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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
DIs	Deposit institutions
ECB	European Central Bank
EMBI	Emerging markets bond index
EMU	Economic and Monetary Union
EU	European Union
FSR	Financial Stability Report
GDI	Gross disposable income
GDP	Gross domestic product
GVA	Gross value added
GVAmp	Gross value added at market prices
ICO	Instituto Oficial de Crédito (Official Credit Institute)
ID	Data obtained from individual financial statements
IMF	International Monetary Fund
LGD	Loss given default
m	Millions
MEFF	Mercado Español de Futuros y Opciones (Spanish Financial Futures and Options Market)
MTS	Market for Treasury Securities
NPISH	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
SENAF	Sistema Electrónico de Negociación de Activos Financieros (Electronic Financial Asset Trading System)
SMEs	Small and medium-sized enterprises
SPV	Special purpose vehicle
VaR	Value at risk

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Introduction

The acquisition of a large British institution by a Spanish institution in late 2004 is a recurring theme throughout this Report and, to some extent, hinders comparison with the previous period, particularly taking into account that it materialised in December 2004. A significant portion of the growth of certain asset headings, such as lending, risk-weighted assets or financial assets abroad, is as a result of this acquisition. Naturally, this means some of the conclusions of this Report on the activity, profitability and solvency of Spanish deposit institutions as a whole should be viewed with some caution. All the chapters in the Report refer to the aforementioned acquisition so as better to interpret changes in the aggregate figures or across groups of institutions.

This caveat made, Spanish deposit institutions saw a fresh increase in profitability in 2004. That said, the different solvency ratios have continued their downward trend, against the background of marked buoyancy of credit granted, to which the above-mentioned acquisition contributed. This turnaround came about despite the sizeable growth of capital. In any event, solvency ratios remain substantially above the minimum required levels. The sound performance of results was underpinned not only by the increase in activity but also by the ongoing cost-containment drive by institutions. The contribution of business abroad was also more favourable than in previous years.

Banking risks

The sound position of the Spanish economy, which is posting GDP rates clearly above the euro area average, largely explains the strong growth of Spanish deposit institutions' activity. This, in turn, is substantially due to the continuing forceful pace, for another year, of financing to the resident private sector. Much of this growth can be attributed to the financing of activity relating to the real-estate sector, whether to households for house purchases, or to builders and property developers. The dichotomy in the trend of credit to the resident private sector thus remains in place, and has led to a fresh increase in the relative weight of credit to the real-estate sector in the institutions' lending portfolio.

The liabilities incurred by Spanish households moved at a sharper pace than their income, making for a further increase in the sector's debt ratio in 2004, while their total debt burden showed a fresh increase. Against a backdrop of low nominal and real interest rates, and marked growth in house prices, the greater debt borne by households adds in a further factor of sensitivity to potential adverse interest-rate or employment shocks. However, household wealth has increased and, overall, their wealth position remains sound.

The favourable trend of the Spanish economy in 2004 helped to boost the profitability of non-financial corporations, in a setting marked by the low cost of debt. The sound financial position of companies — large corporations and SMEs alike — in recent years has made for a low probability of default on the financing that Spanish deposit institutions have granted to them.

The intense activity by Spanish institutions is also due to the greater buoyancy of their business abroad. In this respect, firstly, 2004 saw a sharp rise in the pace of the world economy, and particularly in Latin America. Secondly, and with a significant impact on the December 2004 balance sheet figures, last year saw the above-mentioned acquisition of a large UK bank by a Spanish institution. Financial assets abroad grew at a rate not seen since the expansion of Spanish banks into Latin America in the late 1990s, while their geographical composition

and business mix changed. In particular, the relative exposure in emerging countries decreased and that to households and companies increased. The result was to reduce the risk profile of foreign assets, which are now more highly diversified by country and by currency.

The sound economic position both in Spain and worldwide, and particularly in Latin America, contributed to the decrease in total doubtful assets. This, together with the growth in lending, has reduced the doubtful asset ratios, especially in business abroad. These events speeded up the convergence of doubtful asset ratios abroad with those of business in Spain which, nevertheless, remain at significantly lower levels. The drop in the doubtful asset ratio can be regarded as a general phenomenon among Spanish deposit institutions. In line with this improvement in *ex post* risk exposure indicators —and in this respect it must be not be overlooked that there is a sizeable time lag between lending growth and the emergence of the related doubtful assets— the risk profile of the loan portfolio diminished, albeit only slightly, due to the higher relative weight of secured loans.

The strong growth in financing to the resident private sector by deposit institutions is not being offset by commensurate growth in the financing raised from this sector. The debit balance with the resident private sector thus increased yet another year, although at a significantly slower rate than in previous years. The institutions continue to finance the expansion of their activity by issuing securities and borrowing on the foreign interbank market, which puts upward pressure on the average cost of their liabilities. Furthermore, with a view to financing credit growth and providing more room for manoeuvre, they have continued to expand the securitisation of assets and the issuance of covered bonds.

The momentum shown by Spanish deposit institutions is not limited to the extension of credit, but also manifests itself in the provision of asset management services, where they have strengthened their presence in the marketing of pension funds and, more importantly, of mutual funds. Also, institutions market additional financial services that are offered by insurance companies controlled by them, basically in the life and mixed insurance lines. At aggregate level, these firms generally show high profitability and a solvency margin substantially above the minimum requirement.

The international financial situation was characterised by generous financing conditions, widespread rises in stock market prices and declines in the associated implied volatilities. In this setting, the market risk for institutions seems to be relatively limited. However, regard should be had to the risks for the international financial markets that may arise from movements in interest and exchange rates, oil prices and from the way in which currently existing global imbalances may be corrected. Liquidity risk also seems to remain at low levels, there being no particular pressures in the markets or for Spanish institutions. However, the imbalance between resident private sector investment and financing continues, and this may pose challenges for institutions in the medium term.

Profitability

The favourable trend of Spanish deposit institutions' results, which accelerated relative to the preceding year, was confirmed during the course of 2004. This was made possible largely by the step-up in activity (including both financing to productive sectors and the provision of services to customers) causing the three margins (net income, gross and net operating) to increase in absolute value. The growth of the net operating margin was due particularly to the ongoing cost-containment efforts, which fed through as a moderate rise in operating expenses (they fell as a percentage of average total assets) and as a consequent additional improvement in the efficiency ratio. Accordingly, the buoyant activity, the positive performance of commissions and the more favourable contribution of business abroad were amply sufficient to offset the contin-

ued narrowing of interest rate spreads between banking assets and liabilities. Further, the contribution from the results of non-financial corporations and insurance companies in which deposit institutions have a stake, and the lower volume of goodwill amortisation after the high provisioning of previous years, offset the lower extraordinary income.

As a result of the foregoing, 2004 saw a further increase in returns on equity, which are substantially higher than long-term public debt yields. Sustaining profitability over time is one of the most formidable challenges facing Spanish deposit institutions.

The previous FSR reported the good relative position of Spanish institutions compared with the weighted average of European credit institutions. This general finding continues to hold when the analysis is conducted after first dividing the institutions into three size categories, albeit with certain differences. In particular, although the return on equity of Spanish institutions is higher than the European average for the three sizes, the difference is considerably larger for the institutions in the biggest size classification. The available market indicators confirm that the large Spanish institutions are in a similar position to their European counterparts, having analogous stock market behaviour and implied volatility. Finally, both the betas and the risk premiums extracted from credit derivatives markets show that the risk profile of Spanish institutions is near the average.

Solvency

The solvency ratios of Spanish deposit institutions fell in 2004, continuing the downward trend observed in the past few years. The significant increase in capital did not offset the sharp growth in requirements.

Capital rose substantially against a background of growth in institutions' profits and of stability in the pay-out ratio. Also, the capital increases by certain large institutions and the greater recourse to preference share issuance, which counteract the substantial increase in goodwill, strengthened the tier 1 capital of Spanish deposit institutions. Tier 2 capital also rose, basically due to the vigour of subordinated financing.

In 2004, as a result of the favourable cyclical position of the Spanish economy, the statistical fund continued to grow and there was a further increase in the number of institutions that have reached the fund limit. Despite the excellent results of a prudential nature achieved by the statistical provision since its implementation in July 2000, the introduction in the European Union of the new international accounting standards signified their elimination in 2005. However, the Banco de España's new accounting circular (4/2004) proposes a framework that maintains the prudential elements of the former one and at the same time is compatible with international accounting standards.

In short, the buoyant activity, along with the acquisition of a large foreign institution, the cost-containment efforts and the bigger contribution from business abroad led to an increase in profit and profitability of Spanish deposit institutions. At the same time, their solvency ratios remained considerably above the regulatory requirements. However, the strong growth in credit, insofar as it could be a source of future default, requires the ongoing attention of institutions.

I Banking risks

I.1 Introduction to Spanish deposit institutions' risk

CONSOLIDATED BALANCE SHEETS

The consolidated balance sheets of Spanish deposit institutions show that their activity gained further momentum in 2004. This is explained partly by the growth of financing to the private sector in business in Spain. At the same time, foreign business grew notably, largely due to the acquisition in the United Kingdom of a large institution by a Spanish institution which is also of considerable size, thereby raising the relative weight of foreign business in the total¹. Meanwhile, the doubtful assets ratio of the private sector continued to fall.

In 2004 the total assets of Spanish deposit institutions grew by 25.4%, compared with 9.9% in the previous year² (Table I.1)³. Although the greater buoyancy of activity had already become apparent, the pace observed in 2004 exceeded by around 2 pp the highs recorded in late 2000 coinciding with major acquisitions of Latin-American institutions.

This brisker increase in total assets took place against a background of growth in business in Spain which, with a relative weight of 76.6%, grew at a rate of 13.2%. This rate, nevertheless, is in line with that observed in 2003 (13.3%). For its part, foreign business grew strongly, since total assets went from a fall of 6.3% to growth of 93.5%. In the past year a relative improvement in foreign business had already become noticeable, largely owing to the recovery in the world economy, particularly in Latin America. Although at the end of 2004 this trend continued, a large part of the growth was due to the aforementioned acquisition of a British bank.

The high growth of foreign business is what enabled its weight in the balance sheet to reach 23.4%. This breaks the downward trend seen since the end of 2000, with a return to levels similar to those in December 2001 (Chart I.1A).

As regards balance sheet structure, on the *assets* side the relative weight of financing to the private sector rose by 4.6 pp to a new high (63.5%). 2004 saw confirmation of the pick-up in this item, which grew by 35.2%, 21.4 pp more than the previous year.

The vigour of financing to the private sector is due to the growth recorded in Spain (19.5%, nearly 4 pp more than in 2003). Once again, the reason for this increase is credit to the private sector, particularly secured loans, which grew by 23% (up 1.3 pp).

This trend is strengthened by the events in foreign business (Chart I.1B), where financing to the private sector had a weight of 57.2% in December 2004, against 41.5% the previous year. The main reason for this is credit to the private sector, particularly secured loans, which went from negative rates of change to growth of more than 300%. Again, the aforementioned purchase

1. The institution acquired and included in the acquiror's balance sheet in December 2004, although not in its profit and loss account, had, at the balance sheet date, assets representing somewhat less than 10% of the consolidated total assets of Spanish deposit institutions. Naturally, as mentioned in the introduction, given its size, this transaction hinders comparison with the same period of the previous year in respect of changes in foreign and total business, in relative profitability, in risk-weighted assets and in solvency ratios. For this reason, it is a matter that will recur throughout the FSR. 2. Unless stated otherwise, amounts refer to December 2004 and comparisons are always between that month and December 2003. 3. The data presented in Table I.1 relating to dates prior to December 2004 may differ slightly from those published in previous FSRs due to revisions by the institutions themselves and to changes in the composition of consolidation groups. These minor changes in no way alter the conclusions reached earlier.

CONSOLIDATED BALANCE SHEET

TABLE I.1

Deposit institutions

ASSETS	DEC-04 (€M)	RELATIVE WEIGHT IN DEC-04 (%)	CH. D-03/D-02 (%)	CH. D-04/D-03 (%)	LIABILITIES	DEC-04 (€M)	RELATIVE WEIGHT IN DEC-04 (%)	CH. D-03/D-02 (%)	CH. D-04/D-03 (%)
Cash on hand and on deposit at Central Banks	33,855	1.7	17.3	4.2	Central Banks	31,880	1.6	62.7	-14.2
Due from credit institutions	197,653	9.9	-0.6	9.9	Due to credit institutions	346,618	17.3	14.9	22.9
Credit to general government	47,513	2.4	-5.7	2.9	Credit from general government	52,274	2.6	-11.3	28.0
Credit to private sector	1,175,428	58.6	13.4	34.0	Customer deposits	1,011,165	50.4	5.5	24.9
Fixed-income portfolio	309,618	15.4	16.6	16.5	Marketable debt securities	225,979	11.3	42.0	44.2
Doubtful assets	11,491	0.6	-5.5	-1.5	Other liabilities	53,226	2.7	2.9	29.9
Equity portfolio	74,525	3.7	11.0	26.0	Accrual accounts	25,218	1.3	-4.4	30.6
Property and equipment	28,860	1.4	-3.7	16.0	Provisions	59,483	3.0	1.6	11.3
Goodwill in consolidation	26,372	1.3	-15.7	68.4	Negative difference in consolidation	238	0.0	-1.9	18.1
Intangible assets	1,481	0.1	-7.6	-1.1	Subordinated debt	46,337	2.3	8.1	37.2
Own stakes and shareholders	282	0.0	-22.3	24.1	Minority interest	24,044	1.2	0.3	16.8
Other assets	58,747	2.9	2.8	20.0	Capital stock	9,708	0.5	4.1	9.8
Accrual accounts	24,710	1.2	-6.0	13.9	Reserves	80,386	4.0	5.1	29.5
Prior year's losses at the controlling entity	307	0.0	25.3	-36.3	Reserves at consolidated companies	23,425	1.2	4.7	17.8
Losses at consolidated companies	14,251	0.7	3.5	9.7	Net income (+/-)	15,110	0.8	13.6	14.2
					Group	13,602	0.7	16.1	19.1
TOTAL ASSETS	2,005,254	100.0	9.9	25.4	TOTAL LIABILITIES	2,005,254	100.0	9.9	25.4
Memorandum item									
Financing to private sector	1,272,350	63.5	13.8	35.2					
Financing to general government	217,251	10.8	6.8	-5.3					

SOURCE: Banco de España.

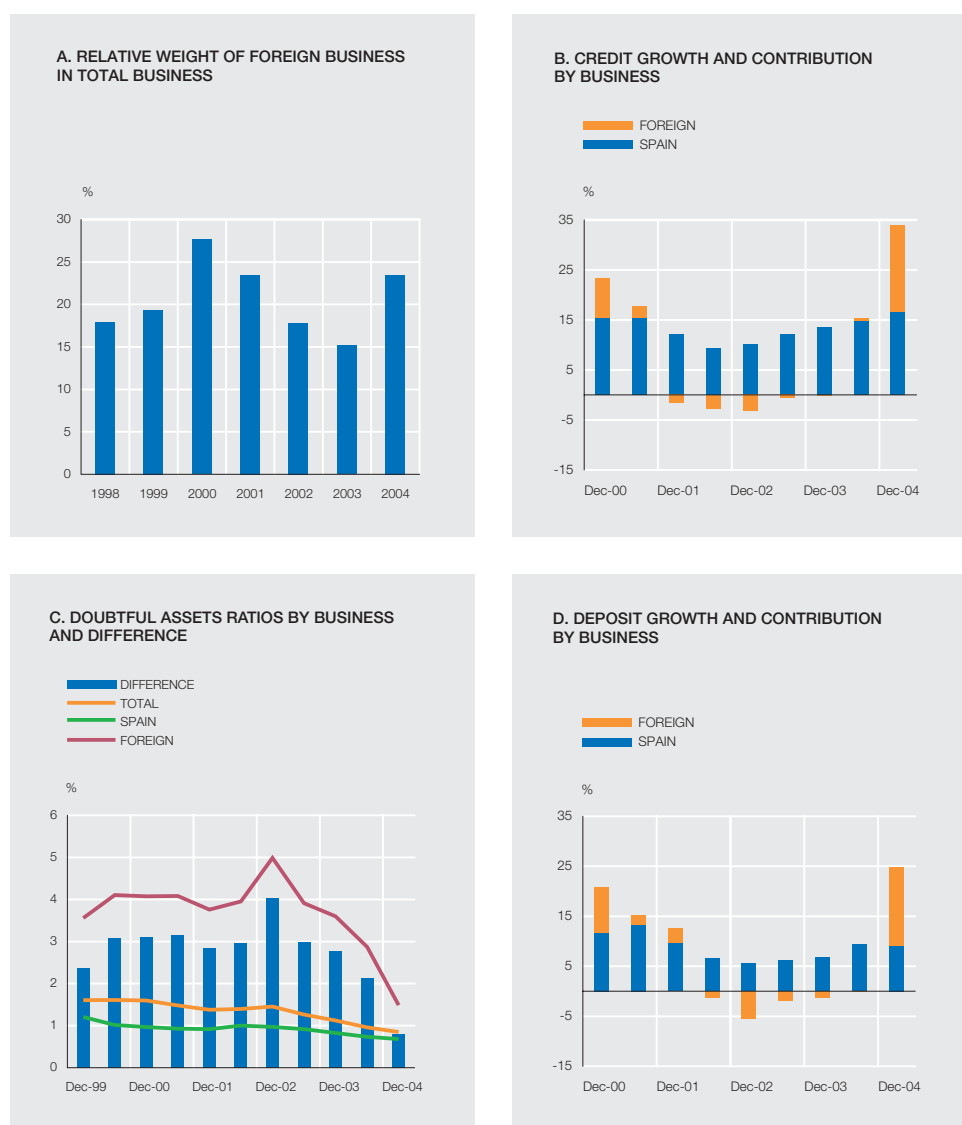
of a British institution highly specialised in the house purchase credit segment⁴ largely explains this performance.

Total doubtful assets continued to decrease, although less sharply than in 2003 (-1.5% against -5.5%). This decrease meant that their relative weight declined to 0.57% (against 0.73% in December 2003). This loss of relative weight is apparent both in business in Spain (0.46% against 0.53%) and abroad (0.9% against 1.8%), with a fall in absolute value in both cases. The explanation for this performance lies in the sound position of the Spanish economy, the improvement in the world economy, particularly in Latin America, and the change in the risk profile of foreign business.

Nonetheless, in foreign business, doubtful assets vis-à-vis the private sector grew by 9.9%, which explains why they were up by 2.4% in total business despite decreasing in Spain (-1.7%). As a result, and helped by the growth in credit, the doubtful assets ratio of the private sector dipped once again (0.9%, against 1.1% in December 2003). This reduction took place both in Spain (0.1 pp to 0.7%) and, above all, abroad (from 3.6% in December 2003 to 1.5%), where credit to the private sector grew at a rate of 167%, well above the growth rate of doubtful assets (Chart I.1C). The change in the composition of foreign business contributed to this substantial

4. At the purchase date, secured loans represented a very high percentage (above 80%) of the total credit extended by this institution to the private sector. Indeed, the institution was identified as a specialist in mortgage lending and, more generally, in household banking, in the study by J. Delgado, D. Pérez and V. Salas entitled "Especialización crediticia y resultados en la banca central", published in *Estabilidad Financiera*, n.º 5, November 2003.

Deposit institutions



SOURCE: Banco de España.

fall in the doubtful assets ratio. Although the doubtful assets ratio differs considerably between business in Spain and foreign business, these differences, against a background of shrinking doubtful asset ratios, are diminishing. The December 2004 data confirm this trend.

Financing to general government saw a reversal in the previous year's trend and decreased by 5.3%, as a result of which its relative weight fell by 3.5 pp to 10.8%. This is explained by the situation in business in Spain, since financing to general government fell by 13%; the last negative rate of change before then was at end-2000. The situation in foreign business, however, is the opposite, and financing to general government turned from a fall of 14.8% in 2003 to a rise of 22.1%. Despite this, given that total assets expanded by considerably more, in relative terms foreign business also lost ground (from 20.8% to 13.2%).

The equity portfolio continued the growth seen since the negative rates between late 2002 and early 2003, now showing increases of nearly 26% (15 pp more than in the previous year). Because of the strong momentum of activity, however, the relative weight in the balance sheet is practically unchanged (3.7%).

Goodwill, having progressively declined in relative weight in recent years, now represents 1.3% of the balance sheet (1% in December 2003), after growing 68.4% (-15.7% in 2003).

As regards *liabilities*, the rate of change of residents' deposits was substantially higher than in the preceding period (up 19.4 pp to 24.9%), although their relative weight slipped slightly (50.4% against 50.7% in December 2003). This rate is largely due to developments in foreign business (Chart I.1 D) where, after negative values in 2003, there is now growth of 90.5%. In business in Spain, there is still some acceleration in this item (11.2% against 8.4%) although it is growing more slowly than financing to the private sector.

Interbank financing grew faster than in the previous year (22.9% against 14.9%), despite which its relative weight in total business fell by 0.3 pp (to 17.3%).

In December 2004, both marketable debt securities and subordinated financing gained in relative weight in the consolidated balance sheet. The former again showed annual rates of growth higher than 40%, reflecting the continued positive rates of change in foreign business (13.9%) and, more importantly, in Spain (67.8%). The brisk rate of credit growth, higher than that of financing from depositors, obliges institutions increasingly to resort to securities issuance to cover their liquidity needs. Subordinated financing recorded a rise of 37.2%, the highest since 2000. This was due to business in Spain, where it grew by 37.8% (up 3 pp), and to the growth, after falls in the past two years, of subordinated financing abroad (from -9.5% to 41%).

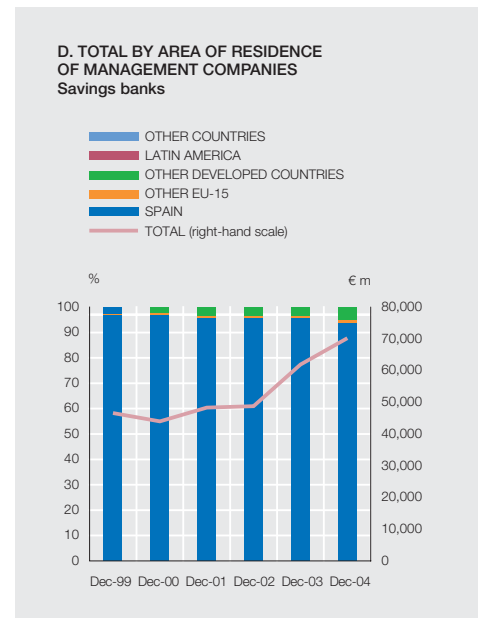
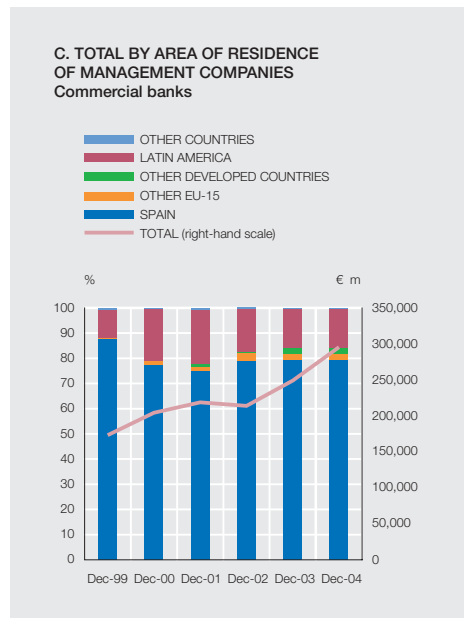
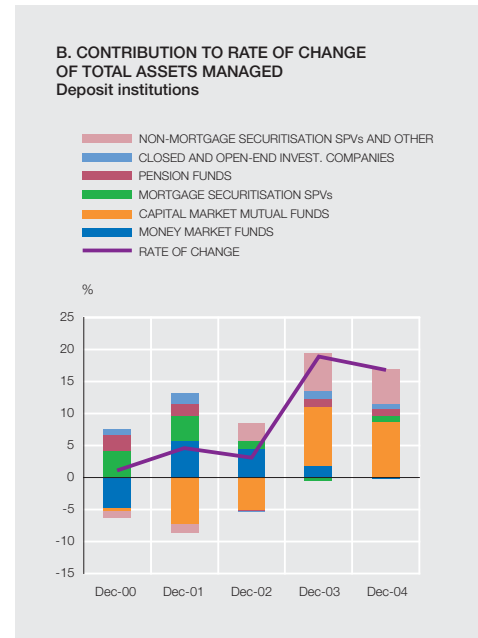
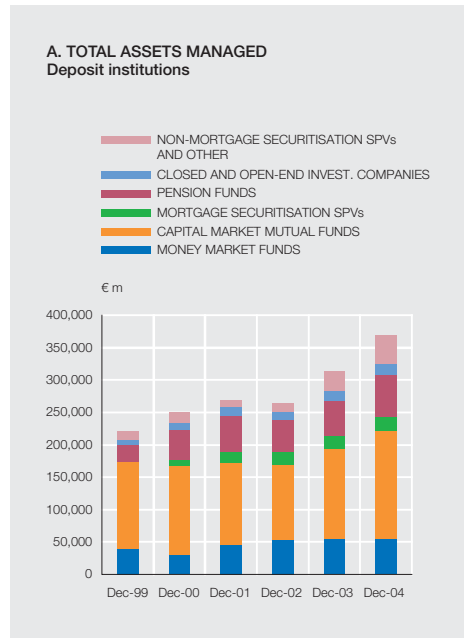
Preference shares, although their relative weight was unchanged at 1%, grew at a rate of 23.4%, also after negative rates of change in the past two years. Finally, group net income was up by 19.1%, nearly three percentage points more than in 2003.

ASSET MANAGEMENT

In December 2004 the management companies controlled by Spanish deposit institutions were managing assets of €368 billion, up 17.5% on the previous year (Chart I.2.A). This growth was due mainly to the rise in assets managed by capital market mutual funds and to non-mortgage securitisation SPVs (Chart I.2.B).

The above-mentioned development led to a certain change in the composition of assets under management by fund type, with increases of 1 pp in capital market mutual funds and of more than 2 pp in non-mortgage securitisation SPVs. As at December 2004, the assets of capital market mutual funds represented 45.3% of total assets under management, followed by those of pension funds with 17.5%, money market funds with 15.1%, non-mortgage securitisation SPVs with 11.8%, and mortgage securitisation SPVs with 5.8%. Finally, closed-end investment companies and open-end investment companies manage the other 4.5%. The geographical distribution by residence of the manager did not vary, the largest share being that of Spain (82.3%), followed by Latin America (12.5%).

The assets managed by management companies owned by *banks* amounted to €295 billion in December 2004, with a growth rate of 18.7% with respect to 2003, and this amount represented 80.8% of the total assets managed by commercial and savings bank management companies. Comparison of the volume of assets managed with non-interbank interest-bearing liabilities (deposits, marketable debt securities and subordinated financing) shows that the assets under management account for 38.7% of such liabilities, with which they compete in the raising of funds (27.9% if these assets are also included in the denominator of this fraction, 3.5 pp less than in 2003). This share rises to 56.7% if the assets managed by Spanish managers are compared with the non-interbank liabilities of business in Spain (36.2%, 1.2 pp less than in December 2003, if they are also included in the denominator).



SOURCE: Banco de España.

Of the assets managed by management companies controlled by commercial banks, capital market mutual funds predominate with 43.5%, followed by pension funds with 20%, money market funds with 13% and non-mortgage securitisation SPVs with 12%. Nearly 80% of assets were managed in Spain, followed by 15% in Latin America (Chart I.2.C).

The assets managed by management companies controlled by *savings banks* amounted to €70 billion, growing at a year-on-year rate of 13.4%, with a clear predominance of the domestic market, since the assets managed in Spain represent 93.7% of their business (Chart I.2.D). These assets account for 13.5% of the non-interbank interest-bearing liabilities of savings banks (11.9% if they are included in the denominator, 0.1 pp less than in December 2003), this relationship being much more stable than in commercial banks. The relative structure by product under management varied little with respect to 2003. Capital market mutual funds repre-

sent 52% of the total balance managed by subsidiaries of savings banks, against 23% for money market funds, while mortgage securitisation SPVs represent nearly 12% and pension funds 7%.

The differing geographical and product specialisation of the management companies controlled by commercial and savings banks is a logical extension of the differences in the traditional financial intermediation business and of the different customer segments served by them. These differences naturally manifest themselves in the consolidated profit and loss account of Spanish deposit institutions in terms of their contribution to commission income.

The share of deposit institutions in the Spanish market (assets managed by their management companies resident in Spain, divided by the total net assets of each type of institution) showed little change from 2003. Thus, in December 2004 the share of money market funds was practically unchanged, standing at 89.6%; capital market mutual funds gained 1.6 pp to 84.1%; closed-end investment companies lost 4.2 pp, standing at 22.7%; open-end investment companies added 0.8 pp, with a 73.1% market share; securitisation SPVs lost nearly 5 pp, standing at 43.1%; and pension funds scarcely changed at 46.9%.

INSURANCE COMPANIES

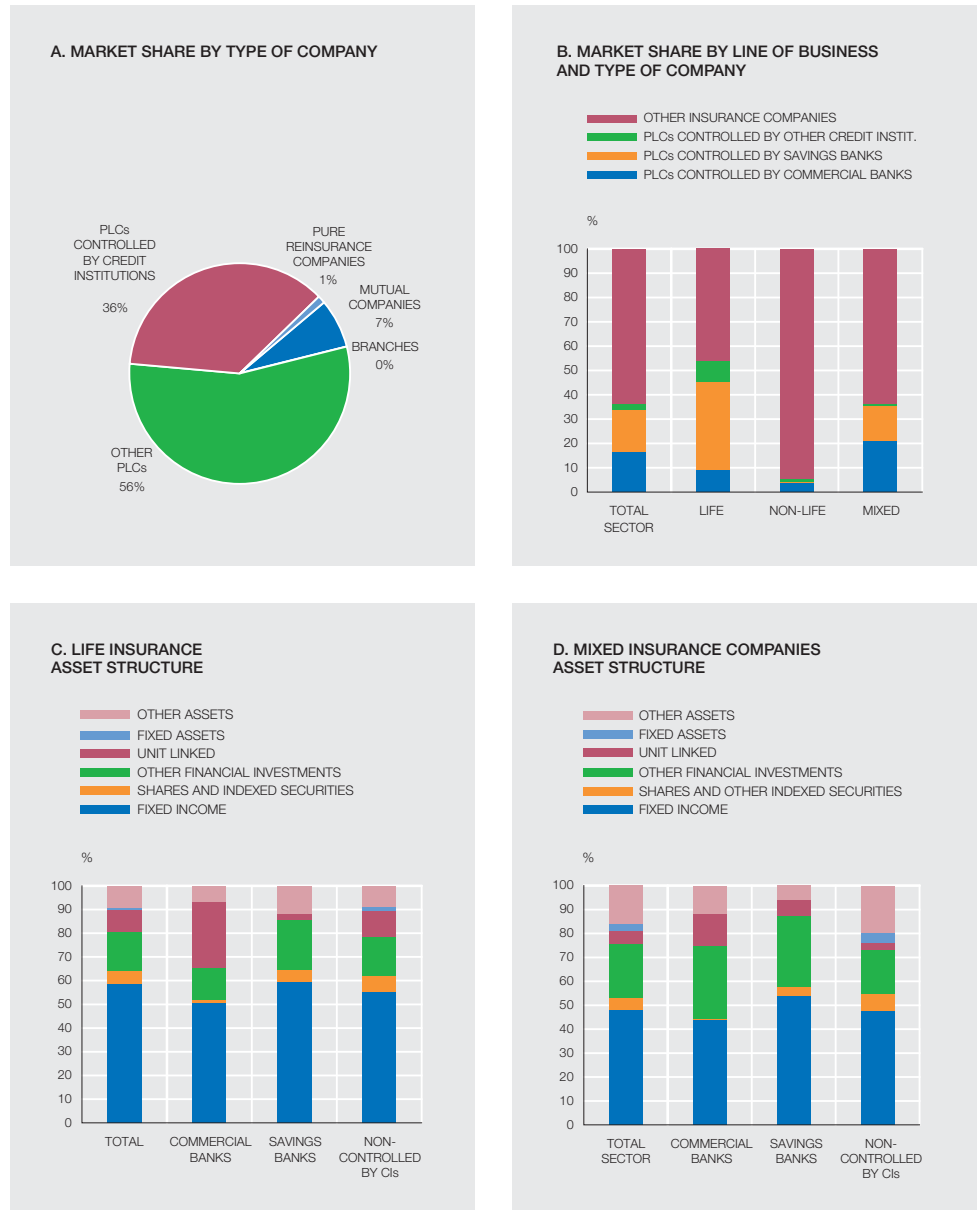
In December 2003 (latest available data), the assets of Spanish insurance companies⁵ amounted to €158 billion, having grown by 9.1% with respect to 2002. By type of firm, *sociedades anónimas* (public limited companies) predominate with 91.6% of the total (Chart I.3.A), while, by line of business, it is the mixed insurance companies⁶, with a 67.3% market share, that lead the field. Credit institutions basically control life insurance companies and the public limited companies controlled by groups of credit institutions represent 36.3% of the total assets of the sector. The breakdown by line of business reveals that 53.8% is life insurance, 5.6% is non-life and 36.2% is mixed (Chart I.3.B), although practically all the premiums of the latter come from life insurance.

