FINANCIAL STABILITY REPORT
INFORME DE ESTABILIDAD FINANCIERA

May 2003

BANCO DE ESPAÑA

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INTRODUCTION

The year 2002 was not an easy one for Spanish deposit institutions (banks, savings banks and credit co-operatives). The slowdown in economic growth in Spain, difficulties in foreign business, the less favourable interest rate environment, the high degree of competition among institutions, falling stock markets and the substantial depreciation in the Latin American currencies all impacted on their profit and loss accounts. Despite this unfavourable scenario, the overall decline in profits was moderate, demonstrating the resilience of the Spanish banking system. Moreover, solvency levels remain high.

The environment the institutions will be operating in this year is marked by considerable uncertainty. Bank managers will thus need to make a considerable effort to control risks and to attain higher levels of efficiency.

Banking risks

As regards *credit risk,* the doubtful assets of Spanish deposit institutions have, since the last Financial Stability Report (FSR), continued to increase, in line with the slowdown in economic activity in Spain and with the difficulties in certain countries in which Spanish banks are present.

Despite the difference between the level of the doubtful assets ratio for business in Spain and foreign business, the relatively high weight of business in Spain means that the behaviour of doubtful assets basically depends on the Spanish business cycle which has, until now, shown greater resilience than in most other European countries.

Doubtful assets ratios in Spain are holding practically steady at low levels, both in the case of lending to corporations and in that of lending to households. However, given the strong growth of lending in recent years, the medium-term sustainability of such low doubtful assets ratios can be questioned.

Credit to the private sector continues to grow at high rates, particularly mortgage lending, which is used largely to finance house purchases by households. The strong growth in house prices and low interest rates help explain this behaviour. Lending to non-financial corporations is growing at more moderate rates in line with the cyclical position of the Spanish economy. There are no signs of restrictions in the institutions' lending policy, although these may be emerging in other European countries.

The growing indebtedness of Spanish households and the behaviour of house prices should be cause for reflection for institutions that are expanding their lending at high rates, in particular, to finance construction and property development. It is time for institutions to be especially prudent when granting mortgages, even though the doubtful assets ratio is low, both in absolute terms and from a historical viewpoint.

The trend in the loan portfolio and in private-sector creditors (basically sight and time deposits) is forcing institutions to seek external financing, thereby giving rise to new management challenges.

Turning to *market risk,* the performance of stock markets has been unfavourable since

the last FSR. In addition to the fall in indices there has been an increase in volatility, stemming from the uncertainty over the prospects for sustained recovery in world economic growth.

The depreciation of the Latin-American currencies has contributed to a decline in the size of bank balance sheets and has eroded the own funds of institutions with a significant presence in Latin America.

Profitability

Banking risk developments affected the profit and loss accounts of Spanish institutions which, in line with what was stated in the last FSR, showed a slight fall in net income. The return on equity also declined, although it was clearly above that on long-term government debt.

The less favourable environment within which the institutions operate eroded margins. There were declines in absolute terms and relative to average total assets in the net interest income and the gross income while the net operating income was virtually stagnant. Despite the increase in doubtful assets, the provisions for bad debts held relatively steady because the statistical provisions declined (thereby demonstrating the countercyclicality of the Spanish statistical provision).

An important factor in the earnings performance of some large institutions was containment of operating expenses, which contributed significantly to the maintenance of the net operating income, offsetting the less favourable developments in the net interest and gross income. However, this containment was not common to all deposit institutions; in a substantial number these expenses continued to grow at a high rate, clearly above inflation, causing their efficiency ratios to worsen.

Given the increase in doubtful assets, the high uncertainty in securities markets, the low-interest-rate environment and strong competition, the institutions should make increasing efficiency and, in particular, the control of overheads the key variable in their strategy for the current year. And this without, of course, neglecting adequate credit-risk management, given the substantial growth in credit to the private sector, and, in particular, special attention to the quality of credit portfolios.

In comparison with European ones, Spanish institutions are still in a relatively favourable position. Their greater specialisation in retail business resulted in higher returns and lower default rates in 2002.

Solvency

As already mentioned in the last FSR, the solvency ratios of Spanish institutions are high, and substantially above the minimum levels required by banking regulators. With respect to December 2001 there was a slight decline in solvency ratios, owing to slower growth of own funds, although the growth of risk-weighted assets also moderated considerably.

The statistical fund, as a percentage of credit to the private sector, continued to increase, although at more moderate rates than in the previous year. This fund helps to reinforce the soundness and stability of the Spanish banking system by covering expected losses in the institutions' credit portfolios.

The slower growth in own funds, their composition and the uncertainty over their future behaviour must be taken into account by the institutions, especially those whose profits have declined, when they set their dividend policy.

In sum, Spanish deposit institutions face some important challenges in 2003. Although their profits and solvency levels are high, they should be especially prudent when granting certain types of loan and should endeavour to contain their operating expenses. Increasing efficiency will be crucial to the earnings performance of the institutions in an environment of low interest rates and high uncertainty over economic developments.

