortgages, which had traditionally been based on institutional specialisation. Moreover, the new law also makes the right to issue public *Pfandbriefe* universal[1]. Now, the only restriction on the access of any German credit institution to the market for the issue of covered bonds consists of the requirements for obtaining a special licence.

In any event, the reform of the Pfandbriefe law continues to ensure the credibility of this instrument in the new institutional framework. Thus, while the provisions in relation to the quality of the securitised assets are maintained without major changes[2], the strengthening of the regulatory procedures for authorisation and sanction[3], and the obligations in the area of risk control and transparency introduced by the law complement the solid status that German insolvency law grants to *Pfandbriefe.*

The immediate reason for the introduction of the new law on *Pfandbriefe* was the expiry on 18 July 2005 of the transitional period agreed between Germany and European authorities for the elimination and/or adaptation of the system of guarantees granted by the German public sector to its savings banks and to *Landesbanken.* Retaining the restrictions on the origination of *Pfandbriefe* entailed various risks. First, the risk of segmenting the liquidity of the *Pfandbriefe* market as a class of asset, as a consequence of the gap in quality between mortgage and public *Pfandbriefe,* by stripping the latter of the government guarantees they had been enjoying, while the former have a notable intrinsic quality. Second, maintaining segmentation in access to the covered bonds market would have involved preserving the comparative disadvantage of the private commercial banks vis-à-vis the public-law entities that are authorised to issue public *Pfandbriefe.*

One indicator of these risk were the signs of delocalisation already apparent in the German market: some German commercial banks had begun to operate from European countries with laws on covered bonds that emulated the substance of the legislation regulating *Pfandbriefe*[4]. But the difficulty German private credit institutions have had securitising assets has also existed in the area of non-synthetic off-balance sheet securitisation[5].

These difficulties have prompted the second of the reforms introduced in the German securitisation market in 2005. In April 2003, a group of credit institutions signed an initiative which, under the name *True Sale,* aimed to establish a co-operative securitisation mechanism for the institutions involved. It was hoped that securitisation *made in Germany* would give small and medium-sized enterprises access to credit, on account of the greater ease with which it could be refinanced through standardised credit-portfolio securitisation programmes[6]. However, the modest success achieved by this project prompted a reform tending to simplify *True Sale* securitisations in which it is not easy to transfer assets and/or collateral merely by contractual agreement. In fact, in order to simplify the generic registration procedures hitherto required, a specific register has been created for refinancing transactions that should reduce the obstacles to the development of *True Sale* activity that may been created by the formalities applicable to face possible insolvency procedures.

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1. Although there were no institutional specialisation criteria for the issuance of public-sector *Pfandbriefe,* the privilege of issuing them was held by a number of public-law credit institutions: nine *Landesbank,* Dekabank, nine large savings banks and seven special banks. For the purposes of comparison, the privilege of issuing mortgage *Pfandbriefe* was held by 17 strictly mortgage banks and five mixed banks. **2.** The most notable changes in this respect consist of the admissibility of mortgages and public-sector assets of the EU, Canada, Japan and Switzerland, provided that the originator entity can establish familiarity with these markets. Also, strict rules are introduced in relation to the admissibility of loans to the public sector that have no guarantees. In particular, the admissibility of debt commitments in mixed public/private sector initiatives is regulated. **3.** The granting of licences is conditional upon having more than €25 million of Tier 1 capital. Intermittent origination activity is a ground for sanctioning.

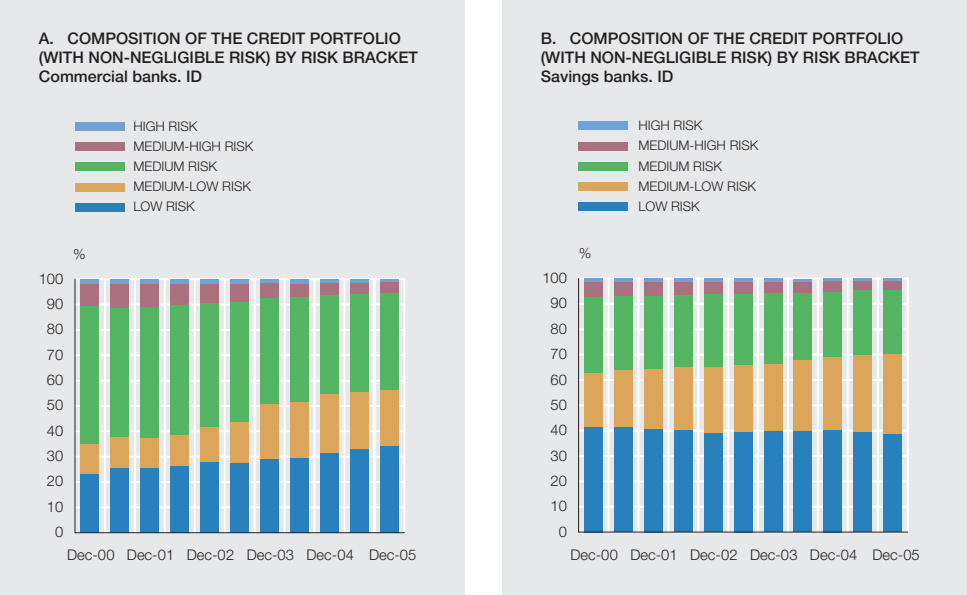
4. Inter alia, France, Ireland and Luxembourg have in recent years regulated instruments similar to *Pfandbriefe.* **5.** A synthetic securitisation is characterised by the fact that, in reality, the securitised assets are not held by the issuer. The exposure thereto is merely indirect, through credit derivatives. **6.** In accordance with this objective, the consortium has among its participants KfW, the German public banking group that channels financial initiatives for development. Coming within this philosophy for action are the platforms (PROMISE and PROVIDE), provided by KfW, through which many originators have been able to carry out synthetic securitisation programmes.

between commercial and savings banks reflect the differences in their need for funds and in their credit specialisation, with savings banks being more specialised in the mortgage segment.

The predominance of substance over form established by CBE 4/2004 resulted in the maintenance on the balance sheet of securitised assets that do not involve any transfer to third par-

RISK PROFILE CHART I.14

Deposit institutions. ID



SOURCE: Banco de España.

ties of the risk of the underlying asset. As at December 2005, two thirds of the total amount of securitised assets remained on the balance sheet, which reflects the absence of any transfer of risk and the need to obtain funding as the reason for many of these transactions. Commercial banks, with 69.5%, are the group of institutions with the highest percentage of securitised assets maintained on their balance sheets, as against 62.1% in the case of the savings banks.

Risk profile of debt instruments

The risk profile of the credit portfolios of Spanish deposit institutions (excluding public debt and deposits at credit institutions, which are negligible risk according to the accounting standards) continued to decline during 2005. In the case of commercial banks, the profile stood at 1.33% in December 2005, while in that of savings banks it reached 1.25%. The different composition by business segment, with mortgage financing to households being more important in the case of savings banks, while commercial banks are more exposed to firms, largely explains the differences in the risk profile (Chart I.14A and B). The risk profile data at the consolidated level are similar for commercial banks and savings banks.

Doubtful assets

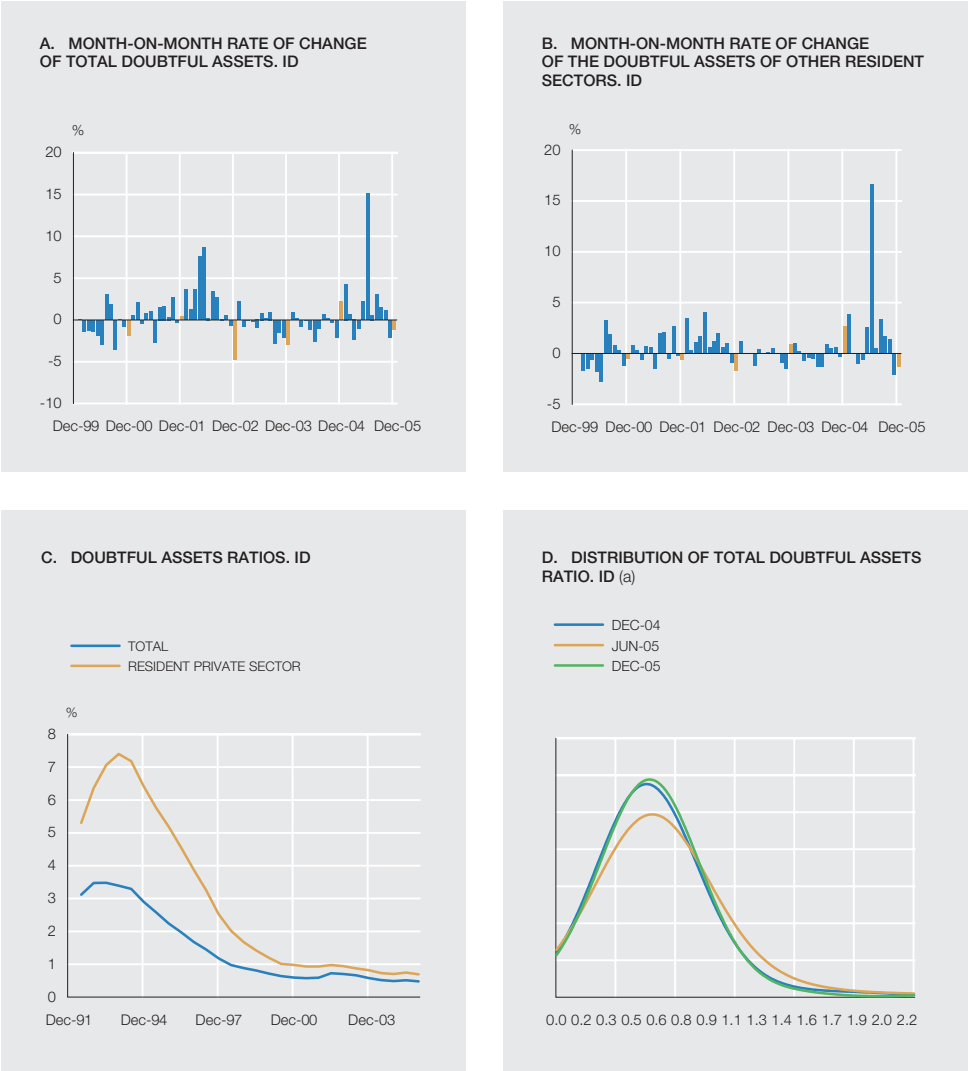
The increase in doubtful assets as a consequence of the change in the accounting standards is clearly shown by the month-on-month rates of change, both of total doubtful assets, in business in Spain, and in those vis-à-vis resident firms and households (Chart I.15A and B). Subsequently, the growth to the end of the year was much more moderate, and in line with the strong growth in activity and employment and the low interest rates. In terms of year-on-year rates of change, the one-off increase in June 2005 will persist until the middle of this year[18].

Following the slight increase in the doubtful assets ratio recorded as the last FSR was going to press (June 2005), the latter has now begun to decline. In any case, the increase in the ratio

18. The December 2004 data recompiled in conformity with CBE 4/2004, recently received by the Banco de España, show that the change in the level of doubtful assets between December 2004 and December 2005 was small, which increases the importance of the results of the analysis in terms of month-on-month rates of change.

DOUBTFUL ASSETS AND DOUBTFUL ASSETS RATIOS CHART I.15

Deposit institutions. ID



SOURCE: Banco de España.

a. In Chart D, the x-axis shows the doubtful assets ratio while the y-axis shows the frequency of the number of institutions.

as a consequence of the accounting change has been very small from a broad time perspective (Chart I.15C). The distribution of the doubtful assets ratios of the resident sector first shifted to the right (a general increase in ratios), between December 2004 and June 2005, and then in the other direction, in December 2005, the second shift virtually cancelling out the first one (Chart I.15C). The conclusions regarding the trend in doubtful assets ratios are not affected when write-offs are also considered.

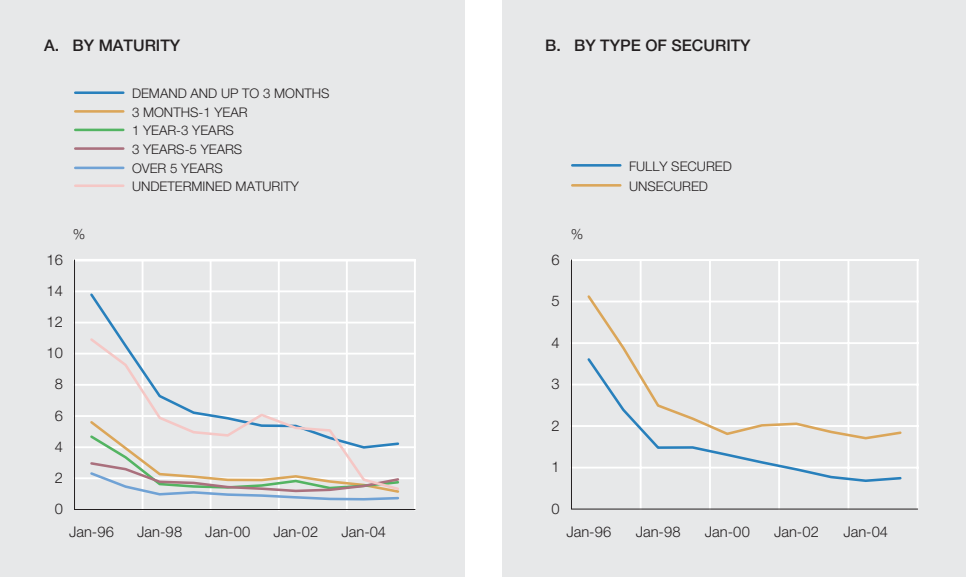
Probability of default

The data for the probability of default (PD, defined as the ratio of the number of doubtful transactions to the total outstanding transactions at that date) obtained from the Central Credit Register (CCR) of the Banco de España for credits granted by deposit institutions confirm, in December 2005, the low level of losses in recent years.

Chart I.16A shows PD according to the average maturity of the credits. In December 2005 there was a slight rise, from 4.0% to 4.2%, in the probability of default for credits payable on demand or with an average maturity of less than three months. However, the relative weight of this type of credit continued to decline, to 4.5% of total credits. The PD for credits with average

PROBABILITIES OF DEFAULT CHART I.16

Deposit institutions



SOURCE: Banco de España Central Credit Register.

maturity of more than 5 years, which represent almost 60% of the total, held steady at around 0.7%. This type of credit, in the case of households, primarily reflects mortgage-secured transactions for house purchase, the product with the lowest doubtful assets ratio[19]. Although credits with the shortest maturity are seen to have the highest PD and those with the longest maturity the lowest PD, this declining monotonic relationship does not hold for the intermediate maturities; the PD for credit with an average maturity of three months to one year is lower than that for credit granted with a maturity of one to three years.

The presence of collateral in a credit transaction reflects the possibility that the institution that grants the credit may recover all or part of the amount of the transaction in the event of default by the borrower. In December 2005, more than half of transactions (specifically, 50.5%, in terms of amounts drawn down) had collateral covering 100% of the amount lent. The PD for these credits (Chart I.16B), was around 0.7%. These are mostly mortgage-secured transactions for house purchase (in the case of credit to households) and financing to construction firms and property developers (in the case of credit to businesses)[20]. For its part, the PD for unsecured credits has risen slightly (from 1.7% in December 2004 to 1.8% in December 2005), although their relative importance has also declined slightly (to 47.1% in December 2005).

The first report of the Central Credit Register, due to be published shortly by the Banco de España, contains a more extensive analysis of the aggregate information on credit exposure and the characteristics of the operations registered in the CCR, from a broad time perspective, as well as a description of the content and structure thereof.

Foreign financial assets

The geographical distribution of the foreign financial assets of Spanish deposit institutions remained relatively stable during 2005, following the significant change stemming from the acquisition by a large Spanish institution of a foreign one. Neither have there been notable changes

19. Box I.3 shows the relationship between the maturity and the payment on a standard mortgage loan. **20.** The paper by G. Jiménez, V. Salas and J. Saurina entitled "Determinants of Collateral", to be published shortly in the *Journal of Financial Economics,* analyses the determinants of the existence of security in loans to non-financial corporations.

THE RELATIONSHIP BETWEEN TERM AND PAYMENTS IN A STANDARD MORTGAGE LOAN

BOX I.3

The convergence process, first, and membership of the euro area, subsequently, along with growing competition in the market for mortgage loans for house purchase, have resulted, inter alia, in a marked reduction in the nominal interest rates charged on such loans and a notable lengthening of their terms. At the beginning of the 1990s, loans to households for the purchase of property had an average interest rate of around 15% and a standard term of about 15 years. According to the latest information supplied by the Association of Registrars, the average interest rate on new household mortgages in 2005 was 3.2% and their term was 25.5 years[1].

A standard mortgage for house purchase in the Spanish market has a floating interest rate and constant payments. The first feature has enabled the declines in the monetary authority's key interest rates to be passed through rapidly to the cost not only of new mortgages, but also of most existing mortgages. The second feature, meanwhile, has meant that the lengthening of terms has led directly to a reduction in the initial payments made by borrowers.

1. Data for 2005 Q3.

RELATIONSHIP BETWEEN TERM AND ANNUAL PAYMENT

CHART A

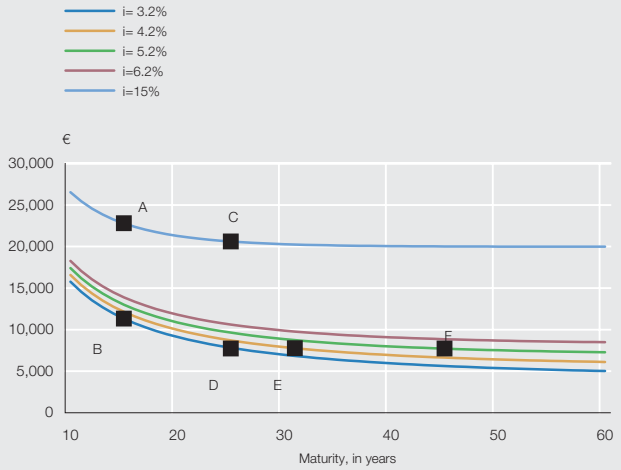


Chart A shows, for different rates of interest, the relationship between the term of the loan and the annual payment, in the case of a mortgage of €133,181, which was the average amount of a new mortgage in 2005 according to Property Registry Statistics data[2]. Thus, Chart A enables the effects of the changes mentioned in the first paragraph to be illustrated. In the case of a mortgage with a 15-year term, a reduction in interest rates from 15% to 3.2% reduces payments by more than 50% (from €22,800 to €11,318 euros per annum) in the case depicted in the Chart (movement from A to B). The decline associated with a lengthening of the term from 15 to 25.5 years would be approximately 10% (from A to C in the Chart). Both movements combined would reduce the annual payment by 66% (from A to D).

However, an important characteristic of the curves depicted in Chart A is their non-linearity. Thus, the longer the term, the smaller the reduction in payments that arises from lengthening it. In fact, the reductions that may be achieved through this channel are limited. This, in turn, reduces the possibilities of offsetting the effects on annual payments arising from a possible rise in interest rates through further increases in the terms of the credits. Thus, to counteract the consequences of a one percentage point rise in the cost of a loan would require the term of new mortgages to be increased from the current 25.5 years to 31 (shift from D to E, in the chart). Another percentage point would require a further extension of 14 years (point F). In this example, if rates reached 6.2% it would not be possible to offset the change in payments by lengthening the term.

It is important to point out that the lengthening of terms also increases the time during which borrowers are exposed to possible shocks that have a negative impact on their ability to pay. Prominent among such shocks are possible rises in interest rates, since more than 97% of current mortgages are floating rate mortgages. This certainly poses new and significant challenges for banks in terms of the need to appropriately assess and manage exposures at longer terms than they have been used to dealing with in their operations until recently.

2. See previous note. The interest rates for the year have been considered to be APRs.

in the composition by business segment. Since end-2004, there has been a clear predominance of financing to firms and households to the detriment of public-debt portfolios and interbank market transactions. Both the doubtful assets ratio (Chart I.1B) and the risk profile (Chart I.7A) of the assets held abroad by Spanish institutions behaved favourably in 2005.

I.3 Liquidity risk

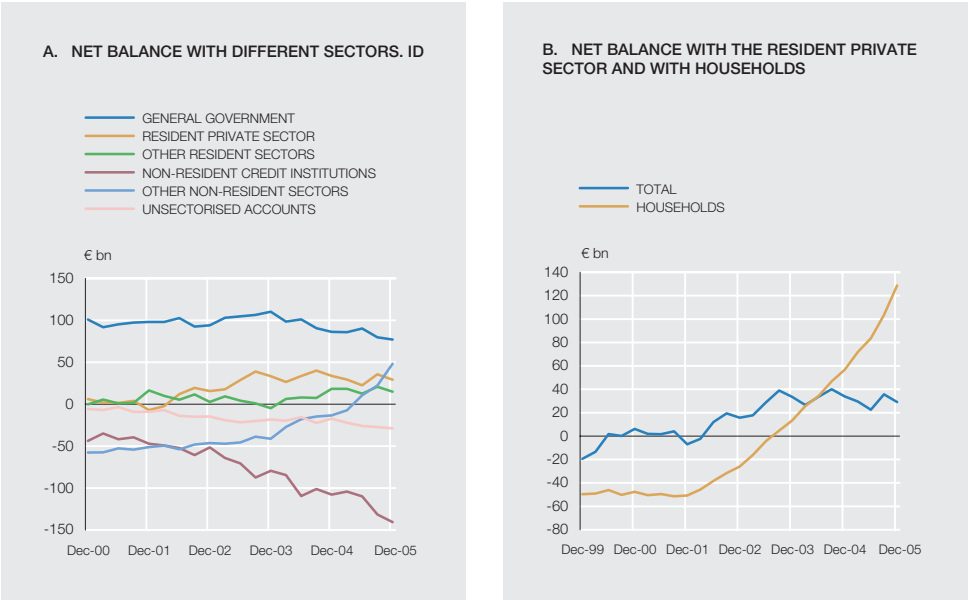
MARKETS

The liquidity indicators of the Spanish *stock exchanges* trended favourably in 2005. The turnover on stock exchanges as a whole grew by around 30% relative to the previous year, which involved an increase of around 15% in the ratio of turnover to the capitalisation of Spanish stock exchanges. This favourable trend is also confirmed by the contraction in the size of the weighted average range for the most liquid securities by around 7 bp during 2005.

The dealing indicators for the *public-debt market* still seem to be showing that the current low returns are to some extent discouraging trading activity. The volume of bonds traded in the

NET BALANCES WITH DIFFERENT SECTORS. BUSINESS IN SPAIN CHART I.17

Commercial banks and savings banks. ID



SOURCE: Banco de España.

spot segment between account holders during 2005 fell by around 13% from the level in 2004. Thus, 2005 was the third consecutive year in which the level of activity in the spot segment declined. Although there are no reliable measures of public-debt activity in other euro area markets, the informal indicators available seem to confirm that this contraction has been a common experience and is not a cause for concern.