Given the distinctiveness of the three lines of business, it is important to analyse their situation separately, especially the life and the mixed lines, which are the main activities of insurance companies related to credit institutions.

The *breakdown of the assets of life insurance* companies (Chart I.3.C) shows that tangible fixed assets held for use in operations and for investment stood at around 1% in December 2003, and was much lower still in the insurance companies controlled by credit institutions. Shares have very little weight in the balance sheet structure of the total life insurance sector (3.6% in insurance companies not controlled by credit institutions, 0.3% in those controlled by commercial banks and 4.8% in those controlled by savings banks, rising to 6.8%, 1% and 5.2%, respectively, if indexed securities are included). Fixed-income securities represent the bulk of life insurance companies' assets, standing at 58.8% in 2003, with a significantly lower percentage in companies owned by commercial banks (50.8% in 2003) than in those owned by savings banks (59.6%). Assets held on behalf of policyholders that assume the investment risk (i.e. investments derived from unit-linked policies) amounted to 9.1% in 2003, representing 27.6% in commercial banks against 2.8% in savings banks.

In 2003 the *ROE* improved both for insurance companies that are credit institution subsidiaries and for those that are not, standing at 11%. This improvement was mainly due to the result on

5. Data from the Dirección General de Seguros y Fondos de Pensiones. Branches of European Union entities are excluded due to lack of information. 6. Insurance companies are classified as life, non-life or mixed. Inclusion in each respective category is based on their profit and loss account. In a particular year, mixed undertakings are those that present both technical life and non-life accounts.



SOURCES: Dirección General de Seguros y Fondos de Pensiones and BE calculation.

financial investments (up 3.4%) which practically offset the fall in premiums (10.9%) caused partly by the termination in 2002 of the period for externalisation of pension commitments. This improvement raised the ROE of commercial bank subsidiaries from 16% in 2002 to 16.5% in 2003 and that of savings bank subsidiaries from 7% to 9.8%.

Finally, the coverage of the *solvency margin* (ratio of total own funds to requirements) grew in 2003 for all life insurance companies, standing at 267%. This growth came about because own funds rose by 18.6%, while requirements were 6.5% higher. For commercial bank insurance companies, the coverage stood at 218%, with decreases of 14.3% in own funds and of 22.7% in requirements, while for savings bank insurance companies the coverage was 252%, with growth of 9.7% in own funds and of 12.8% in requirements. Lastly, coverage in insurance companies not controlled by credit institutions stood at 288%, with increases of 41% in own funds and of 8.7% in requirements. It should not be overlooked that solvency requirements are currently based mainly on technical risk and only to a minor extent on asset risk (market and

credit risk). The new solvency regulations under discussion for insurance companies (known as Solvency II) will improve the relationship between capital requirements and the risk incurred, which could in the future reduce the excess coverage of the solvency margin.

Turning to *mixed insurance companies*, those that are subsidiaries of credit institutions show a clear specialisation in life insurance, while the others have no clear focus. This specialisation is apparent in the *composition of their assets* (Chart I.3.D). Thus operating and investment tangible fixed assets, as well as shares, are only significant in insurance companies not controlled by credit institutions. Investments on behalf of life policyholders (unit-linked insurance) are a major item for insurance companies controlled by credit institutions and, more specifically, for those controlled by commercial banks, where they amount to 13.3% of assets (6.3% in those controlled by savings banks). For those controlled by commercial banks, fixed-income securities represented 43.9% of assets in 2003, while for those controlled by savings banks the figure was 53.8% and for those not controlled by credit institutions it was 47.8%. Other financial investments (deposits at credit institutions and other investments) represented around 30% of assets in insurance companies controlled by commercial and savings banks and only 18% in non-controlled ones.

As in life insurance companies, there is a predominance of fixed-income securities and, to a greater extent in companies controlled by commercial banks, of risk assumption by the insurance policyholder (through unit-linked insurance). The funds invested in shares are, once again, of scant importance, and this enabled Spanish insurance companies to outperform their European counterparts during the stock market price slump at the beginning of this decade.

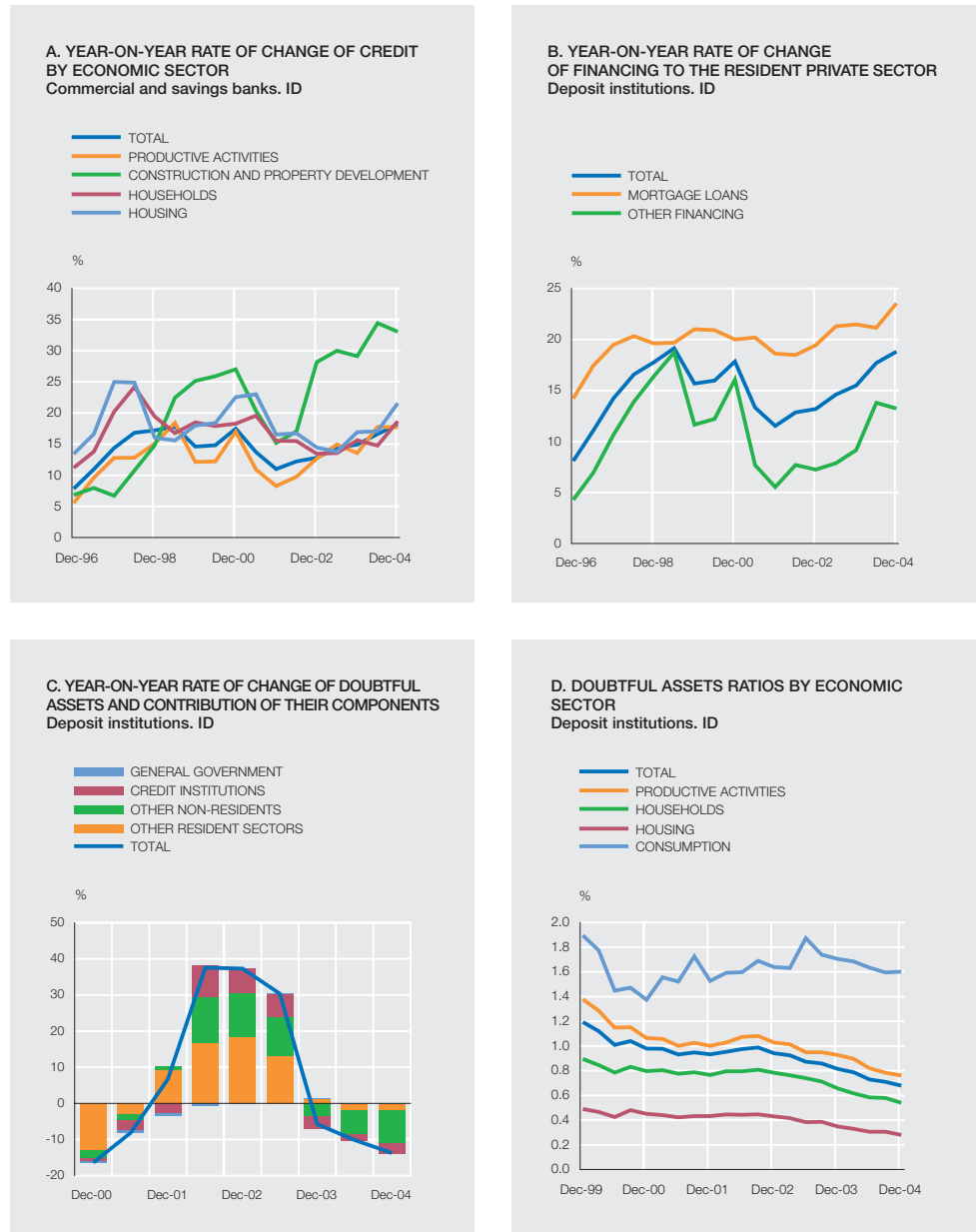
The *ROE* for mixed insurance companies as a whole rose from 13.6% in 2002 to 18.4% in 2003. This improvement was seen in all types of entities. Specifically, in those controlled by commercial banks, it was from 20.1% to 21.5%, and in those controlled by savings banks it was from 21% to 24%, while in the others it was from 10.9% to 17.1%. In the life business of mixed insurance companies, the improvement prevailed in spite of a sharp fall in their premiums, which was offset by an increase in the result on financial investments. Meanwhile, non-life insurance premiums rose, as did the result on the related financial investments.

In the companies controlled by credit institutions, the coverage of the *solvency margin* in non-life business in 2003 stood at 189% for mixed insurance companies, 191% for commercial banks and 166% for savings banks, while in those not controlled by credit institutions it amounted to 215%. The coverage of the solvency margin in life business in mixed insurance companies, although high, leaves less leeway: for commercial-bank-controlled insurance companies it was 144% in 2003, for savings-bank-controlled insurance companies it was 143%, and for companies not controlled by credit institutions it was 199%.

In short, insurance companies controlled by credit institutions, which have a significant market share in life and mixed business, showed, at aggregate level, a high return on equity in 2003, along with a solvency margin substantially above the minimum requirement, although below that of other insurance companies.

EVOLUTION OF RISKS

Financing to the resident private sector again accelerated in 2004, this time from 14.9% in 2003 to 18.5% in 2004, for commercial and savings banks as a whole. This acceleration was seen both in credit for productive activities and in that to households (growth of 17.7% and 18.7%, against 13.6% and 15.6% in 2003, respectively). A good part of this growth is attribut-



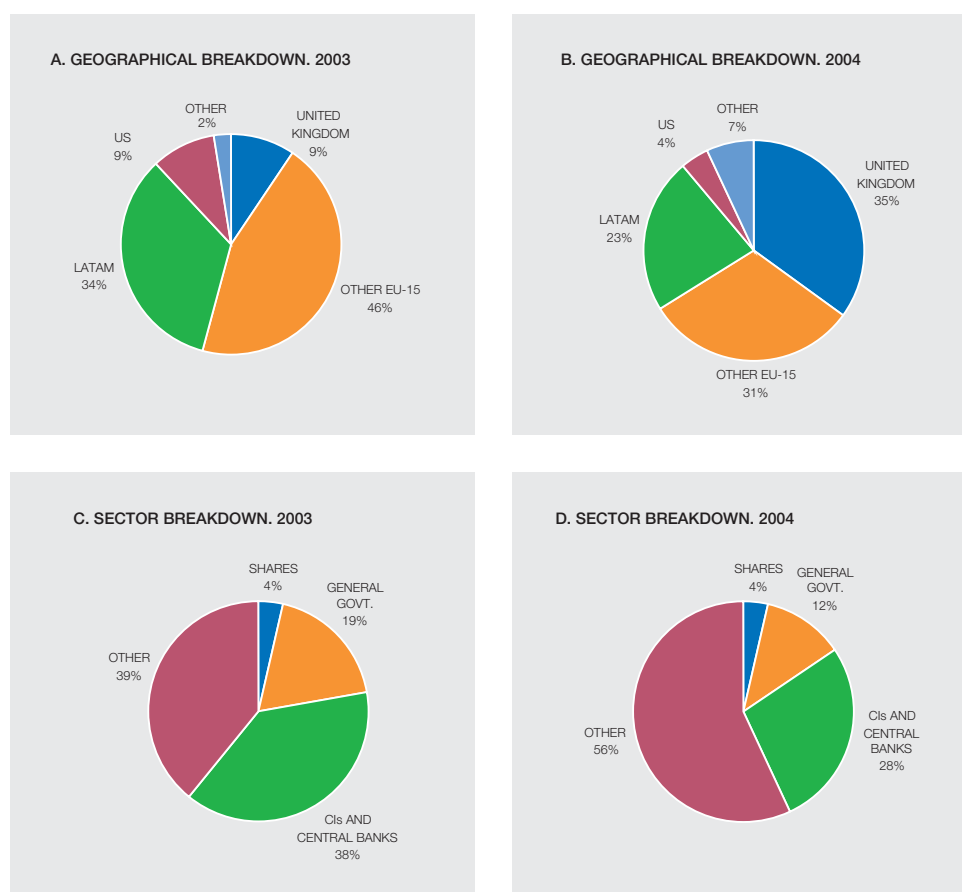
SOURCE: Banco de España.

able to financing related to the property sector, whether to construction and property development companies or to households for house purchases (Chart I.4A). It is thus not surprising that secured loans are growing 10 pp more rapidly than other credit, despite the significant recovery in the latter in 2004 (Chart I.4B).

The growth rate of *credit to property developers*, which has shown high doubtful asset ratios in recessions, stabilised in 2004, albeit at very high levels (above 40% year-on-year). This performance is the result of a slowdown in growth rates of commercial banks and a pick-up in savings banks. In 2004, 24 deposit institutions with a relative weight of 7% in credit to the resident private sector more than doubled their property development loan portfolio, while another 56, with a relative weight of 37%, saw above-average growth.

The volume of *doubtful assets* at individual institution level decreased in 2004, due both to the favourable trend in doubtful assets vis-à-vis the resident private sector and, more importantly,

Deposit institutions



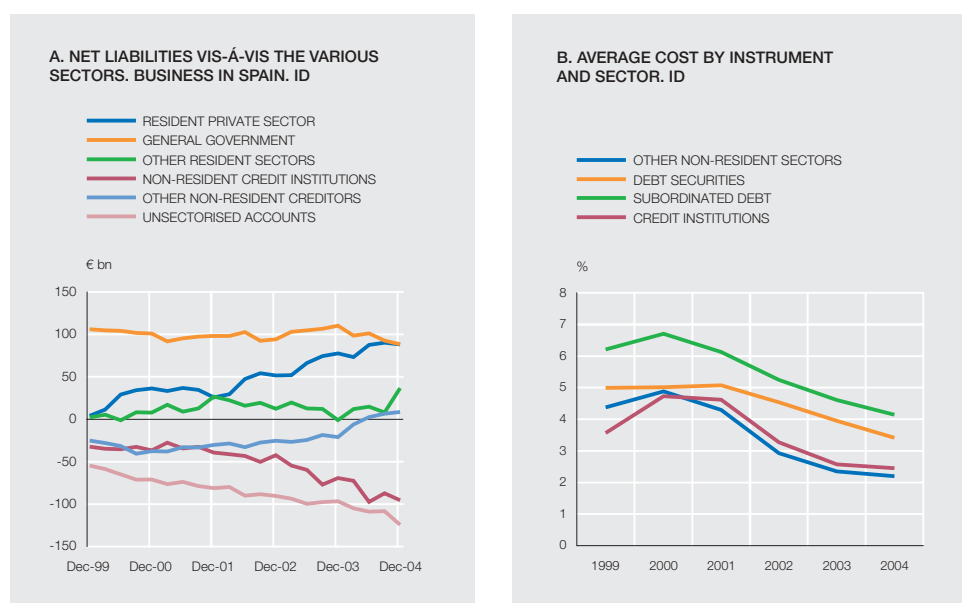
SOURCE: Banco de España.

to the decrease in doubtful assets vis-à-vis the non-resident private sector and non-resident credit institutions (Chart I.4C). The sound performance of economic activity in Spain, the low nominal and real interest rates, and the strong growth of the Latin-American economies, particularly Argentina, explain this performance.

The growth in lending, together with a decrease in doubtful assets, led to an additional fall in *doubtful assets ratios* in 2004. Despite the low relative levels of doubtful assets, differences between business segments persist (Chart I.4D). The segment with the least doubtful assets is house purchase financing, followed by financing to firms and, lastly, consumer credit. The relative importance of each segment is such that there is little difference in the doubtful assets ratios of households and firms, although within the latter significant differences do exist between sectors (Chart I.4 C and D in the previous FSR).

As mentioned in the introduction, the relative weight of the *foreign assets* of Spanish deposit institutions increased in 2004, largely as a result of the purchase of a large British bank by a Spanish institution. Probably more significant from the standpoint of risk is the impact of that acquisition in terms of the composition of financial assets abroad, with a significant decrease in the relative weight of exposure in emerging countries and a rise in the weight of the United Kingdom, a country with the top credit rating (Charts I.5A and B). Analysis by institutional sector also reveals changes, with an increase in exposure to the private sector (households and firms) at the expense of general government and interbank assets (Chart I.5C and D). The increased exposure to the private sector is largely due to secured lending for house purchase in

Commercial and savings banks



SOURCE: Banco de España.

the British market, which is the most important lending business segment of the acquired bank.

The aforementioned developments resulted in a change in the *risk profile of the foreign assets* of Spanish deposit institutions, with a lower relative exposure to the Latin-American emerging economies, a greater exposure to the British market, albeit highly focused on the property market, and a greater diversification of credit and exchange risk by country and currency.

The *debit balance* of commercial and savings banks with the *resident private sector* continued to increase in 2004, although significantly more slowly. This rise was due to the developments in the first half of 2004, because in the second half the debit balance fell slightly (Chart I.6A). As in previous years, the difference between the financing granted to and received from residents was financed by own funds and by borrowing on the foreign interbank market. Also contributing in 2004 was the decrease in the debit balance with general government and the significantly lower recourse to other non-resident sectors, which ceased to be creditors and became debtors of commercial and savings banks as a whole. The replacement of financing from other non-resident sectors by foreign interbank market funds continued to put pressure on the average cost of liabilities of Spanish institutions. In any event, financing via subordinated debt and marketable debt securities continued to be the most costly (Chart I.6B).

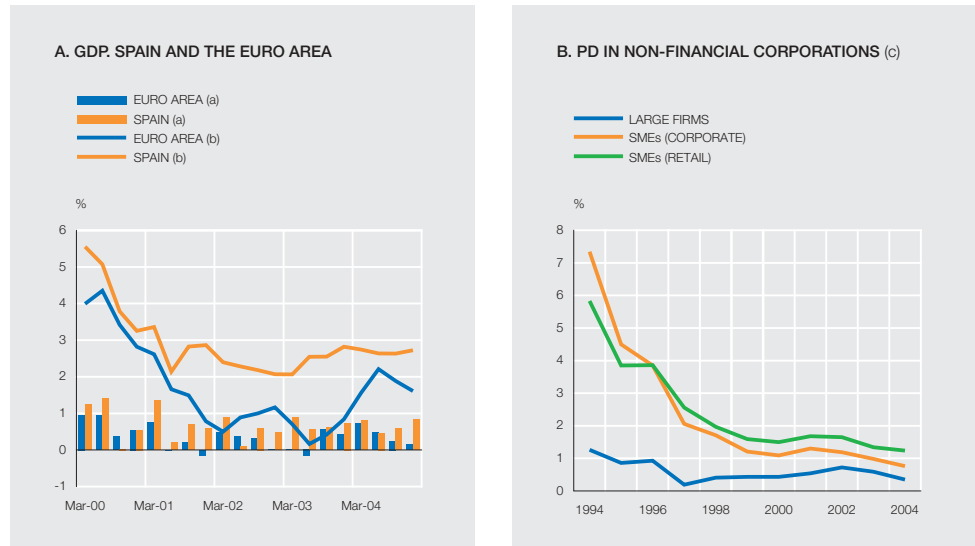
1.2 Credit risk

1.2.1 IMPACT OF THE MACROECONOMIC BACKGROUND

a. Spain and the euro area

The latest available data show that the recovery of activity in the *euro area* continues to be slow. Thus in the last three months of 2004, GDP grew by 0.15% quarter-on-quarter, 0.1 pp less than between July and September, while in year-on-year terms its expansion was trimmed by 0.3 pp to 1.6% (Chart I.7A). *Spain's* GDP in the same period continued to grow at clearly higher rates of 0.8% and 2.7% in quarter-on-quarter and year-on-year terms, respectively, representing increases of 0.2 pp and 0.1 pp with respect to 2004 Q3.

The medium-term factors of vulnerability for Spain did not alter significantly in the second half of 2004. The inflation differential with the euro area remained high at 0.9 pp at the end of 2004;



SOURCES: INE and Eurostat.

- a. Quarter-on-quarter rates.
- b. Year-on-year rates.
- c. SMEs are divided into corporate and retail portfolio according to Basel II criteria.

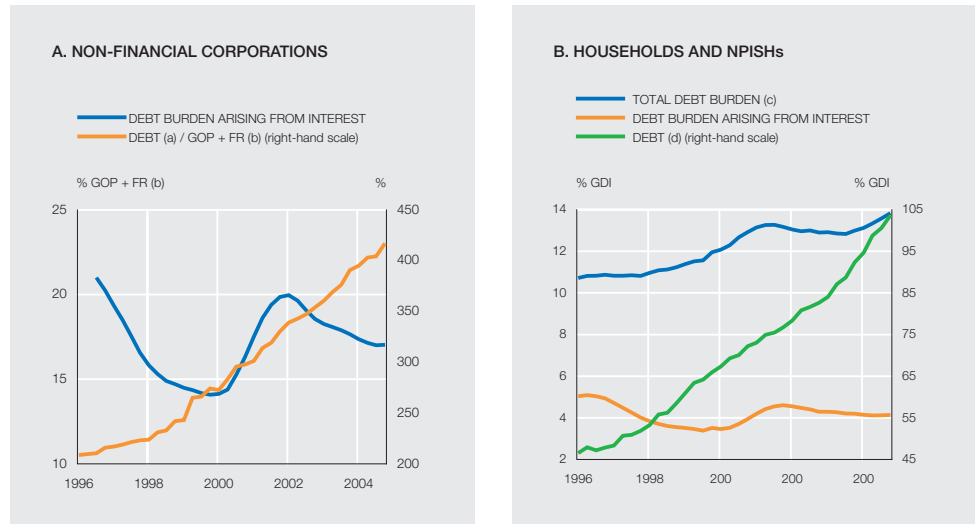
household debt continued to grow rapidly and now exceeds the sector's gross disposable income; and house prices still show no clear signs of deceleration.

Non-financial corporations

The *results* of the corporations that report to the Banco de España Central Balance Sheet Data Office (CBSO) grew at a notable pace in 2004. Gross operating profit grew by 8.6%, which was 4 pp more than in 2003. Ordinary net profit rose even more sharply and its year-on-year rate of change stood at 21.6% as a result of a 4% reduction in financial costs, which was basically caused by the fall in interest rates and the rise, albeit more moderate than in 2003, shown by financial revenue due to the receipt of large dividends from subsidiaries abroad. This improvement was seen in most sectors, being particularly noticeable in the industrial branch. Net profit also increased significantly (7.1%) in this period. Analysts' expectations about the short-term growth of quoted non-financial corporations' profits were generally revised upwards in the last few months of 2004, and the expected growth rate of long-term profits, although down slightly, remained at relatively high levels.

This positive performance of corporate profits was reflected in an improvement in *profitability* ratios. The ordinary returns on investment and on equity rose in 2004 to 8.4% and 12.3%, respectively. This, along with a slight decrease in the cost of financing to 4%, the lowest value recorded in the CBSO series, caused the spread between the ordinary return on investment and the average cost of borrowed funds to widen to 4.4% with respect to the first three quarters of 2003, the highest value in recent years.

In the second half of 2004 the total *financing* received by non-financial corporations as a whole (through credit from financial institutions and securities issuance) held at a growth rate of around 14%, similar to that at mid-2003. Analysis by branch of production showed that bank credit to firms continued to be led by the performance of construction and real estate services. The momentum of the sector's debt produced a fresh increase in aggregate debt ratios (Chart I.8A), which contrasted with the stability shown by that of larger firms. The fall in the cost of



SOURCE: Banco de España.

- a. Interest-bearing borrowed funds.
- b. Gross operating profit plus financial revenue.
- c. Estimation of interest and capital payment.
- d. Including bank credit and securitisation.

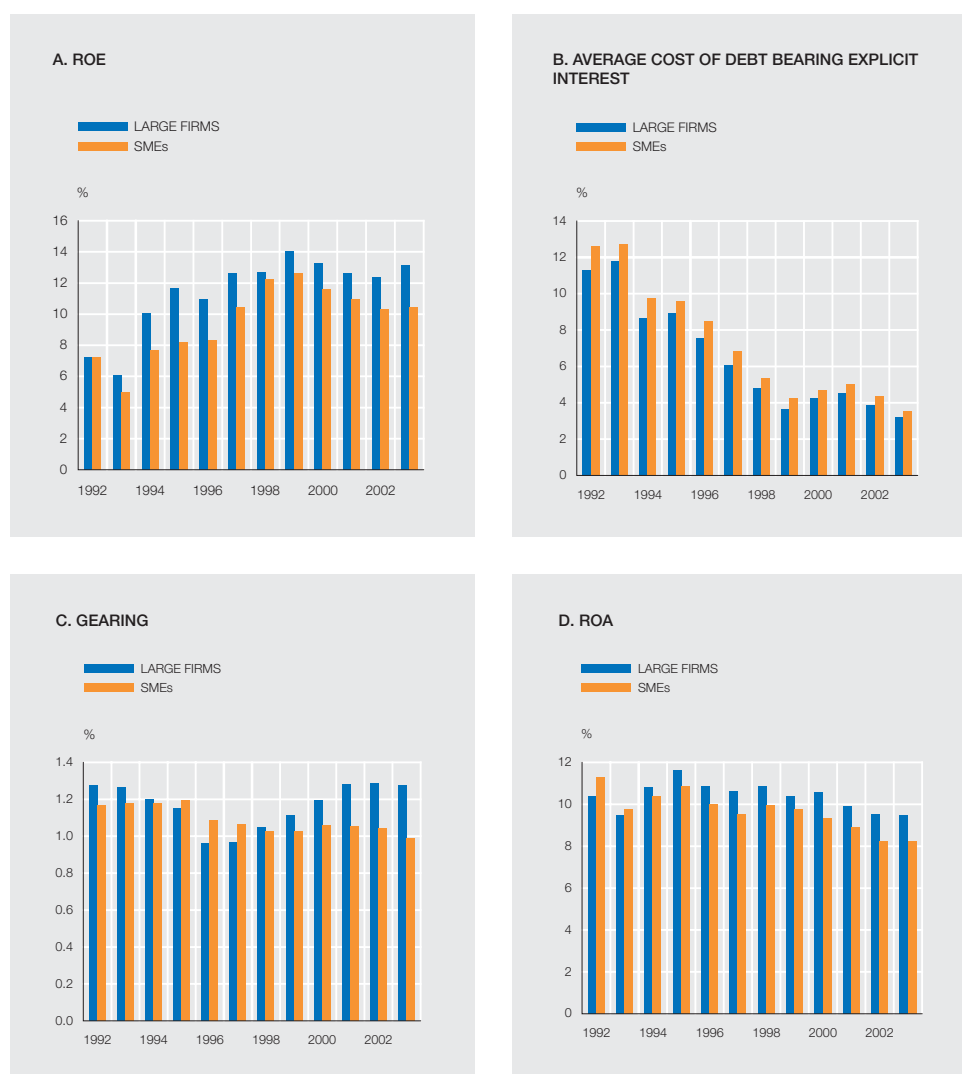
debt meant that the debt burden arising from interest continued to fall relative to gross disposable income, although the reduction in this period was very moderate (Chart I.8B).

The solid financial position of firms and their favourable earnings outlook helped the credit risk premiums in derivative markets to hold steady in the second half of 2004 at the low levels reached in late 2003.

The *probability of default* (PD), defined as the number of new doubtful credit transactions divided by total credit transactions, remained at very low levels in 2004, as in previous years (Chart I.7B), both for large firms and for SMEs, and, within the latter, for those that would be classified in both the corporate portfolio and the retail portfolio in accordance with Basel II criteria⁷.

The low PD levels are underpinned by the sound financial position of firms. Their position is reflected in a ROE which, for firms at the median of the distribution, has exceeded 10% in recent years. This is so both for large firms and for SMEs, although the return of the former is higher (Chart I.9A), according to the most recent information available from the Mercantile Registry (Registro Mercantil). This return reflects the trend in the average cost of debt, in gearing and in return on investment⁸.

7. A detailed analysis of how PD is obtained for the three types of firms can be found in the study by J. Saurina and C. Trucharte "Las pequeñas y medianas empresas en el sistema crediticio español y su tratamiento según Basilea II" published in *Estabilidad Financiera*, n.º 3, November 2002 and, covering a longer time period, in "The Impact of Basel II on Lending to Small and Medium-Sized Firms: A Regulatory Policy Assessment Based on Spanish Credit Register Data", published in *Journal of Financial Services Research* 26:2, 2004, pp. 121-144. The BCBS defines large firms as those with annual sales exceeding €50 million. A credit institution classifies a SME in its corporate or retail portfolio depending on whether or not the total volume lent to it exceeds €1 million. 8. The relationship between the above variables, with due consideration of taxes, is given by: $ROE = (1-t)[ROA + (ROA-r)g]$, where t is the effective tax rate, r is the average cost of debt bearing explicit interest (financial costs divided by short- and long-term payables less trade payables), ROA is the sum of gross operating profit and financial revenue divided by assets, ROE is the net profit for the year after taxes divided by own funds and, finally, g is the gearing ratio, defined as interest-bearing debt divided by own funds.



SOURCES: Registro Mercantil, Informa and BE calculation.

NOTE: Data are the yearly average for each group of firms.

As analysed in the previous FSR, there is a clear relationship between firms' debt burden arising from interest on debt and their doubtful assets, which suggests that this indicator is important in regard to the financial position of firms. Another indicator closely related to the aforementioned one is the *average cost of debt* (bearing explicit interest). Like the debt burden arising from interest, this ratio shows a clearly downward trend, with a low level in the last few years (Chart I.9.B). If firms are distinguished by size, two observations can be made. First, both large firms and SMEs have reduced the average cost of their debt to one-third in the last decade. Second, the average cost of debt of the different firm sizes is converging; thus, while ten years ago external financing bearing explicit interest was more costly for SMEs, recently the average cost of debt borne by SMEs has become more similar to that of large firms. Behind this trend in the average cost of debt lies the substantial reduction in interest rates in Spain as a result of convergence and subsequent entry into the euro area.

In parallel with this reduction in the average cost of debt, the *gearing ratio* of large firms trended upwards in the second half of the 1990s (Chart I.9.C). However, from 2001 this trend

seemed to come to a halt in this group of firms. For their part, SMEs have shown a relatively constant ratio (around 1) in the last six years.

The ROA of non-financial corporations, evaluated at the median of the distribution, trended downward from 1995, with a sharper fall in SMEs than in large firms (Chart I.9D). However, the ROA seems to have stabilised since 2002, with a differential of about 1 pp between large firms and SMEs. The fall in ROA may be because the lower cost of borrowing has enabled firms to undertake investment projects with a lower rate of return (although with a positive net present value) that push average returns downward.

In short, the increase in the ROE of non-financial corporations is based on a fall in the average cost of debt, with a rising trend in gearing that is relatively moderate, although more marked in large firms. These factors have made it possible to offset the downward trend in ROA. The ROE of non-financial firms is significantly higher than the interest rate on 10-year public debt and shows concisely the solid position of these firms, which in turn helps to explain the low PD levels on credit extended to non-financial corporations by Spanish deposit institutions.

Households

In the second half of 2004, household debt again grew rapidly, this time at nearly 20% in year-on-year terms, although there was a certain deceleration. This resulted from the slight decline in the growth rate of lending for house purchases which, however, continued to grow at above 23% if securitised mortgage assets are taken into account, and from the sustained rate of lending for other purposes.