CHAPTER I

Banking risks

I.1. Introduction to Spanish deposit institutions' risk

The growth of Spanish deposit institutions' balance sheets has continued to slow down in line with the comments in the last Financial Stability Report (FSR). Credit to the private sector is growing more slowly (1), against a background of moderation in economic activity in Spain and, especially, abroad. Also, there was a further decline in the relative weight of foreign business.

Consolidated balance sheets

In the year to December 2002, the total assets of Spanish deposit institutions grew by 0.7 %, almost seven percentage points less than in the previous year (2). This confirms the slowdown that commenced in mid-2001, which was mentioned in the last FSR. However, there are significant differences between business in Spain and foreign business.

While the growth of business in Spain slowed (to 8.1 % from 13.5 %), total assets of foreign business declined by 23.5 % (–8.9 % in 2001). The weight of foreign business in total business was 17.8 %, almost six percentage points down on the previous year, ten points down on 2000 and approximately the same as in December 1998, just before the significant expansion in Mexico and Brazil.

The decline in foreign business should not be attributed solely to reduced activity abroad, since the depreciation suffered by the main Latin-American currencies has an "exchange rate effect" on bank balance sheets, which means that they decline, without there necessarily being any reduction in activity (3).

As regards the structure of *assets,* the relative weight of credit to the private sector increased by somewhat more than three percentage points to 56.9 %. This notwithstanding, the growth of this item slowed to 6.7 % from 11.4 % in the previous year.

Meanwhile, doubtful assets grew by 13 %, as against a reduction of 4.2 % in 2001. This was attributable as much to their behaviour in Spain, where they grew at a rate of 19.6 % (9.7 % in 2001), as to that abroad, where they grew by 4.7 % (reduction of 17.5 % in 2001). Yet the doubtful assets ratio increased by less than 0.1 percentage point, from 1.38 % to 1.45 %. The rise in the doubtful assets ratio was greater in foreign business (from 3.76 % to 4.99 %) than in business in Spain (from 0.92 % to 0.97 %), partly as a result of the difficulties in Argentina.

Financing to public authorities fell by 11.6 % (as against an increase of 1.4 % in

(1) Credit to the private sector, for the purposes of this Report, includes financing to residents and non-residents other than credit institutions and public authorities. It includes both loans and fixed-income securities.

(2) Unless otherwise stated, the amounts relate to December 2002 and comparisons are always between that month and December 2001.

(3) In fact, in the case of business in Latin America, most of the decline is explained by currency depreciation.

Table I.1. *Consolidated balance sheet of Spanish deposit institutions. €m and %*

ASSETS	Dec-01	Dec-02	Relative weight Dec-02 (%)	Chg. D-02/ D-01 (%)	LIABILITIES	Dec-01	Dec-02	Relative weight Dec-02 (%)	Chg. D-02/ D-01 (%)
Cash on hand on deposit at Central Banks	34,767	27,719	1.9	-20.3	Central Banks	13,938	22,836	1.6	63.8
Due from credit institutions	178,766	180,924	12.4	1.2	Due to credit institutions	249,310	246,761	16.9	-1.0
Credit to public authorities	57,154	48,981	3.4	-14.3	Creditors from public authorities	41,336	46,059	3.2	11.4
Credit to private sector	726,106	775,683	53.2	6.8	Customer deposits	766,490	767,910	52.7	0.2
Fixed-income portfolio	245,368	227,966	15.6	-7.1	Marketable debt securities	107,288	110,381	7.6	2.9
Doubtful assets	10,943	12,371	0.8	13.0	Other liabilities	42,136	39,817	2.7	-5.5
Equity portfolio	55,838	53,279	3.7	-4.6	Accrual accounts	24,856	20,237	1.4	-18.6
Property and equipment	28,635	25,868	1.8	-9.7	Provisions	56,402	52,661	3.6	-6.6
Goodwill in consolidation	19,308	18,577	1.3	-3.8	Negative difference in consolidation	136	206	0.0	50.8
Intangible assets	1,956	1,622	0.1	-17.1	Subordinated debt	30,324	31,238	2.1	3.0
Own stakes and shareholders	536	293	0.0	-45.4	Minority interest	22,078	20,536	1.4	-7.0
Other assets	52,601	47,674	3.3	-9.4	Capital stock	8,435	8,594	0.6	1.9
Accrual accounts	27,952	23,101	1.6	-17.4	Reserves	56,748	59,092	4.1	4.1
Prior year's losses at the controlling entity	265	389	0.0	46.9	Reserves at consolidated companies	15,112	18,992	1.3	25.7
Losses at consolidated companies	7,087	12,532	0.9	76.8	Net income	12,694	11,662	0.8	-8.1
					Group	10,722	9,860	0.7	-8.0
TOTAL ASSETS	**1,447,460**	**1,457,177**	**100.0**	**0.7**	**TOTAL LIABILITIES**	**1,447,460**	**1,457,177**	**100.0**	**0.7**
Memorandum item:									
Credit to private sector	776,465	828,499	56.9	6.7					
Exposure to public authorities	243,025	214,772	14.7	-11.6					

December 2001), which entailed a fall of two percentage points (p.p.) in its relative weight. This fall was basically attributable to foreign business, whose relative weight declined by 4 p.p.