In the *foreign exchange markets,* the half-yearly surveys of activity on the New York and London markets show that dealing was buoyant in 2005, with growth rates of close to 30%. At the same time, the compilation of these statistics has shown the variety of environments in which foreign exchange transactions are traded. Although electronic trading has gained a share of close to 50%, direct trading between account holders and between account holders and clients is still significant. In addition, the multiplicity of electronic platforms existing should be noted.

As regards the settlement of foreign exchange transactions, the informal surveys available point to growth in the market share of Continuous Linked Settlement (CLS). This is significant given its implications for reducing exposure to Herstatt risk. Indeed, the absence of incidents in the settlement of foreign exchange transactions following the failure of a notable US entity that operated as a money market broker seems to indicate that CLS does effectively mitigate this risk.

INSTITUTIONS

Under the previous Banco de España accounting Circular, the net balance with the resident private sector included investments in the equity securities issued by that sector. However, the new accounting Circular does not sectorise such investment. The failure to include equity securities in the net balance with the resident private sector results in a very significant fall in this balance and an increase in the balance of unsectorised accounts, i.e. not attributed to any specific sector (Chart I.17A). With the latest available sectoral distribution of equities (May 2005), the balance of the resident sector can be approximated by incorporating that portion of capital instruments attributed to that sector. The time trend of this corrected balance is very similar to that of the new net balance shown in Chart I.17A, although the level is obviously higher. The difference increases over time because the value of equity securities has been increasing progressively.

Within the net balance with the resident private sector, the evolution of that with households is notable (credit granted to households less deposits obtained from them), which has an upward profile since 2002 (Chart I.17B). As a result of this profile, the debt of Spanish households has risen above the EU average (see Section I.2.1.a above).

Spanish deposit institutions have had to resort increasingly to the issuance of securities or to the wholesale markets to obtain the funds necessary to finance the strong credit growth. These forms of financing are, on average, more costly for the institutions than liabilities vis-à-vis households, and thus put pressure on their margins.

I.4 Market risk

MARKETS

International financial market developments in the second half of 2005 and in early 2006 continued to be very positive, in line with the favourable global macroeconomic developments. Thus, US and, especially, Japanese stock markets made significant gains, although certain accounting scandals introduced volatility and prompted prices to fall back from their January 2006 highs.

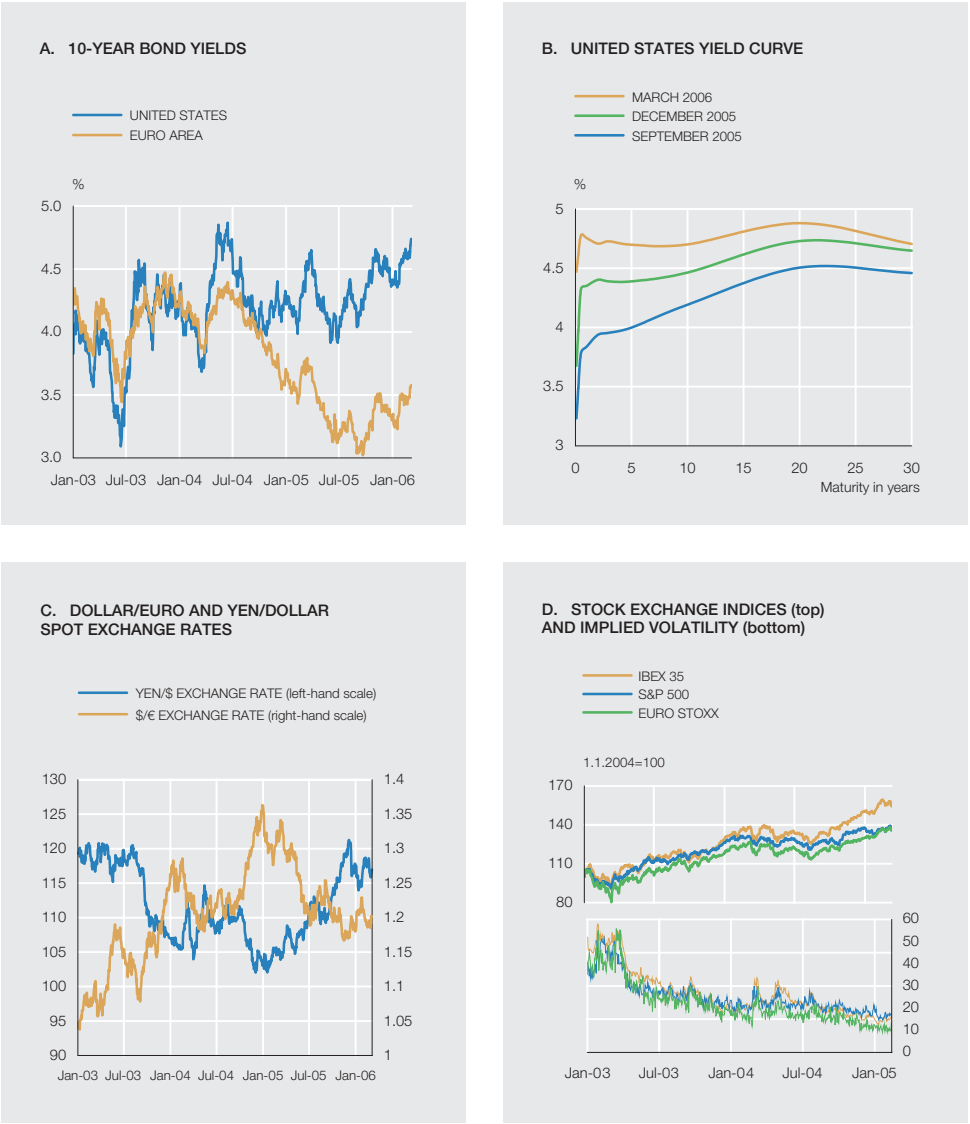
Long-term interest rates in the United States increased moderately, but have remained at low levels, with the 10-year maturity at around 4.75% at the beginning of March (Chart I.18A). In the euro area, negotiated yields continued to fall between July and September 2005, when new historic lows were reached. However, during the subsequent months this trend was reversed, so that, in March 2006, the 10-year benchmark was at very similar levels to those of early 2005, around 3.6%.

The gradual tightening of monetary conditions, which has taken the federal funds target rate in the United States to 4.5%, with expectations of further rises in *official interest rates* to 5% by mid-2006, has involved a levelling out or even an inversion of the yield curve (Chart I.18B). A sufficiently notable and prolonged inversion of the yield curve has historically tended to be related to expectations of a sharp slowdown in activity. However, the current inversion has been accompanied by a simultaneous narrowing of corporate bond spreads and rising stock markets, so that its power to predict a slowdown seems more questionable. In the euro area, there was a change in the Eurosystem's monetary policy stance, with two 25 bp increases in official interest rates, one in late 2005 and the other in early March 2006. The yield curve, at the shortest maturities, had risen in early March by somewhat more than 50 bp from its mid-2005 levels. During the same period, one-year Euribor increased by almost 1 pp.

On the *foreign exchange markets* the main protagonist was the yen, which tended to appreciate from late 2005, as agents discounted a change in the implementation of monetary policy that was eventually confirmed at the beginning of March, with the announcement of the abandonment of quantitative targets for the supply of liquidity in favour of interest-rate targets. Although this does not imply an immediate increase in short-term interest rates in Japan, it does mean a significant reduction in the supply of liquidity to the banking system. Insofar as the recent developments in the prices of certain risky financial assets and of commodities may have been based on financing at very low interest rates in yen, the decline in liquidity in Japan may have a certain impact on such prices. For its part, the euro/dollar exchange rate held relatively stable, in the region of 1.20 (Chart I.18C).

Prices on the main euro area *stock exchanges* recovered progressively in the second half, a trend that has extended into 2006 to date (Chart I.18D). These stock exchange developments occurred against a background of very favourable corporate earnings, long-term interest rates that stayed low, although they have increased recently, and low share price volatility.

INTEREST RATES, EXCHANGE RATES AND OIL PRICES CHART I.18

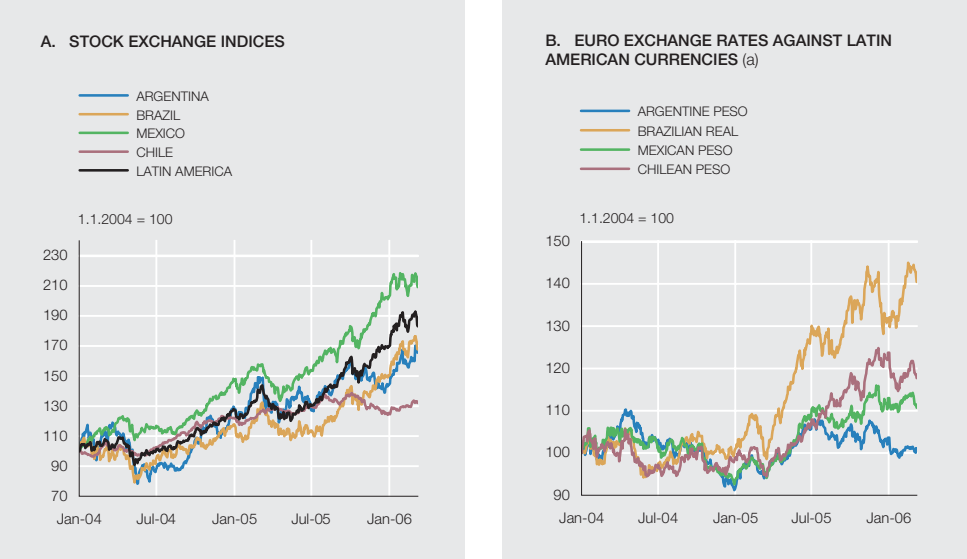


SOURCE: Datastream.

Developments in Spanish indices were very similar to those on the rest of the European markets. In 2005, the Madrid General Stock Exchange Index rose by 20.6%, while the euro area broad Euro Stoxx index rose by 23%, both well above the 3% rise recorded by the US S&P 500 index during the same period. At the beginning of March these same indicators showed, respectively, gains of 10%, 7.2% and 2.4% since the end of 2005. This upward trend in stock markets was common to all sectors except technology and communications and was particularly strong in Spanish firms in the basic materials, industry and construction sector and, in the case of European firms, in the metals industry. As a result of the overall price and corporate earnings developments, PERs (price earnings ratio) were practically unchanged from the previous FSR, so that they remained above their historic average values.

Stock exchange developments in *Latin America* in the second half of 2005 and in the first few months of 2006 were very favourable, as the 50% increase in the MSCI index for the region during that period shows, although there was a certain flattening off from February. All-time highs were reached in all the countries (Chart I.19A) although some, such as Chile, barely recorded rises and others, like Argentina and Venezuela, were late to join the general tendency. Most of the region's *exchange rates* appreciated against the euro (Chart I.19B), the

STOCK EXCHANGE INDICES AND EXCHANGE RATES IN LATIN AMERICA CHART I.19



SOURCE: Banco de España.

a. Exchange rates: a fall indicates a depreciation in the local currency against the euro.

exceptions being the Argentine peso and the Peruvian sol. This appreciation was especially notable in the case of the Brazilian real (which reached a five-year high) and the Chilean peso.

The countries of the region have capitalised on the favourable external environment and positive economic and financial conditions at home to implement increasingly active *debt management* policies in order to reduce the vulnerability of their financial position. These policies have been based on the repurchase of Brady bonds, the issuance of external debt in local currency and more recently, on the adoption of a number of fiscal and regulatory measures by Brazil and Chile aimed at favouring the participation of non-resident investors in the domestic public-debt market. A highly significant event in the reduction of external debt was the early repayment of all their IMF loans by Brazil and Argentina, which has drastically reduced the IMF's loan portfolio and the importance of Latin America therein.

Net flows of private capital into Latin America were positive in 2005 (USD 24 billion) and well above 2004 levels (USD 5.8 billion). However, these inflows were completely offset by the behaviour of official flows, which on account of the return of the Brazilian and Argentine loans, fell by USD 24.5 billion. The composition of private flows shows that there was a forceful return of portfolio flows (USD 27 billion), following four years of decline. However, these net inflows were offset by the sharp decline (USD –54 billion) in net flows of external loans and credits, which have been negative over the last decade. Meanwhile, the greater preference of sovereign issuers for local debt markets, which are enjoying strong growth recently, is also notable. This led to a slight drop in the volume of international sovereign issuance in 2005, relative to 2004, although the increase in corporate issuance (up 60% from the previous year) more than offset the reduction in the former. Also notable was the ongoing recovery in flows of foreign direct investment, which exceeded USD 50 billion in 2005.

INSTITUTIONS

The information on market risk that can be found in the management reports published by credit institutions is very heterogeneous and, in some cases, excessively general. As a result, it is difficult to make comparisons either over time or between institutions.

Large credit institutions have developed internal models that enable them to monitor and quantify the market risk associated with their overall asset and liability management (structural interest risk) and, more particularly, their financial assets held for trading. In most institutions, the main structural interest risk analysis tools are, for the time being, maturity gaps and asset and liability duration. These tools enable institutions to simulate how hypothetical changes in interest rates affect the net interest margin and economic value. In the case of financial assets held for trading, most of the large institutions have developed internal models that enable them, inter alia, to quantify the value at risk (VaR) of their portfolios and to conduct stress tests.

While in the case of structural market risk, it is very complicated to obtain composite indicators, in the case of financial assets held for trading the estimates of VaR made by the institutions and included in their financial reports enable certain simple inferences to be made at a more aggregate level. However, caution should be exercised when interpreting these estimates given the limitations of this measure. In this respect, it should be mentioned that significant changes in prices on financial markets may entail important changes in the credit quality of particular counterparties, which is apparent particularly clearly in certain markets such as those for credit derivatives. Thus, there is a close relationship between credit risk and market risk that the risk management models should take into account and that measures like VaR cannot capture. Against this background, stress tests, in which institutions simulate how their risks are affected by different scenarios, are particularly important. However, these results must be analysed with care, given that there is a high degree of uncertainty as to how certain markets would react in a crisis situation. Indeed, the existence of common strategies among many of the participants in these markets (crowded trades) may intensify the latent vulnerabilities.

The low levels of interest rates and the situation of ample liquidity in the markets, against a background of prolonged stability, are factors that have, in recent years, contributed, in some cases, to a greater appetite for risk. This partly explains the buoyancy of the markets for fixed-income, credit derivatives and structured instruments such as CDOs (Collateralised Debt Obligations). Changes in this scenario could reveal that the market risk assumed by some of the financial institutions participating in these markets, without sufficient experience and knowledge, is greater than that which would be obtained by using simple measures of this risk, such as VaR.

Notwithstanding the foregoing, given that it is difficult to find public data on the stress tests performed by credit institutions, while data on VaR calculations are more widely available, some comments are made below on this measure of market risk which European banks, including Spanish banks, generally apply to their financial assets held for trading.

In 2005, according to the information available for some of the largest European institutions, the market risk of financial assets held for trading, as measured by the average value of the VaR, did not change significantly with respect to 2004 and it appears that, as usual, the estimated values of the VaR were clearly below the limits established by the institutions, throughout the year. In terms of Tier 1 capital, the average value of the VaR for 2005 was, as in previous years, significantly below 1%.

In the case of the Spanish institutions considered, the VaR of financial assets held for trading seems to be, on average, below 0.25%. Within market risks, the interest rate risk is that which generally appears to be the most important. The daily estimates of the VaR of the financial assets held for trading of some institutions increased somewhat at the end of 2005, although it

is difficult to establish the precise reasons for this movement. It is worth mentioning, in this respect, that the incidents that affected some credit derivative markets and some hedge funds, and which arose from the lowering of the credit ratings of two large automobile companies in the United States in May 2005, did not affect Spanish institutions.

The interaction between interest rate risk and credit risk can also be seen when the strong growth in asset securitisation is analysed. A growing part of this activity involves the granting of credit (with mortgage security, for example) with a certain spread over a reference index (normally Euribor) and the subsequent securitisation of such transactions to obtain liquidity with which to continue to expand credit, the result being that financing is granted at a variable rate, with a small spread over Euribor. In this way, institutions gain a spread without assuming interest rate risk. The larger the volume of the credit granted and securitised, the larger the absolute volume of revenues obtained. The most active institutions in this market are, in a way, experiencing a certain change in the nature of their banking business, from the traditional business of selecting and monitoring borrowers towards one in which the weight of their capacity to transform products and distribute risk increases. If the securitisation transaction results in a transfer of credit risk, under certain extreme circumstances, institutions may have a growing incentive to increase the volume of these transactions to the detriment of their traditional role of evaluating the creditworthiness of potential borrowers, which could give rise to a negative externality for the financial system as a whole.

However, if the securitisation transactions carried out by institutions do not involve transfer of credit risk, then if the borrowers get into difficulties, these institutions will have to face an increase in doubtful assets, with the consequent negative impact on their profits. Accordingly, there may be a certain exchange taking place, in which the price paid for the absence of interest rate risk (and the short-term gain of a spread arising from the difference between the rate of interest charged on the loan and the cost of its financing by means of securitisation) is the increase in the credit risk that this strategy may involve.

II Profitability

The results obtained by Spanish deposit institutions[1] in December 2005 testify to their sound performance as highlighted in previous FSRs. Against a background marked by the buoyant Spanish economic situation, favourable results were possible thanks to a brisker pace of activity, to the efforts by institutions to contain their operating costs and to the lesser weight of losses attributable to impaired assets and provisioning. Spanish institutions' activity abroad likewise contributed favourably to the results posted in 2005, especially in a year in which the Latin American currencies appreciated significantly against the euro.

II.1 General situation

The *group net income* of deposit institutions as a whole grew in December 2005 by 44.2%. In terms of ATA this meant a 6 bp increase on December 2004 to 0.89% (Table II.1)[2]. This growth in income firstly confirms the trend seen in previous FSRs, since negative rates of change were recorded in 2002; and it further highlights how, under the new accounting framework, significantly higher rates of change in absolute terms are to be expected, with the subsequent increase in volatility[3].

Nonetheless, part of the dynamism seen in the absolute-terms change in income has been affected by the acquisition of a large foreign entity by a Spanish institution in late 2004, since the contribution of the former to results was not reflected in 2004 but was recorded in 2005[4]. In any event, the analysis in terms of ATA corrects this, since they were calculated in December 2004 without considering the effect of the aforementioned acquisition[5]. What is more, the buoyancy of group net income is evidenced by the performance in respect of business in Spain, where its growth was 22.6%.

In any event, the *ROE* for deposit institutions as a whole increased, edging up from 14.1% to 16.6% in December 2005[6], which placed it once again well above the yield on Spanish public debt (Chart II.1A). The explanatory factors for the change in the ROE[7] (Chart II.1B) included most notably the increase in the weight of group income in net operating income owing to lower requirements, in relative terms, for asset value adjustments and provisioning[8], and also greater operating efficiency. The contribution of the other factors was much more limited and combined a slight reduction in the asset risk profile and an increase in the quality of own funds, with a greater level of leverage and of the productivity of risk-weighted assets[9]. The ROA in-

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1. This and the following chapter of the FSR do not include the branches of foreign banks based in the other European Union countries, as they are not subject to capital requirements in Spain. The number of institutions analysed in both chapters is therefore the same. In any event, the relative weight of the institutions excluded is very small. **2.** The data in Table II.1 have been prepared in accordance with the criteria of CBE 4/2004. Accordingly, the figures relating to December 2004 have been recompiled in keeping with the new Circular, and caution is therefore required with them. **3.** One of the expected effects of the IFRSs is greater volatility of results as a consequence of the greater use of market values for certain accounting captions. **4.** The acquisition of the foreign institution was in late 2004, whereby its effect is not observable in the income statement for that year, but is discernible in the balance sheet. Nonetheless, if the income statement data for December 2005 are adjusted, excluding the contribution of the acquired institution to net income (which, on the information available, is only possible in an approximate fashion), growth would be around 37%. **5.** ATA have been adjusted eliminating, in December 2004, the amount of the acquired foreign institution's total assets. Nonetheless, it has not been possible to adjust the analysis of the composition of the ROE on the information available. **6.** In calculating the ROE, valuation adjustments, which CBE 4/2004 considers as net worth, have been excluded. **7.** An explanation of the breakdown of the ROE can be seen in Box II.1 of the May 2004 FSR. **8.** Note that the so-called provisioning expense is, under the new accounting Circular, not that established to cover insolvency risk (which is included under impairment losses) but for funds for pensions and similar obligations, taxes and contingent exposures and commitments, among others. **9.** Box II.1 considers the need to include the statement of changes in equity in the analysis of profitability, so as to move towards a concept of overall profitability, encompassing the income statement and equity valuation adjustments.

INCOME STATEMENT TABLE II. 1

Deposit institutions

	DEC-05			DEC-04
	€ m	% CHANGE. DEC. 05/ DEC. 04	% ATA	% ATA
Financial revenue	87,221	38.5	4.05	3.90
Financial costs	48,841	60.9	2.27	1.88
Net interest income	**38,381**	**17.7**	**1.78**	**2.02**
Share of profit or loss of entities accounted for using	3,602	48.1	0.17	0.15
Net commissions	17,678	19.6	0.82	0.92
Gains and losses on financial assets and liabilities	5,542	63.4	0.26	0.21
Gross income	**65,202**	**22.5**	**3.03**	**3.30**
Operating expenses	34,962	16.3	1.62	1.86
Other operating income	1,201	35.9	0.06	0.05
Net operating income	**31,442**	**30.7**	**1.46**	**1.49**
Asset impairment losses	6,291	12.8	0.29	0.35
Provisioning expense (net)	2,982	6.6	0.14	0.17
Other income (net)	3,552	74.7	0.16	0.13
Profit before tax	**25,646**	**46.7**	**1.19**	**1.08**
Net income	20,368	43.7	0.95	0.88
MEMORANDIUM ITEM:				
Group net income	19,268	44.2	0.89	0.83

SOURCE: Banco de España.

creased slightly, in terms both of that calculated using net group income (up from 0.83% to 0.89%) and that based on profit before tax (up from 1.08% to 1.19%).