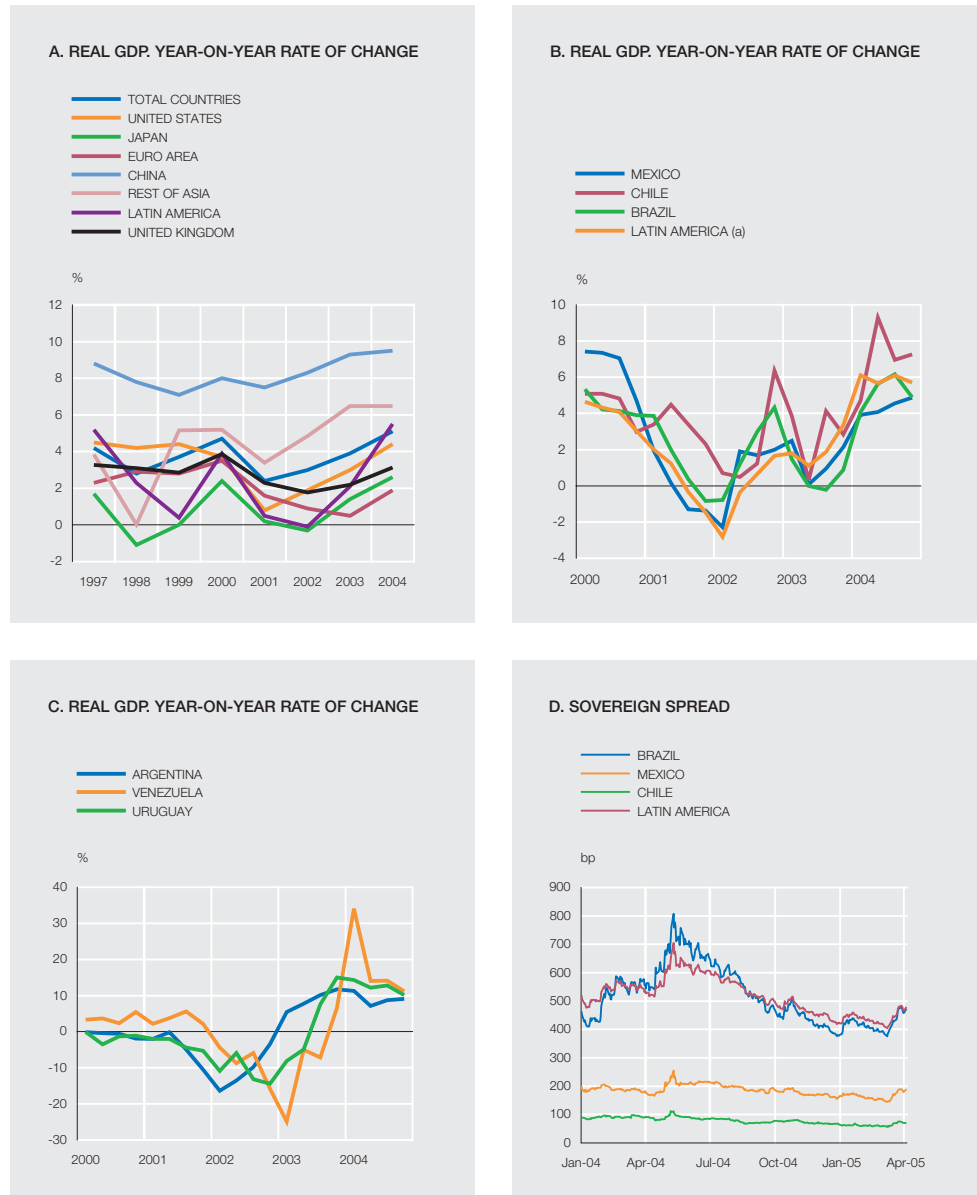
The performance of household deposits was more expansionary than that of household income and, as a result, the sector's ratio of debt to gross disposable income (GDI) continued to increase, reaching a level above 100% (Chart I.8B). The associated debt burden showed a fresh rise, moving up to nearly 14% of GDI, the highest level in the last few years. Despite the growth in household debt, their net wealth increased, due particularly to house revaluation.

In all, the aggregate wealth position of households continues to be solid. However, certain risks persist owing to the sector's high indebtedness and to the trend in house prices, which in 2004 again grew by more than 17%.

b. Rest of the world

The international economy moved at a firm pace in the second half of 2004 once it had left behind the temporary deceleration in Q2. The expansion was underpinned mainly by the strong growth of the United States and of the emerging economies, especially the Asian countries, including particularly China, which enabled the highest annual growth rate for the last thirty years, around 5% (Chart I.10.A), to be reached. The most notable exception to this trend was Japan, where the pace of activity decelerated sharply from the second half onwards. This, combined with the weakness of the euro area, made world growth more uneven and further augmented global imbalances, although the performance of the international financial markets scarcely suffered. Growth in the United Kingdom accelerated to a rate of 3.1%, although it followed a downward path throughout the year. Inflationary pressure remained relatively contained despite the upward trend in oil prices, against a background of moderate rises in official interest rates in the US and the UK, and of stability in Europe and Japan.

In the *United States*, GDP grew in the year as a whole by 4.4%, against 3% in 2003. Private consumption and business investment in capital goods were the main engines of growth, while the external sector made a negative contribution because of the sharp increase in imports. The trade deficit rose to 5.3% of GDP in 2004, against 4.5% in 2003. Meanwhile, the federal budget deficit stood at 3.6% of GDP, the highest level for the last 11 years. The Fed-



SOURCES: IFS and DataStream.

a. Latest estimate.

eral Reserve maintained its policy of gradual official rate rises, edging them up to 2.75% in March, against a background marked by a certain pick-up in consumer prices (2.7% on average for the year), although underlying inflation held at 1.8%.

The risk scenarios of the US economy relate primarily to the scant domestic saving by households, whose ratio of saving to disposable income is 1%, and by the public sector. The uncertainty as to whether the fiscal targets of the US authorities will be achieved and the risk of a sharp correction of the external deficit, as well as their implications for economic growth, sound a note of caution on what is otherwise a particularly robust economic performance.

Japan unexpectedly recorded a sharp slowdown in activity from Q2, which has cast doubt on the soundness of the economic recovery in train since the second half of 2003. Although in the

year as a whole GDP grew by 2.7% against 1.4% in 2003, the year-on-year rate in Q4 was only 0.8%, due to the negative performance of private consumption, external demand and investment from Q2 onwards. The GDP deflator stood at -1.2% (annual average) in 2004, thus confirming the persistence of deflationary pressure.

The *United Kingdom* showed an acceleration in growth to 3.1% in 2004, although on a downward course throughout the year as the interest rate rises and their effects on house prices started to have an impact on private consumption from the second half of the year. All in all, domestic demand continued to be the main driving force of growth, underpinned by the strength of private consumption, government expenditure, and investment. Inflation held at 1.3% in annual average terms, which was below that in 2003 and well below the Bank of England's target of 2%. However, to safeguard against a possible rise in inflation in the medium term, the Bank of England raised the official interest rate by 100 bp to 4.75% in August, where it still remains. The higher interest rates helped to moderate the growth of domestic credit to the private sector (households), particularly the mortgage component, which dipped to year-on-year rates of 12%, against 15% at the beginning of the year.

In *China*, real GDP in Q4 accelerated to 9.5% year-on-year, against 9.1% in Q3, partly as a result of the strong growth in primary sector activity. Hence, once again the Chinese authorities failed to achieve their aim of moderating growth to around 8%. Inflation tended to moderate in the second half as a whole, although it recently revived in February 2005.

Activity in *Latin America* held at a high pace in the second half of 2004, with rates of 6% year-on-year in Q3 and of 5.6% in Q4. Hence 2004 saw the highest growth rate in the region since 1980 (5.8%). This buoyancy was widespread, since all the countries in the region except Colombia ended the year with growth rates above 4%, while the economies hit most severely in recent years (Argentina, Venezuela and Uruguay) achieved growth rates near to or higher than 10% (Chart I.10B and I.10C). A notable feature of the current expansion phase is the continued significant surplus on current account, which is even higher than in 2003 and adds further soundness to the current expansionary phase.

Domestic demand strengthened further in the second half of the year and became the prime driving force of activity, even in countries like Mexico that commenced from a position behind the others, or like Brazil in which external demand had led recovery. Moreover, the composition of domestic demand became more balanced, with strong growth in consumption and a notable pick-up in investment. Noteworthy on the external demand side was the continued firmness of exports as a result of the substantial improvement in the terms of trade in the last two years.

The aggregate inflation of the area ended 2004 at 6.5% year-on-year, similar to that in 2003. However, price movements during the year were relatively volatile. In the second half of the year, inflation continued to trend upwards against a background of vigorous domestic demand. Nonetheless, it was more moderate than in the first half, in a setting of stricter monetary policies, particularly in Brazil and Mexico. At the beginning of 2005, part of the upward pressure on prices reversed in Mexico and certain Andean countries. In Argentina, inflation has accelerated in the last few months and for this reason the central bank is raising interest rates moderately.

Against this backdrop, the improved economic outlook and financial position of banks was conducive to notable *credit* growth in the region, despite the stricter monetary policies. This growth was particularly important in the consumer credit sector. Thus the year-on-year real

growth rate of credit in the region turned positive in March 2004 after two-and-a-half years of falls and ended the year with growth above 8%. Particularly striking was the performance of Argentina which, after a continuous fall in credit volume since December 1998, has shown growth in real terms as from 2004 Q2. Nonetheless, for this country the volume of credit in real terms represents barely 43% of the level reached at the end of 1999⁹.

The favourable external economic and financial environment and the firming of the economic recovery in the region were conducive to a narrowing of *sovereign spreads* (Chart I.10D) throughout the whole of the second half of the year, with the lowest levels being reached at the beginning of March 2005 in most countries. The regional composite spread decreased by 40% from the levels of May 2004 to stand at around 400 bp in early March. This narrowing, together with the drop in long-term interest rates in the US, provided for the more favourable financial position in the region from 1997. Most notably, the Brazilian sovereign spread narrowed to around 375 bp in mid-March (50% less than in May 2004). In Argentina, the high spread fluctuated in response to the expectations generated by debt exchange. Since mid-March, however, there has been a general upward correction in the sovereign spreads of the emerging markets which has taken the regional spread to levels approaching 480 bp. This correction took place at practically the same time as the rise in US long-term interest rates.

The lower risk was also reflected in a selective upgrading of sovereign *credit ratings*, in a process that commenced at the end of 2003. The credit ratings of Brazil, Uruguay and Venezuela were upgraded in the second half, as were subsequently those of Chile, Mexico, Ecuador and, again, Uruguay at the beginning of 2005.

I.2.2 IMPACT OF INSTITUTIONS' CREDIT POLICY

Credit growth

The dichotomy in the behaviour of credit to the resident private sector remained in place in 2004 (Chart I.11A and B). In December 2004 the growth rate of credit for house purchases and to construction companies stood at around 21%, while that to property developers amounted to 43.2%. Meanwhile, the rate of change of financing to households excluding housing, of financing of firms excluding construction and property development, and of total financing excluding the aforementioned three lines of business relating to the property sector, converged at around 9%.

These developments led to a fresh increase in the relative weight of credit related to the property sector in commercial and savings-bank lending to the resident private sector, up to 57.6% (Chart I.11C), accounting for three-quarters of total credit growth (Chart I.11D). Also, two-thirds of the growth in credit to productive activities is accounted for by the trend in financing to construction and property development companies.

The dichotomy in financing to the resident private sector is present in both commercial and savings banks, although it is more marked in the former. Whereas the rate of change of house purchase financing stood at 21.6% for commercial and savings banks as a whole (22.2% in commercial banks and 21.1% in savings banks) and that of financing to property developers exceeded 43% for both groups of institutions, total credit, excluding that linked to the property sector, grew by only 6.3% in commercial banks, against 14.1% in savings banks, in December 2004. Similar differences are apparent in the financing of productive activities, excluding the property sector (6.8% in commercial banks against 12.9% in savings banks).

⁹ Box I.1 analyses the consequences for financial stability of bank lending extended by foreign banks through a local or cross-border presence.

International banking activity has expanded rapidly since the early 1990s. In fact, the international activity of banks, whether with a physical presence through branches or subsidiaries or through cross-border loans, has grown by more than 100% in only 10 years. Among the emerging economies, Latin America is the region in which foreign bank financing has increased most and where it has reached the highest level. The total international banking assets accumulated in Latin America in the last 10 years was on average 19% of the region's GDP, as against 17% for the emerging economies as a whole. Also, there has been a significant change in the composition of bank assets abroad with the weight of local activity, through subsidiaries or branches, rising relative to cross-border loans. In the case of Latin America, local activity has even exceeded cross-border activity, while it is around 30% for recipient countries as a whole.

Given the importance of international financing for the emerging economies, it would appear to be worth analysing precisely which factors explain why banks of a particular country decide to set up in another instead of granting cross-border loans and whether this deci-

sion has consequences for the recipient countries. Hitherto, the literature has investigated the determinants of international banks' local activity and cross-border lending separately. In a recent study, García Herrero and Martínez Pería (2005)¹ analyse empirically the determinants of the decision whether to operate locally or to lend cross-border for the three major international investors (US, Spain and Italy), which together account for 30% of total bank assets abroad and which operate in more than 90 countries. The authors also study which of the two financing options is less volatile and, therefore, better from the viewpoint of the financial stability of the recipient countries. For this purpose they use a database that enhances the information on bank assets abroad offered by the Bank for International Settlements, the source generally used, which distinguishes between local activity in local currency, on one hand, and cross-border lending and local activity in foreign currency, on the other. This study clearly

1. Forthcoming paper entitled "What determines the mix of foreign bank claims and does it matter".

DETERMINANTS OF LOCAL TRANSACTIONS OF INTERNATIONAL BANKS VIS-À-VIS CROSS-BORDER LOANS

TABLE 1

	UNITED STATES	SPAIN	ITALY
Cost of setting up local business	-	-	-
Common origin of legal systems	+	+	
Common language		+	
Bilateral trade	+		
Corporate income tax			-
Restrictions on the local activity of foreign banks		-	-
Cross-border lending controls		+	
Net interest income as a proportion of total assets		+	
GDP growth			
Size of financial system	+		
Inflation			
Property rights			
Banking crises			
Country risk		-	

DETERMINANTS OF THE VOLATILITY OF INTERNATIONAL BANK FINANCING

TABLE 2

	UNITED STATES	SPAIN	ITALY
Local activity vis-à-vis total international bank assets	-	-	-
Inflation volatility			
GDP-growth volatility	+		
Banking crises			
Volatility of total assets in other recipient countries		+	
Size of financial system	-		-
Being an industrialised country	-	-	-

SOURCE: García Herrero and Martínez Pería (2005).

NOTE: A negative sign denotes a significant negative impact and a positive sign denotes a significant positive impact.

separates cross-border lending from the activity of branches and subsidiaries, which include assets in local and foreign currency.

The results show that countries in which the costs of starting up a banking activity are high tend to attract less local activity and more cross-border lending in all the cases analysed (Table 1). Also, the regulations that limit foreign participation in the banking system appear to discourage local activity, with respect to cross-border activity, at least for Spanish and Italian banks. On the other hand, cultural and legal affinity, and trade relations, tend to increase the proportion of local activity of foreign banks with respect to cross-border lending (except in the case of Italian banks). Finally, a more developed financial system helps attract branches and subsidiaries of US banks, relative to cross-border lending, while higher country risk discourages local activity by Spanish banks. The fact that banking crises have occurred in the past, the quality of property rights, inflation and economic growth, do not seem to have any impact on the form in which foreign banks are present in a particular country (Table 1).

As regards the financial stability of the recipient countries, the results show that a higher proportion of local activity relative to cross-border

lending always reduces the volatility of international bank finance (Table 2). Other variables explaining the variability of foreign bank finance are the volatility of the economic growth of the recipient country for the case of US banks and the volatility of other bank assets abroad for Spanish banks. On the other hand, greater financial development in the recipient country reduces the volatility of its foreign bank finance (at least that from US and Italian banks).

The results of this paper confirm the existence of differences in the determinants and in the consequences for the financial stability of the different forms of international bank finance (local and cross-border activity), which may be interesting for the economic authorities of the emerging countries. If financial stability is measured in terms of the volatility of international bank finance, the presence of branches and subsidiaries is more stable than cross-border lending for the investors analysed (US, Spain and Italy). To attract it, the costs of setting up a bank business must be low and there should be no government obstacles such as limits on the local presence of foreign banks. Finally, cultural proximity (the sharing of a common legal system or language) and trade relations also help attract branches and subsidiaries.

The differences analysed in the preceding paragraph, along with the specialisation in distinct business segments by commercial and savings banks (Chart I.12A and B), largely for historical reasons, had the result that, for the first time, the market share of savings banks exceeded that of commercial banks in credit to the resident private sector (Chart I.12C). Only in financing to productive activities and, more specifically, when its calculation excludes that to construction companies and property developers, do commercial banks have a higher market share than savings banks (Chart I.12D).

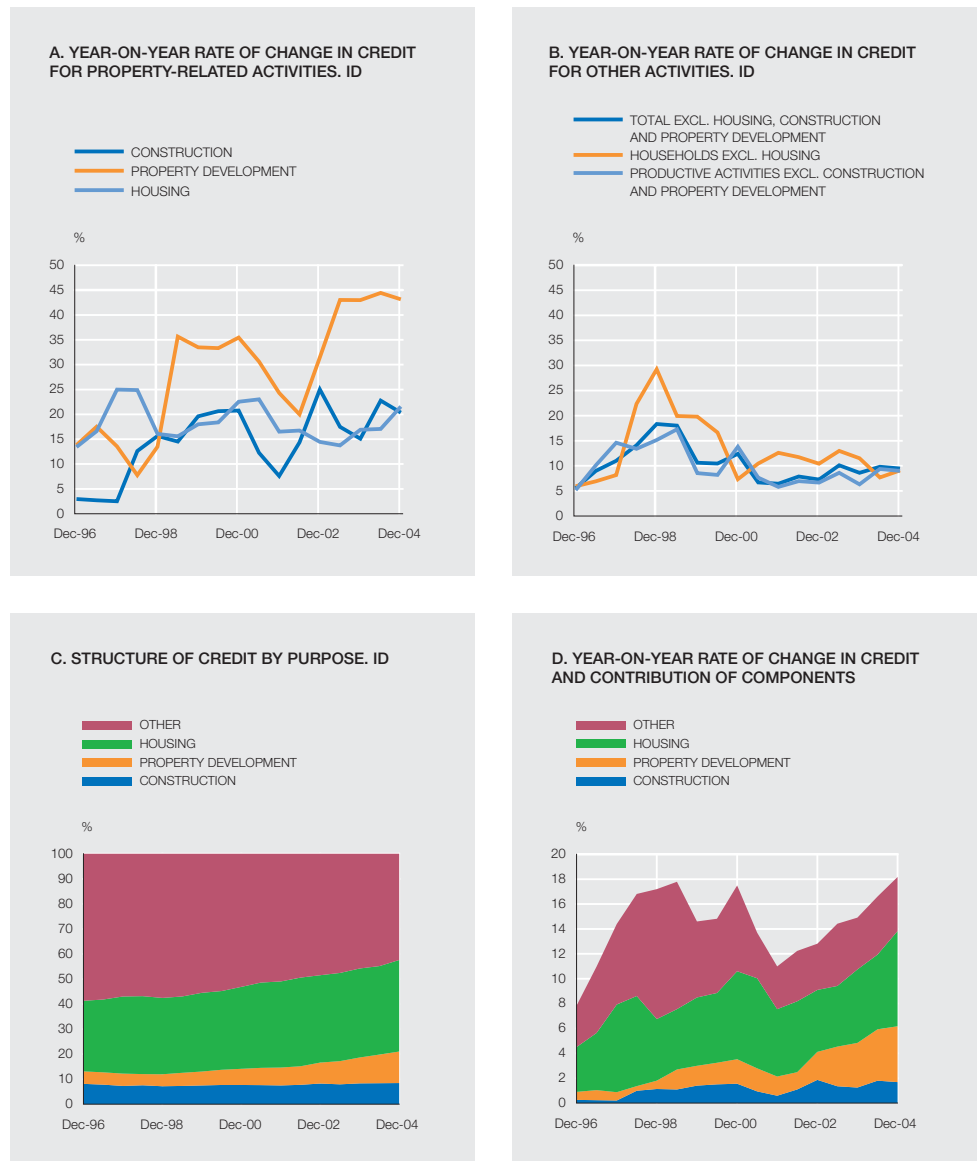
Drawable funds

In addition to the financing that firms and households receive through on-balance-sheet transactions with effective drawability of funds (loans, credits, etc.), deposit institutions undertake to continue financing them via amounts that can be drawn down by them (e.g. through credit cards, facilities to support corporate promissory note issues, etc.). These commitments are recorded in off-balance-sheet items. The amounts drawable, which exhibit a more marked cyclical trend and are mostly directed to the resident private sector, are growing more rapidly than the financing actually used by this sector in the past year (Chart I.13 A), and in December 2004 they reached 15.9% of that financing. Conditionally drawable funds, which include the possibility of cancellation by the institution, now represent 23.6% of total funds drawable by the resident private sector (Chart I.13 B). A portion of this growth is linked to the rise in credit to property developers (with drawdown conditional on certification of the related construction work). In addition, the funds drawable via credit card, somewhat more than 15% of the total, increased in 2004, although more slowly than the total.

Securitisation

Spanish deposit institutions continued to resort to asset securitisation and to the issuance of covered bonds (cédulas hipotecarias) to finance the strong credit growth or to obtain additional liquidity at certain times. In December 2004, the total assets securitised by Spanish deposit institutions stood at €72 billion, while covered bonds, after rapid growth in the past

Commercial and savings banks



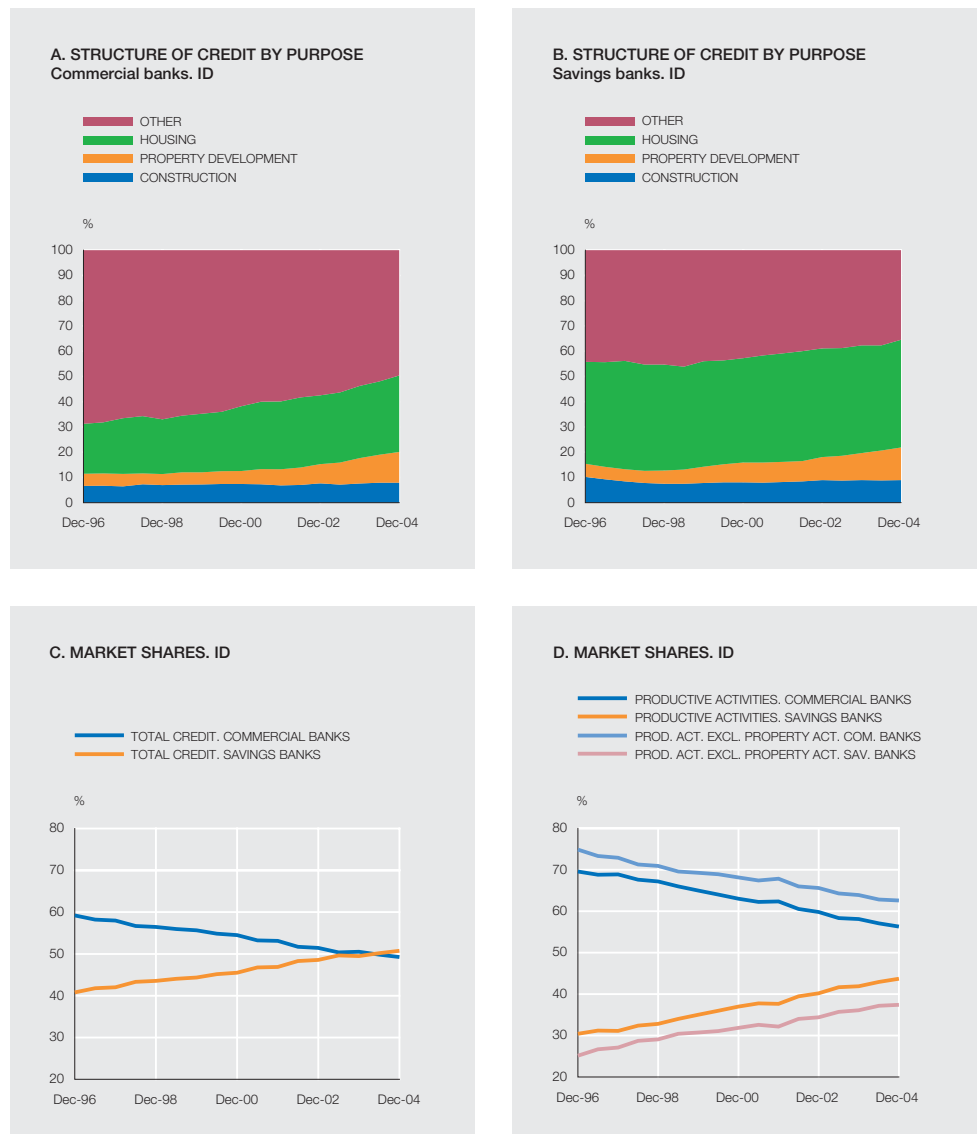
SOURCE: Banco de España.

three years, amounted to €58 billion (Chart I.14A), with securitised mortgage assets predominating over the others.

In relative terms, securitised assets amount to 7.1% of financing to the resident private sector (including that securitisation), against 3.2% three years earlier (Chart I.14B). Securitisation of the mortgage loan portfolio represents 8.3% thereof, to which must be added the 9.9% corresponding to covered bonds backed by on-balance-sheet mortgage loans. Other securitised assets (non-mortgage) now exceed 5.6%.

In this area of business, the performance of commercial and savings banks differed in 2004. For commercial banks, the relative weight of securitised assets and covered bonds continued to increase, largely due to a substantial rise in the volume issued. For savings banks, however, the securitised asset balances rose more moderately, which, together with the sustained credit growth, resulted in a stagnation of the relative importance of this additional source of funds for institutions (Chart I.14C and D). In any event, deposit institutions are also increasingly re-

Commercial and savings banks



SOURCE: Banco de España.

sorting to the issuance of other securities (promissory notes, bills of exchange, non-convertible marketable debt securities and bonds) to obtain the necessary funds to finance their activities¹⁰.

Risk profile of the credit portfolio

The risk profile of the loan portfolio of Spanish deposit institutions in December 2004 was very slightly lower than that in December 2003, declining to 0.36% as a result of a fall in the relative weight of the riskier parts of the portfolio, which lost ground to secured transactions, although the exposure to general government was also down.

By group of institutions, the risk profile of commercial banks continued to be higher than that of savings banks, although the differences are now smaller because the relative weight of secured loans has increased in commercial banks.

¹⁰ Box I.2 analyses certain issues of the regulatory and tax framework that are posed by the markets for these securities.

As in most of the so-called Continental European economies, net issuance of fixed-income securities in Spain has traditionally been low. Indeed, as seen in Chart 1, such issues have even tended to be below the euro area average. At the beginning of the current decade, however, there was an acceleration in issuance, which has exceeded the euro area average in the last two years of the period.

The sectoral breakdown of issuance (Chart 2) shows that this acceleration was entirely accounted for by the behaviour of financial corporations. The chart shows, first, the role of issues related to asset securitisation by financial firms, the sustained growth rate of which has driven the overall trend in issuance. In addition, the marked acceleration in the other issues of this group of firms in the last two years of the sample is notable. This has coincided with an equally notable decline in issuance abroad by the non-resident subsidiaries of these corporations (Chart 3).

Clearly, the securitisation of bank assets invigorates fixed-income markets, being particularly important in financial systems in which banks play a greater role and/or in which SMEs have a higher weight in the corporate sector, both of which are true in the case of Spain. But, also, it is reasonable to suppose that the apparent substitution, especially in 2004, between issues made by the resident companies of the group and those made by their subsidiaries abroad is related to the publication of the new law regulating the issuance of preference shares and other debt instruments and their tax treatment¹.

This fact illustrates, in the case of Spain, the importance of the design of the regulatory and fiscal framework to the development

of fixed-income markets. From an international perspective, it should be recalled that the international bond (eurobond) market has its historical origin in a change in US tax withholding policy at the end of the 1960s. Subsequently, this same market has been a paradigm of adaptive deregulation, in which prospectus and listing requirements have typically been laxer than those in national markets.

In this context, it is important to highlight the challenges involved in transposing the EU Directives on Prospectuses (DP) and on Transparency (DT) into Spanish law. The fact that the procedure for their approval and implementation has followed the harmonisation criteria recommended by the Lamfalussy Committee is a positive factor². However, there persist certain risks of delocation of the European and, in particular, Spanish fixed-income market, associated with regulatory competition mechanisms, which it would be advisable to seek to minimise.

Thus, the requirement in the DP and DT for relevant accounting information to be presented for the listing of securities issued in accordance with the International Accounting Standards, has led to initiatives outside the EU aiming to attract the listing of wholesale offers made in Europe by issuers from outside the EU space. In turn, these initiatives are giving rise, in the London and Luxembourg markets (those most affected by these changes), to reactions that try to avoid the scope of the DP and DT, by creating unregulated segments.

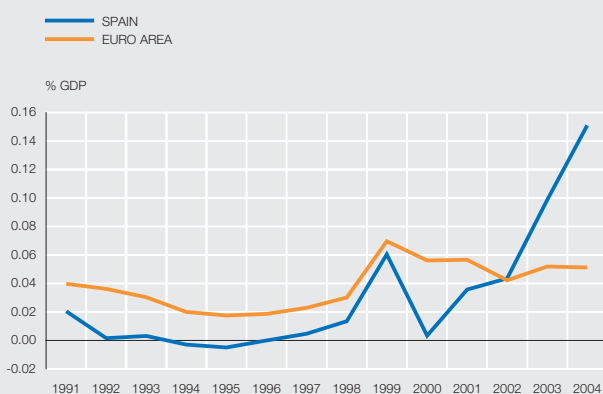
Also, the Community passport mechanisms contemplated in the DP essentially permit wholesale issuers to choose in which market to issue and, therefore, which their national authority is to be from

1. Law 19/2003 of 4 July 2003. For further details on this Law see "Financial regulation: 2003 Q3", in the October 2003 issue of the Banco de España's Economic Bulletin.

2. On 10 February 2005, the Committee of European Securities Regulators (CESR) issued its recommendations for the consistent implementation of the Directive on Prospectuses.

NET ISSUANCE OF FIXED-INCOME SECURITIES (AS A PERCENTAGE OF GDP)

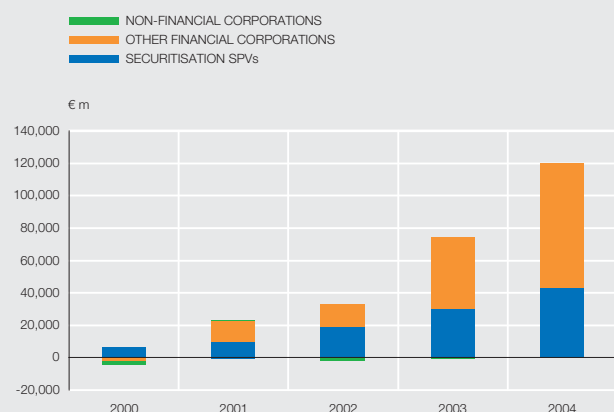
CHART 1



SOURCES: CNMV, INE, Eurostat, ECB and BE calculation.

NET ISSUANCE OF FIXED-INCOME SECURITIES: SECTORAL BREAKDOWN

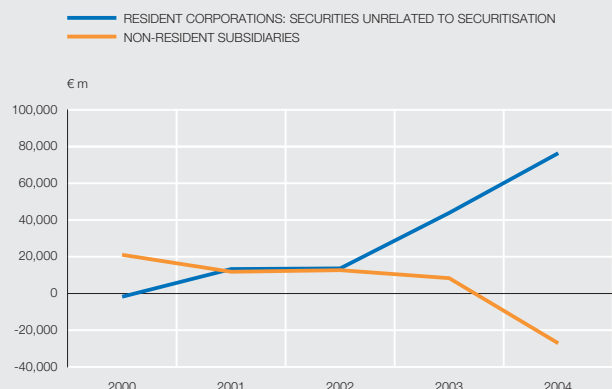
CHART 2



SOURCES: CNMV, INE, Eurostat, ECB and BE calculation.