The equity portfolio, in line with the long decline in share prices, shrank at a rate of 4.6 %. Goodwill, after growing strongly up to the end of 2000, fell by 3.8 % in 2002, extending the downward trend that started in late 2001. Its accelerated amortisation following the principle of prudence, the absence of significant acquisitions and the sale of holdings were responsible for this behaviour.

Turning to *liabilities,* the relative weight of customer deposits fell by 0.3 p.p., the slowdown in this item being most notable (0.2 % as against 12.6 % in 2001). Interbank financing declined slightly, while marketable debt securities grew at a moderate rate.

Subordinated debt, which has grown significantly in recent years, slowed considerably (3 % as against 34.1 % in 2001), while preference shares fell by 4.7 %.

Own funds held steady at a relative weight of 7.9 %, while the net income attributed to the group fell by 8 %, confirming the trend already noted in the last FSR. This highlights the understandable difficulty the institutions are having in maintaining the high earnings growth of recent years in an environment of lower interest rates, slowing economic growth and high uncertainty at the international level.

Despite the significant moderation in credit to the private sector, the virtual stagnation of customer deposits resulted in a substantial increase in the spread between the former and the latter (up from 0.7 % to 4.2 %) (4). In this situation an assessment of lending growth objectives would be desirable, with account taken of the growth of traditional deposits and the cost associated with recourse to the private fixed-income market.

Evolution of risks

Credit to the private sector in Spain showed sustained growth in 2002. Lending to

(4) Calculated as credit to the private sector less customer deposits as a percentage of total assets.

Chart I.1. *Annual rate of change of financing to households and productive activities (%). Banks and savings banks*

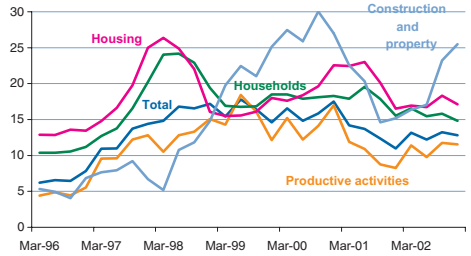
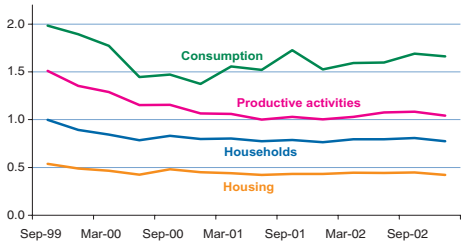


Chart I.2. *Doubtful assets ratio by use of credit (%). Deposit institutions*



households to purchase houses (Chart I.1) continued to expand at high rates, consistent with the high growth in house prices (17.4 % in December 2002) and with historically low nominal and real interest rates.

The slower growth in the financing of productive activities is in accord with more moderate GDP growth rates. Despite this behaviour, it does not appear to be the case that a restrictive lending policy on the part of deposit institutions is making it difficult for corporations to raise funds, in contrast to the situation in some European countries (5).

Chart I.1 shows that, during 2002, credit to construction and property development accelerated significantly, in response to lower interest rates and high growth in house prices. Given the cyclical position of the economy and property market developments, the institutions, in particular those expanding their lending at higher rates, should exercise utmost caution in their lending policies.

Doubtful assets continued to increase, especially those associated with lending to non-residents, yet the doubtful assets ratios classified by use of credit held practically unchanged, with the sole exception of a slight rise in that for consumer credit (Chart I.2). However, given the strong growth in credit in recent years, institutions must be mindful of the difficulty of keeping doubtful assets ratios so low in the medium term.

Central Credit Register (CCR) data enable doubtful assets ratios to be seen from a broad time perspective, distinguishing between legal entities (companies, including sole proprietors) and individuals (Chart I.3). The current doubtful assets ratios are very low, particularly for individuals, this being the business segment in which the institutions are growing most. The doubtful assets ratios in this latter segment have been substantially lower than those of companies during the latest business cycle.

There are some worrying elements in the behaviour of the *housing* market, when it is considered in relation to the trend growth in household indebtedness, the economic slowdown and, more recently, the growth of credit to construction and property development. However, the level of interest rates, the behaviour of house prices in the last recession, the average level of mortgage debt and the performance of doubtful assets ratios are factors that reduce this concern to some extent.

As already mentioned, there is a substantial difference between the level of the doubtful assets ratio for business in Spain and that for foreign business. Despite the internationalisation of Spanish institutions, mainly accounted for by the two major banking groups, the bulk of their financial assets are

(5) These restrictive policies (and, in particular, their extreme of a credit crunch) are usually associated with solvency ratios very close to the regulatory minimum or with a substantial deterioration in loan quality. As seen throughout the FSR, this is clearly not the situation of Spanish institutions.