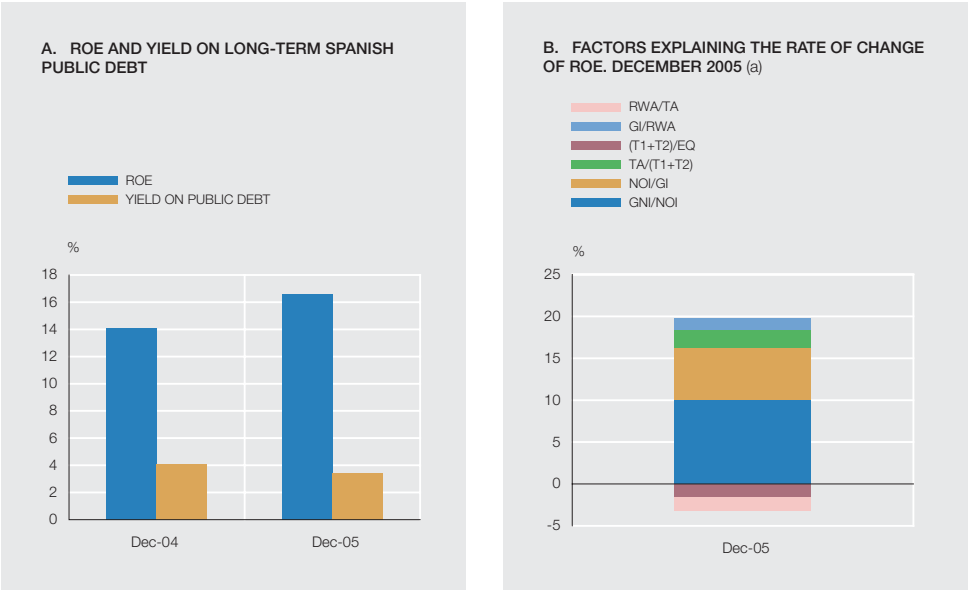
Net interest income grew by 17.7% in absolute terms, confirming the favourable trend observed in December 2004 following two years of negative rates of change. The dynamism of activity throughout 2005 largely helps explain this performance. Nonetheless, against a background of low interest rates and heightened competition in the sector, the total spread continues to narrow, which helps explain why net interest income as a proportion of ATA should have fallen again (by 24 bp to 1.78%).

Among the net interest income components, it can be seen that both financial revenue and financial costs increased, in absolute and relative terms, though they did so more sharply in the case of costs. Financial revenue grew by 38.5%, which in terms of ATA entailed a 14 bp increase. This was the case in all its components, but particularly so – and reflecting the high pace of activity observed – in financial revenue arising from credit to customers which, as discussed in Chapter 1, continued to quicken in 2005. Financial costs climbed more sharply, by 60.9%, which in terms of ATA meant growth of 39 bp. The main determinants of this increase in financial costs were the return on customer deposits and on marketable securities and subordinated debt.

The favourable economic situation in 2005, which made for an increase in the results of non-financial corporations, and of insurance companies, was reflected in the increase in the *profit of entities accounted for using the equity method.* At 48.1%, the resulting growth was sharper than that observed for ATA, meaning that profit in relative terms grew by 2 bp, to 0.17%. Under this heading, associates were particularly dynamic (the share in their profit grew by 60.5%), as were group entities (growth of 40.9%).

ROE AND ITS DETERMINANTS CHART II.1

Deposit institutions



SOURCE: Banco de España

a. (T1+T2)/EQ= (tier 1+tier 2)/equity; TA/(T1+T2)=total assets/(tier 1+tier 2); RWA/TA=risk-weighted assets/total assets; GI/RWA=gross income/risk-weighted assets; NOI/GI=net operating income/gross income; GNI/NOI=group net income/net operating income.

Net *commissions* grew by 19.6%. The growth of commission income was observable in all its components, which posted increases of over 10%. Commissions associated with the marketing of non-bank products and securities services were particularly dynamic (21.4%). Considering their relative weight in total commission income, it can be seen that the biggest contribution to growth was, precisely, by these commissions (see Chart II.2A). This is related to the sound stock market performance in 2005, and to the buoyancy of insurance-product and, especially, investment-fund sales. Commissions for collection and payment services (which grew by 14.2%) were second in significance in terms of their contribution to total revenue, which was attributable to the growth of economic activity in 2005. In any event, and despite their growth in absolute terms, net commissions as a proportion of ATA declined by 10 bp to 0.82%.

Gains and losses on financial assets and liabilities were also substantially buoyant, growing in absolute terms by 63.4%. That entailed an increase of 5 bp in terms of ATA (to 0.26%), against a background in which the financial markets generally performed very favourably. The performance of this item is essentially due to three of its components (Chart II.2B). Firstly, the gains on available-for-sale financial assets, the relative weight of which in the total is high, grew by 45.7%, which shows that the institutions derecognised a portion of the assets classified as such in the balance sheet during 2005, posting gains[10]. Secondly, the results on the other financial transactions, despite being negative, were of a lesser amount in December 2005, which accounts for the contribution to growth of this item. Finally, the third element, in terms of contribution to growth, comprised the results on the held-for-trading portfolio, the growth of which stood at 23.8%.

10. Changes in the fair value of available-for-sale financial assets are recorded under equity, in valuation adjustments. They are only recorded in the income statement when they are derecognised from the balance sheet or are impaired.

STATEMENT OF CHANGES IN EQUITY

BOX II.1

In keeping with International Accounting Standards, Circular 4/2004 included the statement of changes in equity as a component of credit institutions' annual accounts along with the balance sheet, the income statement, the cash flow statement and the annual report. This statement shows the change in equity, distinguishing between those elements recognised as profit or loss for the year (through the income statement) and those directly recognised in equity.

The profit or loss recognised directly in equity is broken down into the six categories into which the equity valuation adjustments item is divided. For each of these a distinction is made between changes due to changes in value, those transferred to profit or loss for the year, the tax effect and possible reclassifications. Further, if the institution had during the year made adjustments for errors or for changes in accounting policies affecting comparative periods on which the institution is reporting, understanding of these effects is provided for through inclusion in the memorandum item of how such adjustments have affected equity and, where appropriate, the profit or loss for the years included in the statement which had been reported on in previous periods.

One substantial aspect of the statement of changes in equity is that it shows the overall profit or loss for the period to which it refers. Even if the income statement continues to represent the most relevant part of the overall profit or loss for the period (and on the basis of which taxes are settled and dividends distributed), it should not be forgotten that under the new accounting arrangements equity is conceived as residual assets, i.e. the portion of assets remaining once all liabilities have been deducted. Accordingly, the explanation of the change in this residual during a period (excluding operations with shareholders) responds, on one hand, to the profit or loss for the period (profit or loss realised) and, on the other, to the effect of the changes in value of specific items that are not recognised as realised.

The draft reform of the Spanish Commercial Code and Companies Act, which seeks to harmonise mercantile and corporate regulations with those of the European Union, includes this statement; consequently, its widespread application in the coming years is ensured. The past undoubtedly has a notable influence on public reporting practices, whereby it is natural that the income statement has so far remained the most used management benchmark, not only in the specialist media but also by the very institutions preparing the financial information.

However, the statement of changes in equity complements the information in the income statement, allowing a more effective analysis since it incorporates profit or loss in its broadest sense (overall profit or loss) and thereby provides better for comparisons not only between institutions but also between prior periods at the same institution.

The data available for December 2005 for Spanish deposit institutions presenting consolidated data indicate that, of the overall profit or loss, 75.6% stems from the consolidated profit or loss for the year, while the remaining 24.4% is attributable to changes in the value of specific items that cannot be recognised as realised (Chart A).

Thus, although the income statement remains the most relevant part of the profit or loss for the year, changes in value directly recorded in equity are not negligible. If a distinction is made between banks and savings banks, it can be seen how, for the latter, the relative weight of net revenue recognised directly in overall profit or loss is higher (35.4%, compared with 17.7% for banks), though still some distance off the contribution of the income statement,

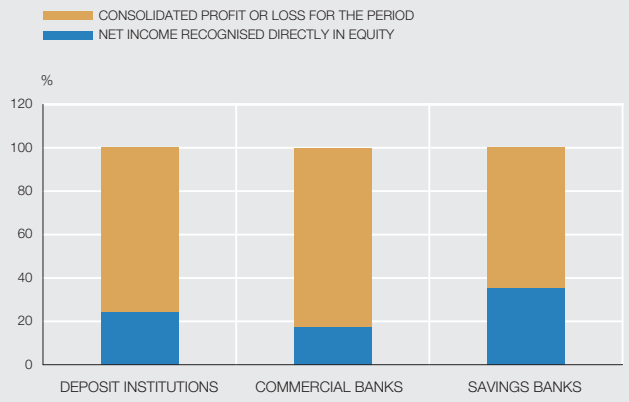
Distinguishing among the six categories into which, as stated, the equity valuation adjustments item is divided, most noteworthy for deposit institutions as a whole are the changes in value in available-for-sale financial assets and in exchange differences. Conversely, there have been negative changes in the fair value of hedges of net investment in a foreign operation (Chart B).

If a distinction is made between banks and savings banks, it can be seen that, for savings banks, virtually all profit or loss recognised directly in equity arises from available-for-sale financial assets, while for banks, exchange differences and hedges of net investment in a foreign operation are also relevant (Chart B). The greater weight of international business in the major banking groups explains the foregoing.

As regards the significance for savings banks of available-for-sale financial assets, it should be recalled that, with the application of CBE 4/2004, certain institutions have reclassified their associates as available-for-sale financial assets. Although this has not been exclusive to savings banks, they do appear to have done this on a greater scale than banks.

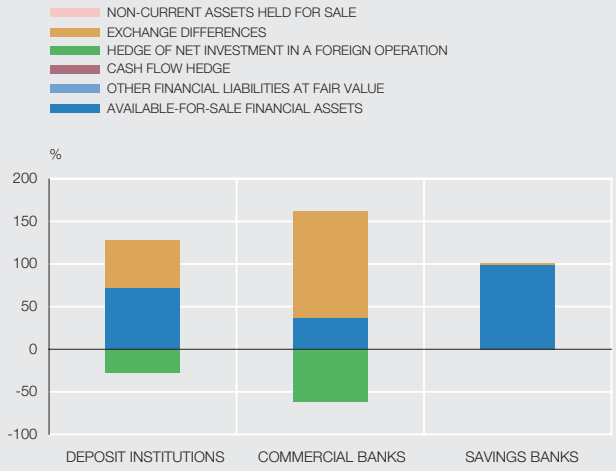
RELATIVE WEIGHT IN OVERALL PROFIT OR LOSS

CHART A



CONTRIBUTION OF COMPONENTS TO NET INCOME RECOGNISED DIRECTLY IN EQUITY

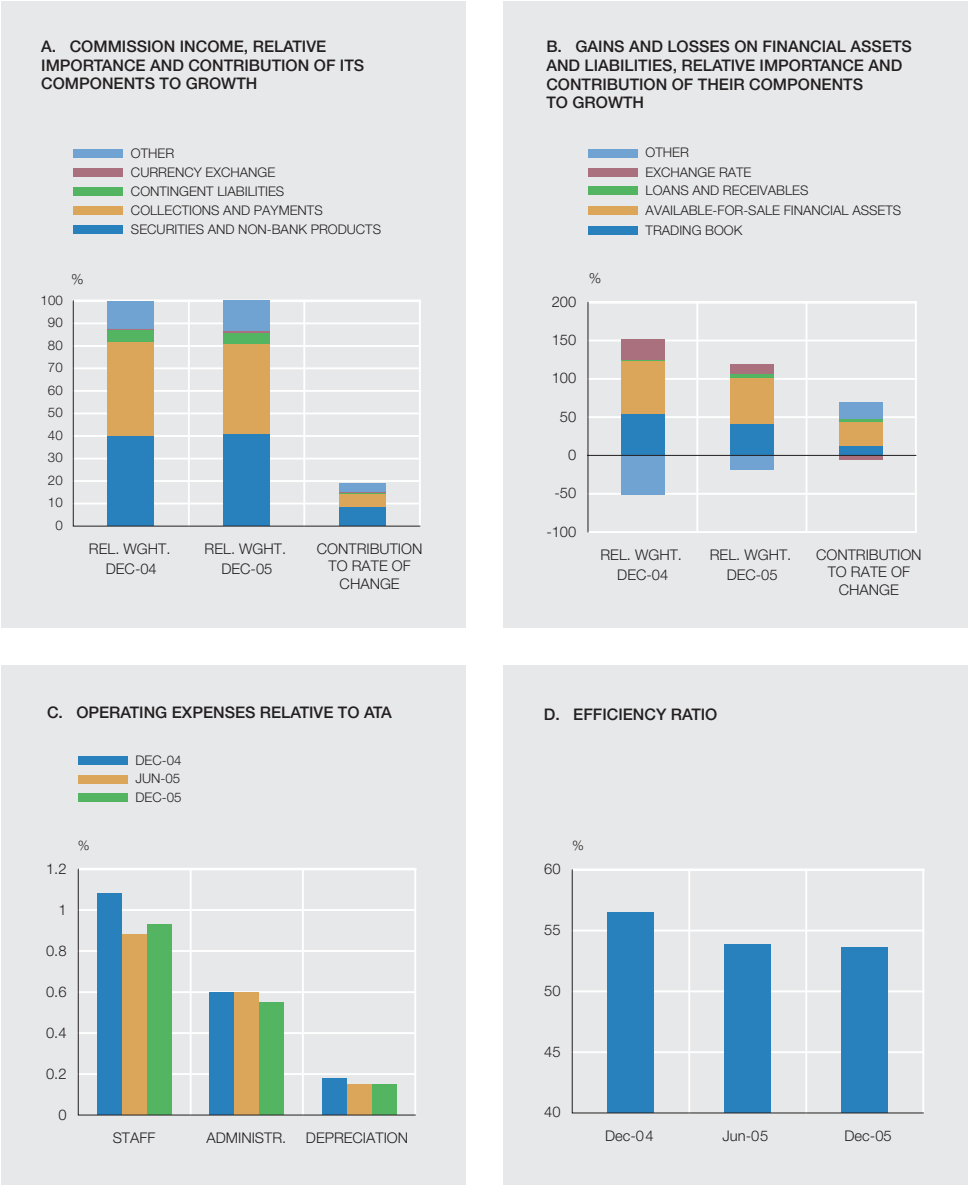
CHART B



COMMISSION INCOME, GAINS AND LOSSES ON FINANCIAL ASSETS AND LIABILITIES, EFFICIENCY RATIO AND OPERATING EXPENSES

CHART II.2

Deposit institutions



SOURCE: Banco de España.

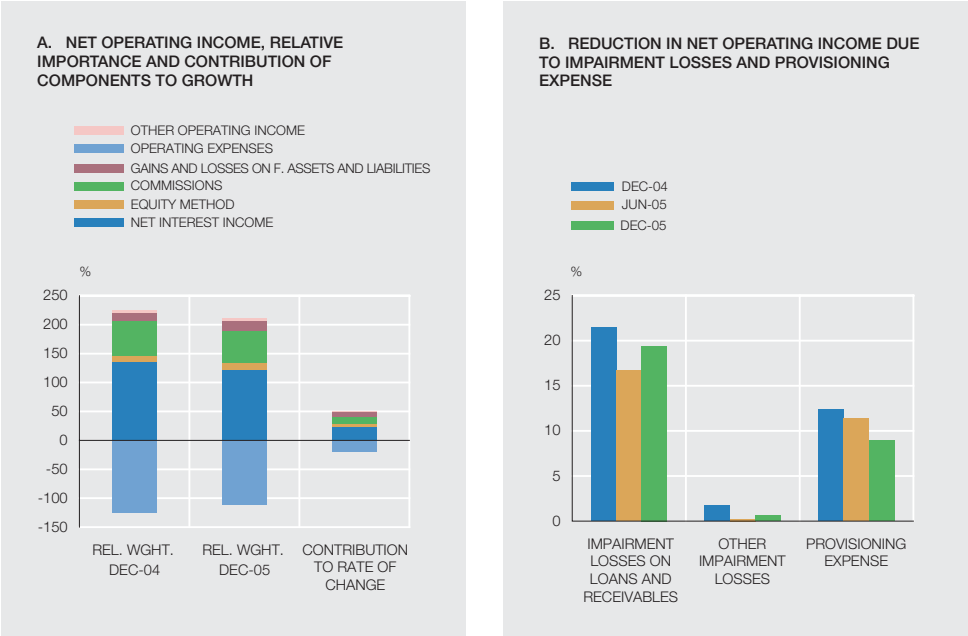
The favourable growth rates recorded by net interest income and commissions, and more markedly so by the results of institutions valued by the equity method and, especially, by the results on financial transactions, explain why *gross income* increased significantly, posting a rate of change of 22.5%. The greater relative weight in gross income of net interest income and of commissions accounts for these two items being those that most contribute to its growth. Despite their dynamism, this was not as sharp as that recorded by ATA, which explains why in relative terms gross income should have fallen by 27 bp to 3.03%.

Operating expenses grew moderately (16.3%) in relation to activity. This showed that institutions' drive to contain the growth of their operating costs was again a constant in 2005. In terms of ATA, operating expenses fell by 24 bp to 1.62%. This behaviour (Chart II.2.C) was extensive to all its components but was particularly marked in personnel expenses. As a result of the containment of operating expenses and due to the dynamism of gross income, the ef-

NET OPERATING INCOME, IMPAIRMENT LOSSES AND ALLOWANCES/PROVISIONS

CHART II.3

Deposit institutions



SOURCE: Banco de España.

ficiency ratio improved, moving from 56.5% in December 2004 to 53.6% in the same month of 2005 (Chart II.2D).

Other operating income also performed favourably and increased by 35.9%, although it held stable (0.06%) in terms of ATA. This result was due to the lower charges recorded, and to the increase in revenue. The foregoing is partly related to the inclusion in this item of the commissions charged at the time the financing is granted and which should not be allocated over the life of the loan since they are considered, under the provisions of CBE 4/2004, to offset costs that would not have been incurred had the transaction not been agreed to. Insofar as the financing extended is growing at a high rate, this has a bearing on the increase in this income.

The moderate growth of operating expenses explains why *net operating income,* which grew by 30.7%, should have held virtually stable in terms of ATA, declining by 3 bp to 1.46% (Chart II.3A).

Asset impairment losses grew by 12.8%, entailing a decline in terms of ATA of 5 bp to 0.29%. These figures may be attributed virtually in full to the impairment losses relating to lending activity[11], which grew by 18.2% and whose relative weight in the total for this item stood, in December 2005, at 97%. In any event, impairment losses subtracted 20% from net operating income, compared with 23.2% in December 2004 (Chart II.3B).

Provisioning expense also subtracted a lesser proportion from net operating income (Chart II.3B) in December 2005 (9.5%) than in the same period the previous year (11.6%). Indeed, its growth fell in absolute terms (6.6%), meaning that in relation to ATA it has fallen by 3 bp to 0.14%. This behaviour was attributable to the reduction (of 32.6%) seen in provisioning to pen-

11. Though there is no complete equivalence, asset impairment losses under the new accounting framework are associated with the former provisions for insolvency and country risk.

DISTRIBUTION ACCORDING TO ROE AND EFFICIENCY RATIO TABLE II. 2

Deposit institutions

ROE BRACKETS	DEC-05 % ATA	DEC-05 NO. INST.
<0	0.2	3
0-5	1.0	25
5-10	9.3	82
10-15	21.9	44
15-20	42.4	11
>20	25.1	6

EFFICIENCY RATIO BRACKETS	DEC-05 % ATA	DEC-05 NO. INST.
>100	0.4	7
90-100	0.0	2
80-90	2.0	8
70-80	1.5	30
60-70	7.0	50
50-60	62.9	48
40-50	22.5	20
<40	3.7	6

FUENTE: Banco de España.

sion funds and similar obligations, which offset the growth seen in the other components of provisioning

Other income contributed positively to the increase in results since it grew by 74.7%, accounting for 0.16% of ATA (3 bp more than in December 2004). This was the outcome, on one hand, of lower losses, which fell by 16.6%. Further, other gains were greater in December 2005, having grown by 38.7%. The increase in other gains was largely affected by the decisions of certain large institutions which, during 2005, sold holdings, these being offset only in part by the lesser contribution of sales from the held-to-maturity portfolio.

In sum, the strong pace of growth of both income for the year and of the different margins of the income statement was confirmed and indeed increased in 2005. This performance, which translated into a fresh rise in the return on equity, was due to the increase in activity in Spain and in business abroad, to the cost-containment drive and to the moderate increase in requirements relating to asset impairment and provisioning adjustments.

II.2 Analysis based on individual institutions

In 2005 only three institutions, with a very small relative weight in deposit institutions' overall banking business, showed a negative return (Table II.2A). Conversely, 51 institutions with a market share of close to 90% had a double-figures *ROE.* The distribution of institutions according to their ROE shifted to the right, which shows that the improvement in profitability was not a specific development at a limited number of institutions (Chart II.4A). However, the shift to the right in the distribution of ATA according to the ROE is more marked (Chart II.4A). That highlights the fact that the improvement in profitability seen during 2005 was more perceptible for the biggest institutions. In particular, a return of over 20% was observed for one large deposit institution.

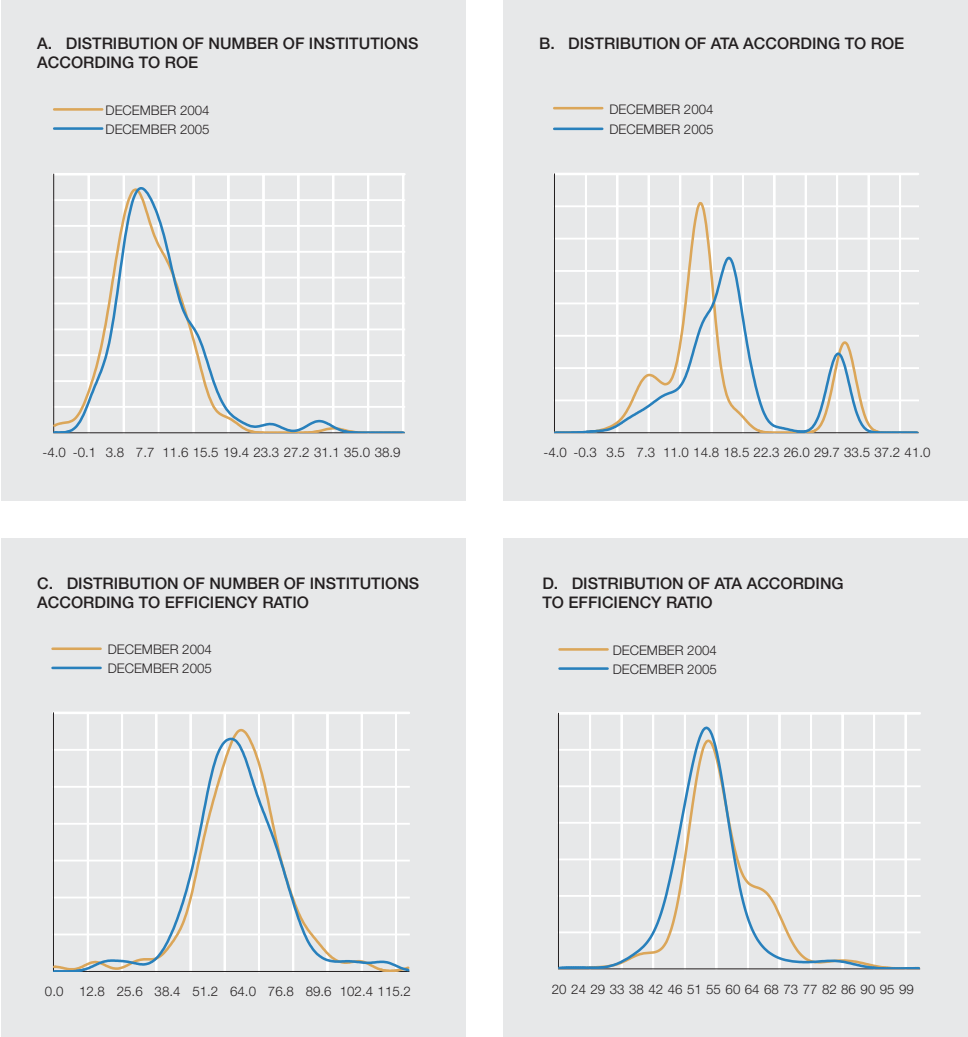
The distribution of both the number of institutions and of ATA according to the *efficiency ratio* (Charts II.4C and D) shifted to the left, i.e. to lower levels of the ratio. That means that the improvement seen in the operating efficiency of Spanish institutions was, in 2005, a generalised phenomenon, not one affecting only the biggest banks. Nonetheless, the biggest entities are in the brackets denoting better efficiency (Table II.2B). Thus, 88% of the system's total assets, accounted for by 43% of the institutions considered, are with a ratio below 60%.