NET ISSUANCE OF FIXED-INCOME SECURITIES: FINANCIAL CORPORATIONS

CHART 3



SOURCES: CNMV, INE, Eurostat, ECB and BE calculation.

among those in the EU space. The impact of this freedom of choice should not, however, be expected to be the same for all types of debt. It is likely that the impact will be smaller in the case of issues in which, as in the case of securitisation, the documentation requirements are already rather high for reasons other than public offering or listing. In any event, the measures on prospectuses envisaged in the "plan of 100 measures to boost productivity", which include transposition of the prospectus directive, are a first response to the challenges described.

Doubtful assets

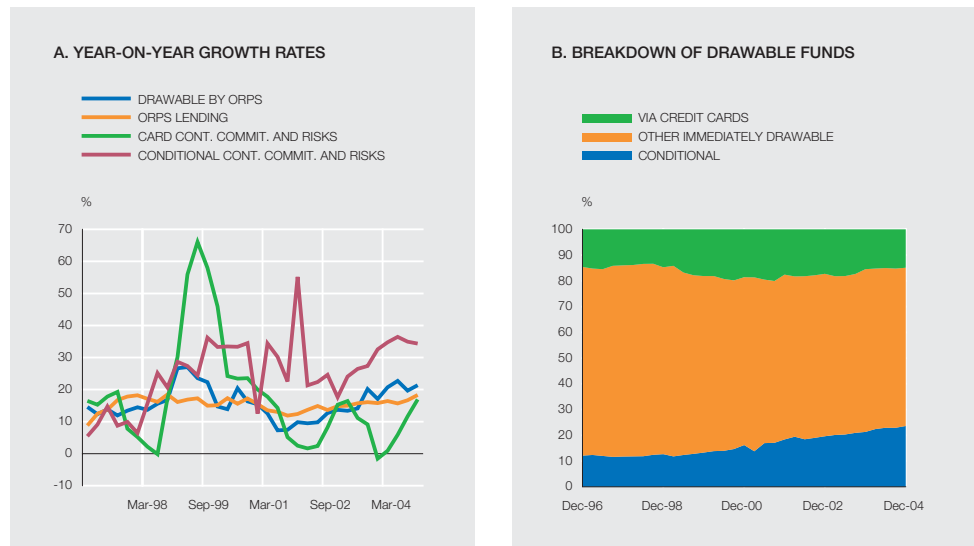
Most of the decrease in doubtful assets in the individual balance sheets of Spanish deposit institutions in 2004 is attributable to commercial banks and, in particular, to a decline in their doubtful assets vis-à-vis non-residents. Doubtful assets vis-à-vis the resident private sector, which account for 89% of the total, were down slightly at deposit institution level. The sustained economic growth and the low interest rates explain the slight fall in doubtful assets in absolute terms.

The fall in doubtful assets and the growth in lending put further downward pressure on doubtful asset ratios in 2004. From the perspective of a long time horizon that includes a full business cycle, it can be seen that there is a strong convergence between the doubtful assets ratios of total loans and those of the resident private sector, with the latter being more sensitive to the stage of the business cycle. Also apparent are the scant differences in doubtful assets ratios by group of institution, despite the persistence, as mentioned above, of different productive specialisations.

2004 saw a further improvement in the distribution of institutions by doubtful assets ratio of the financing extended by them to the resident private sector (Chart I.15A and B). The number of institutions with a doubtful assets ratio above 1% decreased significantly, as did their relative weight. Furthermore, there are now more institutions with a ratio below 0.5% and their relative weight in the total financing granted is higher.

The previous FSR (Box II.1) analysed the high *specialisation* of specialised credit institutions (SCIs). This specialisation enables us to approximate the default on certain products for which there is no separate information under the doubtful assets heading in the institutions' balance sheets (Chart I.15C). Thus, despite the sustained general decrease in doubtful assets ratios in recent years and the low level they have reached, the balances in SCIs' credit cards show a high doubtful assets ratio. Meanwhile, there has been a substantial increase in credit extended via this instrument: while in the past seven years credit institutions have multiplied their lending by a factor of 2.3, their financing via credit cards has risen fivefold.

Deposit institutions



SOURCE: Banco de España.

Contrasting with this is the low level of doubtful assets in finance lease and factoring operations, a circumstance seen not only in SCIs, but also generally in deposit institutions¹¹. Analysis by group of institutions shows most notably that the credit extended by the finance companies of automobile manufacturers also shows high doubtful assets ratios, although the trend is downward.

Another line of specialisation is that of a small number of institutions, normally related to foreign banks, which engage in the extension of loans of small amount (typically up to €3,000) that are granted very rapidly and subject to few requirements to be met by borrowers (individuals) in regard to documentation evidencing their ability to repay. The interest rates on these transactions is usually high, in response to the higher credit risk incurred by institutions. On average, in the last few years the doubtful assets ratio of these specialised institutions has been seven times higher than that of deposit institutions as a whole (Chart I.15D).

The decrease in doubtful assets ratios was accompanied by a fall in the related broader ratios, which take account of write-offs (assets removed from the balance sheet after three or six months as doubtful assets and fully provisioned). In addition, the difference between these two ratios diminished in 2004.

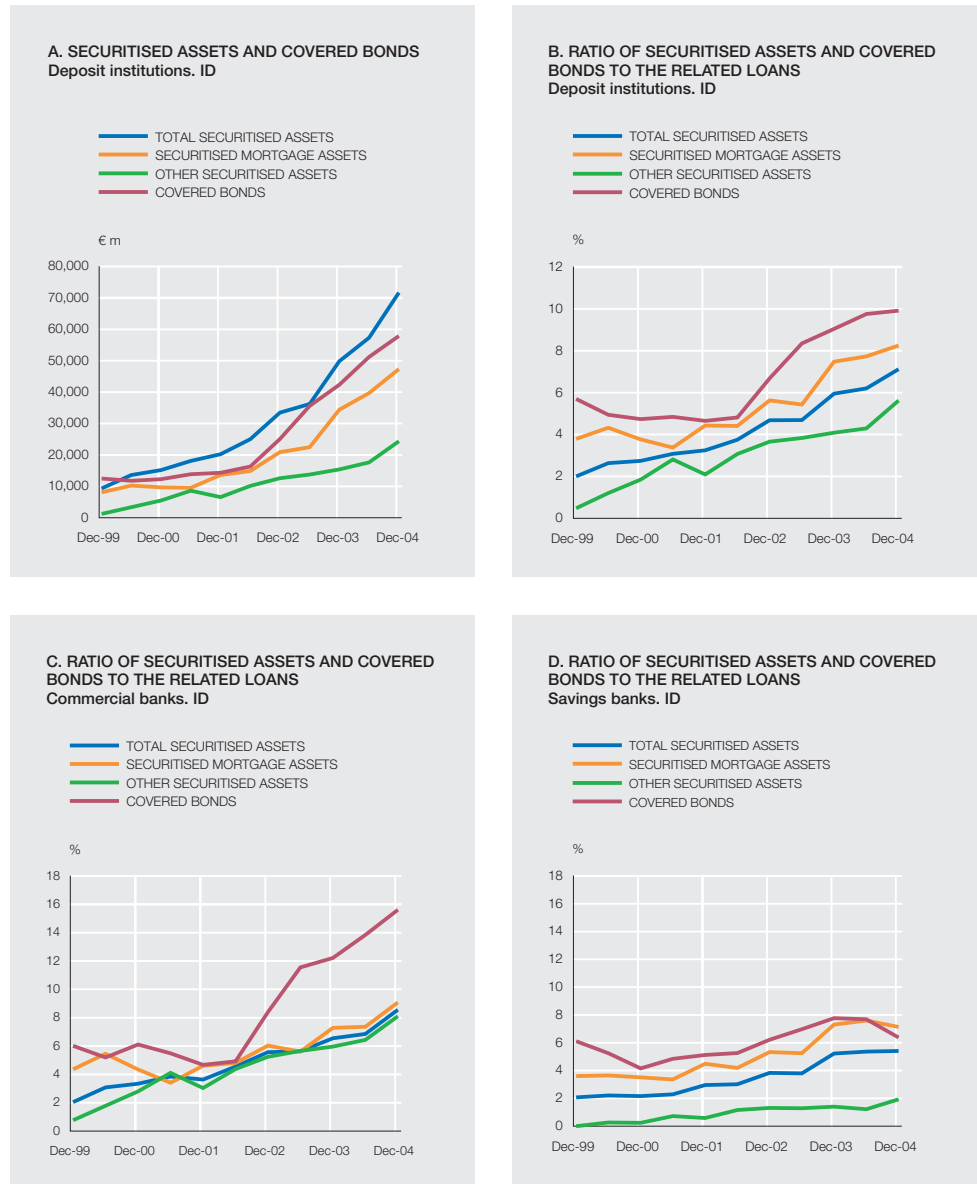
Write-offs

The doubtful assets ratio modified to take account of write-offs declined both in commercial banks and in savings banks, as did the difference between it and the doubtful assets ratios (Chart I.16A and B). However, there are differences in the level of the modified ratio that do not seem to be attributable to differing doubtful assets ratios between commercial and savings banks and that persist over time.

Financial assets abroad

Although the relative weight of financial assets abroad only increased by 6 pp for Spanish deposit institutions as a whole (Chart I.17A and B) between December 2003 and December 2004, the change of 59.2% in absolute terms was extremely significant. Such marked growth

¹¹ The doubtful asset data obtained from the Central Credit Register confirm the low level of doubtful assets for deposit institutions as a whole in finance lease and factoring operations (0.45% and 0.08% in December 2004, respectively).



SOURCE: Banco de España.

in assets abroad has not been seen since the processes of bank acquisition and expansion in Latin America in the late 1990s (Chart I.17C). Apart from the change in geographical composition, there was also a marked change in specialisation by line of business, as the relative weight of wholesale business (interbank and public debt) declined and retail business with firms and households increased (Chart I.17C).

The change in financial assets abroad in 2004 and their geographical reshuffling, largely as a result of the aforementioned acquisition, signified, in principle, an increase in the relative weight of activity entailing lower doubtful assets (Chart I.17D). However, the retail business in developed countries is usually riskier than interbank or public debt activity in those countries, which explains the higher doubtful assets ratio of the assets of Spanish institutions in the United Kingdom in December 2004.

1.3 Liquidity risk

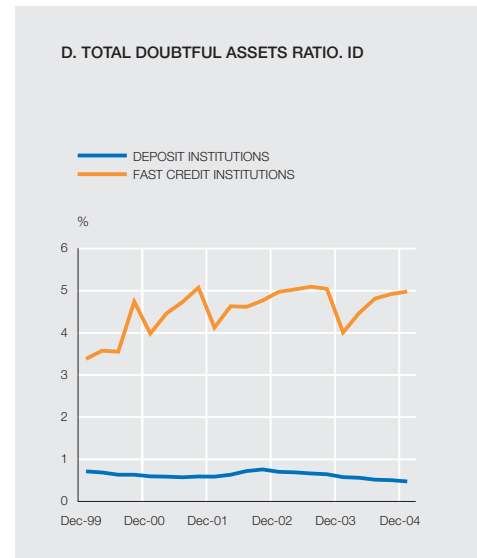
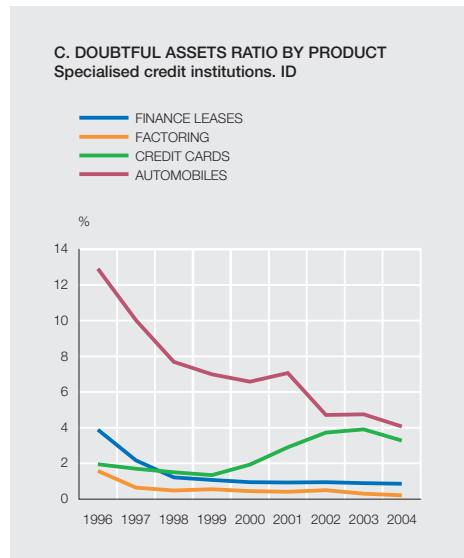
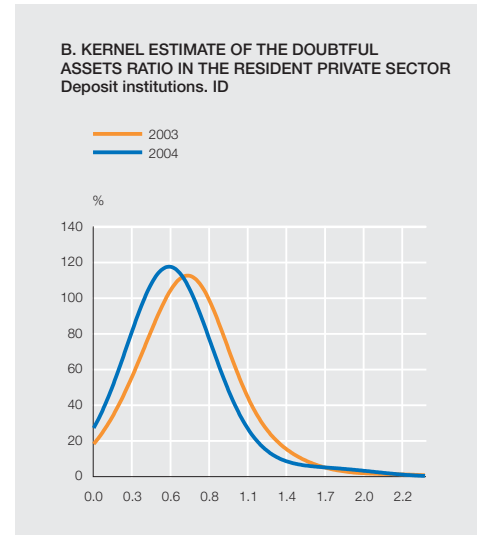
In aggregate terms, trading on the *public debt market* grew by 7.3% in 2004, and the turnover of debt portfolios maintained the momentum of previous years. Trading developments were

DOUBTFUL ASSETS RATIOS

CHART I.15

A. RESIDENT PRIVATE SECTOR.
Deposit institutions. ID

DOUBTFUL ASSETS RATIO BRACKETS	2003		2004	
	% CRED.	No.	% CRED.	No.
0	1.8	34	2.0	35
0.0 - 0.5	18.7	39	26.8	59
0.5 - 1.0	66.7	70	62.6	75
1.0 - 1.5	9.0	47	4.5	28
1.5 - 2.0	1.0	15	3.1	18
2.0 - 2.5	0.6	8	0.2	9
> 2.5	2.2	34	0.9	29



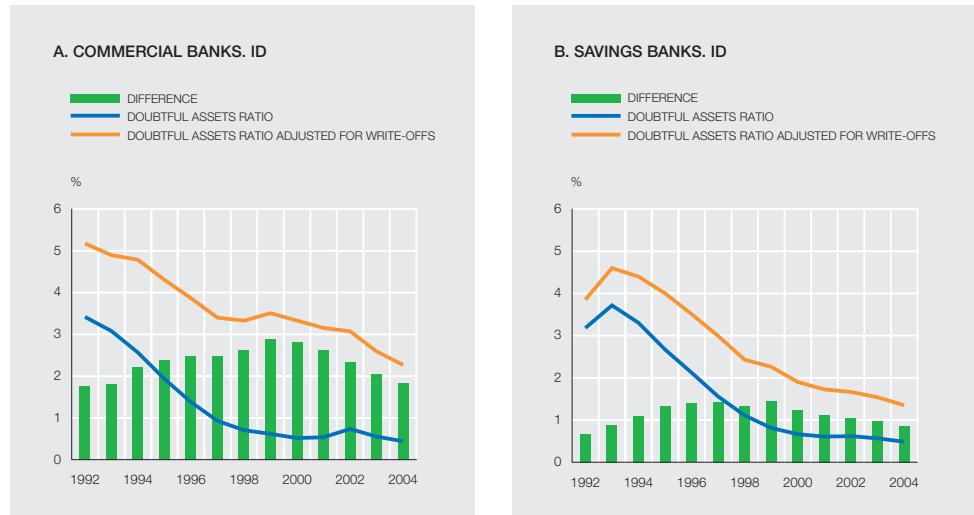
SOURCE: Banco de España.

MARKETS

more restrained in the wholesale segment among financial institutions, where annual growth was 0.7%. By component, developments in liquidity on the debt market were uneven. Along with widespread buoyancy there was a severe contraction (37%) in spot bond transactions. By contrast, the growth in the volume of spot Treasury bill transactions was similar in percentage terms, although their relative weight in total spot transactions is around 15%.

Trading grew significantly on the *private debt market* (by almost 50% from the previous year), to reach an all-time high in 2004. This high volume was a result of the buoyancy of new issues, which grew by almost 30%, and growth in the turnover of outstanding amounts. As discussed in Box I.3, the largest balance of new AIAF listings corresponded to asset-backed securities.

On the *stock exchanges*, the effective volume of trading in 2004 (almost 30% higher than in 2003) was a new all-time high (€636 billion). The average turnover on Spanish exchanges was over 150%. The improvement in the liquidity of Spanish exchanges was also confirmed by the fact that the volume of Spanish shares traded on the New York Stock Exchange fell to



SOURCE: Banco de España.

an all-time low in 2004, representing around 0.6% of the trading on Spanish markets. The depth of the market grew most significantly in the final quarter of the year, coinciding with renewed expectations of price rises. Chart I.18 shows this fact in terms of the Kyle lambda¹².

INSTITUTIONS

The developments in the *debit balance with the resident private sector*, already mentioned in the introductory section, were different for commercial banks and savings banks (Chart I.19A and B). While the debit balance of commercial banks has stabilised or even fallen since the last FSR, savings banks, as against the credit balance they had in December 2003, had a slight debit balance at year-end. This was the culmination of a process of progressive erosion of the savings banks' credit balance, basically as a consequence of the strong growth in their lending to the resident private sector.

The breakdown of the balance of commercial banks and savings banks with the resident private sector shows that its trend is basically a consequence of the balance with households (Chart I.19C) which, in 2004, became for the first time a credit one. The lower growth of the total balance is due to the reduction in the credit balance with firms, which last year intensified a trend movement that began at the end of 2002. The behaviour of the balance with households is due to the trend in their bank deposits, whose relative weight in the financing that commercial banks and savings banks receive from the resident private sector has been progressively declining (Chart I.19D), owing to the attraction of alternatives to bank deposits (mutual funds, securities, etc.).

In the last FSR, the *liquidity gap* of Spanish deposit institutions was analysed for the first time, using information available on the residual maturities of assets and liabilities. The December 2004 data for all commercial banks and savings banks (Chart I.20A) show the same tendency: a significant short position (liabilities greater than assets) up to one month, a smaller and declining short position between 1 month and one year and long positions (assets greater than liabilities) from one year, albeit with variable behaviour, given that the position between one and

¹². However, it should be noted that a corporate transaction in relation to a technology company during the period distorts this variable upwards.

The current situation of payment systems in the euro area, and the foreseeable developments in the immediate future, are marked by a number of very significant changes, arising from the initiatives of political institutions, monetary authorities (ECB and National Central Banks) and financial institutions, aimed at launching a single payments area for the internal market (SEPA, "Single Euro Payments Area").

In 2003 and 2004, the Banco de España worked with representatives of credit institutions on a reform of the national payment systems, aiming to simplify their structure to enable them to face the challenges of an increasingly integrated single payments area. The reform¹ created Sociedad Española de Sistemas de Pago S.A. (SESP S.A.), by transforming the former Servicio de Pagos Interbancarios S.A. (SPI S.A.), the object of the company being to manage the National Electronic Clearing System. Those institutions participating in the system that are settlement members are entitled to be shareholders.

The existence of a single company encompassing the current activities and functions of the SNCE and the SPI, will amount to a substantial simplification and rationalisation of the processes relating to national payment systems. This will allow our payment systems to be better positioned in Europe and the activities of the fora existing in Spain for debate and decision-making on payment systems to be rationalised.

On the operational side, the various subsystems that make up the SNCE are maintained. These correspond to the types of payment instrument currently cleared by them: cheques and current account notes, transfers, direct debits, bills of exchange, fuel and travellers' cheques and miscellaneous transactions.

However, the reform separates management, which is assigned to SESP S.A., from regulatory aspects, which are assigned to the Banco de España, whose role as system supervisor and watchdog is also reinforced. Accordingly, the Banco de España must authorise the basic rules² for the functioning of the systems and services managed by SESP S.A. In the case of the operating instructions, they

1. Implemented by the 2005 Budget Law, amending Law 41/1999 of 12 November 1999 on payments systems and securities settlement ("Finality Law") and the Law of Autonomy of the Banco de España. 2. The basic legislation shall continue to be published in the BOE.

shall be approved a posteriori, and even tacitly, if the power of objection is not exercised within the period stipulated.

Moreover, in order to strengthen the function of oversight of the operation of the clearing and payment systems, which was already a competence of the Banco de España, the latter has been authorised to obtain, both from the entity managing a payment system and from payment service providers, including those institutions that provide technological services for the above-mentioned systems and services, all such information and documentation as may be considered necessary to assess the efficiency and security of the payment systems and instruments.

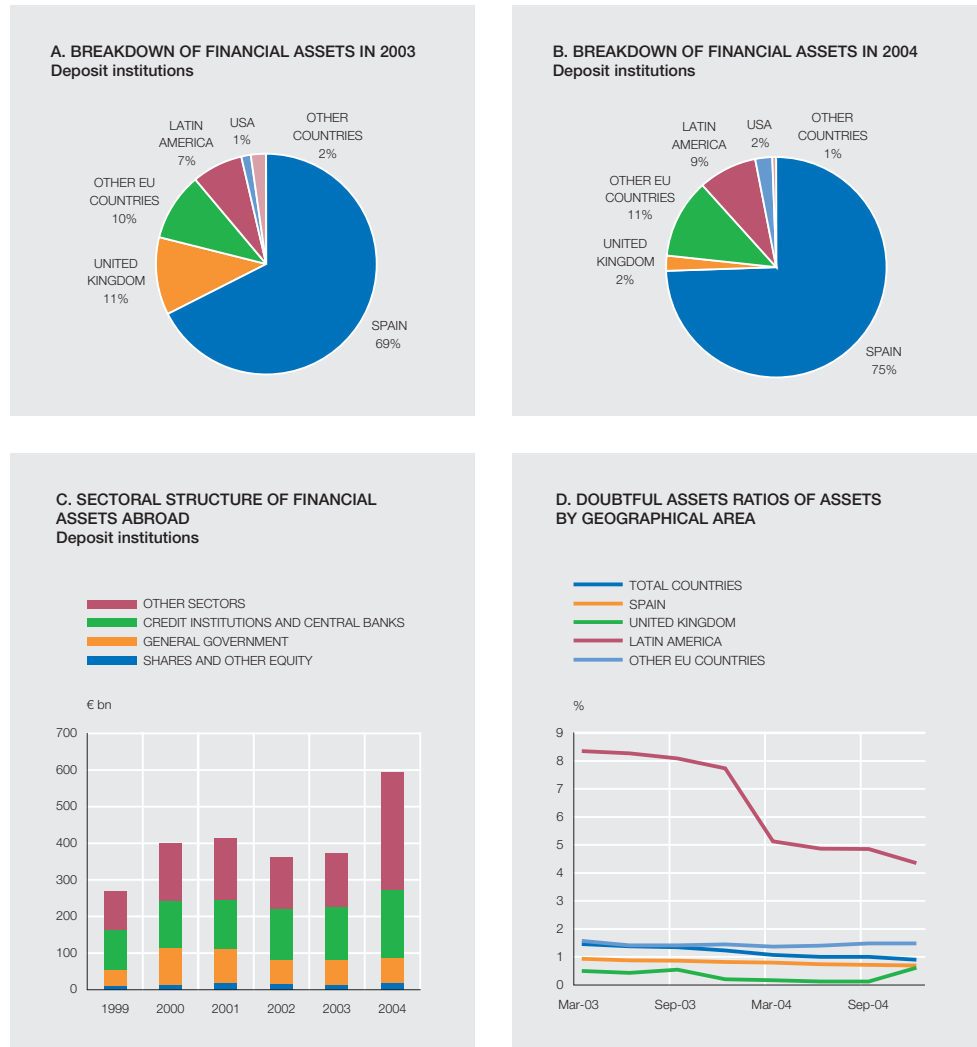
Another central plank of the reform is the improvement of SNCE risk management. The disadvantages identified in the past related mainly to two aspects: on one hand, the financial risks assumed by the direct participants who represent other members and, on the other, the fact that it was not one of the notified systems in the Finality Law.

The Banco de España Circular 1/2002 addressed part of the problem by restricting the effects that a situation of default on a settlement obligation by a represented institution could cause to its representative, reducing them to a single day. In the reform, the reduction in SNCE settlement risk has been addressed from a more general two-fold approach. On one hand, by excluding large transactions from the scope of SNCE settlement, which are now settled in the SLBE, individually and also permitting that they be entered directly into the accounts of the represented institutions. On the other, by including the SNCE among the systems recognised by the Finality Law, authorising the management company to accept, administer and execute the collateral to be established, where applicable, at the SNCE. Also, the moment is established at which the transfer orders sent to the SNCE, whatever the payment instrument involved, are final for the participants, providing the latter with an essential element for the sound operation of risk management systems.

Recognition of the SNCE for the purposes of the Finality Law is progress along the lines embarked on by the Eurosystem, bringing the treatment given to the SNCE into line with that usually found in other countries and conferring greater legal certainty on payment orders introduced into the SNCE, making them irrevocable, final and unchallengeable by third parties, even where insolvency proceedings are opened.

five years is declining while from five years it is increasing¹³. The progressive increase in the average maturity of assets in recent years, in particular in secured transactions (Chart I.20B), helps explain the trend in liquidity gaps.

13. Assets up to one month include the following items: cash at banks, central banks, due from credit institutions, government securities portfolio, trading book and available-for-sale portfolio (adjusted for unrealised losses). Liabilities up to one month include: central banks, due to credit institutions, tax collection accounts and, as a hypothesis, 25% of all other sight liabilities. A different hypothesis for sight liabilities (e.g. considering all of them) naturally results in significantly greater short positions up to one month and long positions over five years, although the qualitative conclusions regarding the trend remain valid. In any case, to consider all sight deposits as withdrawable at a very short term is a hypothesis that seems extremely difficult to observe in reality.



SOURCE: Banco de España.

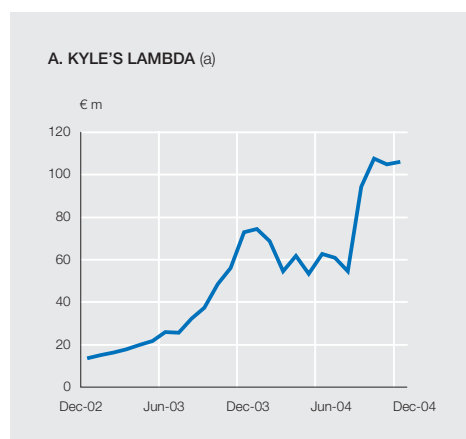
There are certain differences between the liquidity gaps of commercial banks and savings banks (Chart I.20C and D). The short position of commercial banks is only up to one month, while in savings banks the bulk of the short positions is concentrated between one month and one year. This difference stems, primarily, from the lower relative weight of savings banks' short-term lending (up to one year). At commercial banks, the long position over five years has been intensifying year after year, while at savings banks its relative level is greater but more stable, with the exception of the last year. Again, the liquidity gap differences between these two groups of institution are largely explained by the differences in their lending specialisation.

I.4 Market risk

MARKETS

In the second half of 2004 and first few months of 2005, international financial developments were characterised by relaxed financing conditions, as reflected in the relatively low interest rate and the low levels reached by corporate and emerging bond spreads. More recently, however, a change in the market situation has been occurring, and financing conditions have hardened somewhat.

Notable on the *foreign exchange market* was the behaviour of the dollar (Chart I.21A) which, having been relatively stable during the first half of the year, fell sharply to reach lows of 1.36 against the euro at the end of 2004. Decisive in this trend were the growing fiscal and external imbalances of the US economy and the doubts regarding the financing of the external deficit.



SOURCE: Sociedad de Bolsas.

a. An increase in Kyle's lambda represents an improvement in liquidity.

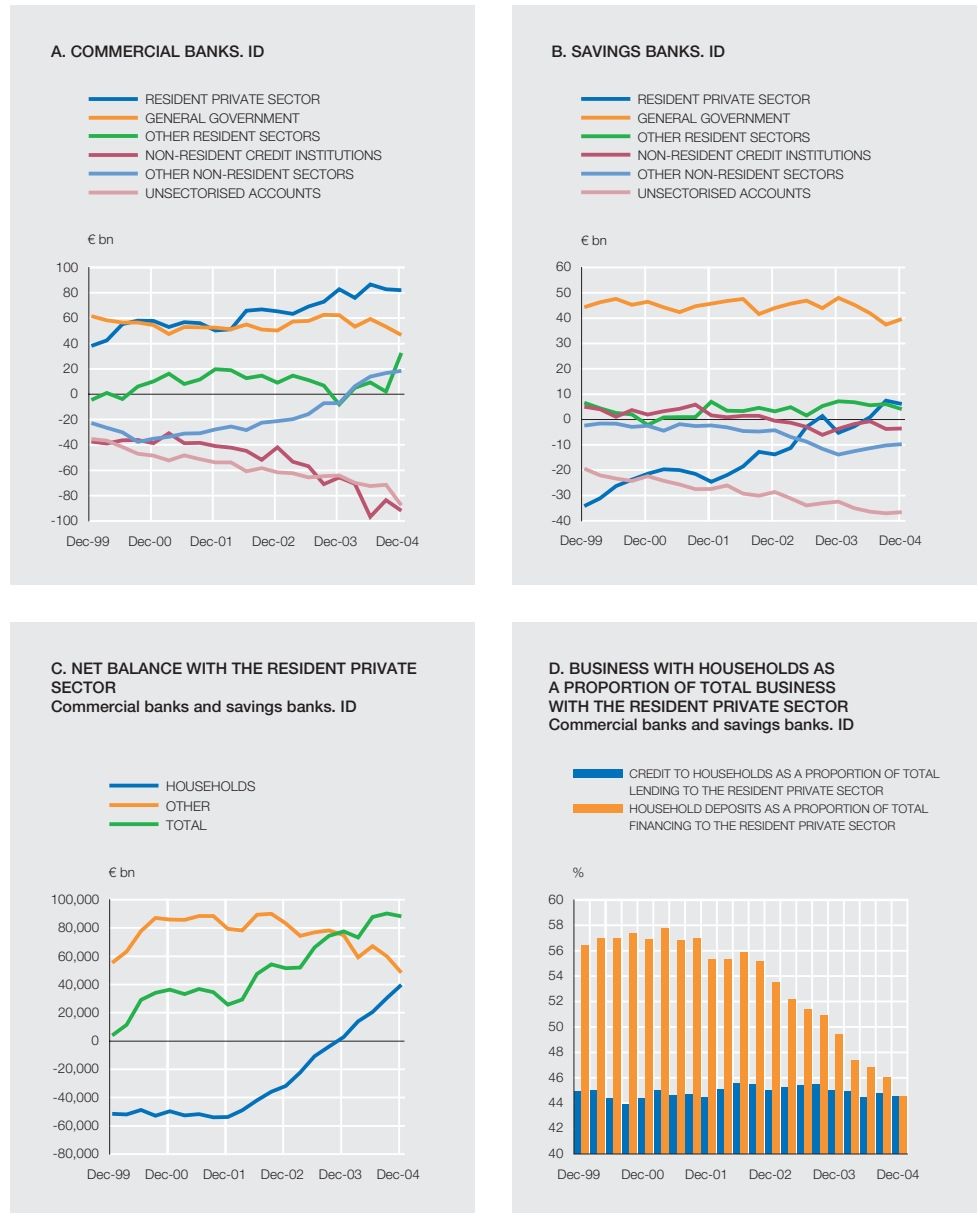
Between January and March 2005 the dollar tended to fluctuate against the euro within a relatively wide range of 1.28 to 1.34. Against the Yen, the dollar depreciated after the summer, but strengthened moderately from 2004 Q4, to stand at around 107 at the end of March.

The US Federal Reserve continued to raise *official interest rates* gradually, setting the Federal Funds target rate at 2.75% in March, after seven consecutive rises of 25 bp each since last June. Long-term interest rates (Chart I.21 B) tended to decline during most of the second half and in early 2005, which is relatively unusual at a time of rising short rates and favourable macroeconomic expectations. The result was a severe flattening of the yield curve (Chart I.21C).

In fact, the low level of *long-term interest rates* in the US raised doubts about their compatibility with the high rate of activity, and prompted a certain shift in flows towards higher risk assets, such as emerging and corporate bonds. Since early March, however, long-term yields have undergone a rapid upward correction to above 4.5% at the ten-year maturity, which has ultimately affected corporate bond spreads, sovereign spreads and the stock market.

In the *secondary public debt markets* of the euro area, ten-year yields fell during the second half of 2004, to reach their lowest level in recent years (Chart I.21B). This contraction was sharper than that in the US so that the spread between US and European debt widened to 70 bp at end-2004, the highest value of this indicator since 2000. The downward path continued in January, but subsequently turned upwards again, so that long-term interest rates in the euro area were around 3.80% in mid-March. This rise was, however, smaller than that in the US, so that the spread between these two yields continued to widen.