Chart I.3. *Doubtful assets ratios. Companies and individuals (%). Deposit institutions*

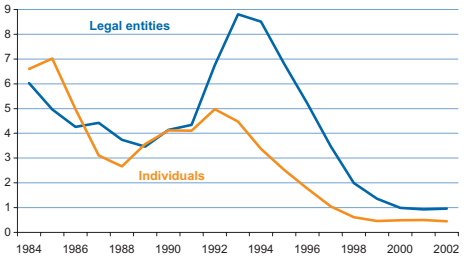
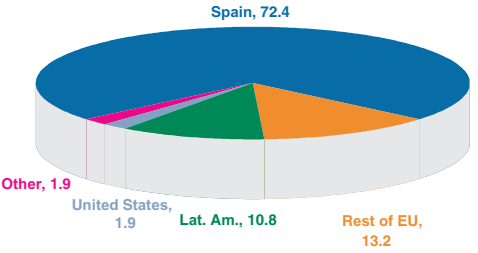


Chart I.4. *Geographical distribution of the financial assets of deposit institutions (%). December 2002*



still situated in Spain (Chart I.4). This explains why the total doubtful assets ratio is still much closer to that for business in Spain and why the credit risk of Spanish institutions depends largely on the Spanish business cycle.

Chart I.4 also shows the smaller presence of Spanish institutions in the rest of the European Union and, among the emerging countries, their concentration in Latin America. 70 % of the financial assets in Latin America are in Mexico and Chile, two of the most stable countries in the region.

The *appreciation of the euro* against the dollar and, in particular, against the *Latin-American currencies* entailed a change in the composition of total assets with respect to 2001; business in Spain gained some five percentage points and the rest of the EU one point, at the expense of Latin America and the rest of the world.

The smaller relative exposure to Latin America has been accompanied, since October 2002, by an improvement in credit risk, as measured by sovereign spreads, which has been especially marked in the case of Brazil. However, in other countries of the region in which Spanish banks have a smaller presence, spreads have widened or remain high (Chart I.5).

The uncertainty surrounding economic recovery and the difficulties in some sectors have continued to depress stock markets, while increasing volatility.

I.2. Credit risk

Doubtful assets are increasing on account of the slowdown in economic growth in Spain and, especially, because of the difficulties of certain countries in which Spanish banks are present. That said, the fall in interest rates and strong credit growth have helped to keep doubtful assets ratios virtually unchanged since the last FSR.

I.2.1. Impact of the macroeconomic context

I.2.1.1. Spain and the euro area

The latest available data confirm the slowdown in the rate of growth that characterised activity in most of the European economies. In 2002, GDP in the euro area grew by 0.8 %, significantly down from the 1.4 % rate recorded in 2001. In *Spain,* the rate of growth remained above the European average, at 2 %.

Despite the relatively favourable behaviour of the Spanish economy last year, its future course will not be unaffected by international economic developments. Also, in the medium term the risks noted in the last FSR persist. Thus, the indebtedness of the non-financial private sector continued to rise, although that of firms at more moderate rates, and house prices have shown no signs of slowing. The inflation differential vis-à-vis the euro area, meanwhile, is still more than one percentage point. However,

Box I.1

Comparison of the size and efficiency of the financial systems of the main emerging regions

Numerous economic studies have recently supported the idea that the development of the financial sector contributes significantly to economic growth. Some of the channels that give rise to this relationship are the ability to attract savings capable of being used in profitable investment projects, the management of credit risk and the increase in total factor productivity stemming from a more efficient intermediation of funds. The empirical literature shows that the financial systems of the emerging countries are generally smaller in size than would be commensurate with their GDP *per capita.* This is the case principally in Eastern Europe and Latin America, and less so in Asia. This, together with the existence of a domestic bias in the allocation of savings, shows the importance for the emerging countries of developing their domestic financial systems to promote economic growth.

There are two characteristics particularly relevant to comparisons of the degree of financial development of the three main emerging regions: the *size* of financial systems and their *efficiency* relative to GDP (1). Also, there are two frequently used indicators: 1) financial depth in the broad sense, measured as the sum of liquid liabilities, the outstanding amount of public and private domestic fixed-income and the capitalisation of local stock markets; and 2) domestic credit to the private sector, which measures not just the size, but also the efficiency of financial intermediation, insofar as such credit is more productive than that granted to the public sector. However, this latter indicator is somewhat imperfect and is usually only used for emerging countries, where the financial information is less complete.

The first feature that stands out when the financial systems of South-East Asia, Eastern Europe and Latin America are compared is their different *depth.* The Latin-American financial systems are, on average, much smaller than the Asian ones even after the 1997 crisis, although they are only somewhat smaller than those of the Eastern European countries. The order of magnitude speaks for itself: while the Latin-American and Eastern-European financial systems did not on average exceed 100 % of GDP in 2000, in Asia they were more than 250 % of GDP, comparable to their size in EU countries. It is notable that this greater development affects all segments of the financial system, not just banking, but also the financial markets (Chart A). It is interesting to see that Asia not only has a deeper financial system, but also that there is a greater balance between its banking system and capital markets, although the differences have been substantially reduced with the development of the domestic debt markets in Latin America and, to a lesser extent, in Eastern Europe.

Domestic credit to the private sector also varies greatly from one region to another. In Latin America, as a percentage of GDP (Chart B), domestic credit to the private sector is less than half the Asian level (scarcely 40 % of GDP), although it is higher than in Eastern Europe (around 20 %). Among the reasons that have been analysed to explain this relative lack of credit in Latin America, and especially in Eastern Europe, are the high level of real interest rates, the frequency of banking crises and consequent accumulation of doubtful assets and crowding out by credit to the public sector.