COMPARISON WITH EUROPEAN BANKS

The previous FSR highlighted the notable position of Spanish institutions in relation to the European sector as a whole. In terms both of the efficiency ratio and of profitability (ROE), Spanish credit institutions in 2004 occupied the leading positions among European banks of

DISTRIBUTION OF ROE AND OF EFFICIENCY RATIO (a) CHART II.4

Deposit institutions



SOURCE: Banco de España.

a. The x-axis plots the ROE (Charts A and B) and the efficiency ratio (Charts C and D) while the y-axis shows the frequency of institutions in terms of number or average total assets (ATA).

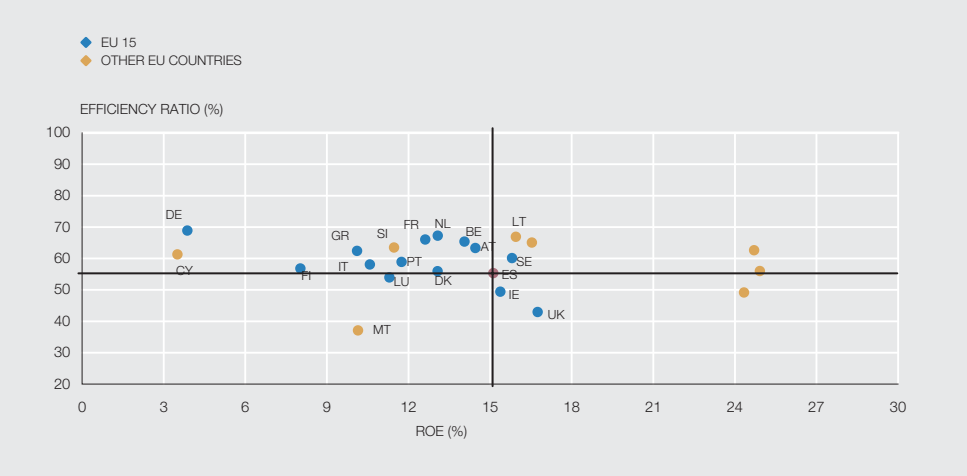
what was then the EU-15 (Chart II.5)[12]. The Spanish economic situation, which is more favourable than that in Europe on average, partly explains the foregoing results. However, the relative position of Spanish institutions varies according to size[13].

The *large institutions* are the best-positioned group in terms of profitability and of efficiency. Net interest income and net operating income exceed the average level of euro area institutions by somewhat more than 70% (Chart II.6A), while this percentage falls to approximately 45% if the group of comparison is the EU-25 (Chart II.6B). Since commissions only exceed the euro area average by 50%, the bigger differential in net operating income must be sought in

12. Box II.2 analyses in greater detail the relative position of Spanish credit institutions in relation to the 25 European Union countries. This is the first time that the European System of Central Banks (ESCB) has published country-by-country information on a set of business, profitability and solvency indicators for credit institutions of the enlarged European Union. The information was compiled via the BSC (the Banking Supervision Committee of the ESCB, made up of representatives from the central banks and supervisory agencies, if not one and the same, of the 25 EU Member States) and was published by the ECB as part of EU *Banking Sector Stability* in October 2005. **13.** An institution is considered large if its assets exceed 0.5% of the total consolidated banking assets in the EU; medium-sized if its assets are between 0.5% and 0.005%; and small if they are less than 0.005%.

COMPARISON WITH EUROPEAN BANKS CHART II.5

Credit institutions. 2004



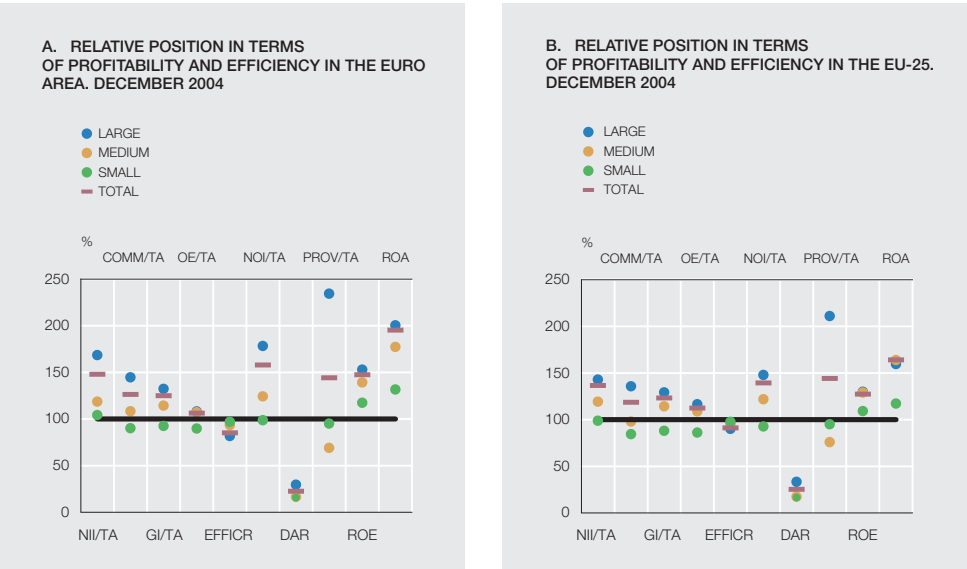
SOURCES: BCE and Banco de España.

greater efficiency, despite the fact that operating expenses as a percentage of total assets are similar to the average (even higher if the comparison is with the large institutions of the 25 EU Member States).

One differentiating feature of large Spanish institutions is their low doubtful assets ratio, the result in part of the favourable course of the business cycle in Spain and the improvement in recent years in Latin America. Despite fewer doubtful assets, provisioning is significantly higher, owing to the write-downs made following the expansion of these institutions in Latin America and, also, to the prudential allowances associated with the statistical provision, which was still in force in 2004. The return on equity (ROE) stands at 50% above the euro area average,

COMPARISON WITH EUROPEAN BANKS CHART II.6

Credit institutions (a). 2004



SOURCES: BCE and Banco de España.

a. Figures are with respect to averages weighted by size group in the EU-12 and the EU-25, normalised to 100.

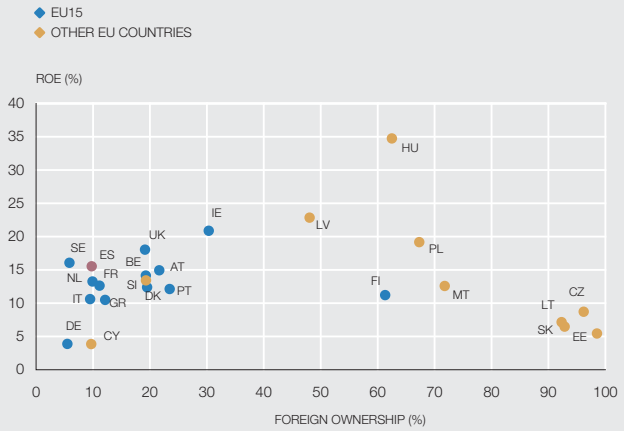
THE RELATIVE POSITION OF SPANISH BANKS FOLLOWING EU ENLARGEMENT[1]

BOX II.2

OWNERSHIP STRUCTURE AND PROFITABILITY

CHART A

Credit institutions (2004)

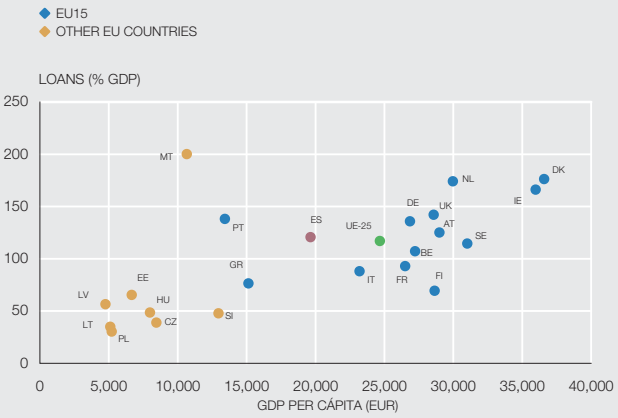


SOURCE: BSC.

ECONOMIC AND FINANCIAL DEVELOPMENT (a)

CHART B

Credit institutions (2004)



SOURCE: BSC.

a. The loans variable (% GDP) omits loans extended to finance other credit institutions.

Analysis of Community banking systems reveals high disparity in the ownership structure of bank assets. On one side, the countries of the former EU-15 are marked by a scant presence of foreign institutions. In Spain's case, scarcely one-tenth of credit institutions' volume of total assets is in the hands of banks domiciled abroad. At the other extreme, foreign banks have a most significant presence in the new Member States.

To date, empirical evidence has pointed to a positive relationship between foreign ownership and banking profitability (Chart A). This pattern continues to prevail for the EU-15 countries. However, the data for the other countries reveal a drastic change in pattern. A foreign presence is, up to a certain threshold, associated with growing levels of profitability in terms of ROE. Yet in the countries where this threshold is exceeded, essentially in those that have recently joined, the profitability recorded by domestic institutions diminishes with the increase in assets controlled by foreign entities. The only exceptions are Cyprus and Slovenia, two new Member States that show low foreign-bank penetration, and Finland, where 60% of credit institutions' assets belong to foreign groups.

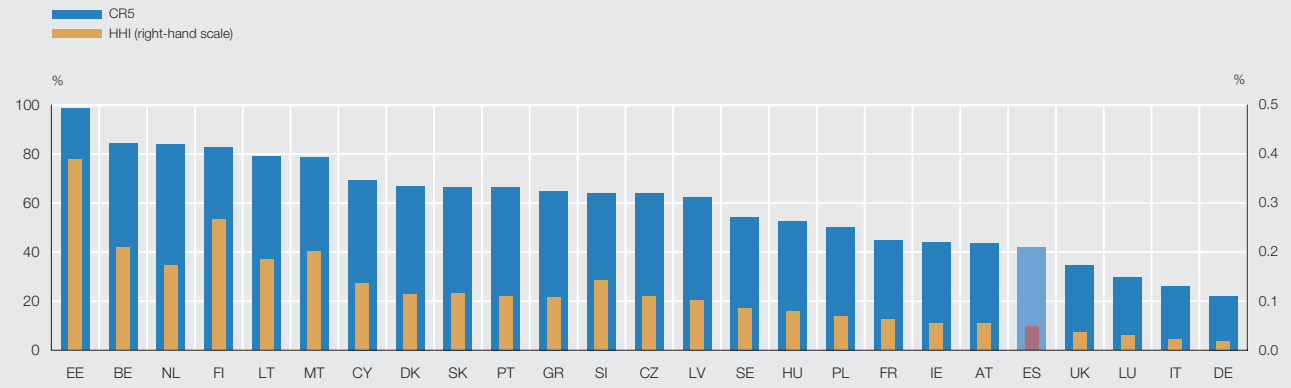
With regard to the relationship between bank credit (as a proportion of GDP) and per capita income (Chart B), a clearly positive correlation can be seen for the group of countries under analysis. The scale of the volume of loans extended by credit institutions provides an approximate measure of the prevalence of banks in each country.

1. A more detailed analysis of the content of this Box can be seen in the paper by L. Gutiérrez de Rozas entitled "La posición relativa de la banca española en el contexto europeo", Estabilidad Financiera, no. 10, May 2006.

EUROPEAN BANKING INDUSTRY CONCENTRATION

CHART C

Credit institutions (2004)



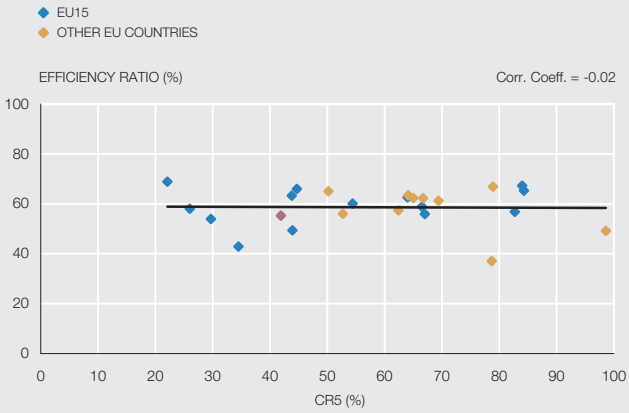
SOURCE: ECB.

CORRELATION BETWEEN PROFITABILITY AND CONCENTRATION CHART D

Credit institutions (2004)

CORRELATION BETWEEN EFFICIENCY AND CONCENTRATION CHART E

Credit institutions (2004)



SOURCES: BCE and BSC.

In this respect, Spain is in what may be considered a central position given its proximity to the Community aggregate.

There is significant dispersion between countries concerning the concentration of banking activity (Chart C), whether this is measured by the market share of the five leading institutions (CR5) or by the Herfindahl-Hirschman index (sum of the squares of the market shares of all the institutions). Generally, the biggest countries of the former EU-15 show lower banking concentration, while the new members and the small EU-15 countries show rather higher levels. Germany, for example, has a fairly fragmented banking system, with a very high number of small, local institutions (savings banks and credit co-operatives).

Note that, although Spain's per capita income is lower than the Community average, the prevalence of banks is greater than in countries such as France and Italy. In eight of the ten new EU Member States for which data are available, the levels of per capita income and of credit are appreciably lower than those in the economies making up the former EU-15. This comparison highlights the growing diversity of EU banking systems and their different growth potential in each banking business segment.

The relationship between concentration and profitability (measured by the CR5 and the ROE, respectively) is weak (Chart D), particularly among the countries of the former EU-15. The correlation coefficient between both variables is 0.18 for the EU as a whole and only 0.10 for the EU-15.

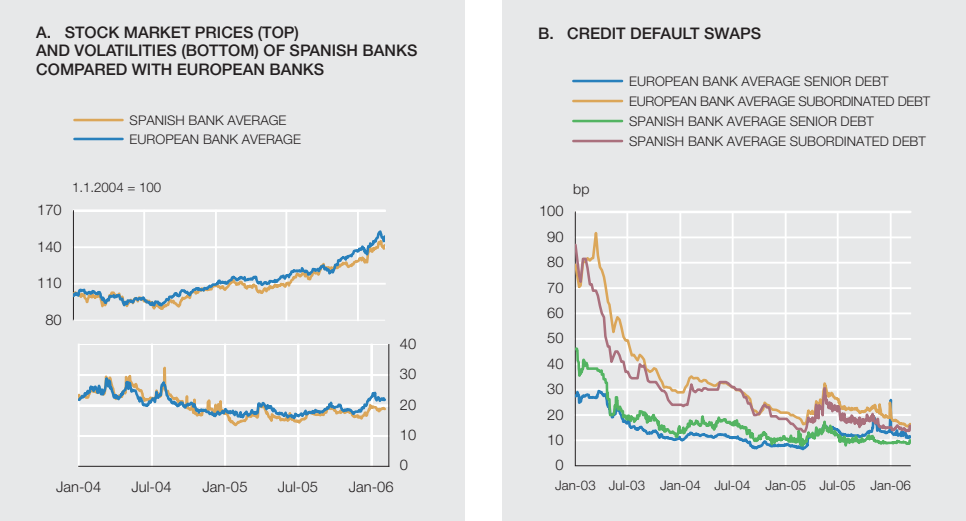
Neither of these two values is statistically significant. And nor is there any significant association between concentration (CR5) and the efficiency ratio (Chart E), although at the level of the former EU-15 there is a somewhat closer relationship between both variables (correlation coefficient of 0.26). There is actually evidence of a positive, though not significant, relationship between concentration in the banking systems of the former EU-15 countries and their financial resilience[2]. For the EU as a whole, this relationship disappears.

2. Moody's compiles a financial resilience indicator based on the credit ratings of the credit institutions operating in these countries.

and doubles it in terms of the return on assets (ROA). Compared with the 25 Community countries, profitability remains clearly higher, although the surplus is lower.

Medium-sized institutions show a favourable position in almost all the variables considered, although the distance from the average is much less than at large institutions. As in the latter, bigger margins and fewer doubtful assets combined with greater operating efficiency (a lower efficiency ratio value) help bring about ROE and ROA figures of 35% and 60%, respectively, above the average for the two groups of comparison.

Small institutions, for their part, show a position very close to the average of both the euro area countries and the 25 Community members as a whole. However, some variables (margins, commissions and expenses) are below the average. Once again, the figure for doubtful assets is very low while provisioning is around the average. Despite the foregoing, the ROE attained



SOURCES: Banco de España, Bloomberg and DataStream.

by Spanish credit institutions belonging to this size group is higher than the euro area average by around 20% and exceeds the EU-25 figure by around 10%, the difference being even greater in terms of the ROA.

The *market information* available for Spanish financial institutions reveals patterns of behaviour similar to those for other European banks. The upward trajectory of the *stock market prices* of the main Spanish banks, which began in September 2004, has continued its course to date. Nor have foreign institutions been excluded from this process. In parallel, the implied volatilities of the banks under analysis remained relatively low and stable in both the Spanish and European cases (Chart II.7A).

Throughout 2006 Q1, the *Credit Default Swaps* (CDS) markets continued to show the same stability as in the second half of the previous year. This type of credit derivative is a valuable indicator of the probability of default of the underlying assets (in this case the senior or subordinated debt of credit institutions). In this respect, Spanish institutions show very low risk premiums, in step with other European institutions, which also exhibit the lowest levels of recent years (Chart II.7B). The risk premium is greater, as is natural, on *subordinated* debt than on *senior* debt at both groups of institutions. During 2006 both premiums have been slightly lower for Spanish institutions than for their European counterparts.

In recent months there has been something of a rise in the *betas*[14] calculated for the major Spanish banks to around 1.3. This tendency, which entails a return to the levels recorded in 2002, has also been manifest in the main European banks. Indeed, Spanish institutions maintain an intermediate-high position among the main European banks.

In terms of *PERs,* the major Spanish banking groups continue to evidence the highest ratios of the European Union, being exceeded only by the main Italian financial institutions. In most countries this indicator, which highlights the connection between price and earnings, has increased notably. That reinforces the perception of an improvement in the short term of banking business expectations, in line with the improvement in the European economic setting and the current favourable conjuncture of financial markets.

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14. Obtained from the CAPM (Capital Asset Pricing Model).

III Solvency

III.1 General situation

The marked stability of the solvency ratio reported by Spanish deposit institutions in 2005 enabled them to continue exceeding the regulatory minimum requirements by a wide margin. This performance was set against a background marked by deceleration in the solvency ratio components, following the impact made by the major acquisition in 2004 of a foreign institution.

The *total solvency ratio* remained around 11% after a very slight decline (14 bp). A similar movement was seen in the solvency ratio under *Basel rules,* which stands at a higher level (12.1%) owing to the greater stringency of the Spanish rules, but whose behaviour confirmed a progressive mild decline, it having decreased by 20 bp (90 bp in the last five years). Meanwhile the *tier 1 ratio* broke out of its downtrend and held at 7.9%, just 3 bp below its 2004 level (Chart III.1A)[1].

The strong performance of Spanish deposit institutions in 2005 resulted in higher capital requirements. They increased by nearly 21% but, even so, slowed by 2.8 pp with respect to 2004, a year marked by higher capital requirements derived from the aforementioned acquisition (Chart III.2A)[2]. Capital decelerated by somewhat more (3.2 pp), although its growth of 19.4% allowed the decline in the solvency ratio to be very moderate.

The behaviour of *capital* reflected the pick-up in tier 1 capital (3.1 pp on growth of 20.5%) and the growth of tier 2 capital, which increased by 19.7%, down 11.1 pp on 2004 (Chart III.1B).

Tier 1 capital was the only item that accelerated in 2005, driven by the good earnings performance of institutions. Nevertheless, the rate of change of reserves, which are its main component, decreased by nearly 11 pp (to 14.5%), while capital decelerated by 5.2 pp (from 10.3%). In addition, the entry into force of Banco de España Circular CBE 4/2004 meant that numerous investments in associates were reclassified as available for sale. The consequence of this was twofold. On the one hand, both reserves and losses of consolidated companies decreased sharply, these two effects counteracting each other and making a scant total net contribution. On the other, the new accounting framework is also largely responsible for the decrease of 30.6% in goodwill, since in the first-time application of CBE 4/2004 some institutions derecognised a part of their goodwill with a charge to reserves, with the subsequent impact on tier 1 capital (Chart III.1C).

The behaviour of *tier 2 capital,* traditionally dominated by subordinated financing, was, in 2005, explained in equal measure by the effect of asset revaluation reserves. Subordinated financing decelerated slightly more than 22 pp and, although it still grew at a rate of 10.6%, it lost weight within tier 2 capital to revaluation reserves, since in December 2005 it accounted for 87.4% of the total, down 7.1 pp on 2004. CBE 4/2004 permits, in its first-time application and under certain conditions, the measurement of tangible assets at fair value. Certain institutions, particularly savings banks, have used this option and, accordingly, their revaluation reserves have increased (Chart III.1D).