On *stock exchanges* prices rose during the final quarter of last year. In 2005 Q1, the rises continued in the euro area, but not in the US (Chart I.21D). These developments were accompanied by falls in implied volatilities to historically low levels. The rises in this period were larger in the Spanish than in European markets, the rises in the latter, in turn, being larger than in the US. Thus, at the beginning of March 2005, the IGBM (Madrid Stock Exchange General Index) was 21.9% higher than in mid-2004, while the gains in the Euro Stoxx broad and the S&P 500 were 15.9% and 10.9%, respectively.

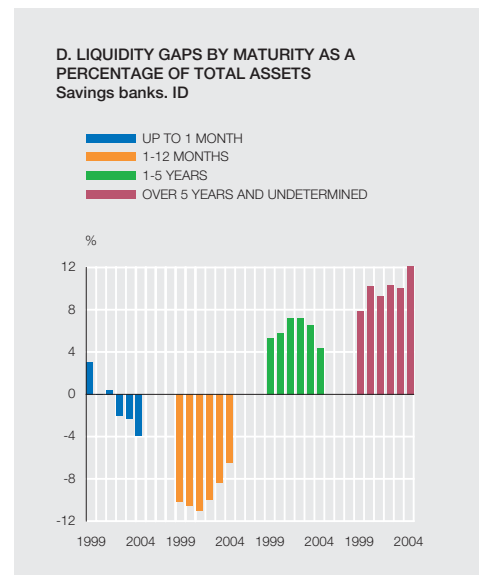
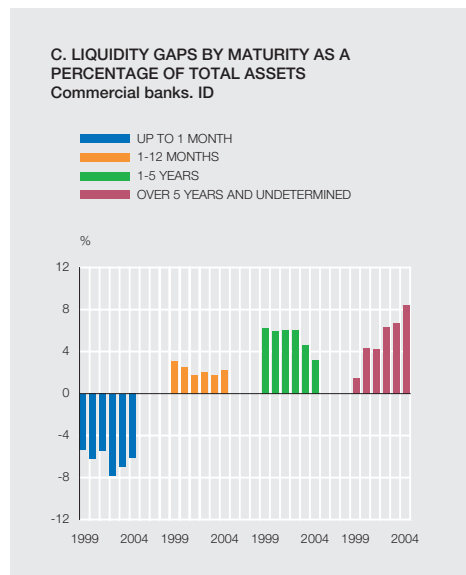
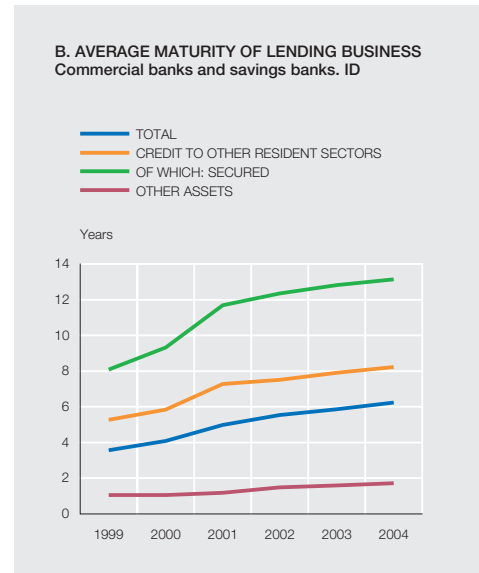
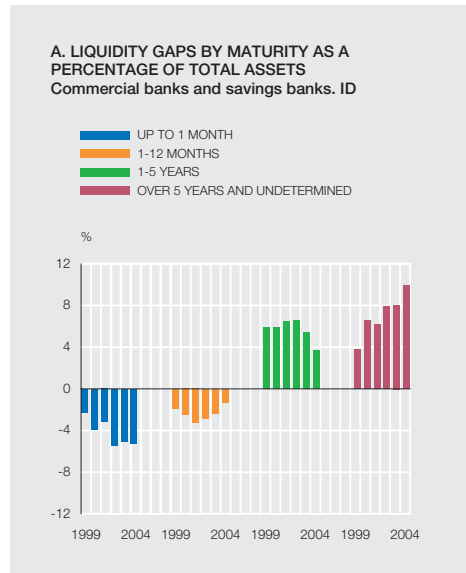


SOURCE: Banco de España.

On the *Spanish stock exchanges*, the rise in prices was right across the board, being notable in the raw materials, industrial and construction sectors (28.7%), consumer services (25.4%), consumer goods (24.6%) and financial and property services (23.1%). By contrast, in European markets, there was a greater disparity so that, while in cyclical and non-cyclical consumption sectors there were declines of around 5%, in others, such as financial services, there were gains of more than 25%.

The notable rise in Spanish equity markets led to an increase in the PER (price earnings ratio), while in other European countries this variable did not change significantly. The levels of this indicator are still, both in the Spanish and in other European markets, above their historical average values¹⁴.

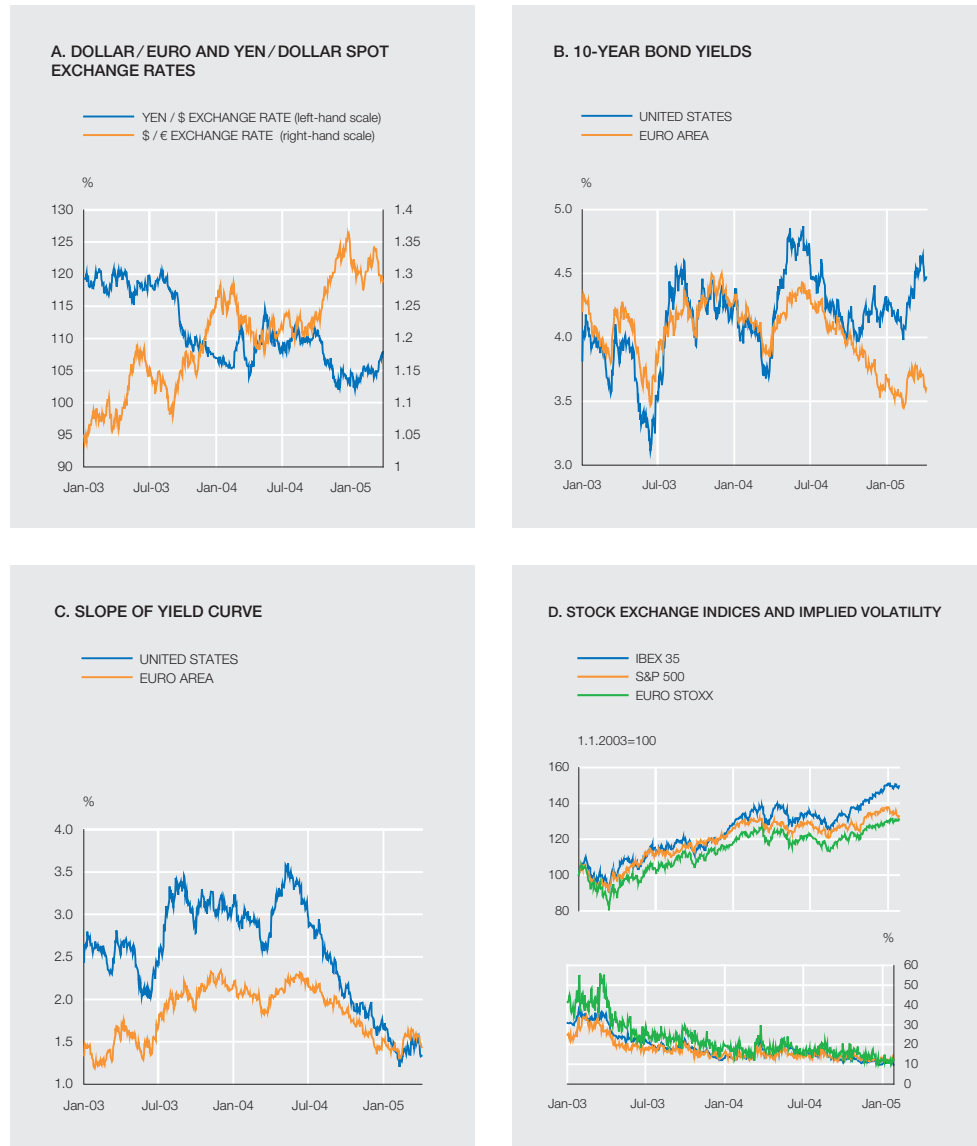
14. Box I.4 exploits the information contained in IBEX 35 index options to approximate market expectations of future share prices.



SOURCE: Banco de España.

The main risks associated with global financial developments may be located in the area of long-term interest rates, since these are still low in the context of current growth and high public deficits. Another risk would be the possibility of a disorderly correction in the US external deficit, which could give rise to a sudden fall in the dollar, and finally, although indirectly, the strong rise in oil prices could also amount to a risk.

Latin American stock exchanges rose significantly in 2004 (Chart I.22A), especially in the second half, with a similar movement to that seen in the industrialised countries' stock exchanges. The levels reached at the end of the year were exceeded in early March 2005, with highs in all the countries, although subsequently there has been a correction. The Colombian stock exchange recorded the largest rise during 2004 (more than 85%), followed by Peru and Mexico, which rose by 47%. The Argentine stock exchange, boosted by the announcement of the sovereign debt exchange offer, rose by 28% during 2004 and the Brazilian stock exchange, following a relatively negative start to the year, rose significantly from May to make a rise of more than 15% by year-end.



SOURCES: Bloomberg and DataStream.

NOTE: The slope of the curve in Chart C is the difference between the 10-year and 3-month yields.

Most of the *exchange rates* of the region tended to appreciate against the dollar in the second half of the year, some very substantially, though not sufficiently to strengthen against the euro (Chart II.22B).

Total *issuance* on the primary markets during the second half of 2004 was in line with the first half (17.5 billion dollars). Corporate issuance, however, fell sharply at the end of the year, although this was made up for by a strong rise in issuance at the beginning of 2005. In the year as a whole, total issuance amounted to 36 billion dollars, almost 10% down on 2003, primarily as a consequence of the 27% fall in corporate issuance. This led to a decline in Latin America's share of the primary debt markets, to barely one-third, as against 44% in 2003 and more than 70% in 2001.

As regards external financing, a notably positive factor was that *direct investment* flows recovered to 48 billion dollars, bringing to an end the downward trend that had prevailed since

Market expectations regarding future stock market levels are not directly observable. However, share and stock index derivatives enable information to be obtained on important features of the distribution of probabilities assigned by the market to different price levels on a particular date.

IBEX 35 options are of the European type (they can only be exercised on the expiration date) and, since November 2001, they have all been based on the mini IBEX 35 future¹. Until 5 July 2004, their traded maturities could be, at least, those corresponding to the nearest three consecutive months and the following three corresponding to the March-June-September-December cycle. From 5 July, MEFF has extended the structure of possible maturities to thirty months. For terms of more than one year and up to 30 months, the expirations are necessarily in June or December.

Futures prices offer information on the average prices expected on the expiration date of such contracts. For their part, options on such futures contain the implicit probabilities assigned by agents to different prices on the expiration date of the contracts. The estimation of these implicit probabilities enables three important features of the distribution of expectations to be analysed: a) dispersion around the expected average value (price of the future) and, therefore, the degree of uncertainty existing in the market, b) the existence of asymmetries in the distribution and c) the implicit probability assigned by the market to extreme price movements.

Options that give the right to purchase (call) or sell (put) the underlying asset at the price (strike price) and maturity established are traded daily on the markets. The prices of these contracts (premiums) depend on the probabilities assigned by agents to the prices of the underlying asset at maturity being below or above the strike price set in each contract. Accordingly, for each trading date, the relationship between the negotiated premiums and strike prices contains information on the probabilities assigned to the price of the underlying asset taking different values as at the date of expiration of the contract.

The probability distribution of the prices of the underlying asset at a particular date is a continuous function, but options are quoted on the market only for a limited range of strike prices. Its estimation requires, necessarily, the formulation of

hypotheses whose degree of complexity depends on the method chosen. At the same time, since the premiums, in addition to the probabilities assigned to the different strike prices, include compensation for risk which is difficult to estimate, all these methods generally assume the existence of risk neutral agents.

The methods for estimating the probability distributions are classified into two major groups: parametric and non-parametric. The so-called non-parametric methods exploit the relationship between the premiums and the strike prices, without assuming, a priori, any type of functional distribution of the expectations, while parametric, starting from a specific functional form of the probability distribution, estimate, using the observed data, the parameters that characterise such function.

Non-parametric methods are generally useful as a first approximation, to try to capture some of the more general features of the probability functions that it is sought to characterise. In this respect, their results can be taken as references when choosing the functional forms to apply parametric methods and when assessing the value added of such methods.

In the case of call options, the first derivative of the premium with respect to the strike price is directly related to the distribution function and enables the probability assigned to the price of the underlying asset being within certain intervals to be estimated. The second derivative is directly related to the density function. The latter provides more information than the distribution function but, however, its estimation is more complex and requires the formulation of hypotheses regarding the type of functions it is wished to estimate.

The results obtained when a linear approximation is made of the first derivative of the function that relates premiums to strike prices in the case of the IBEX 35 index are presented below². This approximation enables inferences to be drawn on the characteristics of the expectations implicit in the relationship between the premiums and the strike prices negotiated for a particular maturity, as well as on the probabilities that the IBEX 35 index is within certain price intervals.

1. In the case of IBEX 35 futures, the underlying instrument is the IBEX 35 index and the multiplier is €10. In November 2001, the official Spanish derivatives market (MEFF) introduced so-called mini IBEX 35 futures which are equivalent to the previous contract divided by 10. Since that date, both types of contract have co-existed, the larger one under the name IBEX plus future and the smaller one with that of mini IBEX 35 future, being traded by somewhat different groups of investor.

2. There is an explanation of this non-parametric approach in H. Neuhaus: "The information content of derivatives for Monetary Policy: Implied Volatilities and Probabilities". Bundesbank Economic Research Group, Discussion Paper 3/95 and there is an application of this methodology to the case of Spain in a forthcoming paper by M.C. Manzano: "Expectations and Options Markets. A First Approximation to the Information Content of Options on the Spanish Stock Exchange Index IBEX 35". An analysis of the predictive capacity of the density functions implicit in the IBEX 35 options is contained in F. Alonso, R. Blanco and G. Rubio: "Testing the forecasting performance of IBEX 35 option implied risk neutral densities", Banco de España. Working Paper 0504.

The results obtained are derived from analysis of daily trading data for call options on the mini IBEX 35 future with expiration December 2004, during the period between May and November 2004, and of those traded in February of this year with expiration in December.

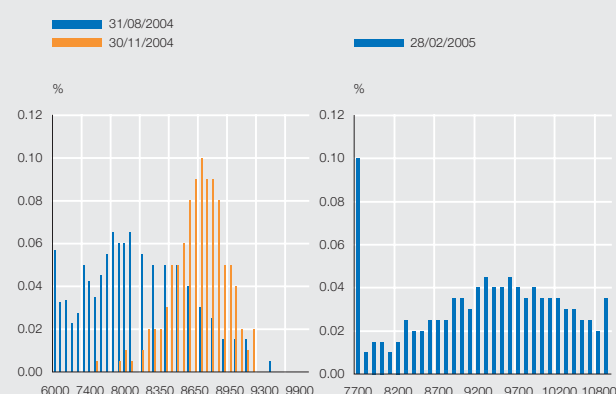
The analysis carried out shows that: a) the probabilities implicit in IBEX 35 options are not normally distributed. There are asymmetries and a lack of concentration that tend to diminish, however, as the period to expiration shortens (Chart 1). In particular, for the most extreme changes, the probability normally assigned to declines is greater. These characteristics make the median of such distributions greater than the mean (Chart 2); and b) there is a strong correlation between

the central values of the estimated distributions and the developments observed in the level of the IBEX 35 over time.

Table 1 shows the probabilities that were assigned in the period between May and November 2004 to the levels of the IBEX 35 in December 2004. It also shows the probabilities estimated in February 2005 (latest data available when drafting the FSR) for different changes in the IBEX 35 for the end of the year. As can be seen, the probabilities of sharp falls or rises of 15% or more are very low. It is expected that the levels of the IBEX 35 in December 2005 will be better than those observed during February if the median of the distribution is taken as reference (Chart 2B). However, in line with the deterioration in the observed levels, such expectations have worsened.

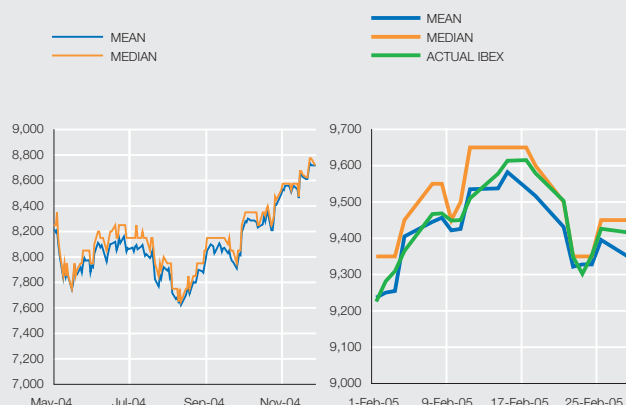
IBEX 35. HISTOGRAMS OF PROBABILITIES ESTIMATED ON THE DATES INDICATED

CHART 1



IBEX 35. CENTRAL VALUES EXPECTED FOR THE DATES INDICATED

CHART 2



PROBABILITIES ESTIMATED OF THE DATES INDICATED OF A CHANGE EQUAL TO OR GREATER THAN THAT INDICATED

TABLE 1

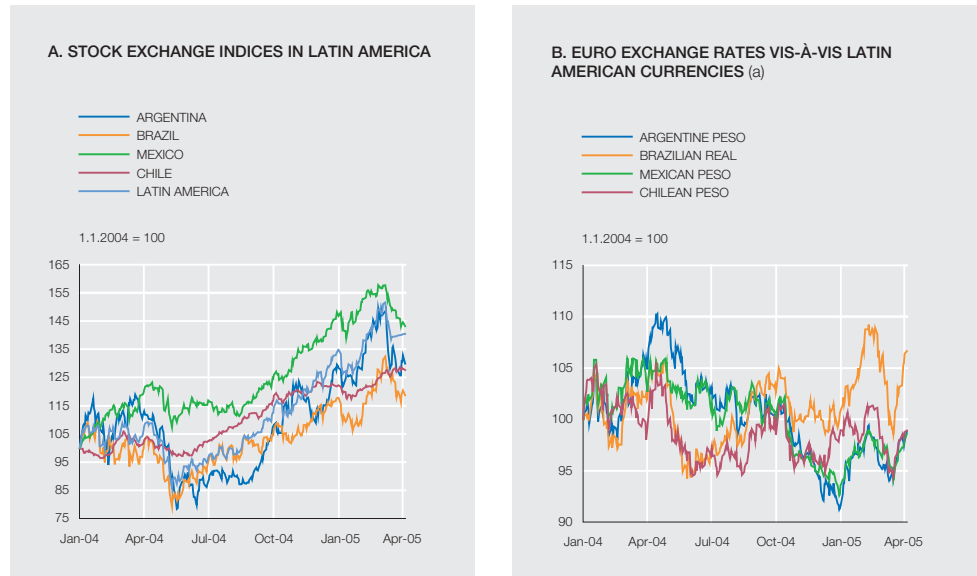
IBEX 35 EXPECTED FOR DECEMBER 2004

%	FALL		RISE		FALL		RISE		FALL		RISE	
	5%		10%		15%		20%					
May	32.8	38.8	24.0	25.6	17.3	14.3	12.3	6.2				
June	31.6	37.4	22.2	22.0	14.5	9.9	11.2	3.0				
July	28.7	36.5	19.1	18.9	11.4	6.4	9.0	1.0				
August	27.0	34.2	16.1	16.2	10.7	5.1	5.8	0.9				
September	22.9	26.4	11.3	7.1	5.1	0.8	4.1	0.0				
October	17.2	16.9	5.4	1.5	1.7	0.0	0.8	0.0				
November	7.6	5.4	1.3	0.0	0.3	0.0	0.2	0.0				

IBEX 35 EXPECTED FOR DECEMBER 2005

%	FALL		RISE		FALL		RISE		FALL		RISE	
	5%		10%		15%		20%					
February	30.5	33.9	19.7	17.2	12.5	4.0	n.d	0.0				

SOURCE: Manzano (2005).



SOURCES: DataStream and Bloomberg.

a. Exchange rates: a fall denotes a depreciation of the local currency against the euro.

1999. Notable, by country, was the volume of direct investment received by Brazil (around 18 billion dollars) and by Mexico (around 17 billion dollars).

II Profitability

II. 1 General situation

Against a backdrop marked by recovery in the world economy and by the continued firming of the Spanish economy, 2004 saw confirmation of the favourable trend in the financial performance of deposit institutions¹. Despite the continued narrowing of interest rate spreads, this result was made possible by, among other factors, the increased activity during the year and the cost containment efforts by institutions. Also helping to explain this situation was the lower negative impact of the exchange rates of the main Latin-American economies in which the Spanish institutions operate².

Group net income accelerated by 5.2 pp to a growth rate of 19.3% (Table II.1)³. This confirms the recovery seen from the negative rates of 2002. In terms of ATA, the rise was 6 bp to 0.85%. The buoyancy of group net income, which grew by more than group average own funds (11.8%), explains why *ROE* increased by 0.8 pp to stand at 14.1% (Chart II.1A). For the second consecutive year the spread between *ROE* and the yield on public debt widened, standing at 10 pp in December 2004.

The factors explaining the change in *ROE*⁴ in 2004 (Chart II.1B) were not very different from those in 2003. In particular, a positive contribution was made by the increase in the weight of group net income relative to net operating income, due to the higher profits from group transactions, which offset the increase in provisioning and the reduction in extraordinary income. Further, the higher operating efficiency shown by Spanish deposit institutions accounts for a part of the rise in profitability. However, the factors contributing to the higher *ROE* also include an increase in the risk profile with which institutions operate and, albeit to a lesser extent, a slight deterioration in the quality of own funds. Finally, the profitability of institutions was negatively affected by the lower productivity of risk-adjusted assets and, secondarily, by lower gearing.

Net interest income showed, in absolute terms, a favourable performance (up by 5.6%), which contrasts with the negative rates of change in the two preceding years (Chart II.2A). The expansion in activity throughout 2004, referred to in Chapter I of this FSR, along with the lower appreciation of the euro with respect to some of the main Latin-American currencies, help to explain this behaviour.

However, in terms of ATA, net interest income continued to fall (by 11 bp to 2.3%). A more competitive environment and lower interest rates exerted downward pressure on this margin. In particular, the narrowing of the spread between the average return on non-interbank lending and the cost of non-interbank financing received largely explains the reduction in the total spread (Chart II.2B). Also, the narrowing of the spread on the fixed-income portfolio offset the

1. In this and the following chapter of the FSR, foreign bank branches based in other European Union countries are not included, as this sub-group is 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. Unlike in Chapter I, where the acquisition of a large UK institution hindered comparison with the prior year, in this chapter that acquisition, which is not recognised in the acquiror's profit and loss account because it took place in late 2004, only affects the calculation of ATA, which can obviously be adjusted by eliminating the amount of the acquired institution, and the analysis of the composition of *ROE*, which cannot be adjusted with the available information. 3. The profit and loss account for analytical purposes included in this chapter differs to some extent, in certain groupings of headings, from the public profit and loss account. 4. Box II.1 in the May 2004 Financial Stability Report explains in detail this breakdown of the change in *ROE* into six elements: group net income divided by net operating income (group net income/NOI), one minus the efficiency ratio (equal to net operating income divided by gross income, NOI/GI), productivity of risk-weighted assets (GI/RWA), risk profile of assets (RWA/A), gearing (A/tier1 + tier2) and quality of own funds ((tier1 + tier2)/equity).

CONSOLIDATED PROFIT AND LOSS ACCOUNT

TABLE II.1

Deposit institutions

	DEC-03		€m	DEC-04	
	% ATA	% CH. D.03-D.02		% ATA	% CH. D.04-D.03
Financial revenue	4.46	-15.2	65,637	4.15	2.9
Financial costs	2.05	-25.4	29,287	1.85	-0.2
Net interest income	2.41	-4.1	36,350	2.30	5.6
Net commissions	0.93	-0.3	14,527	0.92	9.1
Result on financial transactions	0.16	61.5	2,063	0.13	-12.2
Gross income	3.50	-1.2	52,939	3.35	5.7
Operating expenses	2.03	-4.3	29,981	1.90	3.2
Net operating income	1.47	3.3	22,958	1.45	9.1
Provisions and write-downs (net)	0.44	-13.2	7,093	0.45	12.9
Profits from group transactions	0.02	1.2	2,164	0.14	684.0
Extraordinary income	0.13	274.6	761	0.05	-58.7
Profit before tax	1.18	21.5	18,791	1.19	11.3
Net income	0.91	11.9	14,949	0.95	14.3
MEMORANDUM ITEM					
Group net income	0.79	14.1	13,441	0.85	19.3
ATA	100	4.1	1,580,394	100	10.4

SOURCE: Banco de España.

increase in the spread on the equity portfolio, against a backdrop of lower interest rates and improved stock market performance⁵.

Commissions, after the falls seen in previous years, grew in absolute terms (9.1%) and held steady in terms of ATA at the December 2003 levels (0.9%). The increase in commission income is apparent in all its components, which either went from a decline in 2003 to growth, or stepped up their existing growth. Particularly notable is the contribution of commissions earned on the sale of non-bank products (growth of 24%), related to the recovery in the net asset value of managed mutual funds mentioned in Chapter I, and, to a lesser extent, to greater distribution of insurance. This income, together with that from other commissions, offset the loss in relative weight, in ATA terms, suffered by commissions for collection and payment services and for securities services. Box II.2 analyses in detail the performance of bank commissions in Spain.

The *result on financial transactions*, after rising sharply in 2003, fell by 12.2% in 2004, decreasing by 3 bp in ATA terms. The profits on the available-for-sale fixed-income portfolio and the positive contribution from exchange differences were unable to offset the fall in trading book income and the greater losses on futures transactions.

The smaller contribution from the result on financial transactions was not sufficient to offset the positive rates of change of both net interest income and net commissions, which boosted *gross income* (Chart II.2C). Nevertheless, despite the reversal of a trend apparent in the last

5. Box II.1 herein analyses the determinants of dispersion of the lending and deposit interest rates applied by deposit institutions in their business in Spain in the past fifteen years.

The law of one price states that homogeneous products are sold at the same price in frictionless markets. In practice, this law does not hold because some of its underlying assumptions are not met due to, for example, market imperfections and product differentiation. There are many sources of product differentiation. First, institutions may offer different interest rates because they compete on the basis of features other than price (service quality, branches, ATMs, etc.), thereby differentiating their products from those of competitors and making them less substitutable. Second, the inherent characteristics of a loan or deposit, such as its maturity or degree of liquidity, may cause products that in principle have the same purpose to differ in their interest rates. Third, the dispersion of interest rates may be due to the imperfect information available to consumers because, to determine the best conditions offered by institutions, they have to incur search costs that increase with the volume of information they wish to obtain.

These and other factors explain why an analysis of the interest rate levels applied monthly (in transactions initiated during the month) by banks and savings banks in 25 lending and deposit products in the period 1989-2003 disclosed systematic and permanent differences in those interest rate levels¹. Table 1 shows three measures of interest rate dispersion for different time periods. As a first measure of dispersion of the interest rate distribution, the difference between the 90th percentile and the 10th percentile was calculated; as a second measure, the difference between the maximum and the minimum (both relative to the average for each product); and finally, the coefficient of

variation. The choice of the three sub-periods was based on the behaviour of the interbank interest rate, which is the reference rate for fixing financial product prices. In the first period, 1989-1993, the interbank rate remained relatively steady at high levels (an average of 13.7%); in the second period, 1994-1998, it decreased sharply due to the process of financial integration with the EU; and in the third period, 1999-2003, it again held steady, this time at relatively low levels (an average of 3.6%).

First, it should be noted that there is a considerable degree of dispersion in interest rates during the period considered in all the measures analysed. The average difference between the 90th and the 10th percentiles in the product type distribution represents 42% of the product average. Second, the dispersion increased over time despite intensified competition in the sector, perhaps due to the decrease in interest rate levels (a wider range of percentage change around the average when rates are lower) and to an increase in the degree of differentiation. Deposit products show the largest dispersion, although loans have drawn nearer to them over time because of their faster growth rate in all the dispersion measures analysed (coefficient of variation up by 45% compared with 25.5% for deposits).

Our analysis so far has focused on the levels of dispersion in the interest rates of financial products. The next step is to break down price dispersion into explanatory factors. A study is thus presented of how well interest rate movements can be explained by four determinants of change: *time – interbank rate, institution, product and province*.

Time – interbank rate is one of the main factors explaining interest rate movements because it captures the continuous decrease in rates over the sample period, since it follows the trend set by the in-

1. For a more detailed analysis of the content of this box, see the paper by A. Martín, V. Salas and J. Saurina entitled "Análisis de la dispersión de los tipos de interés de los préstamos y depósitos bancarios", included in *Estabilidad Financiera*, n.º 8, May 2005.

MEASURES OF DISPERSION FOR LOANS AND DEPOSITS (a)

TABLE 1

		1989-2003	1989-1993	1994-1998	1999-2003
All products	Interbank rate (%) (b)	8.7	13.7	7.3	3.6
	90-10 (c)	0.4	0.3	0.4	0.6
	Maximum - Minimum (c)	0.9	0.7	0.9	1.3
	Coefficient of variation (c)	0.2	0.1	0.2	0.2
Loans	90 - 10 (c)	0.4	0.2	0.4	0.5
	Maximum - Minimum (c)	0.9	0.6	0.9	1.2
	Coefficient of variation (c)	0.2	0.1	0.2	0.2
Deposits	90 - 10 (c)	0.5	0.5	0.4	0.6
	Maximum - Minimum (c)	1.0	0.9	1.0	1.3
	Coefficient of variation (c)	0.2	0.2	0.2	0.3

SOURCE: Martín, Salas and Saurina (2005).

- Expressed in terms of the average for each product.
- Interbank rate shows the average of the overnight interest rate in the interbank deposit market in the periods considered.
- The measures of dispersion relate to the distribution of interest rates: 90 - 10 is the difference between the 90th and the 10th percentile, Maximum-Minimum is the difference between the highest and lowest value, and the coefficient of variation is the ratio of the standard deviation to the mean.

terbank interest rate. The *institution* factor captures the significance of each bank and savings bank's idiosyncrasies lying behind the difference in the price levels offered by them. The *product* factor explains the differences in interest rates caused by characteristics that differ across financial products. Finally, the *province* factor reflects the dispersion arising from the difference in the interest rate levels applied in different provinces. A low importance of this latter factor would back up the assumption of a single national market, while the contrary would support the assumption of poorly integrated geographical markets resulting from transport and transaction costs.

Table 2 contains the findings of the variance analysis of the loan and deposit interest rate series. For each determinant of change, the figure shows the percentage by which the explained variance decreases when that factor is eliminated from the set of explanatory variables (for this reason they do not sum to 100%, since the variable has to be extracted without replacement). Focusing on the average for the sample period, both in loans and in deposits, the four determinants considered explain nearly 90% of the total change in interest rates. In both cases, *time – interbank rate* is the main driving force of interest rates, as it accounts for the significant fall in the reference levels during the period considered.

However, upon analysis of each sub-period, the significance of *time – interbank rate* decreases, particularly in the first and third periods, when the rates were fairly steady around the period average.

In the case of loans, *institution* and *product* explain a high percentage of the change in interest rates (increasing, each explaining around 30%-40% of the total change), although the *institution* effect seems to dominate at the end of the period. The explanation in both cases

is to be found in product differentiation: differentiating features of financial products that justify different interest rate levels (product type, credit risk, liquidity, etc.) and in non-price competition. Thus an extensive branch network and the provision of high-quality services lead to a perception of a differentiated final product that permits a higher rate of interest on loans and a lower rate of remuneration on deposits.

In regard to deposits, the main explanatory component in all sub-periods (except the second, due to the fall in rates accounted for by *time – interbank rate*) is *product*, well ahead of differentiation through *institution*. This finding suggests that there is a lower degree of substitution between deposit products than between lending products, since consumers are less sensitive to differences in remuneration.