The differences between the financial systems of the three regions are also thrown into relief when the *structure of bank ownership* is analysed. While in Latin America and Eastern Europe public-sector participation in banking has diminished considerably over the last decade, to below 20 % of total assets, in Asia public-sector banks still hold around 40 % of total assets. By contrast, the holdings of foreign banks have increased substantially in Latin America, and even more so in Eastern Europe, to reach average levels of more than 40 % of total assets; in Asia their holdings amount to no more than 10 %.

Chart A. *Total financial assets as % of GDP*

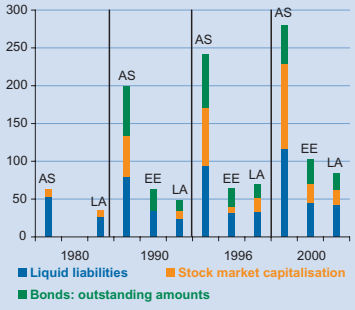
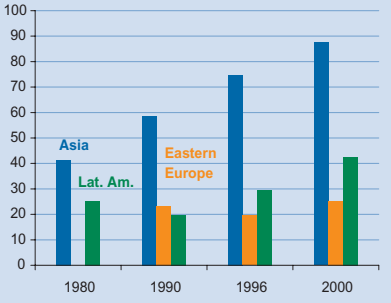


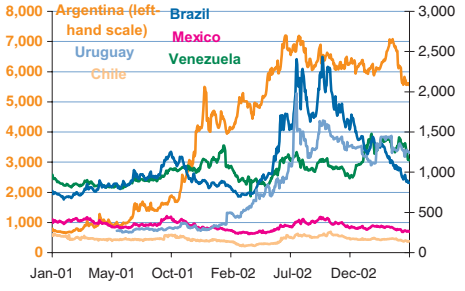
Chart B. *Bank credit to the private sector as % of GDP*



Note: AS: Asia; EE: Eastern Europe; LA: Latin America.

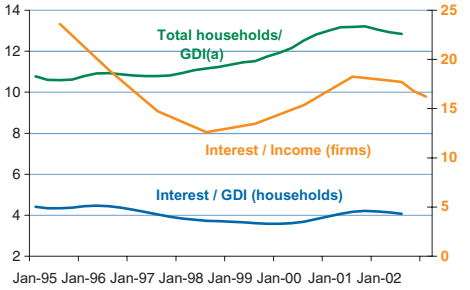
(1) A more detailed analysis can be found in A. García Herrero, J. Santillán, S. Gallego, L. Cuadrado and C. Egea: *"Latin-American Financial Development in Perspective"* and in S. Gallego, A. García Herrero and J. Saurina: *"The Asian and European Banking Systems: The case of Spain in the quest for development and stability";* Banco de España Working Papers 0216 and 0217, respectively.

Chart I.5. *Sovereign spreads (basis points)*



Source: Bloomberg.

Chart I.6. *Indicators of the debt burden and interest of non-financial corporations and households relative to gross disposable income (GDI) (%)*



(a) Includes interest and regular payments of principal.

Note: Only corporations reporting to the CBSO are included. Income includes gross operating profit and financial revenue.

the reductions in interest rates, at the end of 2002 and again this year, have helped relieve the debt burden on firms and households.

Non-financial corporations

In 2002, the gross operating profit of the corporations that report to the Central Balance Sheet Data Office (CBSO) grew by 4.6 %, a higher rate than in the previous year. The ordinary net profit, which includes financial revenue and financial costs, grew at a higher rate (7.6 %) as a consequence of the favourable performance of financial costs.

However, the positive performance of financial costs was not sufficient to offset the significant provisions that some of these firms, especially the largest ones, had to make, basically in the first half of last year, to cover expected losses on foreign investments, as mentioned in the last FSR. As a result, the net profit of the firms reporting to the CBSO was down 31.2 % from the previous year.

Profitability ratios (calculated excluding extraordinary items) improved in 2002. The ordinary return on investment rose from 7.9 % to 9 % and that on equity from 10.1 % to 12.9 %. This, together with the fall in the cost of debt, enabled the difference between the ordinary return on equity and the average cost of borrowed funds to increase with respect to 2001 (from 2.7 % to 4.4 %). It should be noted that this substantial improvement in ordinary returns took place against a background of slowing economic growth.

Moreover, the rate of growth of the *debt* of these firms moderated, so that the ratio of borrowed funds to total interest-bearing liabilities corrected for inflation stood at 45.1 % at end 2002, as against 43.6 % in 2001. The rate of growth of the total financing received by non-financial corporations as a whole (loans from financial institutions and securities issuance) also declined and, in Q4, grew at a year-on-year rate of 13.9 %, as against 17.4 % in December 2001.

The reduction in the cost of debt, together with the relative stability of the level of debt, enabled the firms reporting to the CBSO to make a modest reduction in their *debt burden* (Chart I.6).

Households

Notwithstanding the uncertainty and the slowdown in activity, Spanish households continued to increase their debt. Financing to households grew by 14.8 % in the year to December 2002 (12.4 % in the year to December 2001), housing credit being the component that grew fastest (17.1 % as against 16.5 % in December 2001).