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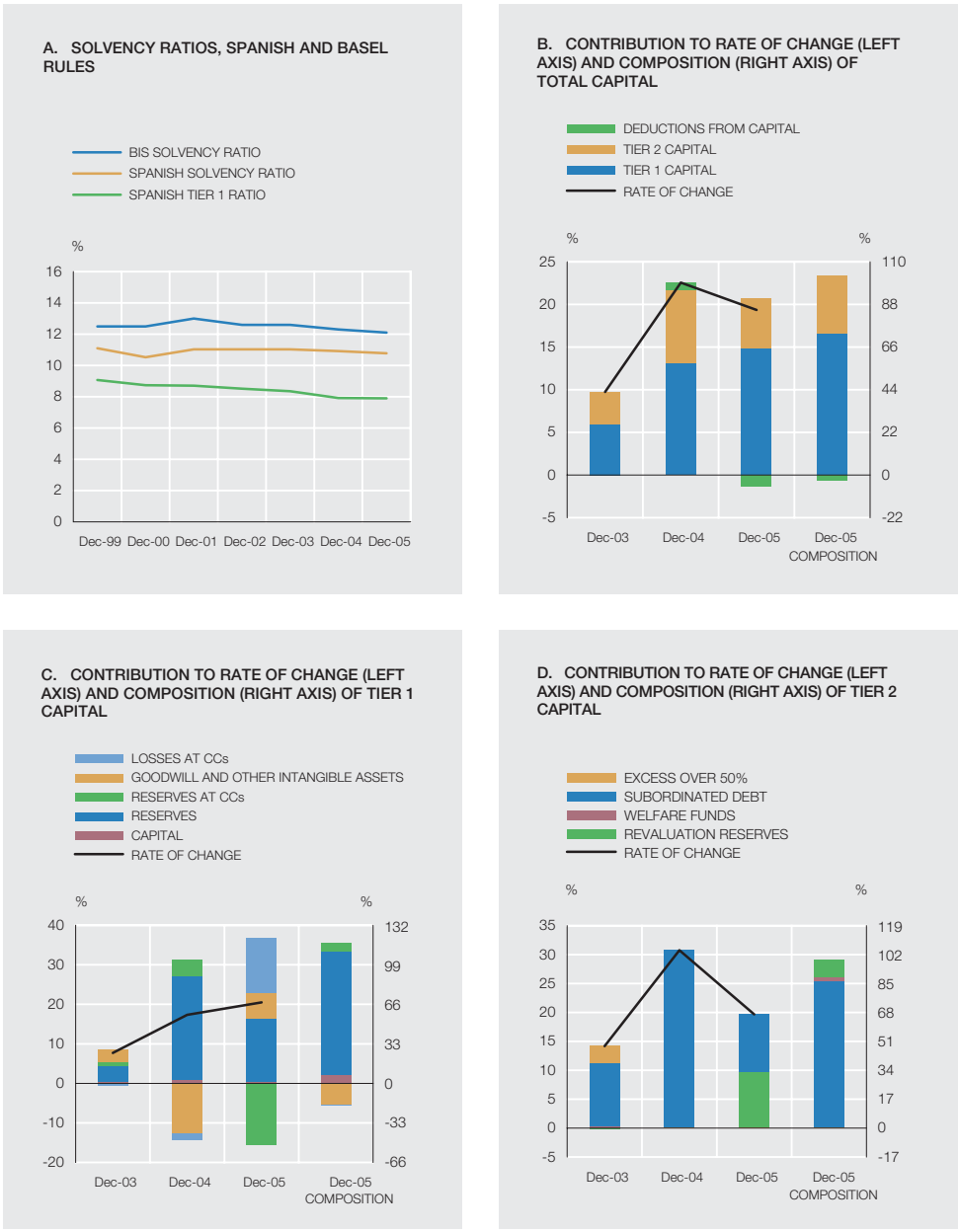
1. The 2004 and 2005 data now reflect the eligibility as capital of certain hybrid instruments contributed by the foreign institution acquired in 2004. This eligibility was under examination at the date of preparation of the last two FSRs and, therefore, had a (downward) effect on solvency ratios. **2.** This slowdown was after the major acquisition of a foreign institution in 2004, which was analysed in detail in the previous FSR.

SOLVENCY RATIOS AND CAPITAL

CHART III.1

Deposit institutions



SOURCE: Banco de España.

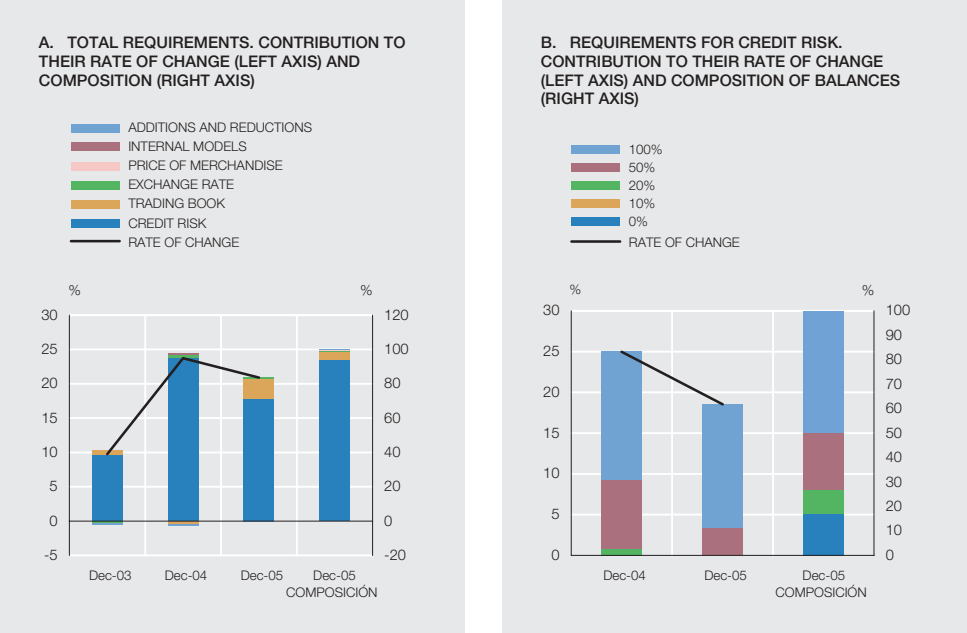
As noted in previous FSRs, the third component of the numerator of the solvency ratio, i.e. *deductions from capital,* did not play a determining role in the behaviour of capital because of its small amount, despite having grown by 62.7% (Chart III.1B)[3].

The strong growth of the Spanish economy and the good performance of the Latin American economies have boosted banking activity, giving rise to sustained growth of lending, particularly to the resident private sector. This in turn has meant greater *risk-weighted assets,* which grew by 20.9%, just 2.8 pp below the 2004 figure, a performance evidencing their vigour,

3. Royal Decree 1332/2005 effective December 2005 stipulates that holdings in insurance companies must form part of deductions from capital. This effect has been neutralised as far as possible in this FSR. Nor have unrealised gains on securities portfolios (together with the related balancing entry in the case of capital losses) and the general provision provided for in accounting regulations been recognised as capital, as this has yet to be specified in the new capital Circular amending CBE 5/1993, still in effect.

REQUIREMENTS CHART III.2

Deposit institutions



SOURCE: Banco de España.

since the comparison of 2004 with 2003 was significantly affected by the aforementioned acquisition of a foreign institution at end-2004.

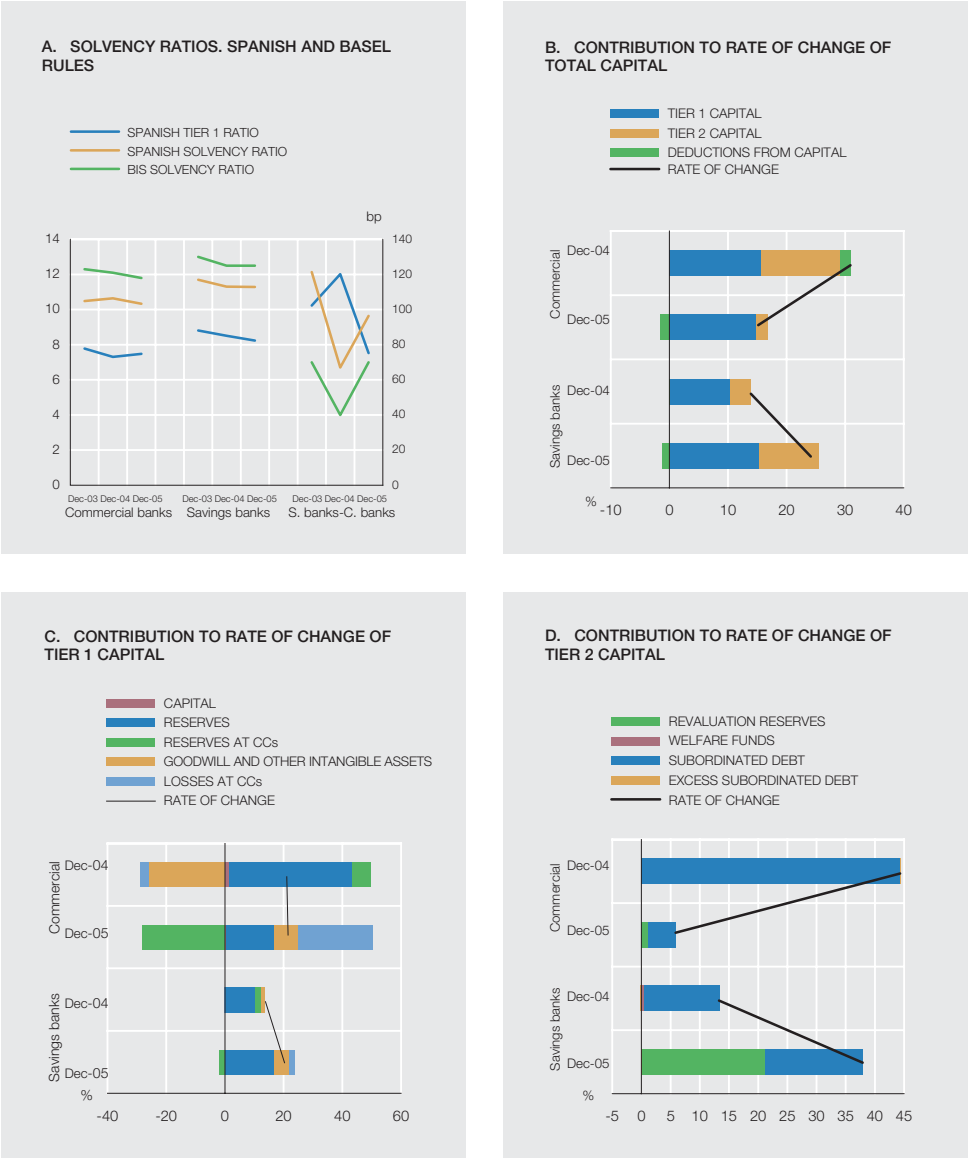
The requirements deriving from credit risk decreased by 6.4 pp from 25%. In December 2005 this type of requirements accounted for 94.2% of the total, after an increase in their weight of nearly 2 pp. The classification of exposures into homogenous risk groups which are assigned a weighting between 0% and 100% enables the risk profile of deposit institutions to be calculated. As at December 2004 their risk profile had decreased very slightly to 63.4%, just 16 bp below the previous level (Chart III.2B). Also, the group weighted at 50%, which consists mainly of residential mortgage loans, contributes less to the change in requirements because of its greater deceleration (from 56.6% to 17.6%), while that weighted at 100% showed practically unchanged growth (19.5%). Meanwhile, the requirements deriving from risk exposure to financial assets held for trading, which are the second most important type within the total (4.4%), increased considerably (120%) following the application of CBE 4/2004, which raised the number of instruments deemed to form part of this portfolio.

Disaggregated analysis distinguishing between commercial banks and savings banks shows certain differences between these two groups of institutions. Thus, while in commercial banks both the total solvency ratio and that under Basel rules decreased by 0.3 pp (to 10.3% and 11.8%, respectively), in savings banks both ratios remained unchanged (at 11.3% and 12.5%, respectively). However, the greatest difference is that the tier 1 ratio recouped 18 bp in commercial banks, while it lost around 30 pp in savings banks in line with the downward trend shown in recent years (Chart III.3A).

The performance of commercial banks' solvency ratios must be viewed against a background of slowdown in most of their determining factors. The significant increase in business and the effect of the appreciation of Latin American currencies against the euro gave rise to growth of 18.6% in requirements which, nevertheless, is below the figure of 29% in 2004 for the reason mentioned above (Chart III.4A). Simultaneously, the capital of commercial banks increased

SOLVENCY RATIOS AND CHANGE IN CAPITAL CHART III.3

Commercial banks and savings banks



SOURCE: Banco de España.

(15.2%), although this did not prevent it from decelerating by 16 bp (Chart III.3B). This decrease was due to a sharp deceleration in tier 2 capital, which went from a growth rate of 44.3% in 2004 to one of 5.8%, and to larger deductions, since tier 1 capital continued to make a positive contribution of around 21%.

The buoyancy of tier 1 capital is largely explained by the introduction of CBE 4/2004 which, as mentioned above, caused a highly significant change in the reserves and losses of consolidated companies, with a scant net contribution, and affected goodwill, which decreased by 25.3%. Moreover, the good results in 2005 (Chapter II) and their transfer to reserves meant that the latter grew by 13.3%, at the same time as preference shares declined by 7.5% (Chart III.3C). Finally, tier 2 capital slowed markedly due to the behaviour of subordinated financing, which accounted for 97.5% of tier 2 capital, while the revaluation of tangible assets barely had an impact (Chart III.3D).

Commercial banks maintained their strategy of growth in 2005, spurred by the heightened activity in line with favourable situation of the economies in which they operate. All this led to

REQUIREMENTS CHART III.4

Deposit institutions

SORUCE: Banco de España.

an increase in capital requirements (18.6%) which, however, represented a deceleration of 10 pp with respect to 2004. Contributing to this growth was the sharp acceleration in requirements for risk exposure to financial assets held for trading (148%), which doubled with respect to the total (6.6%) owing to the broader variety of instruments forming part of this portfolio. For their part, the requirements associated with credit risk were halved after having increased by 14.5% (Chart III.4A). Within the latter, the lower-weight exposures rose, while the higher-risk ones decelerated (those with a 50% weighting grew by 12.9%, while those with a 100% weighting were up by 16.1%, 90 pp and 5 pp less than in 2004, respectively). This gives rise to a lower risk profile, down 1.5 pp to 59% (Chart III.4B).

Savings banks performed differently from commercial banks, since they experienced an acceleration in both requirements and capital. The former grew by 6.5 pp more than in 2004 to 24.3%, while the rate of change of the latter was 10 pp higher than in the previous year (13.9%), driven both by tier 1 capital (20.3%) and by tier 2 capital (37.9%), despite the higher deductions (Chart III.3B).

Savings banks' tier 1 capital accelerated by more than 6 pp, mainly due to a combination of two factors. First, growing earnings made possible a further increase in reserves (up 16.7%, against 9.9% in 2004), which are the item with by far the largest weight (97%). Second, the smaller amount of goodwill, which diminished by 67.2%, caused a decrease in deductions, and this had a positive effect on the total contribution to the change in tier 1 capital (Chart III.3C). Tier 2 capital also accelerated (Chart III.3D), the rise of 24.6 pp being due to the higher volume of subordinated financing issued by savings banks (which grew by 19%, up 4.1 pp on 2004) and to the significant increase in revaluation reserves (422%).

Risk-weighted assets grew, driven by the good performance of business in Spain. This brought higher capital requirements, particularly those for credit risk, which accelerated from 18.1% to 23.9%. Within the latter, all groups accelerated except those weighted at 0%. Noteworthy for their growth were those weighted at 50% (23.8%) and at 100% (24%), which accelerated by

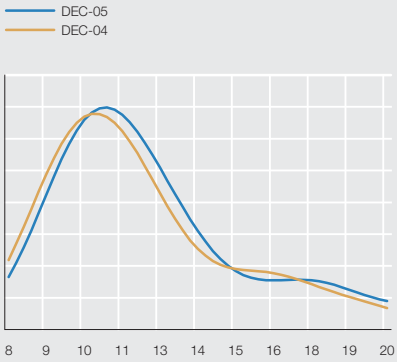
SOLVENCY RATIO DISTRIBUTION CHART III.5

Deposit institutions

A. DISTRIBUTION OF ATA AND OF NUMBER OF INSTITUTIONS ACCORDING TO SOLVENCY RATIO

SOLVENCY RATIO BRACKETS	DEC-04 % ATA	DEC-04 NO. OF INST.	DEC-05 % ATA	DEC-05 NO. OF INST.
<8	0.0	0	0.0	0
8-10	12.1	47	28.1	34
10-12	78.5	51	63.0	57
12-15	6.8	23	6.0	32
15-20	2.3	27	2.3	24
20-25	0.0	5	0.5	8
>25	0.2	17	0.1	16

B. DISTRIBUTION OF NUMBER OF INSTITUTIONS ACCORDING TO SOLVENCY RATIO (a)



SOURCE: Banco de España.

a. The x-axis shows the solvency ratio and the y-axis the frequency of the institutions.

around 5 pp, evidencing the strength of both mortgage and other lending to the private sector by savings banks. As a result, their risk profile increased to 69.2%, up 1.8 pp on 2004 and 10 pp above that of commercial banks (Chart III.4B).

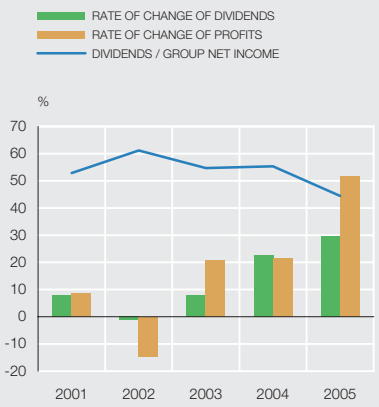
III.2 Analysis based on individual institutions

Analysis at individual level shows that the number of institutions that saw an increase in their total solvency ratio exceeded those reporting a decrease (Chart III.5A). Thus a large number of institutions (around 30%), of very small size, had a very high solvency ratio which exceeded 15%. The number of institutions with a solvency ratio in the lower band (between 8% and 10%) decreased, although their relative weight increased. The solvency ratio improved, as evidenced by the rightward shift in its distribution (Chart III.5B). The stability of the system's tier 1 capital ratio was made possible because certain large institutions improved their ratio, given that the

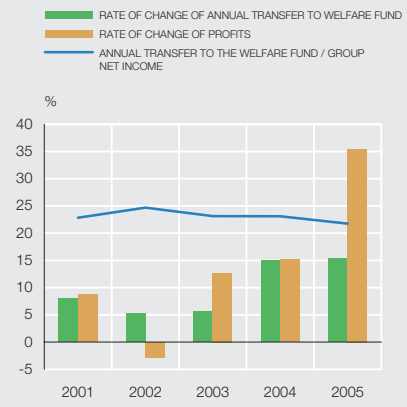
DIVIDENDS CHART III.6

Commercial banks and savings banks

A. PAY-OUT OF COMMERCIAL BANKS INCLUDED IN THE IBEX 35 AND RATE OF CHANGE OF COMPONENTS



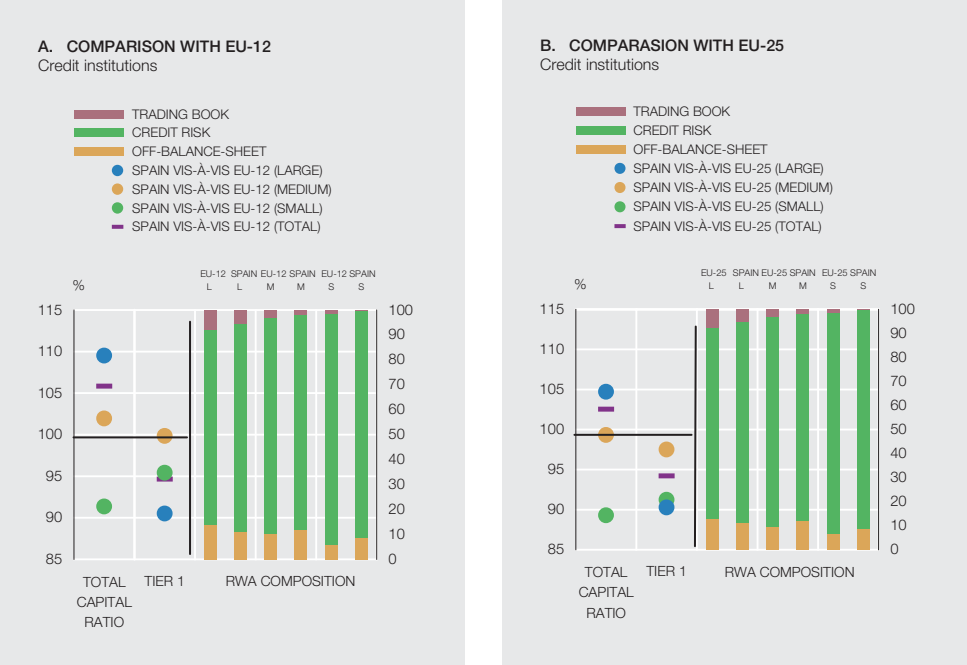
B. PAY-OUT SAVINGS BANKS AND RATE OF CHANGE OF COMPONENTS



SOURCE: Banco de España.

COMPARASION WITH EUROPEAN BANKS CHART III.7

Solvency ratio and RWA breakdown by size. 2004



SOURCE: Banco de España.

quality of the tier 1 ratio worsened for 69% of institutions, representing two-fifths of the system in terms of average total assets.

DIVIDENDS

As noted in Chapter II, 2005 saw a significant increase among Spanish deposit institutions in net profit attributed to the group. The dividend paid by large commercial banks grew by nearly 30%, while transfers to the welfare fund by savings banks also increased, albeit at lower rates (around 15%).

The net profit attributed to the group increased by substantially more than commercial banks' dividends and than transfers to the welfare fund by savings banks. This explains why in 2005 the pay-out ratio (the ratio of these two variables) decreased slightly for savings banks and more sharply for the large commercial banks (Chart III.6A and B).