The *province*, or geographical market, factor, in loans and in deposits for the total period or for each sub-period, explains only a small amount of change in interest rates. However, due to a lack of detailed information, in the analysis it was assumed that institutions apply the same rates in all the provinces in which they operate. Therefore, a part of the effect exerted by the *institution* factor may be due to specific characteristics of the set of provinces in which an institution operates. Nevertheless, if the *institution* effect is disregarded and the *province* factor is allowed to capture such characteristics, its explanatory capacity increases, although only slightly (less than 1%), which strengthens the view that there is a single national market for loans and deposits.

Finally, it should be pointed out that this analysis is of an exploratory nature and is presented with the provisos that customarily apply in studies of this kind.

ANALYSIS OF INTEREST RATE VARIANCE: PARTIAL CONTRIBUTION TO VARIANCE EXPLAINED BY THE FACTORS TIME, INSTITUTION, PRODUCT AND PROVINCE. (a)

TABLE 2

	LOANS				DEPOSITS			
	1989-2003	1989-1993	1994-1998	1999-2003	1989-2003	1989-1993	1994-1998	1999-2003
Time - Interbank rate	68.8%	37.7%	69.2%	18.2%	54.0%	4.8%	49.4%	11.2%
Institution	4.4%	20.9%	13.5%	41.8%	2.2%	8.1%	4.5%	8.3%
Product	4.9%	34.6%	13.6%	33.5%	26.1%	85.4%	42.3%	79.6%
Province	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Explained variance (R ²)	89.9%	62.9%	80.8%	61.0%	85.3%	66.6%	82.2%	71.1%

SOURCE: Martín, Salas and Saurina (2005).

a. Figures are the percentage by which the variance explained by the model decreases when the factor in question is eliminated from the set of explanatory variables (partial sum of squares divided by the sum of squares in the model, which is the reason why they do not total 1).

two years, the growth of the gross margin (5.7%) was less than that of ATA and thus further decreased in relative terms to 3.4% (Chart II.2A).

Operating expenses grew by 3.2%, since the fall in those associated with depreciation (2.8%) was offset by the increase in personnel expenses (2.9%) and in overheads and taxes (5.4%). Overall, given that the increases were appreciably smaller than those in ATA, operating ex-

Deposit institutions



SOURCE: Banco de España.

a. $(T1+T2)/EQUITY = (Tier\ 1+Tier\ 2)/Equity$; $A/(T1+T2) = \text{Average total assets}/(\text{Tier 1}+\text{Tier 2})$; $RWA/ATA = \text{Risk-weighted assets}/\text{Average total assets}$; $GI/RWA = \text{Gross income}/\text{Risk-weighted assets}$; $NOI/GI = \text{Net operating income}/\text{Gross income}$; $GNI/NOI = \text{Group net income}/\text{Net operating income}$.

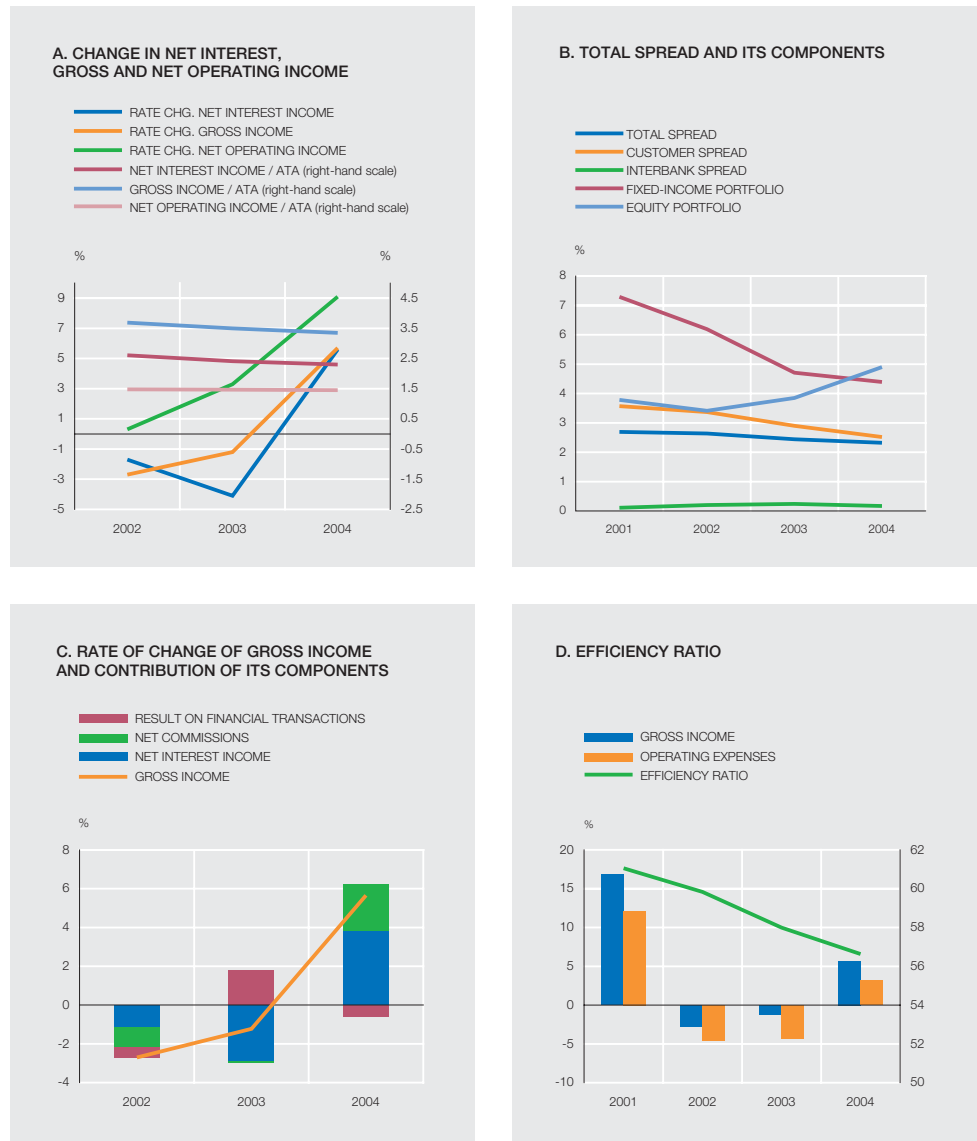
penses declined in relative terms yet another year (by 13 bp to 1.9%). In the last three years institutions have made a notable effort to contain costs, with reductions or very moderate increases in operating expenses. This has resulted in a continuous improvement in their efficiency ratio (Chart II.2D), which in 2004 fell from 57.9% to 56.6%.

The performance of operating expenses allowed *net operating income* to hold practically steady in ATA terms, declining by only 2 bp to 1.5%. Furthermore, in line with the aforementioned performance of net interest income and gross income, net operating income grew in absolute terms (9.1%), thereby strengthening the trend apparent in the two preceding years (Chart II.2.A).

Provisions and write-downs reduced net operating income by 30.9%, 1 pp more than in 2003. Unlike in the preceding two years, they grew in absolute terms (12.9%). The reduction in country-risk provisioning and the reversals of the security price fluctuation fund (totalling 0.01 pp of ATA) were not sufficient to offset the higher provisioning to other specific funds (0.07 pp of ATA) which include the cost of early retirement (charged in prior years to reserves) and to the fund for general banking risks (0.01 pp of ATA). Bad debt provisioning grew slightly (3.5%), although it declined in ATA terms (3 bp) to stand at 0.37 pp of ATA. The reduction in specific coverage, in a setting of lower total doubtful assets, was offset by the increase in general and statistical provisioning.

Net income on group transactions grew substantially with respect to the previous year and, as a result, this item increased by 12 bp in terms of ATA (to 0.14%). The explanation for this is to be found mainly on the loss side. In particular, after various years of accelerated amortisation of goodwill by some of the larger institutions, the charges in this connection decreased significantly in 2004. In addition, on the profit side, income from corporations valued by the equity method, i.e. that recorded by institutions on their holdings in non-financial and insurance

Deposit institutions



SOURCE: Banco de España.

corporations, increased. Contributing to this were the strong corporate earnings referred to in Chapter I of this FSR.

Extraordinary income declined considerably in both absolute and relative terms. The reason for this basically lies in the larger extraordinary losses on pensions (0.1 pp of ATA). At the same time, gains were lower because those on real property sales declined by an amount that offset the rise in those on holdings in the held-for-sale equity portfolio.

In short, 2004 was characterised by a firming of the recovery in the growth rate of Spanish deposit institutions' earnings, as manifested by a fresh rise in return on equity. This behaviour is underpinned by increased activity, by higher commissions and by continued efforts to contain operating costs despite the further narrowing of the interest rate spread between lending and deposit transactions.

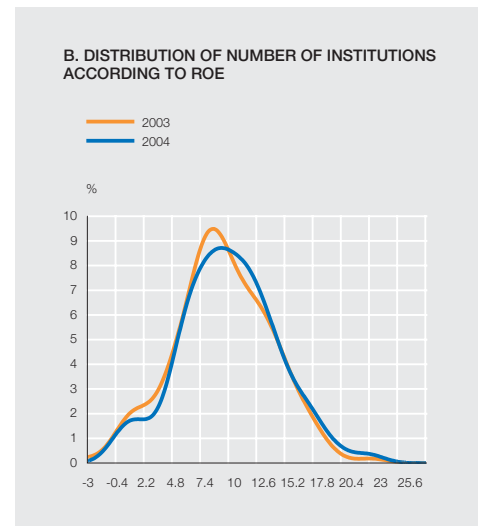
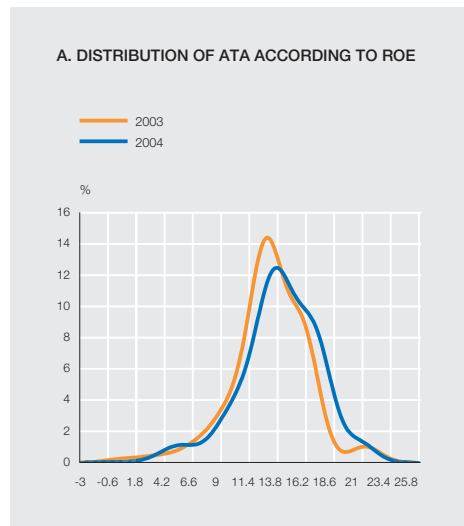
II.2 Analysis based on individual institutions

The distribution of ATA by ROE has shifted considerably to the right, evidencing an improvement with respect to 2003 (Charts II.3A and C). This improvement is also apparent in the dis-

DISTRIBUTION OF PROFITABILITY

CHART II.3

Deposit institutions



C. DISTRIBUTION OF ATA AND NUMBER OF INSTITUTIONS ACCORDING TO ROE

ROE BRACKETS	DEC-03		DEC-04	
	% ATA	NO. OF INSTITUTIONS	% ATA	NO. OF INSTITUTIONS
<0	0.3	7	0.4	8
0-5	1.9	24	0.9	16
5-10	6.9	71	8.8	71
10-15	57.8	55	45.5	58
15-20	29.7	12	40.3	15
>20	3.4	1	4.1	2

SOURCE: Banco de España.

tribution of the number of institutions, albeit only tenuously (Chart II.3B and C). This indicates that the higher profitability seen in 2004 was more appreciable in the relatively large institutions.

Comparison of the ROE of commercial banks with that of savings banks shows some differences in its level between the two types of institution (Chart II.4A), with the ROE of banks being higher in the last two years. Charts II.4B and C show the factors determining changes in ROE in the two types of institution.

At *commercial banks*, ROE increases owing to the rise in the risk profile with which these institutions operate, but also due to the greater weight of group net income relative to net operating income and to the greater operating efficiency. Thus a slight deterioration in the quality of own funds enables profitability to be increased. By contrast, the lower productivity of risk-weighted assets and the lower gearing put downward pressure on ROE⁶.

6. Note that the substantial effect of the risk profile is practically offset by the opposite effect of the productivity of risk-weighted assets. This behaviour derives from the large increase in risk-weighted assets as a result of the aforementioned acquisition of a UK institution, which cannot be neutralised.

The profit and loss account, considered at the individual financial statements level, enables a detailed analysis to be carried out of commission income earned by Spanish deposit institutions for providing a variety of lending and deposit services to their customers. Institutions in turn contract services from others in exchange for payment or assignment of commissions. The latter represent around 20% of total commission income. The analysis presented here is in net terms and focuses on commercial banks and savings banks.

The absolute amount of net commissions received by commercial banks and savings banks has shown sustained growth since 1992, in line with the growth of banking in the broad sense of the term (on-balance-sheet assets, off-balance-sheet items, asset management, securities transactions, etc.). Net commissions of banks and savings banks have tripled in the last 12 years. Somewhat more than half of net commissions are attributable to the collection and payment service (see Chart 1), and the marketing of non-bank financial products (mutual funds in particular, but also pension funds and insurance) is the second source of commission income¹, fluctuating between 25% and 30%. Commissions for securities services, somewhat more than 10%, come next. The remainder, consisting of commissions for contingent liabilities, for exchange of foreign currency and banknotes, for advice on exceptional transactions, for factoring transactions and for other unclassified transactions, account for around 5%.

Noteworthy in the commissions for collection and payment services (see Chart 2) is the enormous growth in those associated with credit and debit cards, which in 12 years has taken them from representing somewhat less than a quarter to more than half of the total commissions in this connection. This contrasts with the fall in bill-related

commissions, linked to the decline in the use of this instrument. Finally, the relative weight of commissions for cheques and orders (direct debit, transfers, etc.) held steady, while commissions for sight demand deposits have increased in the last four years.

Within commissions for securities services (see Chart 3), those for administration and custody have gained weight, representing half of the total. Underwriting and placement commissions have been losing relative weight, while those for securities purchases and sales basically follow the stock market.

The growth of commissions earned by commercial banks and savings banks is partly attributable to the expansion of the banking business. Thus in the last 12 years the amount available in credit cards has increased five-fold. In the last five years, the number of credit and debit cards has grown by more than 40%. Meanwhile, assets under management have increased substantially due to the development of collective investment in Spain and to the growing demand by households and firms for securities traded in debt and equity markets, particularly shares. This has enabled deposit institutions to diversify their sources of income through the provision of higher value-added services to their customers.

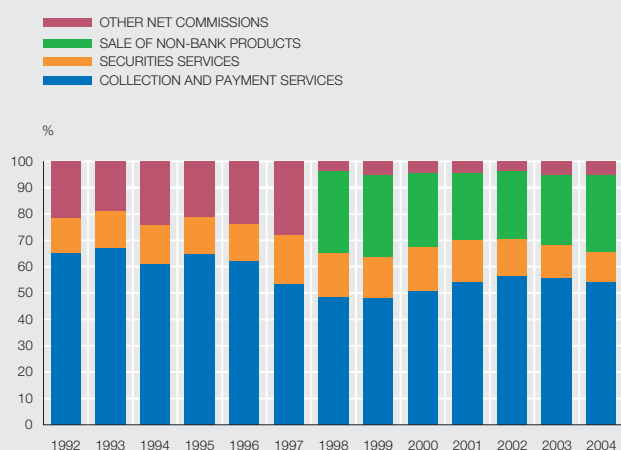
The development of the aforementioned activities entails the assumption of new risks by institutions. Thus the marketing of non-bank financial products involves reputational risk, and administration and custody activities carry operational risk.

In relative terms, as a percentage of ATA, commissions have remained relatively steady in the period analysed (see Chart 4), in contrast to the relative decline in net interest income. As a proportion of ATA, commissions for the marketing of non-bank products and for securities services (particularly purchase/sale, and administration and custody commissions) exhibit a cyclical profile related above all to the

1. Note that information is only available on them since 1998. Before then they were included under the heading other commissions.

PERCENTAGE BREAKDOWN OF NET COMMISSION INCOME. COMMERCIAL AND SAVINGS BANKS. ID

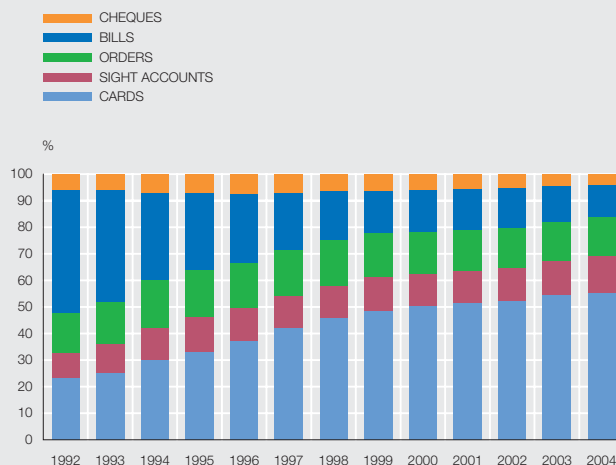
CHART 1



SOURCE: Banco de España.

PERCENTAGE BREAKDOWN OF COMMISSION INCOME FROM COLLECTION AND PAYMENT SERVICES. COMMERCIAL AND SAVINGS BANKS. ID

CHART 2



performance of the stock market. Collection and payment services commissions are relatively stable, while those for cards grew sustainably up to 2000, where they seem to have reached an equilibrium point around 0.20% of ATA.

At the individual institution level, it does not appear that the institutions with the highest net interest margin charge lower commissions and vice versa (see Chart 5)². In fact, there is a sizeable group of institutions whose net interest margin and commissions/ATA ratio are above the simple average and another in which both variables are below that average. At the same time, a significant number of institutions has a margin above the average and commissions below the average and vice versa. Also, the number of institutions in these four

2. The chart includes those banks and savings banks whose net interest income and net commissions in terms of ATA are within one standard deviation from the simple average of both these variables in 2004. The institutions excluded represent only 7% of the total ATA of banks and savings banks.

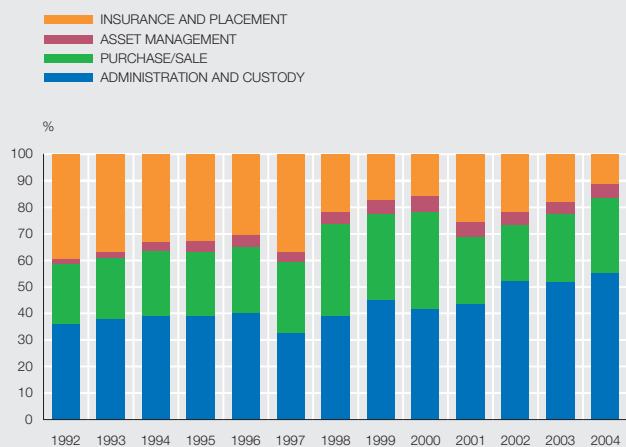
groups is very similar. These differences are explained by productive specialisation and business strategy.

However, despite the relative stability of the net commissions of individual institutions, these represent a growing part of the basic margin (net interest income plus commissions). In 12 years they have risen from 15.6% to 28.2% (see Chart 4). As a percentage of net interest income, the change is naturally greater, with a rise from 18% to 37%. Therefore, although commissions are stable in terms of ATA, their importance as a source of income for institutions has been growing over time.

Finally, it should be pointed out that this analysis was carried out at an individual financial statements level and therefore does not include commission income from other entities in the banking group and that the analysis excludes business abroad, which is an additional source of commissions for Spanish institutions.

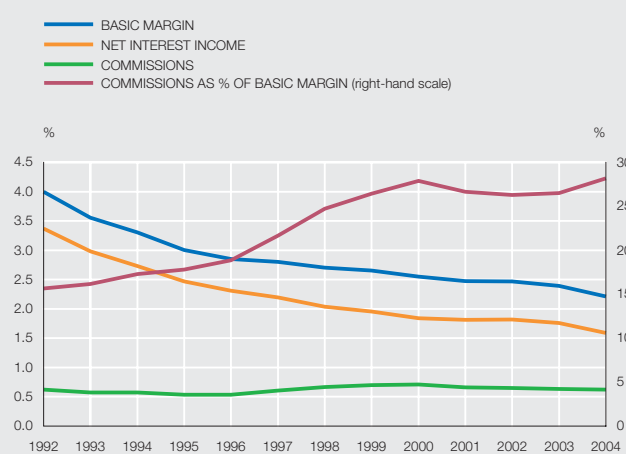
PERCENTAGE BREAKDOWN OF COMMISSION INCOME FROM SECURITIES SERVICES. COMMERCIAL AND SAVINGS BANKS. ID

CHART 3



BASIC MARGIN AND ITS COMPONENTS AS A PERCENTAGE OF ATA. COMMERCIAL AND SAVINGS BANKS. ID (a)

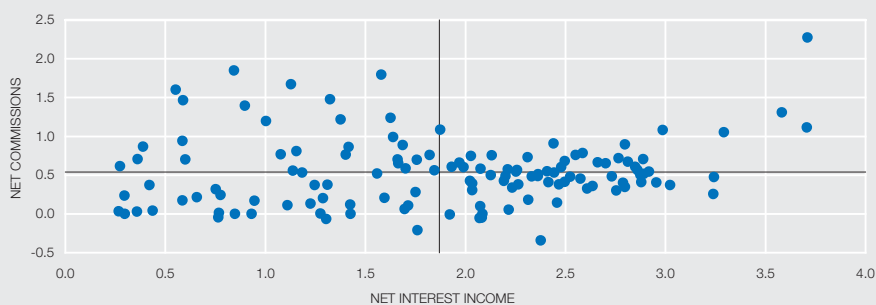
CHART 4



a. The net interest income is adjusted for dividends from intra-group holdings.

NET COMMISSIONS VERSUS NET INTEREST INCOME AS A PERCENTAGE OF ATA. 2004. COMMERCIAL AND SAVINGS BANKS. ID (a)

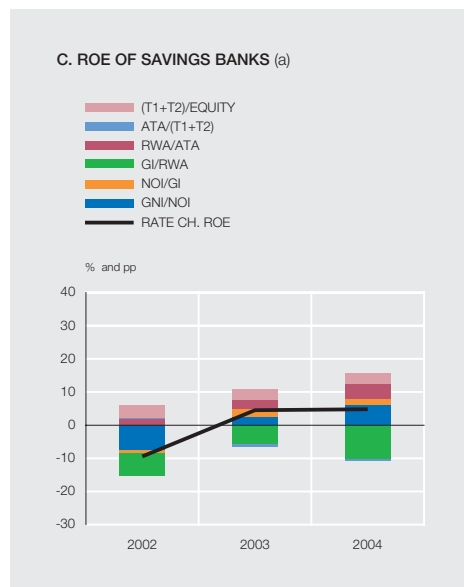
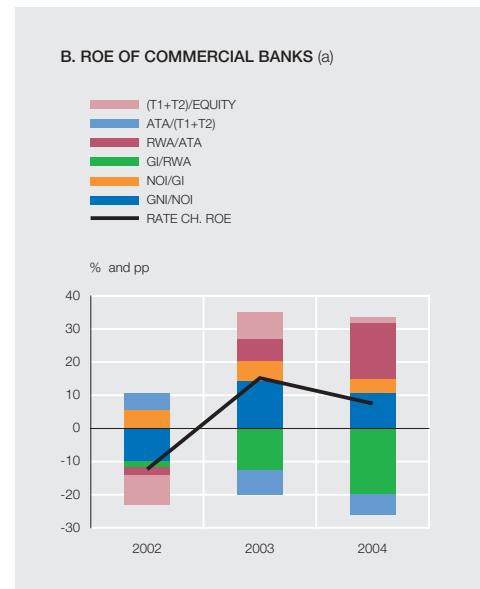
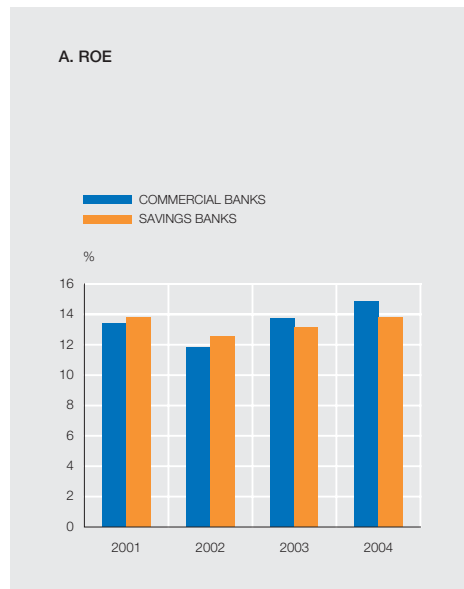
CHART 5



SOURCE: Banco de España.

a. The intersection of the axes is the simple average of the two variables for the institutions included in the chart.

Commercial and savings banks



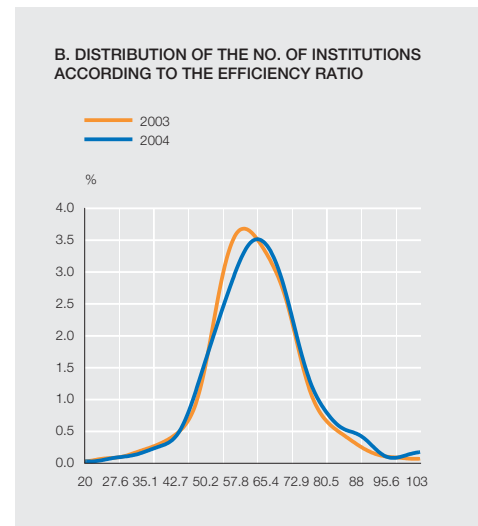
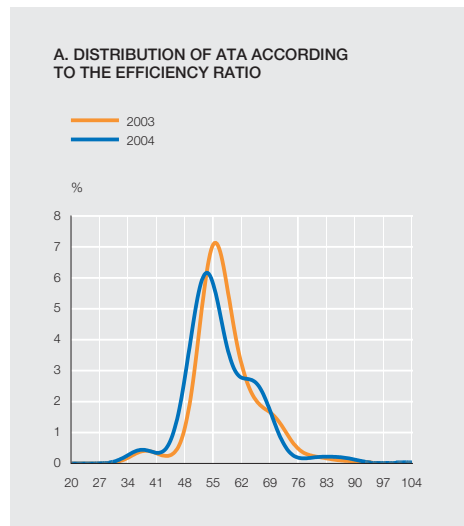
SOURCE: Banco de España.

a. $(T1+T2)/EQUITY = (Tier\ 1 + Tier\ 2) / Equity$; $A/(T1+T2) = Average\ total\ assets / (Tier\ 1 + Tier\ 2)$; $RWA/ATA = Risk\ -weighted\ assets / Average\ total\ assets$; $GI/RWA = Gross\ income / Risk\ -weighted\ assets$; $NOI/GI = Net\ operating\ income / Gross\ income$; $GNI/NOI = Group\ net\ income / Net\ operating\ income$.

At *savings banks*, the factors explaining the increase in ROE are similar, although their intensity varies. Thus profitability rose primarily because of the increased weight of group net income relative to net operating income, the greater risk profile, the slight deterioration in the quality of own funds and, to a lesser extent, because of higher efficiency. The lower productivity of risk-weighted assets adversely affects profitability because income grows more slowly than lending activity.

The distribution of the number of institutions according to their *efficiency ratio* worsened slightly in 2004, while the distribution of ATA improved. This indicates that the improved efficiency can be largely attributed to the situation of a series of relatively large institutions (Chart II.5). In the two consecutive brackets containing the largest number of institutions

Deposit institutions



C. DISTRIBUTION OF ATA AND OF NO. OF INSTITUTIONS ACCORDING TO THE EFFICIENCY RATIO

EFFICIENCY RATIO BRACKETS	DEC-03		DEC-04	
	% ATA	NO. OF INSTITUTIONS	% ATA	NO. OF INSTITUTIONS
>100	0.4	9	0.5	9
90-100	0.2	2	0.0	1
80-90	1.9	8	2.9	12
70-80	10.1	27	0.6	25
60-70	18.7	56	28.6	64
50-60	64.3	53	59.9	41
40-50	1.0	9	3.7	12
<40	3.5	6	3.8	6

SOURCE: Banco de España.

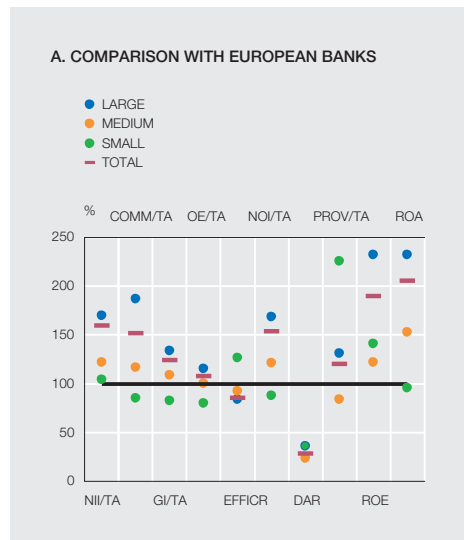
and the largest proportion of total assets (Chart II.5C), there was a bigger shift of institutions towards the worse bracket, which explains a large part of the behaviour described above.

COMPARISON WITH EUROPEAN BANKS

The macroprudential analysis of the stability of the EU banking system conducted by the Banking Supervision Committee (BSC) of the European System of Central Banks and published by the European Central Bank⁷ enables Spanish credit institutions to be compared with the EU average by *size group*. This analysis, available for 2003 data, shows that at European level the profitability and efficiency of credit institutions with a given specialisation varies significantly depending on their size⁸. Institutions should thus be compared by separating them into size groups: large, consisting of institutions whose assets exceed 0.5% of the consoli-

7. "EU Banking Sector Stability", November 2004, European Central Bank. 8. The paper in preparation "How do firms choose banks?" by J. Delgado, V. Salas and J. Saurina shows that in Spain differences also exist in the credit policy of institutions, in terms of risk (amounts lent, type of borrower, guarantees, maturity, etc.) and of market share by business segment.

Credit institutions



SOURCE: ECB and BE calculation.

NOTE: COMM = commissions; TA = total assets; OE = operating expenses; NOI = net operating income; PROV = provisions; ROA = return on assets; ROI = net interest income; GI = gross income; EFFICR = efficiency ratio; DAR = doubtful assets ratio; ROE = return on equity. Data expressed in relation to the EU weighted average, normalised to 100.

dated total assets of all EU institutions; medium-sized, between 0.5% and 0.005%; and small, below 0.005% of market share.

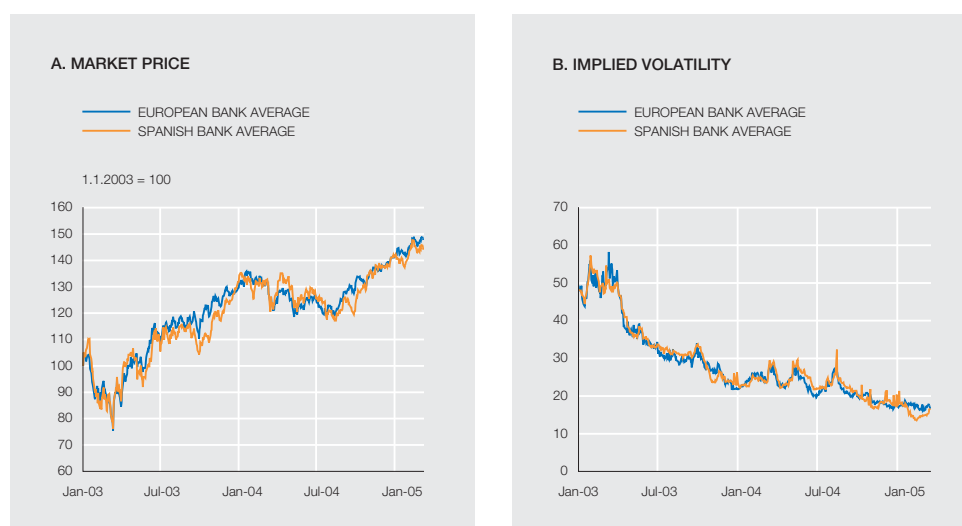
The previous FSR reported that at aggregate level the position of Spanish institutions was good with respect to the EU average. The same applies if institutions in the same size group are compared, although with certain qualifications (Chart II.6)⁹.

First, it is notable that *large institutions* in Spain enjoy a better relative position than their European counterparts of similar size. Their high profitability is based on wider margins, probably associated with a greater specialisation in retail business in Spain and abroad, higher efficiency and lower doubtful assets, despite higher bad-debt provisioning as a result of the stricter prudential regulations in Spain.