This behaviour of their liabilities, together with the moderate increase in gross household disposable income, entailed a further increase in the *debt* ratio, which reached 82.9 % in Q4, 6.2 percentage points higher than a year earlier. In comparison with other countries, although this ratio is still lower than in the US and the UK, it has already reached the euro area average (Chart I.7).

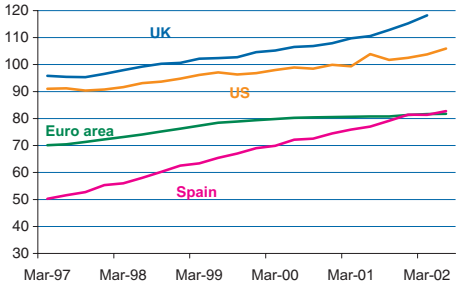
However, this trend in the level of household debt has not translated into equivalent growth in their *debt burden* owing to the downward course of the cost of debt. Chart I.6 shows how the reduction in the interest paid by households has enabled the total debt burden, which includes interest payments and repayments of principal, to remain practically unchanged relative to gross disposable income in the last two years.

The *wealth* of Spanish households in the second half of 2002 followed the same pattern as in previous months. Their financial wealth continued to decline as a consequence of the fall in share prices while, by contrast, their net non-financial wealth, owing to the increase in the price of real estate assets, increased despite the growth in mortgage financing. Taking into account the higher relative weight of the non-financial component, the overall net wealth of Spanish households can be expected to have increased. That said, they are now more exposed than in the past to changes in employment, in their income, in their wealth and in the cost of financing their liabilities.

I.2.1.2. Rest of the world

Following relatively positive second and third quarters, the international economic environment and the prospects for global recovery deteriorated sharply in 2002 Q4, in a climate characterised by a high level of uncertainty. Both the confidence and output indicators fell significantly in the main economies from that time.

Chart I.7. *International comparison of the household debt ratio (%)*



Source: US Federal Reserve, Bank of England and in-house calculation.

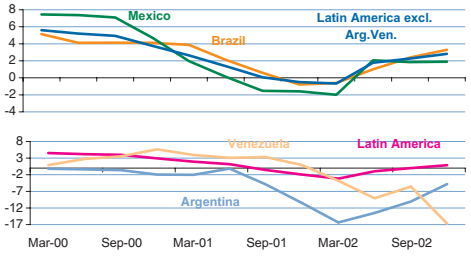
Note: Loans from monetary financial institutions as a percentage of gross household disposable income.

Against this background, the *US* authorities stimulated demand vigorously through fiscal policy, causing public finances to deteriorate. World economic recovery seems to hinge on developments in the US economy, which remains fragile and not free from risks. In particular, demand is still being held up by private and government consumption, without either investment or external demand having shown clear signs of an upturn.

The worsening in the prospects for recovery and the absence of inflationary pressures made further reductions in the official interest rates of the main economies possible in October and November 2002. Interest rates on US government debt reached historically low levels, assisted by a shift of funds towards risk-free assets. The spreads over government debt of high-quality corporate bonds held relatively steady while those of the poorest quality corporate bonds widened significantly in the summer, although they narrowed again somewhat in the latter months of 2002.

In *Japan,* expectations of economic recovery gradually dissipated during the second half of 2002 and in early 2003, following a first half in which the GDP data had been relatively positive. The depreciation of the dollar against the yen and the situation of the banking system make a recovery in activity more difficult, while also hampering the escape from deflation.

Chart I.8. *GDP in Latin America. Annual rate of growth (%)*



Source: National Accounts.

In *Latin America,* activity reached a cyclical trough in the first quarter of 2001. However, the recovery since Q3 is proving to be very gradual and the prospects for growth in 2003 are moderate. In 2002, the change in the GDP in the region was negative (a fall of 0.8 %), the worst performance since 1983, although this figure is dominated by the large negative contribution from Argentina, Uruguay and Venezuela, which reduced GDP growth in the region by 2.4 percentage points (Chart I.8).

The gradual recovery is being driven by the external sector owing to the improvement in competitiveness following last year's significant depreciations and the rise in commodity prices. On the other hand, the pick up in domestic demand has not yet firmed, largely because of the application of necessarily restrictive policies: in the fiscal sphere, on account of financing difficulties; and in the monetary sphere, on account of the sharp increase in inflation in most of the countries.

By country, activity indicators in *Argentina* have been signalling recovery since 2002 Q3, although the prospects are still somewhat uncertain. In *Brazil,* following the elections, there has been a substantial improvement in the financial variables, while activity seems to have withstood the persistent financial turmoil better than might have been expected. *Venezuela* has been the country with most problems in recent months, with a fall in GDP of almost 9 %. Finally, in the investment-grade countries, i.e. *Chile* and *Mexico,* the situation remains relatively stable. Meanwhile, the *credit ratings* of Venezuela and Uruguay were reduced, while those of the other countries were unchanged.

Domestic bank credit to the private sector continued to fall in real terms (by 5 % in Latin America as a whole), the largest falls being in Argentina (more than 50 %) and Venezuela (around 20 %). Declines were also recorded in Brazil, while in Mexico positive real rates were recorded for the first time since late 1998.