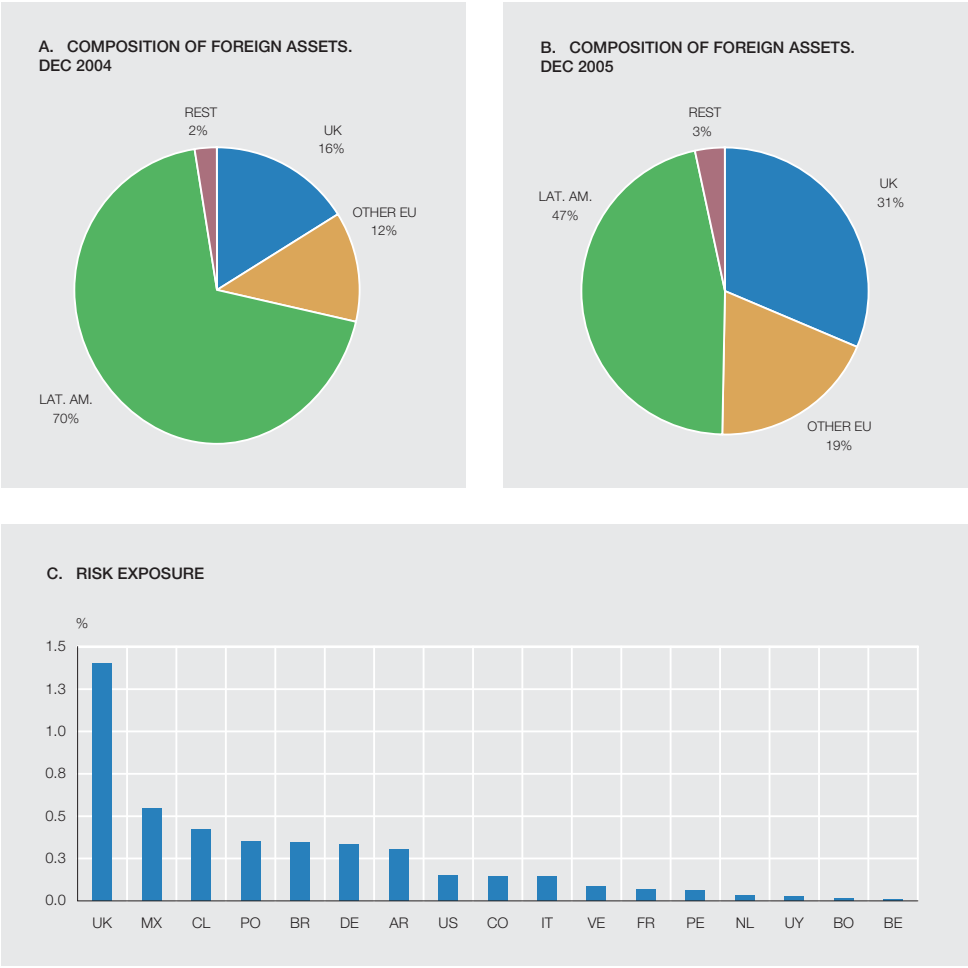
Apart from the development concerning the pay-out ratio, the aforementioned events illustrate two issues noted in previous FSRs. First, this ratio has a low sensitivity to the earnings performance of institutions. Second, the differing nature of these groups of institutions means that the pay-out level of savings banks is considerably less than that of commercial banks.

COMPARISON WITH EUROPEAN BANKS

As seen in the chapter on profitability, the relative position of Spanish credit institutions compared with their European counterparts varies with size of the institution. Thus, although the *total solvency ratio* for Spanish institutions as a whole was 6% higher than the EU average (Chart III.7.A), the larger institutions were in a better position (10% with respect to their European counterparts). Medium-sized institutions also played a part in increasing the aggregate difference because they were in a slightly better position than the reference group. By contrast, small institutions were somewhat below (8%) the European level. Comparisons with the EU-25 (Chart III.7B) show that the differences in favour of the first two groups of institutions decreased moderately and that the position of small banks worsened slightly (2 pp).

FOREIGN FINANCIAL ASSETS CHART III.8

Commercial banks and savings banks



SOURCE: Banco de España.

The conclusion that can be drawn regarding the *tier 1 ratio* is somewhat less favourable in both quantitative and qualitative terms, although the situation improved with respect to 2004. Only the medium-sized institutions are on a par with the European average. Large institutions have a tier 1 ratio around 10% lower, while the difference is somewhat less in small institutions. In any event, all Spanish institutions amply exceed the minimum capital requirements set in Basel I.

The breakdown of risk-weighted assets indicates, in the two cases under comparison, the growing role that credit extension, particularly to households for house purchases, plays in the activity of Spanish credit institutions. For the three groups of institutions analysed, credit risk continues to be between 80% and 90% of the total volume of risk-adjusted assets. Financial assets held for trading have an appreciably lower influence. Finally, off-balance sheet assets are slightly above the EU averages, except in large institutions where they are 20% and 13% lower than in the euro area and in the EU-25, respectively.

RISKS OF FOREIGN FINANCIAL ASSETS

The foreign financial assets of Spanish deposit institutions grew further in 2005. The country most favoured by this increase was the United States. Also, the financial assets of Spanish deposit institutions increased in Latin America (particularly in Mexico and Brazil), with Argentina being the only Latin American country to show a decrease in the volume of assets, albeit to a lesser extent. In the European Union, although the presence of Spanish banks declined in

CAPITAL BUFFER AND VARIATION IN CREDIT

BOX III.1

In June 2004 the Basel Committee on Banking Regulation (BCBS) published the new framework for capital requirements of credit institutions, better known as Basel II. Its entry into force is scheduled for next year, at least in its simpler approaches, and for 2008 in its more advanced approaches[1]. Since 1999, when work started on revising the 1988 Capital Accord (Basel I), the BCBS has maintained a fluid discussion with the banking industry, regulators and supervisors throughout the world, academics and other interested parties on the content of the new accord and on its potential impact. One of the points attracting most attention is the possible procyclicality of the new capital accord[2].

Put briefly, Basel II links capital requirements more tightly to the risk incurred by institutions. Most of the risk incurred by institutions is credit risk. This risk manifests itself to a greater extent in recession, when, as a result of economic slowdown, the cash flow of firms and the disposable income of households are weakened and the probability of default (PD) by bank borrowers and, ultimately, doubtful assets, increase significantly. Furthermore, in recessions credit institutions find it more difficult to strengthen their capital because their profits and, therefore, their capacity to build up reserves, diminish. At the same time, it becomes more difficult to carry out capital increases or to place subordinated debt issues because of the heightened uncertainty. The combination of increased capital requirements (due to increased risk) and the difficulty in raising new capital may lead institutions to opt for another response, that of reducing credit to firms and households, which would aggravate the recession or hinder economic recovery.

Procyclicality, and there is abundant evidence on this point, is inherent in the banking system. Hence the question is one of evaluating whether Basel II may, in relative terms, magnify the inherent dynamics of the sector. In this respect, it could be argued that greater procyclicality is generated not by tighter linking of capital to risks, but by poorly managed institutions with inadequate levels of capital and provisioning, which will consequently have to react abruptly to adverse events. It is these institutions that will have to suddenly change their lending policy when faced with certain scenarios[3].

The BCBS has taken into account the above arguments and the final accord provides a number of mechanisms to dampen considerably the potential procyclicality of the new accord. Among them may be mentioned the considerable reduction in the slope of capital requirements curves, the calculation of probability of default (PD) based on an extended time horizon, the performance of stress tests under Pillar 1 for a scenario of mild recession, the setting of minimum levels for losses in the event of default (LGD), the possible adjustments in Pillar 2, etc.

Even admitting the procyclicality of the new capital accord, it is not clear that it will have significant implications for the real economy via a reduction of credit. The behaviour of credit may depend on demand factors unrelated to the financial position of banks or may be determined by supply factors not directly related to the level of capital above the regulatory minimum maintained by institutions. The empirical evidence at international level is not conclusive.

As a first approach to this question in the case of Spain, it is possible to conduct a simple analysis of panel data designed to investigate the relationship between the annual rate of change of credit extended by each institution and its capital buffer over and above the regulatory minimum, while controlling for a set of variables that can be expected also to affect those credit movements. These control variables include GDP growth, as a proxy for the behaviour of demand for credit; profitability (ROE of the institution) and risk profile (doubtful assets ratio of the institution), as proxies for the institution's credit extension policy; and the size of the institution (logarithm of total assets).

The profitability and risk profile to be used in the analysis are those of the immediately preceding period, since it seems reasonable to consider that institutions base themselves on their lending results, on the return obtained and on their capital buffer at the end of the period when deciding on their credit policy for the following year.

The sample analysed is limited to Spanish commercial and savings banks, i.e. it excludes the branches of foreign banks and credit cooperatives. The sample thus represents approximately 90% of the total assets of Spanish deposit institutions. The sample period runs from 1986 to 2004, and therefore includes more than one full cycle of the Spanish economy. The relationship is estimated in first differences to eliminate possible unobservable factors, fixed for each institution over time and correlated with one or more of the explanatory variables, that could bias the results. In addition, the institutions' decision variables, except for size, are instrumented with various lags through the GMM estimator[4].

The first column of Table 1 shows the qualitative results of estimating the relationship between credit behaviour and capital buffer in Spain. The regulatory capital buffer over the required minimum does not seem to significantly affect the behaviour of bank credit. By contrast,

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1. In November 2005 the BCBS published an updated version of the new capital accord. **2.** Another very important topic of discussion, which now seems to have been conclusively settled, was the potential impact of Basel II on the financing of SMEs. An evaluation of this impact in Spain's case can be found in the study by J. Saurina and C. Trucharte: "The small and medium-sized enterprises in the Spanish credit system and their treatment according to Basel II", Journal of Financial Services Research, Vol. 26, no 2, pp. 121-144, 2004; and in the study by the same authors: "Las pequeñas y medianas empresas en el sistema crediticio español y su tratamiento según Basilea II", Estabilidad Financiera, Nº 3, Banco de España, pp. 107-125, 2002. **3.** See, for example "Implementing Basel II", a conference given in the London School of Economics by Jaime Caruana in April 2005.

4. A study with similar objectives is included in the December 2005 Financial Stability Review of the Bank of England: "Bank weakness and bank loan supply", pp. 85-93. The differences between that study and this Box lie not only in the sample (600 banks from 31 countries for the period 1993-2000), but also in the methodology. First, the measure of capital cushion used in the UK study has many limitations (ratio of capital to debt), since it fails to take into account the level of requirements or, therefore, risk-weighted assets. Second, the estimate is made using contemporaneous, uninstrumented variables, which is a questionable practice. In any event, the results of the study are not conclusive because the relationship between credit growth and the gearing variable used is on some occasions not significant, on others positive and significant, and, on yet others, negative and significant.

other supply factors such as profitability and risk profile do prove to be significant: the greater the institution's profitability, the greater the incentives to expand credit the following year, while the larger the doubtful assets or ex post credit risk, the lower the future growth of the financing extended by banks to firms and households. As regards demand, the expected sign was found: increasing GDP growth was associated with increasing demand for credit. The rate of expansion of institutions' lending does not seem to be related to size[5].

The above qualitative results hold if, instead of measuring doubtful balances relative to total loans, they are measured relative to total assets. They also hold if, apart from contemporaneous GDP, a lag of one year is included.

The second column of Table 1 analyses whether the impact of the capital buffer on credit depends on the cyclical position of the economy. That is to say, it looks at whether in recession, for example, the volume of capital above the regulatory minimum limits to a greater extent the behaviour of credit. Once again, no significant relationship is observed between the capital cushion and the behaviour of credit. The other variables retain their sign and meaning[6].

With the due caution deriving from the simple econometric exercise reported in this Box and assuming that the behaviour of Spanish institutions in the latest economic cycle is extrapolable to the future in a regulatory environment in which bank capital requirements will be more sensitive to the risk incurred, a potentially greater procyclicality of capital requirements need not, in principle, negatively affect the bank financing received by Spanish firms and households and, therefore, real activity, in particular in a market open to international competition. In any event, as mentioned above the new capital accord provides mechanisms to attenuate this procyclicality. Furthermore, a certain degree of procyclicality is inevitable and probably appropriate if bank capital is to be more closely related to the risks incurred.

5. The number of observations used is 1,166. All regressions satisfy autocorrelation tests on residuals and the Sargan test on validity of the instruments used.

6. The aforementioned UK study does not use the doubtful assets ratio to measure the risk profile, but rather loan-loss provisions to total loans. Note that the use of this variable poses some problems because it is a risk profile measure that is more subject to intervention by institution managers and that interacts directly with the definition of capital. If we repeat the results in the first column of Table 1 and replace the doubtful assets ratio with loan-loss provisions, this variable ceases to be significant, part of its effect being absorbed by the change in GDP, while the capital buffer variable becomes significant and negative. This latter result is also obtained using contemporaneous values of the variables. In none of the tests of robustness conducted was a positive and significant sign obtained for the capital buffer variable.

RESULTS OF THE ESTIMATION TABLE 1

Explanatory variables	Column 1	Column 2
Regulatory capital buffer over the required minimum	Non-significant	Non-significant
Regulatory capital buffer over the required minimum * GDP growth	--	Non-significant
ROE	Positive and significant	Positive and significant
Doubtful assets/lending ratio	Negative and significant	Negative and significant
GDP growth	Positive and significant	Positive and significant
Logarithm of total assets	Non-significant	Non-significant

the Netherlands, risk exposures increased by a larger amount in the other countries, most notably in the United Kingdom, France and Germany.

The geographical distribution of *risk exposure* underwent significant changes with respect to December 2004, due largely to the improvement in the credit rating of Argentine sovereign debt last year (Chart III.8A and B). Thus, while in December 2004 Latin America accounted for 70% of the risk exposure of Spanish deposit institutions' foreign financial assets and the United Kingdom only represented 16%, in December 2005 risk exposure in the United Kingdom rose to 32% and that in Latin America fell to 46%. Although Latin America still holds first position, the risk exposure in this region continues on a markedly downward trend.

In terms of regulatory capital, while in December 2004 the risk exposure of foreign financial assets required 8.5% of Spanish deposit institutions' capital, one year later these represented only 4.4% (Chart III.8C). This was largely due to the change in the credit rating of Argentine public debt, which improved significantly in 2005 when this country's default status was lifted.

Stress tests are defined as a set of tests designed to assess the resilience of the financial system to adverse shocks. These tests are currently becoming particularly prominent for various reasons. For one thing, they have been assigned a major role in the programme to assess the stability of international financial systems by the International Monetary Fund (IMF), which uses the "Financial System Assessment Program" (FSAP) methodology developed by the IMF and the World Bank.

The usual practice in stress tests consists of the following stages: definition of scope of application, calibration of shock, estimation of impact and quantification of that impact.

The scope of application, which is the first stage of a stress test, depends on the coverage of that test. Those of a general nature encompass the analysis of the bulk of the financial system. Their aim is to check the resilience of the financial system as a whole.

The second stage of a stress test is to calibrate the shocks used to gauge the soundness and resilience of the financial system. The size of a shock will be based on the risks to be measured while its implementation will be on the basis of the use of the most important variables that may affect those risks. The most common way to determine the size of the shock is to use historical calibration. Under this method, the shock size is established on the basis of the largest change observed over a certain time period in the variable to be shocked. Once the impact on the system to be tested is known, it is then necessary to consider the possible measurements to be used, if any, to evaluate the stability of that system.

The impact of the shock can be assessed in two different ways[1]: a piecewise approach affecting separately certain variables that act directly on the financial condition of the system analysed; or an integrated approach to risk in which the impact of the shock is estimated in an integrated manner taking account of all the risks liable to be affected.

Depending on the number of variables shocked, a distinction is usually made between sensitivity analysis (a single variable is shocked and the result obtained is subject to the condition that the other system variables remain unchanged), and scenario analysis (changes are made to a broad group of variables that determines the stress scenario under consideration). Next, the impact of each shock has to be estimated. That is, their effect on the system's financial condition is precisely assessed.

Sensitivity analyses usually focus on the impact of credit, market and interest rate risk.

Sensitivity analysis for credit risk depends to a large extent on the data available. In this respect credit registers (such as the Banco de España's Central Credit Register) are a useful tool for supervisors because they enable portfolios to be distinguished (by separating, for example, corporate loans from mortgage loans) and the chosen shock to be designed and calibrated. The ideal variable to be shocked in sensitivity analysis of credit risk is the probability of default (PD). Its impact on the system's financial condition is measured through the effect on profits and solvency.

Market risk appears in the trading book of institutions. The variables commonly selected to carry out stress tests on the trading book, and that are subjected to shock are: interest rates, stock market indices, volatilities, credit spreads and exchange rates. The size of the shock to these variables is determined by historical calibration. The impact of the shocks is measured in terms of profits and solvency.

Interest rate risk arises from the exposure of an institution's financial structure to adverse movements in interest rates. The scope of application of the stress exercise is an institution's balance sheet. The shocks generally used are parallel and non-parallel shifts in yield curves. Their impact is estimated by measuring the resulting change in economic value and its impact on capital[2].

Standing midway between sensitivity analysis and scenario analysis is the assessment of liquidity risk. Ideally, the liquidity stress applied should affect each institution specifically, so as to be able to assess its resilience in a stress situation based solely on its ability to raise and manage liquid funds[3]. Such a situation is one in which there is a loss of confidence in an institution that lasts for a certain period (one week, one month, etc), activities remain on a fairly normal footing and extraordinary recourse to the central bank is not possible. A sensitive item in a crisis of confidence would be demand deposits, so these are the variable to be subjected to shock. In this way, based on the estimated cash flows, the extent to which an institution can withstand an outflow of demand deposits is assessed. The ultimate objective is to analyse the ability of institutions to respond to the defined shock.

In scenario analysis, the shocks chosen to stress the banking system directly affect the system's financial condition through the banks' balance sheet (i.e. through its business) and indirectly affect it through the financial health of their borrowers (credit risk, measured if possible in terms of expected loss), with the resulting effect on the profit and loss account and on solvency. The scenarios normally feature sudden changes in oil and asset prices, and in exchange rates.

In sum, stress tests are a useful instrument in properly managing and overseeing risk, both for credit institutions and for their supervisors.

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1. Following the methodology of M. Sorge (2004), "Stress-testing financial systems: an overview of current methodologies", BIS working papers, No.165.

2. A reference on the calibration and analysis of this risk is "Principles for the management and supervision of interest rate risk" by the Basel Committee on Banking Supervision. **3.** This approach can be seen in Discussion Paper 24 "Liquidity risk in the Integrated Prudential Sourcebook: a quantitative framework", Financial Services Authority, UK. October, 2003.

Finally, as mentioned in Chapter I, the risk profile of foreign financial assets continued to decrease (Chart I.7A). Particularly noteworthy was the fall in the risk profile index of public debt as a result of the improved credit rating of Argentine debt.

BANKING REGULATION

As part of the discussion of the new capital accord, better known as Basel II, the question of whether the new capital requirements are procyclical was dealt with at length by supervisors, credit institutions and academics. However, the discussion of this matter should not lead us to overlook other, possibly more important issues relating, first, to how bank managers may respond to this potentially greater procyclicality of regulatory capital under Basel II, second, to the relationship between the capital cushion held by institutions and the financing extended by banks to firms and households, in particular in a market open to international competition, and, third, to the impact that variations in bank credit may have on the economy as a whole. Without a detailed analysis of all these matters, any debate on the possible procyclical nature of capital requirements under Basel II is sterile. Box III.1 is intended to contribute to this debate by analysing empirically the relationship in Spain between the capital buffer and the behaviour of credit[4].

Box III.2 explains what stress tests are. These are being increasingly used by credit institutions, supervisors and the International Monetary Fund to assess their risk profile, their solvency and the stability of the financial system as a whole.

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4. The study by G. Jiménez and J. Saurina entitled *"Credit cycles, credit risk and prudential regulation",* to be published shortly in the *International Journal of Central Banking,* provides empirical foundations and proposes a countercyclical prudential mechanism via loan loss provisions, although it is also adaptable to capital requirements (under Pillar 2, for example). A simplified version of this study appears in the article *"Ciclo de crédito, riesgo de crédito y regulación prudencial"* to be published in *Estabilidad Financiera No. 10,* Banco de España.

1 Explanatory notes

Much of the financial stability analysis conducted in this Report, particularly the study of the balance sheet, risks and profitability of deposit institutions, is based on the information provided by the financial statements required under the accounting circulars of the Banco de España (CBE), namely CBE 4/1991 to June 2005 and CBE 4/2004 thereafter. The analysis of solvency draws mainly on the information from the statements under CBE 5/1993, on minimum own funds. This Circular has been adapted to CBE 4/2004 by CBE 3/2005, which came into force in June 2005.

The accounting Circular provides information from various perspectives. Thus the information according to the subject represented may be individual or consolidated, combining with that provided according to the end-user targeted, i.e. public information, for general dissemination, and confidential information for the supervisor. Moreover, the confidential information on total business is broken down into business in Spain and business abroad.

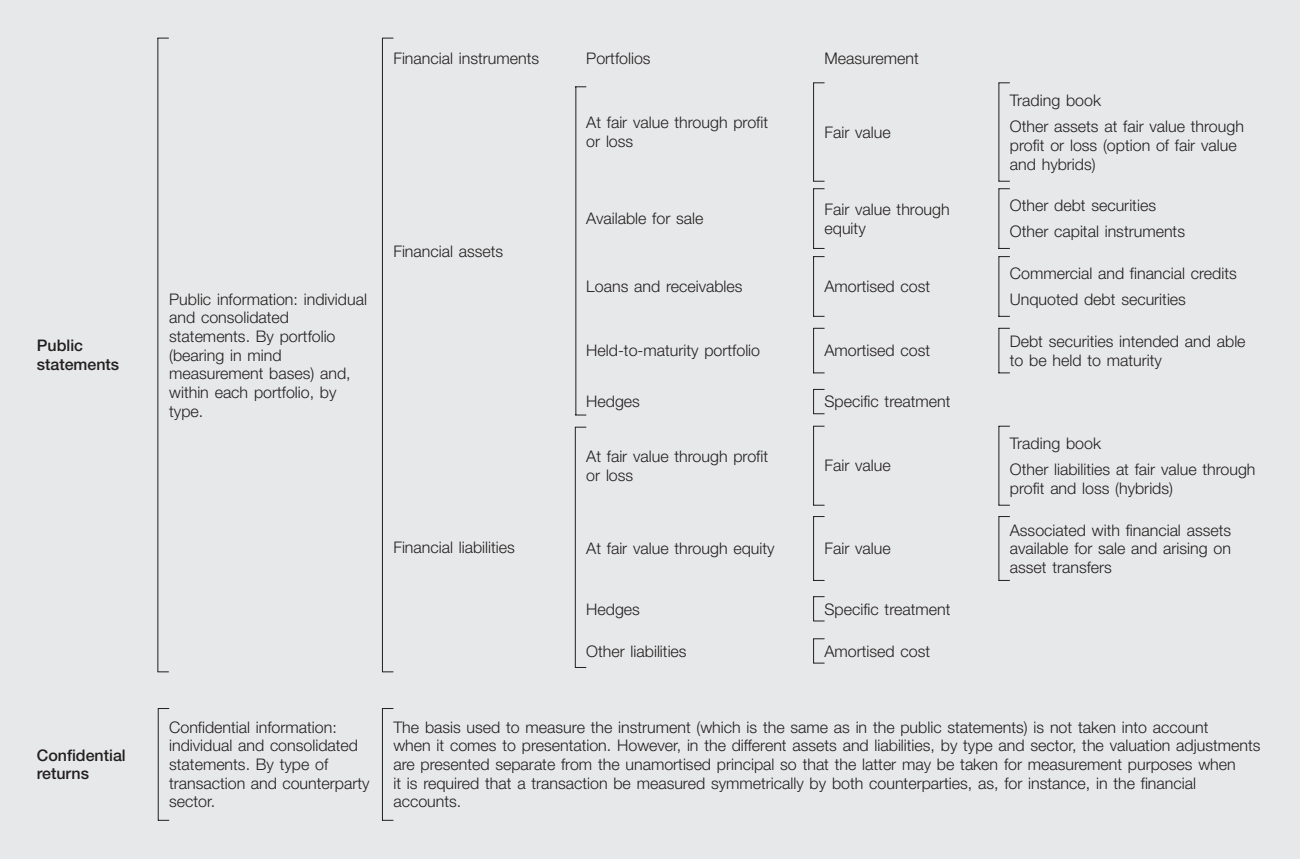
Public information has a general aim and, therefore, is directed at users in general. Under CBE 4/1991, these users were chiefly considered to be the management of the bank itself, the employees, the authorities and market agents, while CBE 4/2004 considers investors to be the main user since, if investors' information requirements are met, focusing on risk and profitability, many of the information requirements of the other users will be covered. The financial information provided by the confidential statements has supervisory and/or statistical ends.