Spanish *medium-sized institutions* enjoy a more favourable position than the average medium-sized institution in the EU in relation to nearly all the variables considered, although the distance from the average is substantially less than in the case of large institutions. Again, wider margins, greater efficiency (below average efficiency ratio), lower doubtful assets and, in this case, lower provisioning mean that their ROE and ROA are 20% and 50% higher than the average, respectively.

The position of *small institutions* in 2003, however, was slightly less favourable in relation to certain variables than the average of their size group, as a result of lower commissions, perhaps because of customers demanding fewer value-added services, greater inefficiency despite lower operating expenses in relative terms, and higher provisioning, largely of a prudential

⁹ Analysis by size group excludes the subsidiaries and branches of European institutions operating in European Union countries. For this reason, there may be differences with respect to the aggregate analysis conducted in the previous FSR.



SOURCES: Bloomberg and DataStream.

nature. Despite the less favourable trend in their margins, ROE was 40% higher and ROA was less than 5% lower.

The available market information shows that Spanish institutions behave very similarly to other European banks. In relative terms, the *stock market prices* of both groups of institutions (Chart II.7A) followed fairly parallel paths in the past year, as did *implied volatilities* (Chart II.7B). The market prices of Spanish institutions rose somewhat less than 10% on average in 2004, while volatility decreased by rather more than this figure to its lowest levels in the last few years.

The *betas* of the large Spanish banks showed a certain decline in 2004, in line with other European institutions. Viewed in a broad time frame, the betas of Spanish institutions tend to lie, once again, at an intermediate level among those of the large European banks, unlike the situation in the late 1990s, when their betas were among the highest.

The information available from the *credit default swap* (CDS) market reinforces the foregoing comments. Spanish institutions have a risk premium in both senior and subordinated debt that is practically equal to the average risk premium of large European banks. The same can be said of the spread between these two types of debt. Moreover, these spreads are at minimal levels.

III. Solvency

III.1 General situation

At year-end 2004, the *solvency ratio* was, in whole-year terms, at its lowest level since the introduction of the Community legislation in 1993 (10.3%). This decline was from a level of around 11% in recent years. A reduction is also observed in the ratio calculated according to the rules of the Basel Committee on Banking Supervision, which fell by 90 bp, to 11.7% (Chart III.1A). Likewise, the *tier 1 ratio* continued to decline as in recent years, but at a faster rate in 2004, reaching 7.8%.

This situation was a consequence of strong growth in *capital requirements* (23.6% against 9.7% in 2003), which partly stemmed from the acquisition (referred to in Chapter I above) of a large British institution and, to a lesser extent, from the significant increase in business in Spain during the year (Chart III.1B)¹. These higher capital requirements were partly offset by the significant increase in *capital* (Chart III.1B), which increased by 15.2% (more than 5 pp than in the previous year), driven by the buoyancy of tier 1 capital, which grew by 15% (double the 2003 rate), and to a lesser extent, by that of tier 2 capital, which grew by 12.6%.

In particular, the above-mentioned rise in *tier 1 capital* was a result of the strong growth in reserves, which increased by 23%, against 3.7% in 2003. The capital increases, together with the good results obtained during the year, help to explain this growth. Also, within reserves, preference shares grew by 23.6%, rising by 1.4 pp as a proportion of tier 1 capital, to 20.6%. In contrast, after three years of decline, intangible assets (of which goodwill represents 95.1%) rebounded by 62.8% (Chart III.1C) as a consequence of the acquisitions made during the period by Spanish deposit institutions.

Tier 2 capital rose for the second year running at rates of more than 10%. Subordinated financing, with a relative weight of 93.7%, retained its momentum of 2003, growing by 13.3%, 1.8 pp more than in the previous year (Chart III.1D).

In line with the higher level of activity in business in Spain and, especially, with the expansion in foreign business during 2004, *risk-weighted assets* grew very significantly (Chart III.1B). Credit risk requirements were responsible for this growth, having risen at a rate of 24.9%, well above the 10.1% rate recorded in 2003. As a result, their weight in total requirements increased by 94 bp to 96.1%. Within the requirements for credit risk, those relating to balance-sheet assets were notably important, representing 88.1% of the total (Chart III.2A).

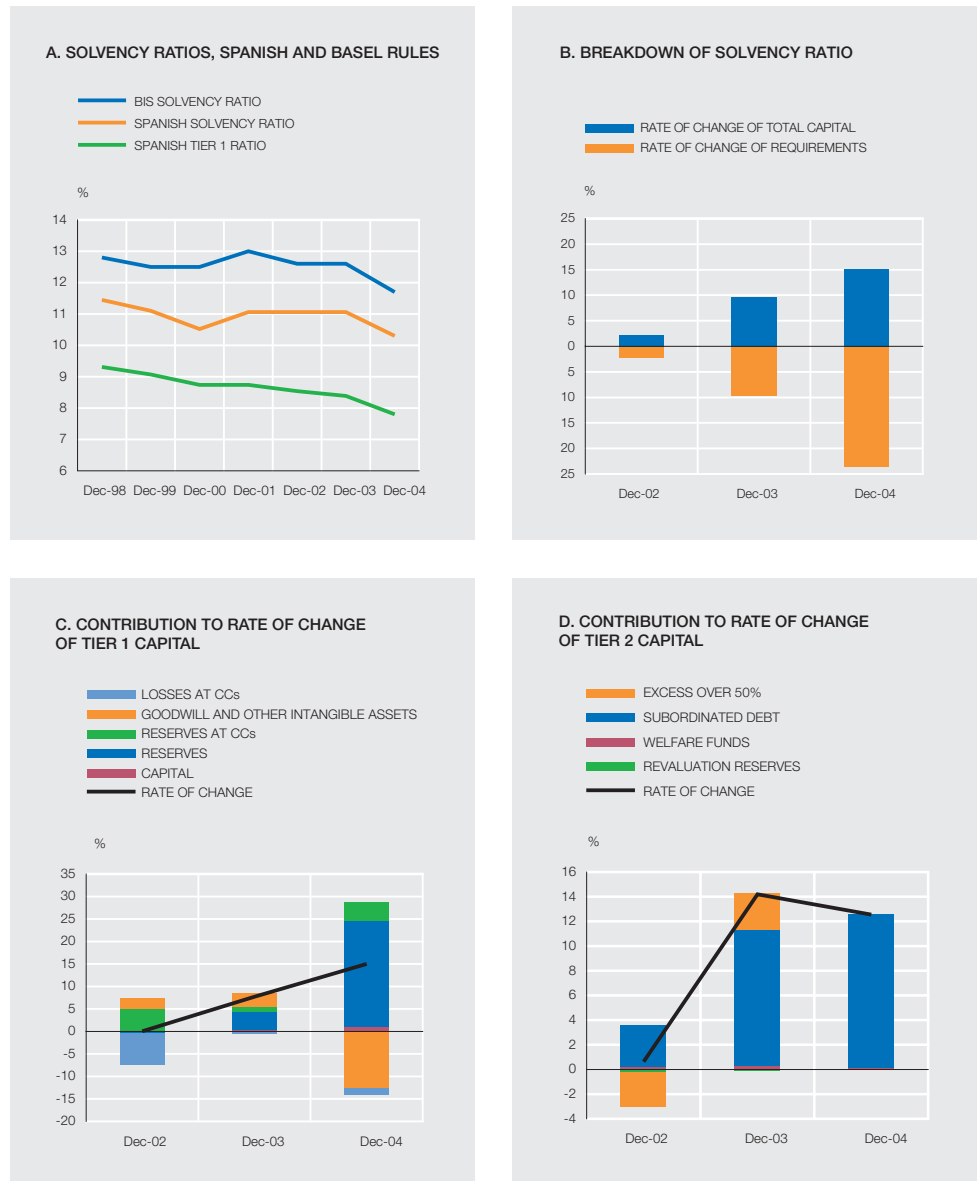
The classification of balance-sheet assets into five risk categories, in accordance with Basel I, shows that during 2004 there was a significant increase in mortgage-backed risks, which grew by 57.3% as against 16.9% in 2003 (Chart III.2B). Although this type of risk only accounts for 50% of requirements, it made a very significant contribution to the change in total requirements (Chart III.2C). Lending to the resident private sector without mortgage security (with 100% weighting) was not affected so significantly, although it increased strongly (by 19.7%, 9.7 pp more than in the previous year. Meanwhile, loans to general government declined slightly.

III.2 Analysis based on individual institutions

In the case of commercial banks, all three capital ratios declined; the solvency ratio by around 1 pp, both under Spanish rules (9.6%), and using the Basel definition (11.1%), and the tier 1

1. Again, the above-mentioned acquisition obscures, to some extent, the comparison with the previous year.

Deposit institutions



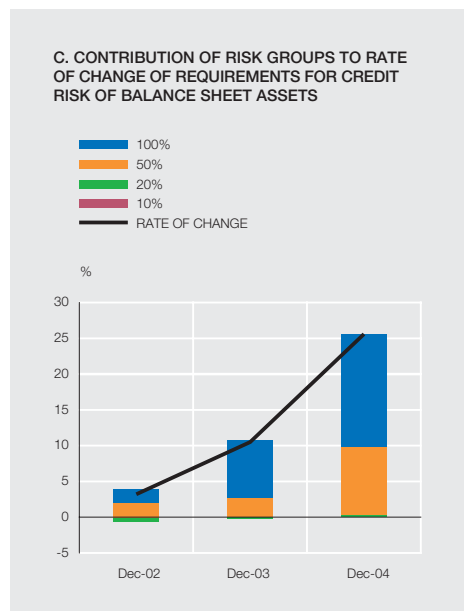
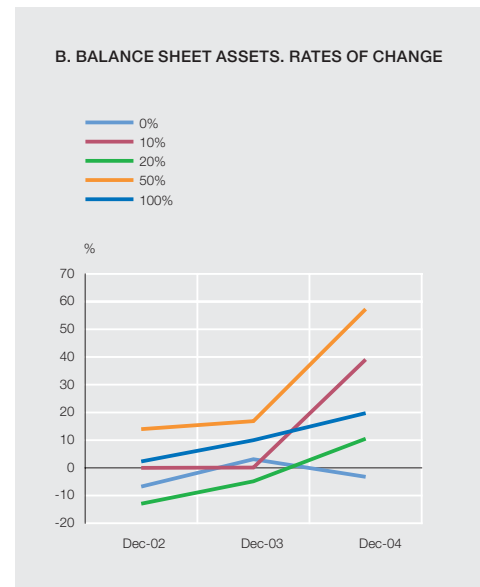
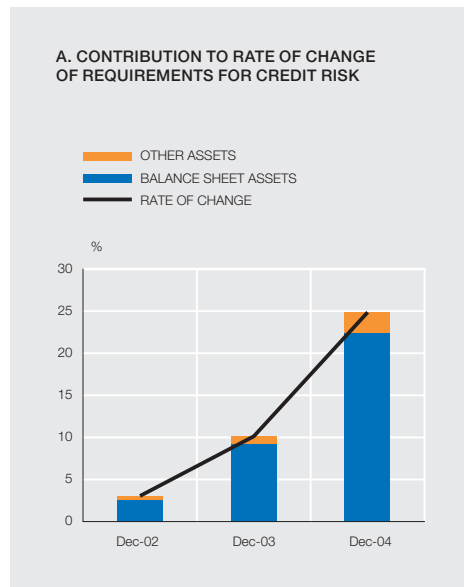
SOURCE: Banco de España.

ratio by a little more than 70 bp (7.1%). Among savings banks, there was also a downward trend in capital ratios, although less steep, the reductions being around 40 bp for all three ratios. As a result, the solvency ratio according to Spanish rules stood at 11.3% (12.5% according to Basel), while the tier 1 ratio fell to 8.5% (Chart III.3A). The difference between the solvency ratios of commercial and savings banks, traditionally favourable to the latter, widened in 2004, despite the fall in the savings banks' ratios (Chart III.3A).

The breakdown of the change in the solvency ratio into tier 1 capital, tier 2 capital and deductions, relative to risk-weighted assets (RWA), shows that, for both groups of institution, the change in the requirements was greater than both the changes in tier 1 capital and in tier 2 capital, giving rise to the declines mentioned above (Chart III.3B).

More specifically, developments in the case of *commercial banks* were marked by acquisitions by the main groups, giving rise to significant capital needs as a consequence of the higher

Deposit institutions

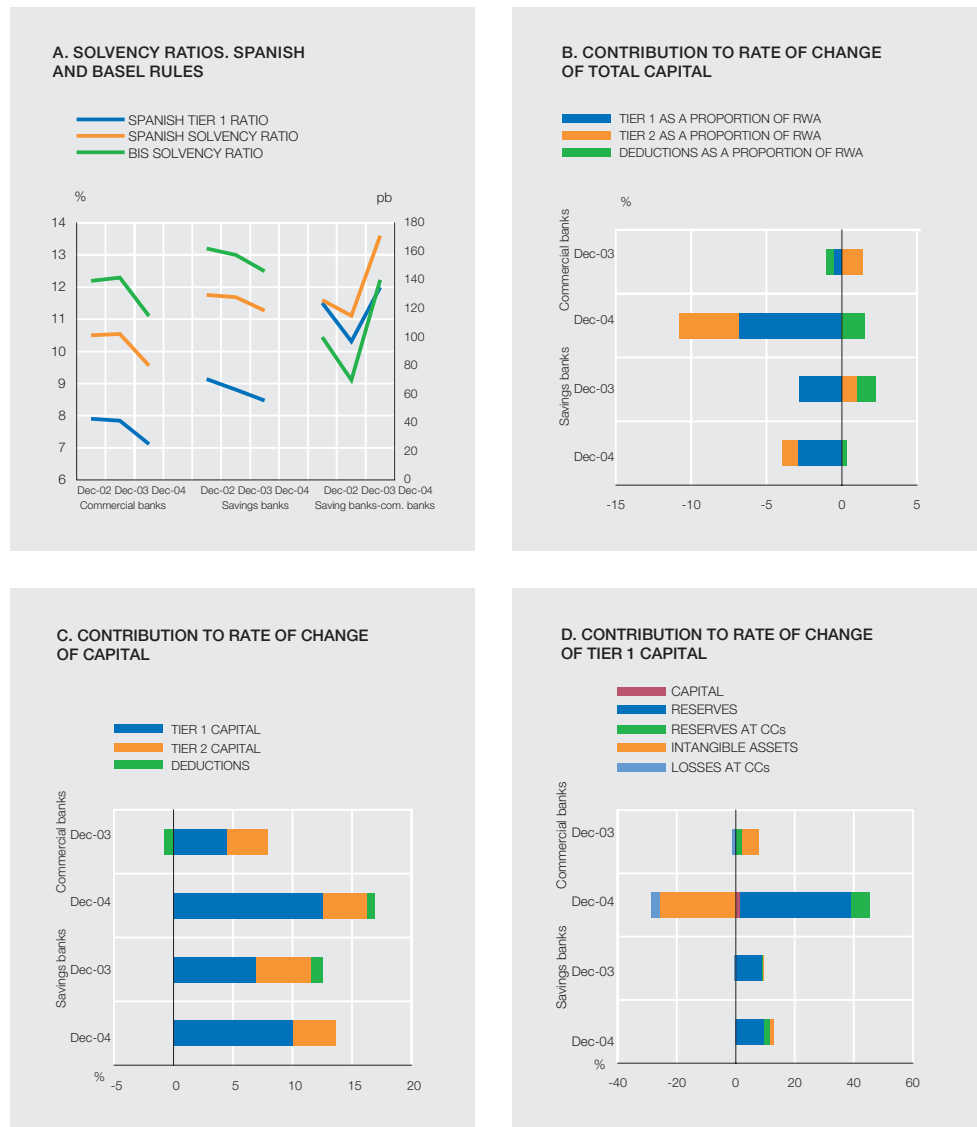


SOURCE: Banco de España.

requirements (28.8%). Capital accelerated strongly (16.9%, 2.4 times higher than in 2003), driven by tier 1 capital (16.9%) and by the strength of tier 2 capital (12.1%, Chart III.3C). The significant rise in reserves (35.7%), following the inclusion of share premiums from the capital increases by the major banks, lay behind this behaviour of tier 1 capital. Also, commercial banks resorted to the issuance of preference shares as a way of raising capital (Chart III.4.A). The increase in reserves was partly offset by the new goodwill arising, its growth of 93.2% also being boosted by the lower level of amortisation than in previous years (Chart III.4B). As a result, intangible assets grew very briskly (Chart III.3D). As for tier 2 capital, commercial banks again resorted to subordinated financing, the outstanding amount of which rose by 12.3%, following its recovery in 2003.

The increase in risk-weighted assets was a consequence of the doubling in size of the mortgage asset portfolio, following the purchase, by a Spanish institution, of a British bank with

Commercial banks and savings banks



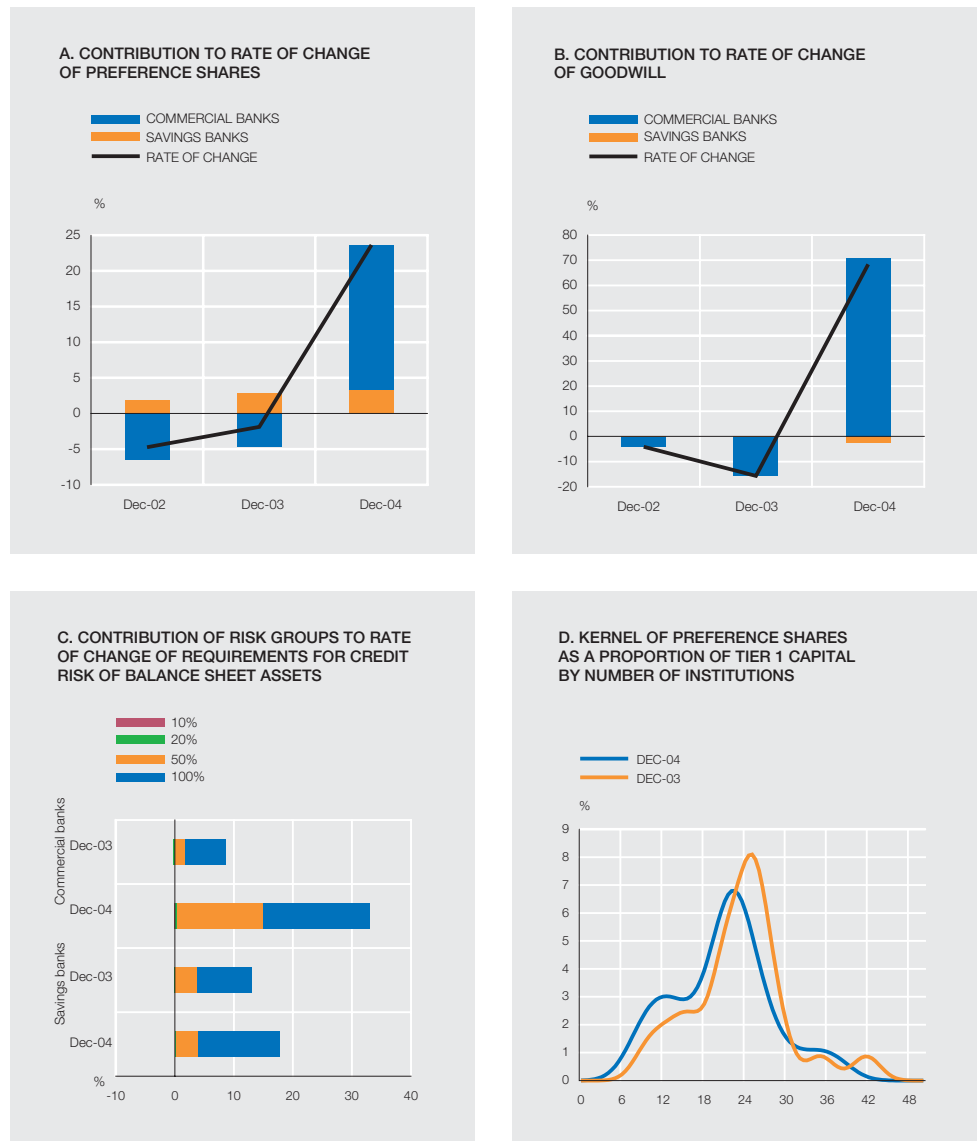
SOURCE: Banco de España.

significant mortgage business, and of the fact that the portfolio of loans granted to the private sector without mortgage security grew by 2.6 times more than in 2003 (21.9%). These developments were also affected by the higher growth in business in Spain.

Meanwhile, the growth rate of *savings banks*' capital accelerated 1 pp to 13.5%, as a result of the buoyancy of tier 1 capital (which grew by 13.3%, against 9% in 2003) and, to a lesser extent, of tier 2 capital, which slowed slightly to 13.3% (Chart III.3C). In relation to tier 1 capital, the good results obtained by these institutions in 2004 were reflected in reserves, which continued to strengthen, growing by 9.4%, 1.1 pp more than in the previous year (Chart III.3D). Tier 2 capital slowed for the third year running, given the lower recourse to subordinated financing.

The buoyancy of activity in Spain led to an acceleration in the requirements of savings banks (17.8%), especially those associated with credit risk (18%, a rise of 4.8 pp). The main reason for this increase were the higher requirements for on-balance-sheet assets, in particular, for loans granted to the private sector without mortgage security, which grew by 17.9% (6.1 pp

Commercial banks and savings banks



SOURCE: Banco de España.

more than in 2003), and for mortgage loans, the growth of which fell for the first time in three years, by 2.3 pp to 18.7%.

During 2004, six new institutions (five savings banks and one commercial bank) began to issue *preference shares*. Of the 29 that issued such securities, as at December 2004, only one institution had reduced the amount outstanding, following the redemption of some previous issues, while six of them had increased it. However, given the increase in tier 1 capital, the weight of preference shares in such capital fell in all institutions except one (Chart III.4D). That institution increased the weight of preference shares in its tier 1 capital significantly, so that there are now three institutions (one more than in 2003) in which this weight exceeds 30%.

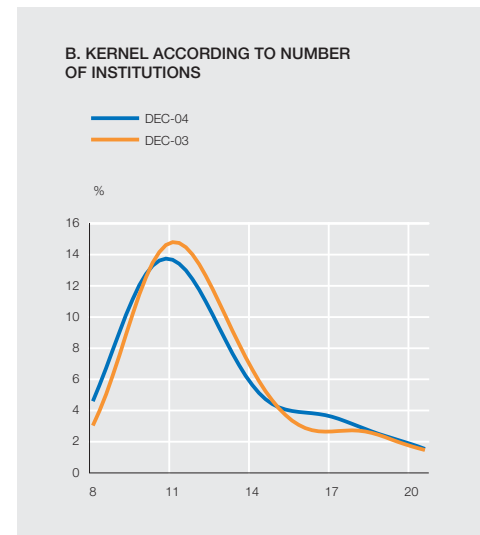
The number of *large exposures* in the system decreased slightly (1.9%), as a result of the fall in those subject to reporting (9.4%), although their average amount increased as a consequence of the rise in the total volume (6.6%). This growth in amount was more significant in savings banks (12.1%), both in the case of the amount of exposures subject to reporting and

SOLVENCY RATIO DISTRIBUTION

CHART III.5

Deposit institutions

A. BY BRACKET				
SOLVENCY RATIO BRACKETS	DEC-03		DEC-04	
	% ATA	No. OF INST.	% ATA	No. OF INST.
<8	0.0	0	0.0	0
8-10	12.9	37	36.8	49
10-12	74.9	60	52.9	49
12-15	10.5	29	7.6	23
15-20	1.4	19	2.6	29
20-25	0.1	8	0.0	4
>25	0.2	17	0.2	16



SOURCE: Banco de España.

in that of those subject to the overall limit, than in commercial banks (2.2%). In the latter group of institutions, only those large exposures subject to the overall limit increased, so that in both groupings the fall in 2003 was converted into growth in 2004.

As for the distribution of institutions according to their solvency ratio, it fell in 63.6% of them. These institutions, in terms of average total assets, represented more than half of the system (52.5%). This shows that the fall in solvency observed on aggregate was reflected by falls at most of the individual institutions, although the ratio rose at some of a certain size. Thus, there was a shift in the distribution of institutions towards lower solvency levels, at the same time as the 15-20% segment gained in weight (Chart III.5A and III.5B).

COMPARISON WITH EUROPEAN BANKS

The same comparative analysis as was carried out in terms of profitability can be performed for the solvency of the three size-based groups of credit institution. In December 2003, these three groups had a higher total solvency ratio than the average of European institutions (around 25%, 20% and 10% for large, medium-sized and small, respectively)². For large and medium-sized Spanish institutions, risk-weighted assets were around 40% higher, again the result of greater specialisation in retail business with companies and households and of the lower weight of interbank assets and public debt, business with a lower risk weighting but, naturally, with a smaller margin.

Finally, it should be mentioned that, for a complete view of the solvency of Spanish institutions, their very high coverage of doubtful assets, the result of a macro-prudential provisioning policy, should be taken into consideration.

STATISTICAL PROVISION

The statistical provision, a regulatory instrument of a prudential nature that has helped strengthen the stability of the Spanish financial system, came into force in July 2000³. Its countercyclical nature has not been lost on international agencies responsible for overseeing the solvency of the international banking system, nor on numerous banking regulators and supervisors, risk

² As mentioned in footnote 9 in Chapter II, there may be certain differences between results for groups of institution and the total analysed in the previous FSR, as the population of institutions studied is not the same. ³ The reasons that led the regulator to establish the statistical fund, how it works and its expected impact are explained in the Banco de España Working Paper no. 0018 by S. Fernández de Lis, J. Martínez and J. Saurina.

The accounting standards of the IASB (International Accounting Standards Board) on provisions for bad debts, adapted to Spain by Banco de España Circular (CBE) 4/2004, are based on the concept of incurred loss. Such loss may already have been identified as relating to a specific transaction, giving rise to the appropriate specific provision, or, being already incurred, it may not be possible to assign it to a specific transaction (this case being referred to in Annex 9 of CBE 4/2004 as an inherent loss). This latter case gives rise to a general provision that is applied to homogeneous groups of transactions in a normal situation and calculated using statistical procedures.

Data contained in the Central Credit Register (CCR), for almost the last twenty years, have been used to construct a set of matrices of specific provisions to cover losses incurred and individually identified, distinguishing between companies and sole proprietors, on the one hand, and other natural persons on the other. This distinction is based on the difference in the probability of default between these two groups of borrowers. In addition, the role of the various types of real guarantee in mitigating risk is acknowledged.

As regards the general provision, the losses inherent in loan portfolios classified as normal risk shall be covered in accordance with the historical experience of impairment and other circumstances known at the time of assessment. Again, use of the CCR has enabled a parametric method to be developed, based on statistical procedures, to calculate the coverage of losses that have been incurred but not individually identified. The accounting rule establishes the possibility that institutions may use internal models to calculate their bad debt provisions.

The parametric method is based on four components. The first, called component α , is obtained as the product of the parameter α and the change in the amount of the risks considered, and reflects the loss inherent in the transactions granted in the period. The second, component β , is the product of the parameter β and the total amount of risks and is compared with the third factor, the specific net provision made in the period. These latter two factors take into account the effect of the business cycle on inherent losses and are,

therefore, the basis of the macroprudential element. Thus, component β reflects the average specific provision over one business cycle. Its comparison with the actual specific provision is indicative of the economy's present position in the cycle. These three components are used to calculate the theoretical general provision, this amount not necessarily being the provision to make, since the limits to the general provision must be taken into account. These limits are the fourth and final component and have been set at 33% and 125% of the product of parameter α and the credit exposure. Thus, the general provision shall range from 33% to 125% of the inherent loss in the institution's loan portfolio.

Analytically, component α is calculated as $\sum_{i=1}^6 \alpha_i \Delta C_i$, C_i being the amount of the risk in group i , with six homogeneous risk groups to take into account the different nature of the distinct segments of the credit market. Similarly, component β is obtained from the expression $\sum_{i=1}^6 \beta_i C_i$. Accordingly the theoretical general provision at the end of the period would be:

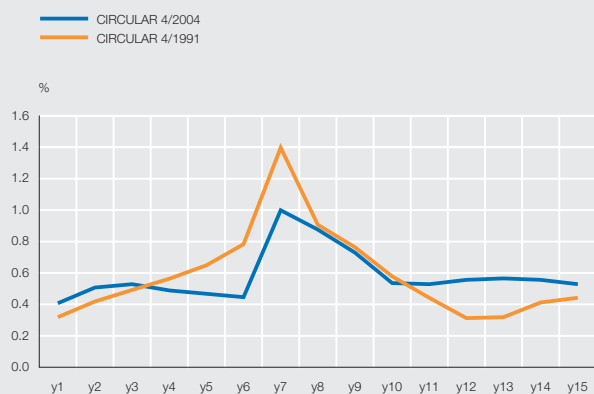
$$\text{theor. gen. prov.} = \sum_{i=1}^6 \alpha_i \Delta C_i + \sum_{i=1}^6 \beta_i C_i - \text{specif. prov.}$$

For a better understanding of the macroprudential component of the new general provision, the results are presented of the simulation of a business cycle, with its corresponding cycle for the doubtful assets ratio and bad-debt provisions, taking as the starting point the average level in recent years of the general and statistical fund accumulated under the previous rules (CBE 4/1991) and setting a single weighted value for the parameters α and β of 1.2% and 0.4%, respectively.

A hypothetical 15-year business cycle has been considered, in which the first two years consist of the end of the upturn, characterised by very low specific provisions. During the next three years lending decelerates and doubtful assets begin to grow, with the consequent increase in specific provisions. The recession takes place during the middle years of the period, the doubtful assets ratio peaking in the seventh year, which is followed by a progressive recovery. In the last few years a slight deterioration in the economic situation is discernible.

A. SPECIFIC AND GENERAL PROVISIONS / LENDING

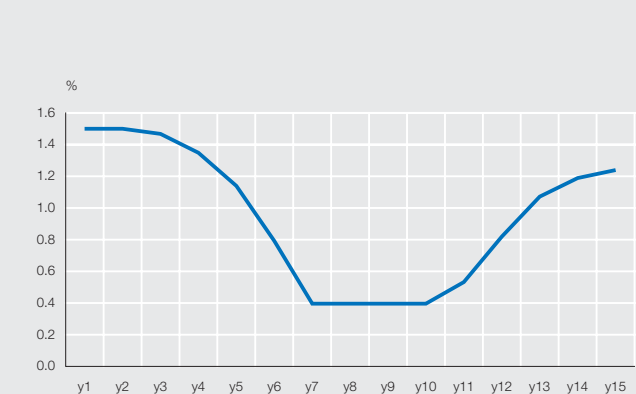
CHART 1



SOURCE: Banco de España.

B. GENERAL FUND / LENDING. CIRCULAR 4/2004

CHART 2



The comparison between the specific and general provisions (Chart 1), relative to lending, under the new CBE 4/2004 and under the old CBE 4/1991 shows that under the new proposal bad-debt provisions are less cyclical, but not to the extent that the bad-debt provision is constant over the cycle, as was the case under the former accounting framework. This was the aspect that was least acceptable to accountants. Note that the provisioning peak still occurs during the downturn, although now the inherent losses are also covered during the upturn, when lending is growing at high rates and the quality of the credit portfolio is deteriorating as institutions relax their lending policies¹.

As regards the trend in the general bad-debt fund, relative to lending (Chart 2), it can be seen that in the first few years the restriction of the upper limit is binding. Then, as the specific provisions increase, the institution uses this fund (crediting recoveries in the income statement) until its lower limit is reached. Finally the fund increases again as the decline in the doubtful assets ratio is passed through to specific provisions and component β exceeds them.

In short, the new general provision still has a macroprudential element that reinforces the solvency of Spanish deposit institutions and, therefore, the stability of the Spanish financial system.

1. A more conceptual analysis, based on solid empirical evidence, of the relationship between the credit cycle and credit risk and the prudential mechanisms available to preserve financial stability is found in the forthcoming paper by G. Jiménez and J. Saurina entitled: "Credit cycles, credit risk, and prudential regulation".