In 2002 as a whole, net *capital flows* from the rest of the world to Latin America recorded their largest annual decline of the last two decades (falling from 34.4 to 14.9 billion dollars). Even the traditionally most stable component, foreign direct investment, contracted sharply from 69.1 to 37.4 billion dollars, while official financing was the component showing the smallest fall.

Credit risk, approximated by the trend in *sovereign spreads,* deteriorated markedly to October 2002, especially in Brazil, and improved substantially thereafter (Chart I.5), except in the three countries in crisis (Argentina, Uruguay and Venezuela), whose spreads have held at very high levels. Underlying these movements was basically the fear of a shift to heterodoxy in Brazil's economic policy. However, the new government's reaffirmation of the commitment to fiscal orthodoxy was conducive to a very rapid correction of most of the previous deterioration (6).

I.2.2. Impact of institutions' credit policy

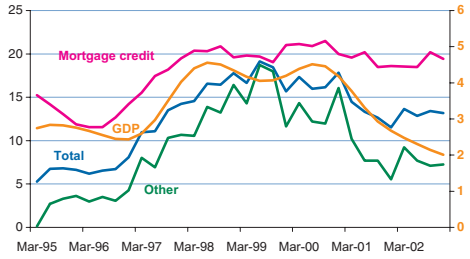
Credit growth

Chart I.9 shows a certain contrast between the slowdown in economic activity (2 % GDP growth year-on-year) and credit growth (7), which accelerated slightly (to 13.2 % in December 2002 from 11.5 % in

(6) Box I.1 compares the degree of development of emerging countries' financial systems.

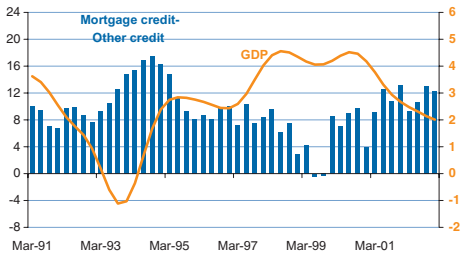
(7) Business in Spain plus the business abroad of branches of Spanish institutions, but not including the business abroad of the subsidiaries of such institutions. This is the scope of the analysis throughout section I.2.2.

Chart I.9. *Year-on-year rate of change of credit and its components and of GDP (%). Deposit institutions*



Source: INE and in-house calculation.

Chart I.10. *Change in GDP and difference between the rate of change of mortgage and other credit (%)*



Source: INE and in-house calculation.

2001) (8). The contrast is basically due to the strong growth in mortgage credit.

As seen in the last FSR, there is a considerable gap between the growth of mortgage credit and other credit (the former increased by 19.4 % and the latter by 7.2 %), owing to the greater buoyancy of financing to households for house purchase relative to corporate credit.

Chart I.10 shows how the gap between the growth of mortgage credit and other credit has varied over a lengthy time period. The gap increases during economic downturns, being particularly pronounced during the recession around 1993, and narrows during upturns with the recovery of growth in credit to firms. The gap at end-2002 was very similar to a year earlier, yet the institutions should pursue a prudent policy when extending and managing credit risk, without forgetting that the collateral associated with a loan is merely a palliative for non-payment and never a substitute.

Asset securitisation

The securitisation of mortgage loans and other assets continued to grow at high rates in 2002 (Chart I.11) (9). Underlying this phenomenon is the desire on the part of institutions to strengthen their liquidity, either to offset the decline in their portfolio of other liquid assets, or else to finance their credit expansion, given the slower growth in bank deposits. However, securitised assets represent a relatively small proportion of all credit (around 5 %).

There are differences between groups of institutions as regards securitised assets. In the case of savings banks 87 % of such assets are mortgage loans as against 44 % in banks (10).

Institutions sell some of their loans to third parties through securitisation funds, normally retaining the management thereof (11). This allows them to obtain extra liquidity to finance new business without losing the commercial relationship with the customer, who usually has no knowledge as to whether or not the loan has been assigned.

Securitisation enables the consumption of own funds to be reduced, while relationships with retail customers remain unchanged. However, it is not a prudent practice, from the point of view of risk management and the solvency of the institutions, to "cherry pick" the securitised assets. This

(8) When the impact of asset securitisation is neutralised, the rate of credit growth increases slightly (14.9 % as against 12.1 % in 2001). However, this assumes that the institutions do not retain any of the securitisation. If they do, then this 14.9 % growth rate will be an overstatement.

(9) Only securitisation carried out through securitisation funds is analysed here.

(10) In Spain, only mortgage assets could be securitised prior to 1998.

(11) Such sales are usually accompanied by a subordinated loan from the institution to the fund to absorb a certain level of losses arising from credit risk. In this case, the institution is still obliged to cover the credit risk (on the total amount sold to the fund) and, where applicable, up to the amount of the subordinated loan.