Under CBE 4/1991 both the public and confidential consolidated returns referred to the same consolidable groups of credit institutions, i.e. owing to their supervisory end, they referred to the same consolidation groups and with the same scope as those pertaining to the minimum own funds circular. Accordingly, the scope of application for the analysis of balance sheets, risks and profitability of the accounting circular was the same as the analysis of risks and solvency of the minimum own funds circular.

Regulation (EC) 1606/2002 and the Commercial Code state that companies whose securities have been admitted to trading on a regulated market of any European Union Member State must, from 2005, file their public consolidated accounts in accordance with International Accounting Standards (IAS)/International Financial Reporting Standards (IFRS).

The aim of CBE 4/2004, which adapts the financial reporting standards of the EU, is that there should not be different accounting standards for different credit institutions competing against one another and subject to the same banking regulations and supervisory regime. To do this, and so that these institutions' accounts should be homogenous, comparable and aggregatable, the Circular has extended the application of these standards to the public statements (balance sheet, income statement, statement of changes in equity and cash flow statement) of all credit institutions, with quoted securities or not, and to both their consolidated and individual accounts. However, individual and consolidated confidential returns, which are not intended to provide general information but are for supervisory and statistical ends, do not present financial instruments in the same way and do not have the same scope of consolidation as public statements, although the bases for measuring and recording transactions and the definition of the financial instruments are the same in both statements and are, therefore, consistent with one another.

DIFFERENCES IN THE PRESENTATION OF FINANCIAL INSTRUMENTS BETWEEN PUBLIC STATEMENTS AND CONFIDENTIAL RETURNS UNDER CBE 4/2004 FIGURE 1



The new Circular, for both individual and consolidated public statements, presents financial instruments in accordance with IAS, i.e. by portfolio, bearing in mind the principle by which they are valued, and, hereunder, by type. The December 2005 FSR included a table, reproduced here as Table A.1, briefly explaining the content of these portfolios. In the case of confidential returns, it presents financial instruments by counterparty sector and type of transaction. In the confidential returns, unlike the public statements and for statistical reasons, asset and liability valuation adjustments are separate from unamortised principal, which allows for an analysis of the changes over time in the various captions not affected by changes in the value of financial instruments or in the portfolio in which they are recorded (Figure 1). CBE 4/1991 measured financial instruments at unamortised principal, and in a symmetrical fashion for assets and liabilitiies. Since the confidential returns of CBE 4/2004 enable this measurement to be segregated, the statements of both circulars can be linked in respect of a very significant portion, in quantitative terms, of the balance sheet (mainly loans and deposits).

Nonetheless, the measurement bases are common to the public statements and confidential returns alike, although in the latter, as said, valuation adjustments are presented separately from unamortised principal so that they may also be measured in accordance with this principle. In sum, and without taking into account each and every circumstance, financial instruments may be said to be measured: 1) at fair value, in the case of financial assets and liabilities in the trading book or financial derivatives, and available-for-sale financial assets; 2) at amortised cost, in the case of loans and receivables and held-to-maturity investments, and other financial liabilities (Figure 1).

ACCOUNTING DEFINITIONS

TABLE A.1

Financial assets are grouped in five main portfolios: financial assets held for trading, other financial assets at fair value through profit or loss, available-for-sale financial assets, loans and receivables, and held-to-maturity investments.

Loans and receivables basically include untraded financial assets that represent debts for their issuer or obligor. These assets are carried at amortised cost.

Available-for-sale financial assets include the debt securities not earmarked to be held to maturity nor held for trading nor included in the institution's portfolio of other financial assets at fair value through profit or loss, and the equity instruments (shares) of firms other than subsidiaries, associates and jointly-controlled entities not carried at fair value through profit or loss. Available-for-sale assets are carried at fair value and changes in their value are recorded in equity except when they are realised, whereupon these changes are reflected in the income statement. Nevertheless, equity instruments for which there is no reliable fair value are carried at cost.

Financial assets held for trading include the financial assets that institutions intend to realise in the short-term, and trading derivatives. These assets are carried at fair value and changes in their value are reflected in the income statement. Unlike under CBE 4/1991, trading derivatives are considered to be financial instruments recorded in the balance sheet on the assets side or on the liabilities side depending on whether their fair value entails, respectively, a contractual right or obligation to exchange financial instruments with a third party under conditions that are potentially favourable or unfavourable at the balance sheet date.

Held-to-maturity investments are carried at amortised cost and include the fixed-term debt securities that the institution has the intention and the financial ability to hold to maturity. Under the new circular, if more than an insignificant part of the held-to-maturity investments portfolio is sold or reclassified, no financial asset may be classified as held-to-maturity or held in this portfolio for a period of two years.

Other financial assets at fair value through profit or loss include, for example, hybrid instruments not held for trading that must be measured entirely at fair value, financial assets managed jointly with liabilities under insurance contracts and financial derivatives held for the purpose of reducing exposure to changes in fair value.

The inclusion of *hedging derivatives* and of *macro-hedges* (portfolio hedges) on the balance sheet is a change introduced in the new circular. The latter instruments provide a means, in a given portfolio, of hedging the interest rate risk on an amount of financial assets that form part of the whole but are not identified with specific instruments.

The new public balance sheet explicitly distinguishes between *liabilities and equity.* On the *liabilities* side, the new circular distinguishes four broad categories in which financial liabilities are classified on the basis of how they are managed and measured: financial liabilities held for trading, other financial liabilities at fair value through profit or loss, financial liabilities at fair value through equity and financial liabilities at amortised cost.

Financial liabilities at amortised cost is the only portfolio in which liabilities are not carried at fair value. This portfolio includes deposits from customers (other creditors), debt certificates including bonds and deposits from credit institutions.

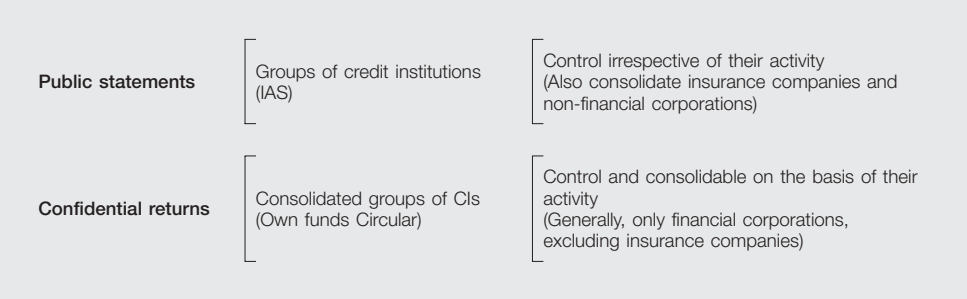
Financial liabilities held for trading include trading derivatives, other trade certificates including bonds and short positions.

Other financial liabilities at fair value through profit or loss include hybrid financial liabilities not held for trading that have to be measured entirely at fair value.

Financial liabilities at fair value through equity includes financial liabilities associated with available-for-sale financial assets arising as a result of the transfer of assets over which the institution retains control and has not substantially transferred or retained the related risks and rewards. These assets are measured at fair value through equity.

Finally, *equity* includes own funds, composed basically of reserves and share premium, and valuation adjustments, among which are adjustments to available-for-sale financial assets (unrealised changes in the fair value of financial assets included in this portfolio) and exchange adjustments, where the exchange differences occurring in equity are recorded.

DIFFERENCES IN THE SCOPE OF CONSOLIDATION UNDER CBE 4/2004 FIGURE 2



The scope of consolidation also differs between public statements and confidential returns. Thus, in accordance with IAS, consolidated public statements apply to groups of credit institutions in which all the institutions belonging to the group consolidate their accounts, irrespective of their activity (i.e. insurance companies and non-financial corporations also consolidate), while confidential consolidated returns apply to consolidable groups of credit institutions, i.e. those companies consolidable on the basis of their activity, generally all financial corporations except insurance companies. Accordingly, the consolidation groups of the confidential returns of CBE 4/2004 coincide with those of CBE 4/1991, which allows them to be linked, and also with the consolidation followed by the own funds circular. This consolidation is more useful for supervisory purposes, and also gives consistency to the scope of application of both standards (Figure 2).

Application of the IAS and CBE 4/2004 has entailed a forceful break from CBE 4/1991 in terms both of measurement, presentation and scope of consolidation, and of the level of the series of specific headings analysed. Moreover, further to the new Circular, it is important not only to distinguish between the consolidated and individual statements, but also between the confidential returns – the main basis for the FSR – and the public statements which, as seen, refer to a broader field of action or consolidation to which it is also necessary to adhere. This is because public statements are the basis for the information transmitted to the markets and, therefore, this is useful for completing the analysis of the Spanish banking system's stability. As a result of adherence to these different perspectives, the analysis of financial reporting becomes more complicated since a single variable (a ratio, for instance) may be calculated under different scopes of consolidation and with different measurement bases, meaning that, depending on the information source used as a basis, this variable may take different values and, therefore, when it is not from public statements it will be different to the variable published by the institutions themselves.

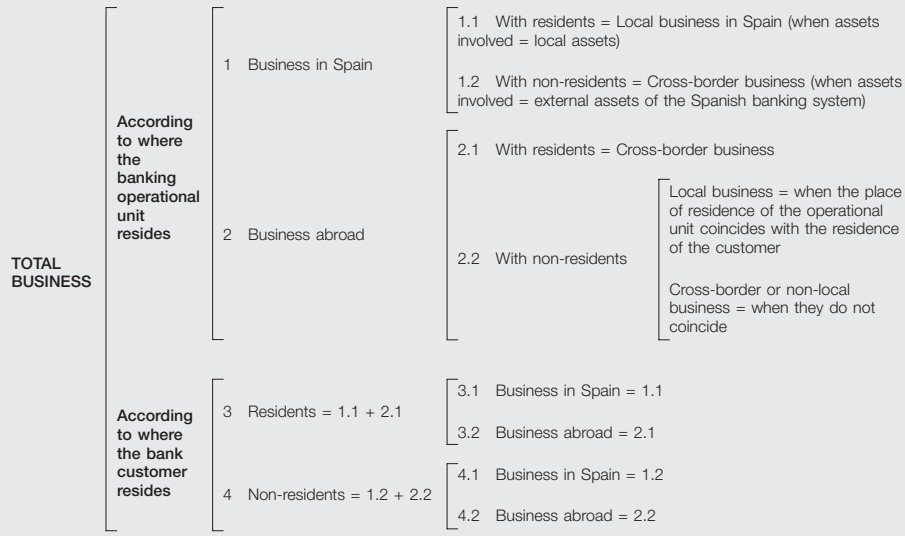
Consolidated confidential returns of consolidable groups of deposit institutions resident in Spain

Aggregation of the consolidated balance sheets or income statements of the consolidable groups of deposit institutions resident in Spain. For those institutions that do not have or belong to a consolidable group, or that are branches of foreign institutions, it is their individual confidential returns are considered for aggregation purposes, while in the case of subsidiaries of foreign institutions, it is their sub-consolidated confidential accounts (those of the group that reports to the subsidiary resident in Spain) that are considered.

The consolidated confidential returns (balance sheet or income statement) comprise the worldwide consolidated total business, with intragroup transactions netted out, of the con-

CLASSIFICATION OF ACCOUNTS AND BUSINESS ON THE BASIS OF THE LOCATION FROM WHICH THE INSTITUTION OPERATES AND WITH WHOM IT OPERATES

FIGURE 3



solidable groups of institutions considered. These consolidable groups are made up of the parent institution in Spain (with its branches abroad) and its consolidable financial subsidiaries, both in Spain and abroad.

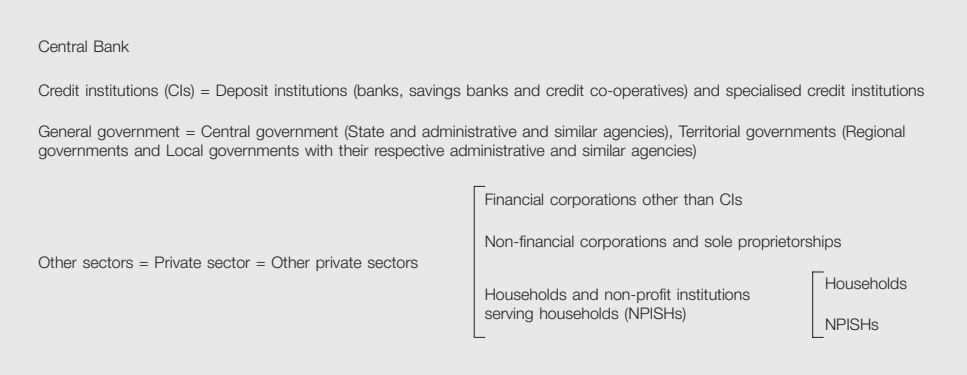
The consolidation and aggregation of the consolidated financial statements of the groups of deposit institutions resident in Spain coincides with that of the solvency or own funds returns, with the exception of the branches of institutions resident in EU countries, which do not provide information on own funds.

The consolidable financial subsidiaries in the consolidable groups of deposit institutions are those in which control is exercised (control is assumed when voting rights or a share of at least 20% of capital are held) and which belong to one of the following: deposit institutions, specialised credit institutions, securities-dealer companies and securities agencies, investment companies, companies managing collective investment undertakings, companies managing pension funds, portfolio management companies, venture capital companies and companies managing venture capital funds, holders of shares or participations and, finally, institutions, whatever their name or statute, that engage in activities typical of the foregoing (e.g. SPEs and SPVs).

The consolidated accounts of the consolidable groups of deposit institutions residents in Spain may be of national or foreign institutions; in the latter case they will be subsidiaries or branches of foreign institutions.

These statements (total business), as in Figure 3, can be presented on the basis of the location in which the institution's operational unit resides, giving rise to business in Spain or abroad (assets in Spain or assets abroad), or the location in which the counterparty resides, giving rise to the sectorisation of business with residents in Spain and with non-residents (or with foreigners). Moreover, if the residents of the operational unit coincides with that of the counterparty, the reference will be to local business, and if it does not, to cross-border business, non-local business or business abroad.

CLASSIFICATION OF BOTH THE RESIDENT SECTOR AND THE NON-RESIDENT SECTOR FIGURE 4



The consolidation of accounts is based on the control of the group by the parent institution and is essential when analysing the capital integrity and financial stability of a banking system.

Individual financial statements of deposit institutions resident in Spain

Aggregation of individual balance sheets or income statements of these institutions.

The individual statements (balance sheet or income statement) comprise the total worldwide business engaged in by individual deposit institutions resident in Spain. These institutions may be national or foreign (subsidiaries and branches of foreign deposit institutions) and are made up of a central headquarters and all its branches abroad (if any), but they do not include the subsidiaries of these institutions.

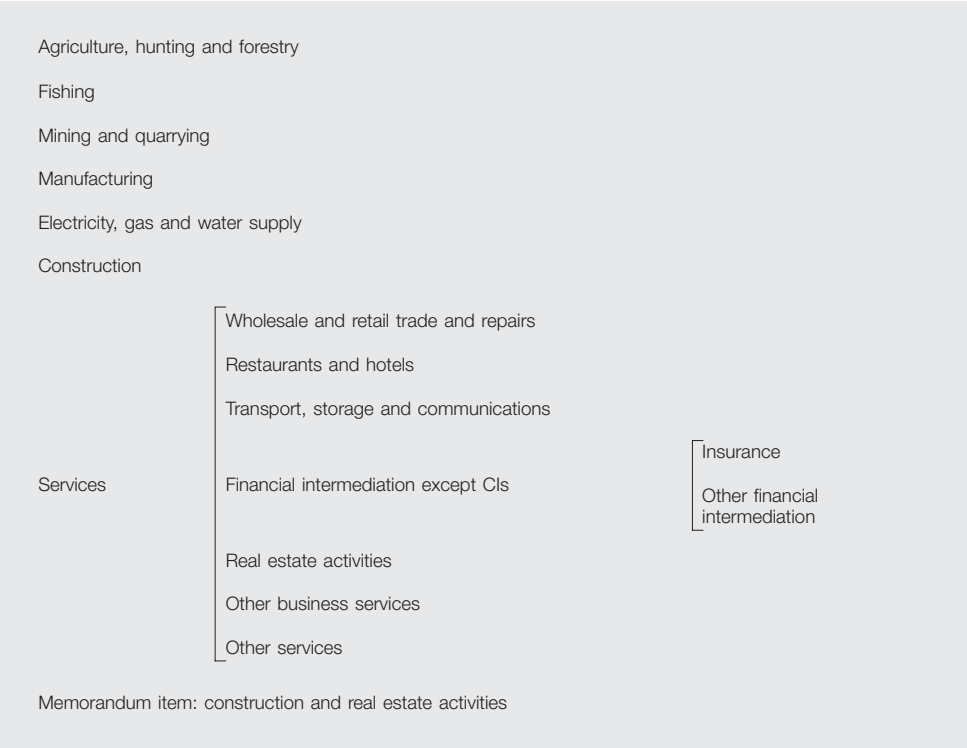
As in the case of consolidated information, the individual statements (total business) can, as observed in Figure 3, be presented using the location in which the operational unit (central headquarters or branch) resides and the location in which the counterparty resides. However, while total business does not include or nets out transactions between units of the institutions residing in different countries, business in Spain and business abroad does not involve a netting out of transactions between the units that reside in these territorial areas: Spain and other countries. In other words, business in Spain includes positions vis-à-vis own branches abroad because they are non-residents and such information is necessary to compile the National Accounts (more specifically the Financial Accounts) and the Balance of Payments, but in total business such transactions are consolidated, as they are assets of some institutions and liabilities of others.

Under business in one country, local business (in the case of Spain, business in Spain with residents), the predominant item of the individual accounts of the institutions that reside in the country, is the basis of the Financial Accounts of said country (Spain) and, therefore, these accounts are linked to the general macroeconomics analysis of the country in question and to the way in which its sectors are financed. Accordingly, there is usually much more information and a greater breakdown of the individual accounts of institutions, as regards their sectorisation, instruments and results, than of the consolidated accounts of their groups.

Institutional sectors. The FSR classifies the institutional sectors featured in Figure 4 as Residents, namely those who have a centre of interest or live in Spain, and Non-residents, those who have a centre of interest or live in a country other than Spain, irrespective of whether they reside or not in the same country as the deposit institution's operational unit. Both institutional

CLASSIFICATION OF THE SECTOR NON-FINANCIAL CORPORATIONS, SOLE PROPRIETORSHIPS AND FINANCIAL CORPORATIONS OTHER THAN CIs ON THE BASIS OF THE TYPE OF PRODUCTIVE ACTIVITY IN WHICH THEY ENGAGE FIGURE 5

Branches or sectors of activity



sectors are sub-divided into the following sub-sectors: Central banks, Credit institutions, General government and other sectors (households, sole proprietorships and corporations other than Credit institutions).

Productive activities. The Report refers to activities undertaken by sole proprietorships and by corporations other than Credit institutions, on the basis of the type of industry featured in Figure 5.

The definitions of the balance sheet and income statement items are to be found in Banco de España Circular 4/2004, as are the measurement bases. Nonetheless, the Glossary includes certain items in the light of their relevance for the analysis of financial stability.

2 Glossary

Asset securitisation: Assignment by an institution of its loans or other receivables (present or future) to a securitisation SPV which, in turn, issues fixed-income securities to be traded on an organised secondary market.

Asset spread: Difference between the average return on earning financial assets and average three-month euribor.

Asset-backed bonds: Bonds issued by securitisation special purpose vehicles (see asset securitisation).

Available-for-sale financial assets: Portfolio in the public financial statements which includes debt securities not classified as held-to-maturity investments or as other financial assets at fair value through profit or loss and the equity instruments of entities other than subsidiaries, jointly controlled entities or associates of the institution that have not been included in other financial assets at fair value through profit or loss.

Average total assets (ATA): Average of the assets in the period in which such assets give rise to flows of income.

Bancassurance: Strategy involving the joint provision of banking and insurance products and services, using the same distribution channel and/or the same customer base.

Basel I: Capital Accord reached by the Basel Committee on Banking Supervision in 1988. This established a set of recommendations (converted into requirements in a large number of countries) regarding capital, risk-weighted assets and an 8% minimum level for the solvency ratio, which sought to strengthen the solvency of the international banking system, as well as levelling the competitive playing field.

Basel II: Revision of the 1988 Capital Accord (Basel I). The basic aim was to promote a more risk-sensitive system of capital requirements, encouraging the use of internal risk measurement methods by the institutions for the purpose, while maintaining the overall level of solvency and ensuring a level playing field.

Beta: Measure of the systemic risk assumed by an institution. It is based on the CAPM model (Capital Asset Pricing Model), which considers the market to be the sole risk factor. The beta is calculated as the covariance between the returns on the share and the market, divided by the variance of the market return. In the FSR, the market index used is the DJ Stoxx 50, unless otherwise stated.

Bid-ask spread: The difference, at a given moment, between the highest bid price and the lowest ask price for a security.

Branch: Offices of the institution situated in a foreign country without independent legal status. They form an integral part of the institution, generally do not have separate accounts (except for internal purposes) and they may not take economic decisions or contract liabilities or possess assets in their own name. Branches are subject to the laws and supervision of the home country (that of the head office).

Business risk: That associated with the loss of the position an institution has in the market.

Capital requirements: 8% of risk-weighted assets, this being the minimum solvency ratio required by the supervisor.