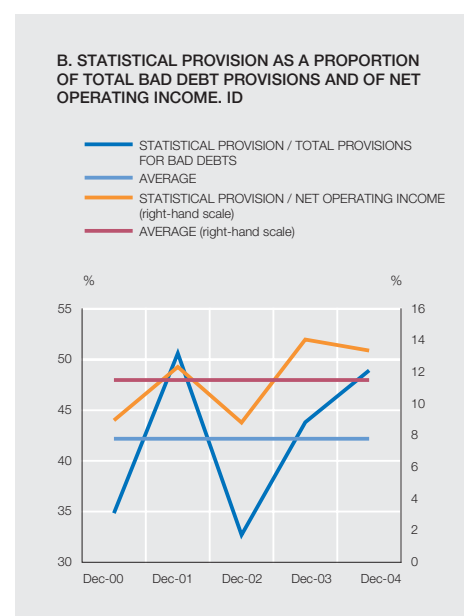
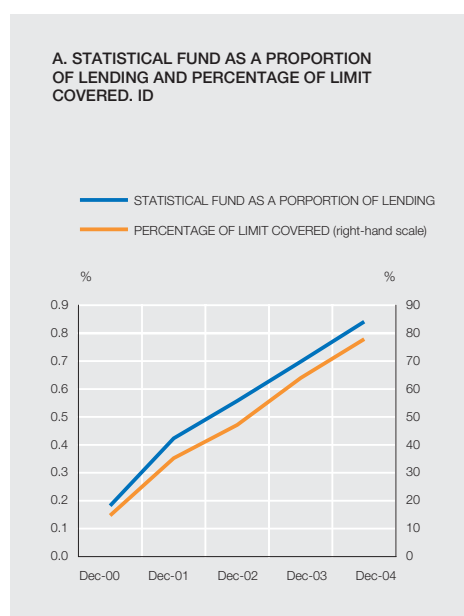
rating agencies and even the academic world. The Spanish statistical provision is one of the few practical applications of a new type of provisioning for credit risk, known as dynamic provisioning. In general, those responsible for banking supervision and for overseeing and promoting financial stability have assessed this original development by the Spanish regulator very positively. However, despite their interest, very few have decided to implement it themselves, basically owing to the reluctance of those responsible for setting accounting rules, for whom the prudential approach is not a priority.

The adoption by the European Union of the international accounting standards issued by the IASB (International Accounting Standards Board), known as IAS or IFRS, for companies with securities quoted on European Union markets, has obliged the Banco de España, which is authorised by the Ministry of Economy to establish the accounting rules for credit institutions, to eliminate the statistical provision as such from this year. That said, the new accounting rules (Banco de España Circular 4/2004) maintain the macro-prudential nature of the previous accounting framework (Box III.1).

In quantitative terms, the contribution of the statistical provision has been significant. In December 2004 the level of the statistical fund reached 0.8% of lending subject to such provisioning (Chart III.6A), which implies a coverage of 77.8% of the limit of the fund (set at three times the latent risk). At the end of 2004, the statistical fund represented 7.2% of regulatory capital at the consolidated level. On average, the annual statistical provision represented around 12% of net operating income and more than 40% of total bad-debt provisioning (Chart III.6B).

At the individual institution level, 42.9% of institutions, with a relative weight of 23.1% in terms of ATA, had reached the limit of the fund (Chart III.6C). In terms of ATA, the weight of institutions with funds below 50% of their limit fell from 24.4% in December 2003 to only 6.9% in 2004. The final level of lending coverage ranged from 0.3% to 1.5% between the first and last decile of institutions (Chart III.6D), the range in terms of regulatory capital being 1.5% to 13%. Last year the statistical fund gained in weight relative to lending, as seen in the shift of its distribution, both in terms of the number of institutions and in relation to ATA. Thus, in December 2004, there were 20 institutions less with a lending coverage below 0.8%, the average level for the year.

Deposit institutions



C. DISTRIBUTION OF DEPOSIT INSTITUTIONS ACCORDING TO STATISTICAL FUND SET ASIDE AS A PERCENTAGE OF ITS LIMIT

	DEC-03		DEC-04	
	% ATA	No.	% ATA	No.
Institutions without statistical fund	5.3	42	7.1	43
Institutions with a percentage of limit covered:				
< 10%	1.6	12	0.5	10
10% - 25%	1.2	9	0.7	4
25% - 50%	21.6	22	5.6	15
50% - 75%	41.6	39	26.1	34
75% - 90%	13.2	29	31.3	22
90% - 100%	4.7	19	5.6	24
100%	10.9	94	23.1	114

D. DISTRIBUTION OF STATISTICAL FUND AS A PROPORTION OF LENDING

	DEC-03		DEC-04	
	% ATA	No.	% ATA	No.
Non-lending institutions	4.8	39	6.6	38
Lending institutions				
0% - 0.2%	3.5	19	1.9	18
0.2% - 0.5%	8.8	21	7.0	18
0.5% - 0.8%	53.9	37	16.7	21
0.8% - 1%	17.8	38	52.2	51
1% - 1.5%	10.2	82	14.6	91
> 1.5%	1.0	30	1.0	29

SOURCE: Banco de España.

In qualitative terms, as well as stimulating the intellectual debate between banking regulators and the academic world regarding dynamic provisioning and countercyclical prudential mechanisms, the statistical provision has, among Spanish institutions, contributed to stimulating reflection and the development of internal models for the measurement of credit risk, anticipating even the first concrete proposals of the BCBS in relation to Basel II. It may also have helped to change the behaviour of institutions in relation to the management of certain elements of a discretionary nature in the preparation of financial statements⁴. Finally, one of the most important and frequently overlooked aspects of the Spanish statistical provision is its transparency, which in no way conflicts with its prudential nature, in line with the rationality of Pillar 3 of Basel II.

4. Evidence in favour of a change in the behaviour of bank managers when they have a smoothing mechanism included in the accounting rules and transparent is found in the forthcoming paper "Earnings and Capital Management in Alternative Loan Loss Provision Regulatory Regimes" by D. Pérez, V. Salas and J. Saurina.

One of the main tasks of the Committee of European Banking Supervisors (CEBS)¹ is to promote a higher degree of convergence between the Member States in relation to the implementation of banking legislation in the European Union (EU) and day-to-day supervisory practices.

As part of these efforts and given that, in view of the future Capital Requirements Directive (CRD), all EU banking supervisory authorities need to review their prudential reporting requirements for banks, the members of the CEBS have agreed to adopt a common framework for presenting information on the capital ratio.

This initiative responds to the concerns of the banking industry over the excessive administrative burden represented by prudential reporting requirements. Currently, banking groups that operate in more than one country have to prepare and submit different reports, in accordance with the formats and technologies required by the supervisor of each country. Greater similarity between such reporting requirements, as agreed by the members of the CEBS, would reduce the burden of complying with the various rules and would help eliminate what may be a barrier to financial market integration. This initiative should benefit groups with cross-border operations, without entailing higher costs for smaller sized local institutions which, in any case, will need to adapt to the new CRD reporting requirements.

1. See Box III.1 of the May 2004 FSR for a detailed description of the composition of CEBS tasks.

A common framework for the presentation of financial information will also facilitate co-operation and information exchange between supervisors. In addition, it will help to narrow differences in the implementation of the new CRD rules. The CEBS proposes ensuring that this common framework for presenting financial information is applied in all Member States. Thus, the basic items on which information will have to be submitted shall be common to the whole EU, with possible differences as regards the level of detail required in each country.

The CEBS will offer a technical platform, based on the XML/XBRL (eXtensible Mark-up Language/eXtensible Business Reporting Language) protocol, in order to facilitate the presentation of information within this new framework. It shall also provide the coding and taxonomy for this purpose. The CEBS proposes completing this task in June this year.

The proposed document in relation to capital-ratio reporting requirements was published at the end of January for submission to an open consultative process. This document had already been the subject of informal consultation by national authorities, including the Banco de España, of industry representatives and is the result of intensive work by the supervisory authorities. This document, and the additional information, may be found at both the CEBS and Banco de España websites.

In parallel with this initiative, and given the implementation of the new International Financial Reporting Standards (IFRS), the CEBS is also working on rationalising and improving the efficiency of the requirements for the publication of prudential information relating to the balance sheet and income statement, in accordance with IFRS. The CEBS published a consultative paper on this question in April.

Box III.2 explains the efforts being made by European supervisors to standardise and reduce the cost of production of the information of a prudential nature that the institutions are required to deliver regularly to them.

DIVIDENDS

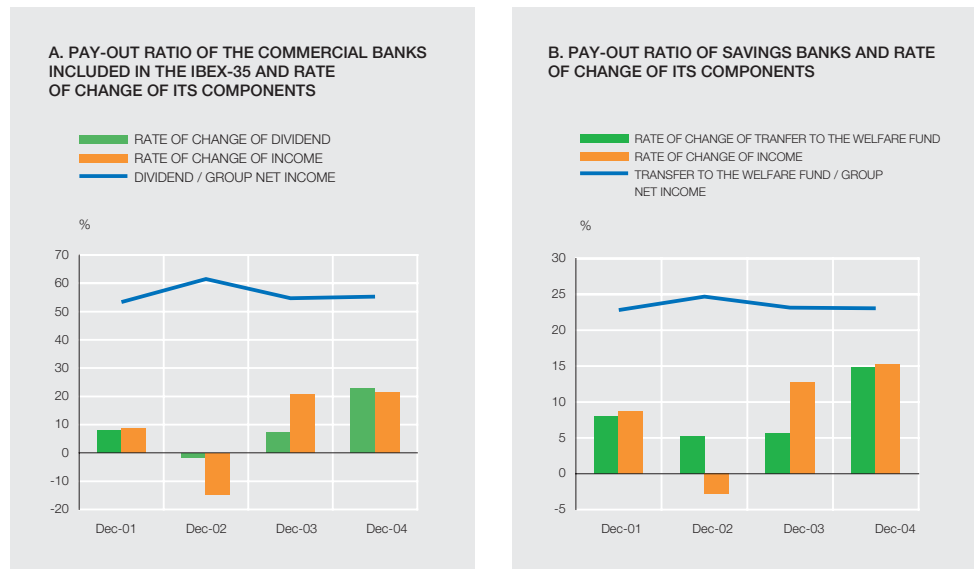
In 2004, the dividends paid by the major Spanish commercial banks grew substantially, as did the transfer to the welfare fund of savings banks (Chart III.7A and B), in line with the acceleration in the net income attributed to the group.

Both developments were compatible with a practically stable *pay-out ratio* (ratio between dividends or the transfer to the welfare fund and the net income attributed to the group) in both groups of institution. The low sensitivity of the pay-out ratio to changes in the earnings of institutions continues to surprise, given that an intrinsic quality of shareholders is that of assuming the institution's economic and financial risks.

Given the different nature of commercial and savings banks, the pay-out ratio of savings banks is less than half that of commercial banks. The dispersion of the pay-out ratio of savings banks is substantially lower than that of commercial banks, even correcting for the difference in its average level⁵. In the case of commercial banks, although a substantial number have around

5. In 2004, the coefficient of determination (ratio of the standard deviation to the sample mean) of commercial banks was almost double that of savings banks.

Commercial banks and savings banks



SOURCE: Banco de España.

the average pay-out ratio, some small commercial banks have low or very high values, which raise the overall dispersion.

RISKS OF FOREIGN FINANCIAL ASSETS

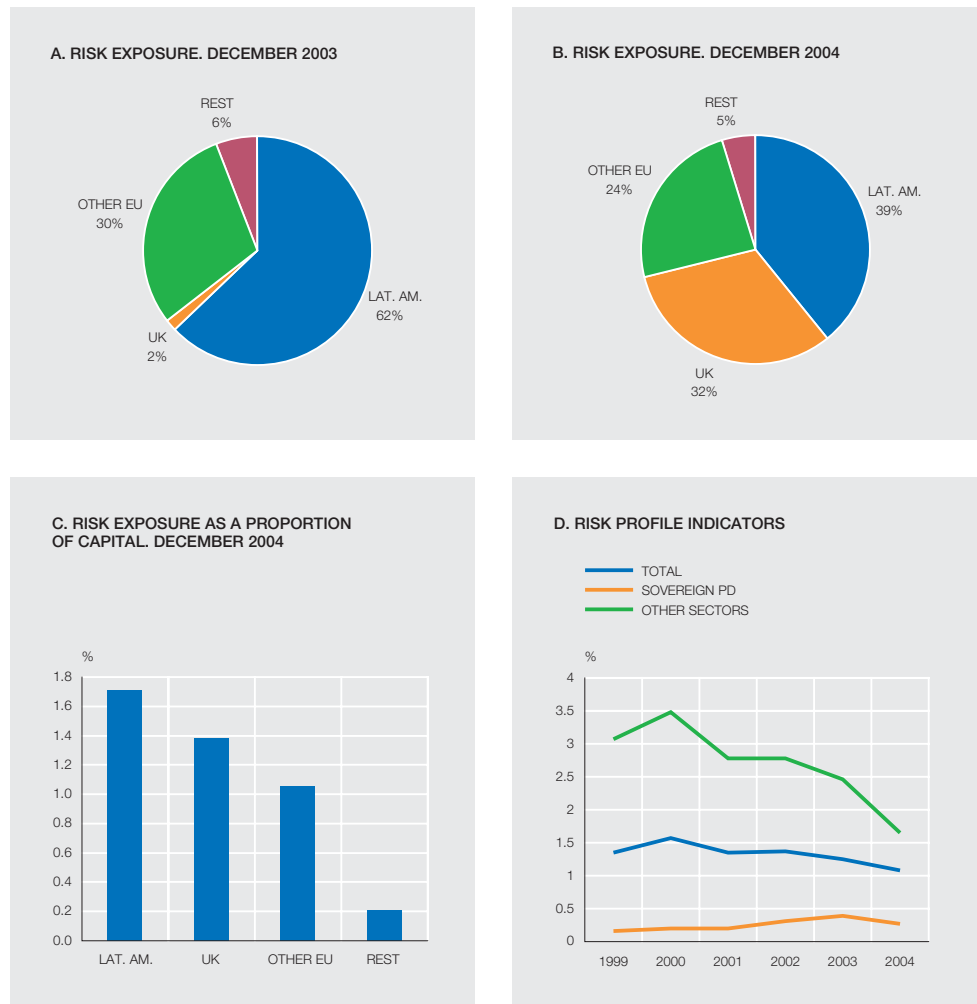
The foreign financial assets of Spanish commercial banks increased significantly in 2004, and their distribution geographically and by business segment changed drastically in the second half of 2004, as already analysed in Chapter I. This was basically due to the acquisition of a British bank by one of the large Spanish banking groups.

The exposure to or total financial assets in a country are not necessarily indicative of the risk that such country represents for Spanish deposit institutions. For this reason, the last FSR presented a rougher measure of the risk incurred by institutions in their foreign business called *risk exposure*. This measure is obtained by multiplying the assets of institutions in each country by the average probability of default (PD) in that country, estimated using the information available on the composition of assets abroad, the doubtful assets ratios in each country and certain assumptions⁶. Risk exposure can, in fact, be interpreted as an upper limit to the expected loss.

In addition to the change in exposure by geographic area, there was also a change in the distribution by area of risk exposure. While in December 2003, Latin America, excluding Argentina, accounted for more than 60% of the risk assumed by Spanish deposit institutions abroad, in December 2004 it accounted for less than 40% (Chart III.8A and B). By contrast, the United Kingdom accounted for more than 30% of the risk exposure of financial assets abroad, as against 2% in December 2003. The high relative weight of risk exposure in the UK is largely a consequence of the large increase in financial assets in that country, but also of the effect of the composition of such assets, with a much lower weight in sovereign debt and the interbank market and much more in loans to private sector households and companies. Although this latter business segment has a relatively low estimated PD, it is substantially higher than the PD attributed to the sovereign debt in local currency of other emerging countries.

6. For a more detailed analysis of the construction of this measure, see the article "Activos financieros en el exterior e indicadores de riesgo", by R. Lago and J. Saurina, in *Estabilidad Financiera*, n.º 7, November 2004.

Deposit institutions



SOURCE: Banco de España.

NOTE: Argentina is excluded from all the charts.

In terms of regulatory capital (Chart III.8C), the weight of the risk exposure of all financial assets abroad was still low in December 2004: 4.4% without including Argentina and 9.9% when it is included. Comparing these values with those for December 2003 (3.2% and 11.2%, respectively) shows, on one hand, that the risk of Spanish banks' assets in Argentina continued to fall significantly and, on the other, that the increase in the risk in other countries was moderate, despite the significant growth in exposure.

Finally, the *risk profile of financial assets abroad*, calculated using the weighted average of the average probabilities of default for each country, fell again during 2004. In particular, the marked decline in the credit risk profile of the private sector (Chart III.8D) was notable. This was the result of a general decline in the PD by country and also reflects the above-mentioned change in the geographical composition of the portfolio, with the consequent decline in average PD⁷.

7. When Argentina is included the risk profile also fell in 2004, although its level was obviously higher.

ANNEX: EXPLANATORY NOTES AND GLOSSARY

1 Explanatory notes

Consolidated financial statements of groups of deposit institutions resident in Spain. Aggregation of the consolidated balance sheets or profit and loss accounts of groups of deposit institutions resident in Spain. In the case of institutions that do not have or belong to a consolidable group or that are branches of foreign institutions, their individual accounts are considered for aggregation purposes, and in the case of subsidiaries of foreign institutions, it is the sub-consolidated accounts (those of the group controlled by it) that are taken.

The consolidated financial statements (balance sheet or profit and loss account) comprise the worldwide total consolidated business, with intra-group transactions netted out, of the groups of institutions considered. These groups are made up of the parent institution in Spain (with its branches abroad) and its consolidable subsidiaries, both in Spain and abroad.

The consolidable financial subsidiaries in 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 groups of deposit institutions resident 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 Fig. 1, 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 residence 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.

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.

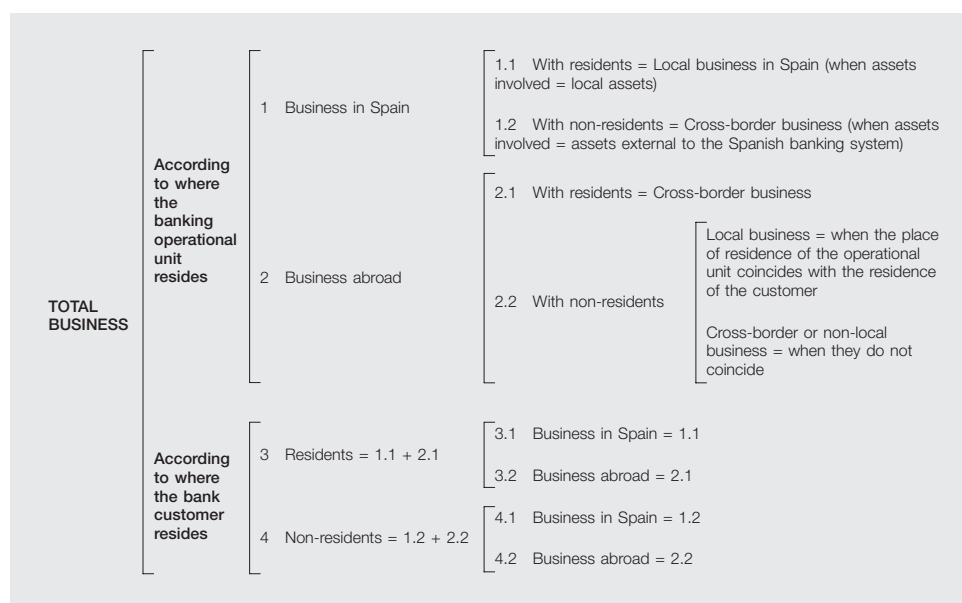
Individual financial statements of deposit institutions resident in Spain. Aggregation of individual balance sheets or profit and loss accounts of these institutions.

The individual statements (balance sheet or profit and loss account) 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 Spanish institutions operating abroad.

As in the case of consolidated information, the individual statements (total business) can, as observed in Fig. 1, be presented using the location in which the operational unit (central

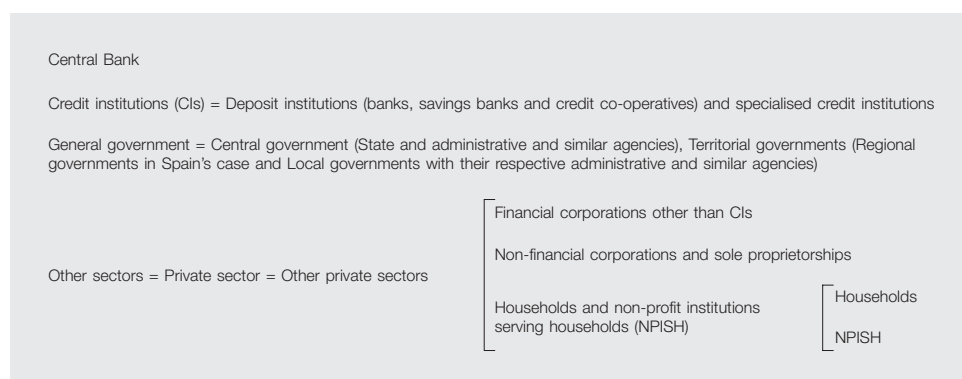
CLASSIFICATION OF ACCOUNTS AND BUSINESS ON THE BASIS OF THE LOCATION FROM WHICH THE INSTITUTION OPERATES AND WITH WHOM IT OPERATES

FIGURE 1



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

FIGURE 2



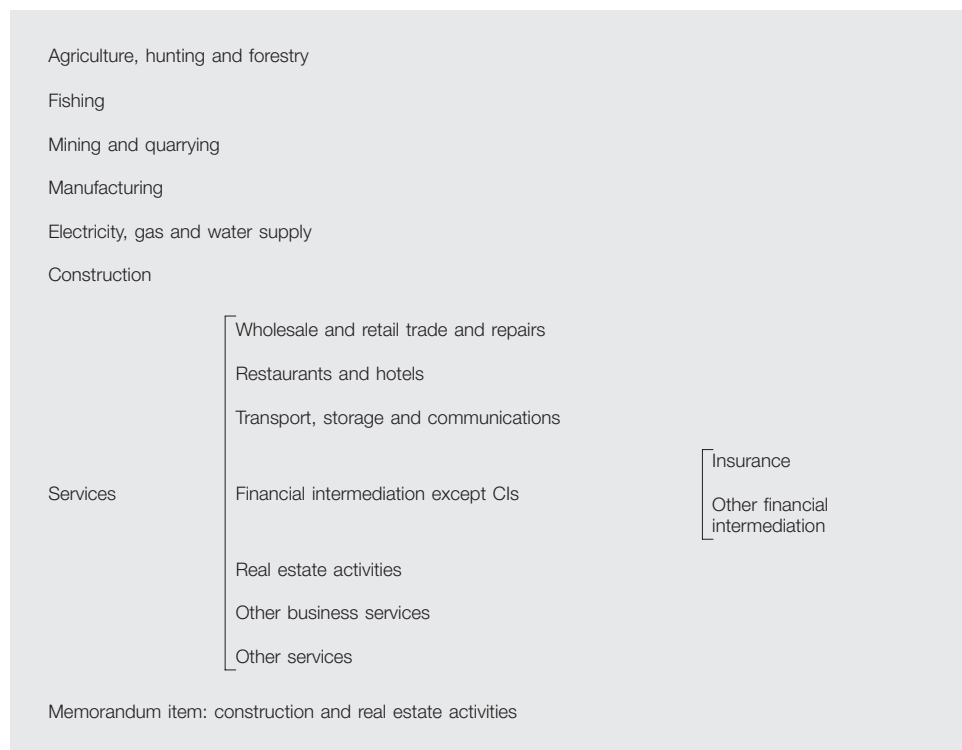
headquarters or branch) resides and the location in which the counterparty resides. However, while total business does not include or nets out transactions between units of the institutions residing in different countries, business in Spain and business abroad does not see a netting out of transactions 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 and Balance of Payments, but in total business such transactions are consolidated.

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 a country, are the basis of the national accounts of said country (Spain) and, therefore, these accounts are linked to the general macroeconomic 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.

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 3

Branches or sectors of activity



Institutional sectors. The FSR classifies the institutional sectors featured in Fig. 2 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 sectors are sub-divided into the following sub-sectors: Central banks, CIs, General government and other sectors (households, sole proprietorships and corporations other than CIs).

Productive activities. The Report refers to activities undertaken by sole proprietorships and by corporations other than CIs, on the basis of the branches featured in Fig. 3.

The definitions of the balance-sheet and profit and loss account items are to be found in Banco de España Circular 4/1991 (4/2004 from June 2005). Nonetheless, the glossary includes certain items in the light of their greater complexity and 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 portfolio: Fixed-income securities or equities that have not been assigned to another portfolio.

Average total assets (ATA): Average of the assets in the period in which such assets give rise to flows of income. To obtain the assets of which the average is taken, and solely for the purpose of expressing the profit and loss account items in relative terms, the following items are deducted from the total assets of the balance sheet: intangible assets, own stakes and shareholders, prior years' losses, prepaid interest on funds raised at a discount and unmatured accrued interest revenues on investments taken at a discount. In addition, in the case of the consolidated balance sheet, the losses at consolidated companies are deducted and, in the individual balance sheet, as the relevant detailed information is available, the unrealised losses in the available-for-sale fixed-income portfolio.

Bancassurance: Strategy involving the joint provision of banking and insurance products, 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 and to level 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.

Basic margin: Net interest income plus net commissions.

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 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.

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 valued by the equity method: Companies that are not included in the consolidated group, although a certain stake is held, either on account of their business (insurance and non-financial firms), or because they are not controlled (holding of less than 20%). These latter companies are capable of being consolidated and are associated. The equity method consists of valuing the holdings at their underlying book value –net worth– plus (less) the balance of the consolidation goodwill (negative consolidation differences) of the investee.

Consolidation goodwill: Difference, at the time of purchase, between the acquisition value and the underlying book value of the stake in a subsidiary or affiliate. This arises from the valuation of intangible assets of value to the purchaser including, among others, the purchased entity's position in the market, customers, reputation and brand image.

Contingent liabilities: Transactions under which an institution guarantees the obligations of a third party (guarantees, letters of credit, 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: That present in the debts of a country considered overall for 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 imposition of restrictions on the conversion of the local currency to a strong currency or on its repatriation; and (iii) political risk, which results from legal provisions or from situations of war or social instability.

Cover ratio: Ratio between the provisions for bad debts and doubtful assets.

Covered bonds (cédulas hipotecarias): Fixed-income 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 derivatives).

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: Sum of the outstanding loans granted and the fixed-income portfolio (debt instrument counterpart). The FSR uses this term as a synonym for financing extended and also total lending. 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 losses in the event of a debtor defaulting, in terms of form and/or time, on its obligations as established in the agreement. It may be presented as insolvency risk or country risk.

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

Debt burden arising from interest: Ratio between accrued interest and gross disposable income in the period considered.

Debt burden: Ratio between the sum of accrued interest and, if applicable, the principal of the debt repaid and gross disposable income in the period considered.

Debt instruments: See debt.

Debt ratio: Ratio between the debt of a sector and its total assets (financial and real).

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

Debt: The outstanding balance, at a specific time, of loans received and fixed-income issued.

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

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

Doubtful assets ratio: Ratio between doubtful assets and financing extended.

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

Efficiency ratio: Ratio between operating expenses and 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 profit and loss account items owing to depreciation (appreciation) with respect to the euro of the currencies of the countries in which such items are located or generated, 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. They are 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.

Financial assets and liabilities: Cash, loans, fixed-income securities, equities, accrual accounts and other assets. However, references in the FSR to financial assets generally refer to earning financial assets.

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.

Foreign-exchange losses or reserves in consolidated companies: These arise as a consequence of the depreciation or appreciation of the currency in which the unhedged holdings in

the capital of foreign consolidated companies are denominated. In simple terms, they are the difference between converting the net worth of the investee at the current and the historical exchange rate. A depreciation (appreciation) of the currency in which the net worth is denominated, with respect to the euro, entails a loss (profit). Having deducted that part corresponding to minority interests, this loss (profit) is recorded as losses (reserves) in consolidated companies (both being balance-sheet items included in regulatory capital).

General provision: Provision in the period considered, charged to the profit and loss account, to the general bad-debt provision, with the application of certain percentages (generally 1%, or 0.5% for mortgage loans that fulfil certain conditions) to those credit risks without a specific provision.

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

Gross income: Net interest income plus net commissions and the result on financial instruments.

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 portfolio: Comprises the fixed-income securities the institution has decided to hold to redemption.

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

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 rate risk: Possibility of incurring losses on account of changes in interest rates.

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

Interest-rate curve: At a given moment, it shows the level of actual 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: In the FSR this refers to asset liquidity risk, i.e. agents' inability to dispose of their assets without significantly affecting market prices.

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 changes in the value of positions on or off the balance sheet, as a consequence of adverse movements in interest rates, in exchange rates and in the market prices of assets. Sometimes interest rate risk, foreign exchange 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.

Net operating income: Gross income less operating expenses.

Net wealth: See net worth.

Net worth: Assets less liabilities.

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 repayment 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 stock, reserves (including reserves at consolidated companies), group net income and the provisions for general banking risks, less shareholders' equity and own stakes, and the prior years' losses at the controlling entity and at consolidated companies. The average level, obtained in a similar way to ATA, is used as the denominator in the calculation of ROE.

Pay-out ratio: Dividend/profit ratio, indicating the proportion of its 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): Ratio between the listed price of the shares of a particular company and the earnings obtained thereby during a specified period (year, business cycle, etc.).

Permanent holdings portfolio: Holdings in subsidiaries and affiliates 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.

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

Provisions: Flow during the period, charged to the profit and loss account, 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 provisions), or to cover general risks (general provisions). The main specific provisions are the bad-debt, country-risk and securities price fluctuation provisions.

Real assets: Non-financial assets or tangible fixed 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.

Result on financial instruments: Profits less losses on the trading book and on creditors on securities arising from valuation differences, on exchange differences, on non-hedging futures transactions and on the available-for-sale fixed-income and equity portfolios, as well as provisions and write-downs in relation to the securities-price fluctuation provisions.

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

Return on assets (ROA): Ratio between net income (after taxes) attributed to the group and average total assets.

Return on equity (ROE): Ratio between net income (after taxes) attributed to the group and 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 on the basis of the standard method for the statistical provision by multiplying the parameters assigned to each of the six categories of risk by the exposure contained therein. The six categories are: *Risk-free*, which includes, among others, exposures to EU general governments or exposures guaranteed by the latter; *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 or risk exposure (financial assets abroad): The probability of default multiplied by the exposure or, where applicable, the assets potentially subject to risk.

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: Possibility of losses arising 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, ranks for repayment before other debt.

Solvency coefficient: Percentage ratio between regulatory capital and 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 provision: Provision in the period considered, charged to profit and loss account, to the specific bad-debt provision. The risks that should be provisioned, with the application of specific percentages, with certain exceptions, are: assets classified as doubtful in accordance with their default, doubtful contingent assets and liabilities, except for guarantees and other indemnities given, classified as doubtful for reasons other than default and guarantees and other indemnities given, both by reason of their delinquency and for reasons other than their default.

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.

Statistical provision: Provision in the period considered, charged to the profit and loss account, to the statistical bad-debt fund. This provision is based on the latent (or inherent) risk, which is essentially the average expected losses arising from credit risk, estimated on the basis of the losses over a complete business cycle. It is calculated as the difference between this latent risk and the specific provision for the year. Thus, during the favourable stages of the cycle, when specific provisions are less than average losses, provisions are made to the statistical fund, while during cyclical downturns, amounts from the previously created fund are credited to the profit and loss account. These two provisions therefore have opposite effects on the profit and loss account. The maximum level of the statistical fund is three times the latent risk. This risk can be calculated using the institution's internal model, when so authorised by the Banco de España, or using the standard model supplied by the regulator.

Structural position in foreign currency: Unhedged fixed assets in foreign currency (investments in property for own use, significant holding 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.

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 distribute the shares in the large amount of the loan among them.

Tier 1 capital: Basically made up of capital, disclosed reserves, preference shares and nonvoting 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.

Trading book: Fixed-income securities or equities that are publicly quoted and whose trading is rapid, deep and cannot be influenced by individual private agents, which institutions maintain in their assets for short-term profit on their price movements.

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: Unrealised net profit arising from the difference between the market and book value of the securities recorded in the institution's securities portfolio.

Unsectorised accounts: The capital and provisions of an institution less the net balances (assets – liabilities) of accrual accounts and other accounts, 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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