Capitalisation: The market value of a company, calculated by multiplying the number of shares in issue by their price on the stock market.

Cash flow interest rate risk: Possibility of incurring losses because the future cash flows of a financial instrument may fluctuate because of changes in market interest rates (variable rate instruments).

Collateralised mortgage bonds: Securities that can only be issued by credit institutions, which enable these institutions to secure the participation, in whole or part, of third parties, in one or more mortgages of their portfolio, excluding those used to secure the issuance of mortgage bonds. The term of the bond cannot exceed the residual maturity of the mortgage loan nor can it pay a higher rate of interest.

Companies accounted for using the equity method: Mechanism for including those companies that, despite having a certain stake, are not included in the consolidated group, either on account of their business (insurance and non-financial firms), or because, although they are capable of being consolidated, they are associates, i.e. there is no control (holding of less than 20%). This mechanism consists of valuing the holdings according to the fraction they represent of the equity of the investee.

Contingent exposures: Transactions under which an institution guarantees the obligations of a third party (bank guarantees, documentary credit, credit derivatives sold, etc.

Corporate banking: Banking activity with – typically large – non-financial corporations.

Corporate bond spread: Measure of the perception of corporate credit risk. Difference between the interest rates on private bonds and risk-free bonds, in the same currency and with similar duration. In the FSR, US Treasury bonds are taken to be risk-free (or very low risk).

Cost of debt: See debt service.

Counterparty risk: Possibility of incurring losses in the event that the counterparty defaults on its contractual obligations. Unlike credit risk, it is not incurred with the issuer of a financial instrument, but with the counterparty of a transaction (normally a derivative) based on a primary instrument issued by a third party.

Country risk: The overall risk associated with customers resident in a specific country due to circumstances other than normal commercial risk. It arises from the existence of two different national jurisdictions and originates from the ineffectiveness of legal actions against a State for reasons of sovereignty. It is classified as: (i) sovereign risk, when the debtor is the State itself; (ii) transfer risk, which arises from the general inability of the residents of a country to meet their debts owing to a lack of foreign currency or currencies in which they are denominated, for example, owing to the imposition of restrictions on the conversion of the local currency to a strong currency or on its repatriation; and (iii) other risks arising from international financial activity, such as the political risk, which results from legal provisions that give rise to breach of

contract (expropriation, nationalisation, etc.) and that which arises from situations of war, social instability, catastrophic situations or situations of widespread insolvency.

Country risk impairment loss (credit risk allowance for country risk): Impairment loss in the period, charged to the income statement, on debt instruments not measured at fair value through profit or loss and on contingent exposures due to country risk, i.e. the risk associated with customers resident in a specific country due to circumstances other than normal commercial risk.

Cover ratio: The allowances for bad debts as a percentage of doubtful assets.

Covered bonds (cédulas hipotecarias): Debt securities that can only be issued, subject to certain restrictions, by credit institutions, and which are secured by all their mortgage loans, except those assigned to mortgage bonds and collateralised mortgage bonds.

Credit Default Swaps (CDS): Swap whereby the purchaser acquires (the seller grants) protection against possible non-payment by a third party. The amount paid for the insurance transaction is considered to be a risk premium, since it provides information on the probability of default by the third party. (See credit derivative).

Credit derivative: Contract involving an obligation to pay that depends either on the value of a debt instrument (loan or bond), or on the solvency, yield spread or credit rating of one or more specified borrowers. This payment obligation is performed either by cash settlement or through the delivery of the underlying asset or assets.

Credit institutions (CIs): Firms whose normal activity is to receive repayable funds from the public, other than credit institutions, in the form of deposits or close substitutes for deposits and use them to grant credits, for their own account, and those firms, other than the foregoing, who issue means of payment in the form of electronic money. Deposit institutions, specialised deposit institutions (SCIs) and the ICO are credit institutions. However, SCIs cannot raise deposits from the public, although they can raise close substitutes for deposits by, for example, issuing securities with a maturity of more than one month.

Credit portfolio: This is not a portfolio in which financial instruments are classified in the financial statements or under IAS; rather, it is the counterpart of the debt instruments held by the credit institution, i.e. the sum of the outstanding loans granted and the debt securities (fixed-income portfolio). The FSR uses this term as a synonym for financing extended and also debt instruments. This definition is valid for any specifically cited sector and for the economy as a whole.

Credit rating: Assessment of the credit quality of a debtor in accordance with its credit risk. A wide range of methods are available to reach this assessment.

Credit risk: Possibility of an institution incurring financial losses in the event of a debtor defaulting, in form and/or time, on its obligations as established in the agreement of the financial instrument. It may be presented as insolvency risk or country risk.

Currency risk: Possibility of incurring losses owing to adverse movements in the exchange rate of the currency in which the exposure is denominated.

Customer spread: Difference between the average return on the non-interbank euro-denominated credit portfolio and non-interbank financing received in euro.

Debt: The outstanding balance, at a specific time, of loans and deposits received and debt securities issued.

Debt burden arising from interest: Accrued interest as a percentage of gross disposable income in the period considered.

Debt burden: The sum of accrued interest and, if applicable, the principal of the debt repaid as a percentage of gross disposable income in the period considered.

Debt instruments: See debt.

Debt ratio: The debt of a sector as a percentage of its total assets (financial and real).

Debt service: Interest accrued and, where applicable, principal of the debt repaid during the period considered.

Deposit institutions: Subgroup of credit institutions consisting basically of commercial banks, savings banks and credit co-operatives. The only ones with the capacity to raise deposits from the public.

Doubtful assets: Debit balance sheet balances that are considered unlikely to be fully or partially repaid on the contractually agreed terms, either due to customer arrears or for other reasons (if the institution has reasonable doubts regarding their recovery).

Doubtful assets ratio: Doubtful assets as a percentage of financing extended.

Earning financial assets: Financial assets excluding accrual accounts and other financial assets, i.e. those to which it is possible to assign an explicit financial return.

Efficiency ratio: Operating expenses as a percentage of gross income; i.e. the percentage of gross income absorbed by operating expenses. A higher value of the ratio corresponds to lower efficiency.

Exchange rate effect: Reduction (increase) in the value of balance sheet or income statement items owing to depreciation (appreciation) with respect to the euro (presentation currency) of the currencies of the countries in which such items are located or generated (functional currency), without the activity, profitability or costs abroad in local currency necessarily having fallen (increased).

Expected losses: Anticipated losses, i.e. those that on average will arise on a portfolio. Calculated as the average value of the loss distribution, whether or not they have been detected.

Exposure: Amount of balance sheet assets and contingent liabilities that may be subject to risk.

Fair value interest rate risk: Possibility of incurring losses on account of changes in market interest rates (fixed rate instruments).

Financial assets and liabilities: Cash, loans, debt securities, equities, derivatives, insurance contracts linked to pensions, accrual accounts and other financial assets / liabilities. However, references in the FSR to financial assets generally refer to earning financial assets.

Financial assets / liabilities held for trading: Portfolio in the public financial statements that can be on either the assets side or the liabilities side. Those on the assets side comprise financial assets that are originated or acquired with the purpose of selling them in the near term, that are part of a portfolio of identified financial instruments managed together for short-term profit taking, or that are derivatives not designated as hedging instruments. Those on the liabilities side comprise financial liabilities that have been issued with an intention to repurchase them in the near term, that are short positions, that form part of a portfolio of identified financial instruments managed together for short-term profit taking, or that are derivatives not designated as hedging instruments. Financial assets / liabilities held for trading form part of the portfolio of financial assets or liabilities at fair value through profit or loss.

Financial conglomerates: Groups of financial institutions that cannot be consolidated owing to their nature, i.e. those made up of: 1) credit institutions and their groups and by insurance companies and their groups and, 2) those made up of insurance companies and their groups and securities-dealer companies and securities agencies.

Financing extended: See credit portfolio.

Foreign exchange risk: Possibility of incurring losses owing to adverse movements in the currency in which the exposure is denominated

Gains or losses on financial instruments: Includes: 1) the valuation adjustments of financial instruments recorded in the income statement, except the interest accrued as a result of application of the effective interest rate method and allowances, and 2) the gains or losses obtained from the sale and purchase of financial instruments except those relating to investments in group entities, jointly controlled entities and associates, and to securities classified as held-to-maturity investments. The gains or losses on financial instruments are allocated to the portfolio containing the financial instruments on which such gains or losses arise, i.e: 1) to held for trading and other instruments at fair value through profit or loss due to changes in fair value; 2) to available-for-sale financial assets and loans and receivables due to sale and purchase and 3) to other, including hedging derivatives.

General impairment losses (allowances for insolvency risk attributable to the customer): Impairment loss in the period considered, charged to the income statement and calculated by applying to the credit exposures (debt instruments not measured at fair value through profit or loss and contingent exposures, classified as standard risk) certain parameters based on the outstanding balance and the changes during the period in the various standard risk classes and in the specific impairment losses.

Goodwill: The amount of the payment made, as a consequence of a business combination, in anticipation of future economic benefits from intangible assets that cannot be individually identified and separately recognised.

Gross disposable income: Income available to the various sectors for final consumption (households and general government) and gross saving (all sectors)

Gross income: Result of adding to net interest income the share of profit or loss of entities accounted for using the equity method, net commissions, gains or losses on financial instruments, and exchange differences.

Gross operating profit of non-financial corporations: Gross value added less staff costs. It may be considered roughly equivalent to the gross operating surplus of the National Accounts and, with the necessary caveats, to the net operating income of credit institutions.

Gross value added at market prices (non-financial firm): difference between the value of its output and its inputs. Also, sales plus the changes in stocks of finished products less the cost of sales (operating expenses other than staff costs) plus the change in stocks of raw materials and work in progress.

Held-to-maturity investments: Portfolio in the public financial statements that includes debt securities with fixed maturity and fixed or determinable cash flows for which the institution has, from inception and at any subsequent date, both the positive intention and the demonstrated financial ability to hold to maturity.

Herstatt risk: Principal risk arising upon settlement of foreign exchange transactions when they are not executed on a payment-versus-payment basis. Named after the German bank whose bankruptcy in 1974 highlighted the importance of this risk.

Historical volatility: Annualised standard deviation of the market prices of the underlying for the period analysed. It approximates the market's perception of risk.

Impairment losses: Flow during the period, charged to the income statement, whose purpose is to correct the valuation of individual assets, or of specific groups of assets, or to anticipate specific payments or contingent charges (specific allowances), or to provide for losses that have already been incurred but have yet to be allocated to specific transactions (general allowances).

Implied volatility: Using a particular option valuation model, in which all the parameters are considered given except the underlying price of the asset in question and its historical volatility, the implied volatility is obtained, at a given moment, by introducing the market price as the underlying price of the asset. It gives an indication of the market's perception of risk.

Insolvency risk: Possibility in the normal course of business (normal commercial risk), of incurring losses as a consequence of a debtor defaulting on its payment obligations.

Interest-bearing liabilities: Those liabilities (deposits and fixed-income securities) that have an explicit financial cost associated with them.

Yield curve: At a given moment, it shows the level of effective interest rates at different terms for a risk-free asset.

Internal ratings based approach (IRB approach): Basel II encourages the institutions themselves to determine their own capital requirements, solely (advanced IRB) or partially (foundation IRB) using their own methods, according to the risk incurred.

Investment banking: Banking activity in the primary and secondary securities markets (underwriting and placement of issues, securities trading, financial advice to companies, etc.)

Kernel estimator: Non-parametric estimation of the density function, which provides a continuous and smoothed graphic representation of such function.

Large exposures: From a regulatory standpoint, large exposures are those vis-à-vis a single person or economic group, where the sum of the amount of the credit and trading-book risk exceeds 10% of the regulatory capital of the banking group. Since, on account of the high degree of exposure to one borrower, such exposures can jeopardise the solvency of an institution, in the event that the customer concerned is in difficulty, there are individual and overall limits to the large exposures that institutions can assume.

Large firms: According to the Basel Committee on Banking Supervision, in its proposed new capital accord, a large firm has annual sales of more than €50 million.

Liability spread: Spread between average three-month euribor and the average cost of interest-bearing liabilities.

Liquidity risk: Includes asset and liability liquidity risk, although in the FSR asset liquidity risk is referred to, i.e. agents' inability to dispose of their financial assets rapidly without significantly affecting market prices.

Loans and receivables: Portfolio in the public financial statements that includes financial assets that are not quoted in an active market, that do not have to be measured at fair value and that have fixed or determinable cash flows in which the holder will recover all of its initial investment, other than losses because of credit impairment. In the FSR this term is used as a synonym of credit or lending, although certain credit or lending in the public financial statements may be included in financial assets held for trading or in non-current assets held for sale.

Losses incurred: Losses that have actually arisen on an institution's portfolio.

Market index: Constructed by taking the average of a fixed but adjustable set of firms listed on a specific stock market or on various markets. Its movement is a good approximation to the movement of the stock market concerned.

Market risk: Possibility of incurring losses owing to holding financial instruments whose value may be affected by changes in market conditions. Three types of risk are included: currency risk, fair value interest rate risk and price risk, as a consequence of adverse movements in interest rates, in exchange rates and in the market prices of assets. Sometimes fair value interest rate risk, currency risk and price risk are mentioned directly, and other times market risk is called price risk.

Mixed groups: Those that include consolidated groups of credit institutions and of insurance companies. In Spain, the Banco de España or the Directorate General of Insurance and Pension Funds are responsible for their supervision, depending on the importance of their constituent institutions.

Mortgage bonds (bonos hipotecarios): Fixed-income securities specially secured by the mortgage loans assigned to them in their issue deed, which can only be issued, subject to certain restrictions, by credit institutions.

Net debit/credit balance: Difference between the financing extended (asset) and received (liability). For credit institutions, when this difference is positive the net balance is a debit one and when it is negative, a credit one.

Net interest income: Financial revenue less financial costs (sum of net interest and the return on equity instruments).

Net operating income: Gross income plus other operating gains or losses less operating expenses.

Net wealth: See net worth

Net worth: Assets less liabilities. Also called equity.

Non-voting equity units: Securities that can be issued, subject to certain restrictions, by savings banks to strengthen their capital. Their remuneration depends on the profits obtained by the institution, subject to certain limits. In the event that the institution is wound up their holders rank for payment behind the ordinary creditors, holders of subordinated debt and holders of preference shares.

Offshore centres: Territories that grant a preferential tax treatment to companies based in them.

Operational risk: Possibility of incurring losses as a consequence of inadequate internal procedures, staff or systems, or as a consequence of external events.

Own funds attributed to the group: Sum of the capital or endowment fund, share premium, accumulated reserves, retained earnings, reserves of entities accounted for using the equity method, other equity instruments, non-voting equity units and associated funds of savings banks, profit or loss attributed to the group, valuation adjustments, less dividends and remuneration and treasury shares. The average level, obtained in a similar way to ATA, is used as the denominator in the calculation of ROE. A restricted definition, excluding valuation adjustments, is sometimes used in the FSR, with the appropriate indication in each instance.

Pay-out ratio: Dividend as a percentage of profit. It indicates the proportion of earnings that a firm distributes to its shareholders in the form of dividends. In the FSR this concept is extended to include, in the case of savings banks, a numerator consisting of the annual transfer to the welfare fund and, in the case of consolidated groups, a denominator consisting of the net profit or loss attributed to the group.

PER (Price Earnings Ratio): Listed price of the shares of a particular company as a percentage of the earnings obtained thereby during a specified period (year, business cycle, etc.).

Permanent holdings portfolio: Holdings in subsidiaries, jointly controlled entities and associates intended to serve in a lasting way the activities of the institution or group to which it belongs.

Preference shares: Securities issued by credit institutions that, in certain circumstances, form part of their tier 1 capital. Their remuneration is fixed and periodic, but may be nil if the bank or its group suffer losses, in which case, normally, it is not cumulative (i.e. when no remuneration is paid one year it cannot be recovered in future). They are normally issued without a redemption term but the bank may redeem them, with the prior permission of the Banco de España, after five years.

Price risk: Possibility of incurring losses owing to adverse movements in asset prices, either on account of factors specific to the instrument itself or factors affecting all instruments traded on the market.

Primary securities market: Market on which securities are issued and redeemed.

Real assets: Non-financial assets, which include tangible assets and intangible assets.

Regulatory capital: That allowed by the regulator for the purposes of calculating the solvency ratio. Tier 1 and tier 2 capital are distinguished, on the basis of their ability to absorb losses. Spanish regulations define regulatory capital more strictly than Basel I, especially as regards tier 2 capital.

Retail banking: Banking activity with small and medium-sized businesses and households.

Return on assets (ROA): Net income (after taxes) attributed to the group as a percentage of average total assets.

Return on equity (ROE): Net income (after taxes) attributed to the group as a percentage of the average own funds attributed to the group.

Risk exposure: Product of the exposed amount and the PD assigned to such amount. The effect of loss given default (LGD) is not included.

Risk mitigation: Elements incorporated into a transaction, in the form of security interests, guarantees or credit derivatives, that help to reduce its associated risk.

Risk premium: The return required from a security in excess of that on a safe asset to compensate for the higher risk of the former relative to the latter.

Risk profile of assets: Assets weighted by risk with respect to total assets.

Risk profile of the credit portfolio: Calculated by multiplying the parameter α (alfa) of the method for estimating the general allowance or provision assigned to each of the six categories of risk by the exposure contained therein. The six categories are: *Negligible risk,* which includes, among others, exposures to EU general governments or exposures guaranteed by the latter, and interbank financing extended by the institution; *Low-risk,* which includes loans secured by mortgages on completed housing when the outstanding risk is less than 80% of the appraisal value of the housing and transactions in which the borrower is an A- or higher rated firm; *Medium/low-risk,* which includes leasing transactions not included in other risk categories and those risks secured by some security interest other than those mentioned in the preceding two categories; *Medium-risk,* which includes risks vis-à-vis residents in Spain not included in other risk categories; *Medium/high-risk,* which includes loans to individuals for the purchase of durable goods and current goods and services; *High risk,* which includes credit card balances and the current- and credit-account overdrafts of borrowers not included in the risk-free category.

Risk profile (financial assets abroad): see risk exposure.

Risk-weighted assets: The balance-sheet assets and contingent liabilities of an institution multiplied by the relevant weights, according to the instrument and the counterpart sector (Basel I). The weights attempt to reflect the credit, foreign exchange and market risk associated with each exposure.

Rollover risk or liability liquidity risk: Part of liquidity risk, although in the FSR this term refers to the possibility of losses arising from the difficulty the institution has finding funds to fulfil its commitments in relation to financial instruments, i.e. from the need to resort to the market

given the lack of coincidence between the maturity of the instrument that provides the financing and the time horizon for which it is required.

Secondary securities market: Market on which securities issued on primary markets are traded.

Senior debt: Debt which, in the event of liquidation of a company, ranks for repayment before other debt.

Solvency coefficient: Regulatory capital as a percentage of risk-weighted assets, which according to current law (CBE 5/1993) shall be at least 8%.

Sovereign spread: Measure of the market's perceptions of the probability of non-payment of the government debt of a particular country. It is the difference between the return on a bond representative of the debt issued by a country and that on a bond of a country with minimal credit risk, denominated in the same currency and with a similar duration.

Spanish deposit institutions: Savings banks, co-operatives and those commercial banks that are controlled by Spaniards and have their head office or parent company in Spain.

Special purpose vehicles (SPVs): Used by deposit institutions for various purposes (e.g. securities issuance), normally, though not always, domiciled in offshore centres and, in Spanish accounting regulations, included in banks' consolidated balance sheets.

Specialised credit institutions: Financial institutions that are not permitted to raise deposits from the public, although they can raise close substitutes for deposits by, for example, issuing securities with a maturity of more than one month or borrowing on the interbank market.

Specific impairment losses (specific allowances for insolvency risk attributable to the customer): Impairment loss in the period considered, charged to income statement, arising from customer insolvency risk. The exposures that should be provisioned, with the application of specific minimum percentages, with certain exceptions are: assets classified as doubtful (due to customer arrears or for reasons other than customer arrears), substandard assets, doubtful contingent exposures and commitments (except for guarantees and other indemnities given) classified as doubtful for reasons other than customer arrears, and guarantees and other indemnities given classified as doubtful both due to customer arrears and for reasons other than customer arrears.

Standardised approach: Regulatory approach to risk measurement and capital requirements that is analogous to the current Basel I, but more sensitive to risk as it allows external ratings to be used as a measure of risk that affects the weights applied to the counterparty.

Structural position in foreign currency: Unhedged investment assets in foreign currency financed in euro (investments in property for own use, significant holdings of a permanent nature and, in the individual balance sheet for business in Spain, endowments to branches abroad), that are converted at the exchange rate of the date of their purchase (historical exchange rate).

Subordinated debt: Debt which, in the event of liquidation, ranks for repayment behind other debt, only preceding shares and, where applicable, non-voting equity units and preference shares.

Subsidiaries: Independent legal persons established in accordance with the laws of the country in which they reside that are controlled by their parent company. In general, in the FSR this term refers to subsidiaries in consolidated groups located abroad.

Syndicated loans: Loans for which a temporary association of financial institutions is created to share the burden of the loan among them.

Tier 1 capital: Basically made up of capital, disclosed reserves, preference shares and non-voting equity units, less goodwill.

Tier 1 ratio: More restrictive measure than the solvency ratio, since the numerator consists of tier 1 capital only. It must be at least 4%.

Tier 2 capital: Basically made up of subordinated debt, although certain limits apply.

Total lending: See credit portfolio.

Total spread or return on intermediation: Difference between the average return on earning financial assets and the average cost of interest-bearing financial liabilities. The sum of the institution's asset and liability spreads.

Treasury or trading activity: Operations carried out for profit on the wholesale financial markets by a special unit of the institution, involving the management of risk positions, speculation, within the limits set by the institution, and/or covering its borrowing requirements and hedging its risks. These operations also provide services to customers.

Uncommitted assets or solvency margin of insurance companies: equivalent to the own funds of credit institutions.

Unexpected losses: Unanticipated losses on a portfolio. Calculated as the loss associated with a sufficiently high confidence level of the loss distribution, less the expected loss.

Universal banking: That performed by institutions which engage in corporate, investment and retail banking activities without distinction.

Unrealised capital gains (losses): Equity valuation adjustments resulting from the profits (losses) that have arisen but are not realised in the securities portfolio recorded in available-for-sale financial assets measured at fair value through equity.

Unsectorised accounts (net): The equity of entities and other asset and liability items that are not assigned to any grouping either on the basis of residence (residents/non-residents) or on the basis of an institutional criterion (monetary financial institutions, general government and other sectors).

Value at risk (VaR): Maximum loss on a portfolio, to which a certain probability is assigned, during a specific time horizon.

Weighted average range: Weighted average bid-ask spread for listed securities.

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