Chart I.11. *Securitised assets. Banks and savings banks. Millions of euro*

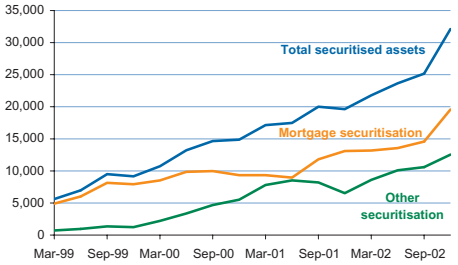
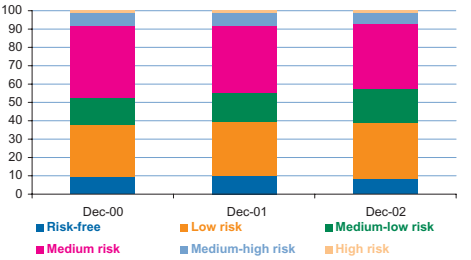


Chart I.12. *Composition of the credit portfolio by risk categories (%). Deposit institutions*



would significantly reduce the average quality of the portfolio of loans remaining on the banks' books.

Risk profile of the credit portfolio

As already noted in the last FSR, the standard method for calculating the statistical provision gives a measure of the average risk profile of the credit portfolio of the institutions; in 2002 it was 0.39 %. Chart I.12 shows that, for the deposit institutions as a whole, this relatively low risk profile is a consequence of the significant presence of loans secured by mortgages on finished houses and the scant exposure in higher risk bands (consumer finance, credit card balances and overdrafts).

Doubtful assets

The doubtful assets of deposit institutions increased in 2002, extending a trend that commenced in mid-2001. A very significant part of this growth was attributable to doubtful assets vis-à-vis non-residents (private sector and credit institutions), basically owing to the difficulties in Argentina. The growth of doubtful assets vis-à-vis the resident private sector accelerated from 5.8 % to 14.1 %, although it moderated in the final quarter of 2002.

The uneven growth of doubtful assets across sectors translated into an increase in the total doubtful assets ratio from 0.59 % to 0.70 %, while the ratio for the resident private sector held at 0.91 %. These levels are historically very low (Chart I.13).

By group of institutions, doubtful assets ratios are slightly higher in banks than in savings banks (0.74 % versus 0.62 %, in the case of total doubtful assets, and 0.93 % versus 0.84 % in the case of those of the resident private sector). The difference in this latter ratio stems from the enduring difference in their credit portfolios: savings banks have a higher percentage of credit assigned to the financing of house purchases which, according to Chart I.2, has a lower ex post level of credit risk.

The stability of the doubtful assets ratio is not attributable to a few institutions but is generally observed in all of them. More than half of the institutions, representing more than three quarters of total credit, have a resident private sector doubtful assets ratio of less than 1 % (Table I.2).

Table I.2. *Distribution of the resident private sector doubtful assets ratio. Deposit institutions. December 2002*

DBTFL. ASS. RATIO BRACKETS	% CREDIT	No. OF INSTITUTIONS
0	1.5	44
0.0 - 0.5	19.7	44
0.5 - 1.0	56.4	66
1.0 - 1.5	14.4	31
1.5 - 2.0	5.1	30
2.0 - 2.5	1.3	8
> 2.5	1.6	40

Box I.2

The operation of Continuous Linked Settlement (CLS)

CLS is a new international payment system for the settlement of foreign exchange (FX) trades, which aims to reduce the credit risk traditionally present in their settlement *(Hersttat risk)* (1) to a minimum. CLS achieves this through simultaneous settlement of the two legs of each transaction (on a PVP or payment-versus-payment basis) when certain conditions are fulfilled. Trades are booked internally in CLS in gross terms, but the payments in "central bank money" are basically made in accordance with the net multilateral positions of each participant, using the hours in which the Asian, European, and American payment systems are all open at once. More specifically, to receive and pay the foreign exchange involved in the settlement, CLS has accounts at the various currency-issuing central banks that operate in the system (2). The participating institutions must fund their internal accounts at CLS by crediting the CLS accounts at the various central banks. Conversely, the payments in "central bank money" of the net amount of the internal entries in CLS are made through transfers from the CLS account to that of the participant banks through the various real time gross payment systems.

There are two types of *participants* in CLS: direct *(Settlement Members)* and indirect participants *(User Members).* Only direct participants have accounts at CLS, which are divided into as many sub-accounts as there are currencies settled in the system. Indirect participants may notify orders directly to CLS, but they must arrange with a direct participant to use its CLS account.

The system *works* as follows. Participants must submit their instructions to CLS before the settlement day. CLS receives two messages for each transaction, one per entity. The system verifies their format and content, and then matches them for validation. Subject to certain qualifications, entities are permitted to modify or cancel instructions up until 06:30 CET (Central European Time) on the settlement day.

The *payment process* in CLS is divided into three simultaneous and interrelated, but mutually distinct, phases: *i)* provision of funds to the system *(pay-ins); ii)* internal booking of transactions; and *iii)* payments by the system to participants *(pay-outs).*

i) CLS calculates the net positions in the accounts of the participants as a result of the booking of the whole queue of orders with that value date. CLS then notifies the participants of the schedule of pay-ins that they must make within each time band of the same session to cover their short positions (3). To make the payment to CLS in those systems in which the participant does not have a direct presence, a correspondent bank is needed.

ii) This phase commences as soon as the accounts of the participants at CLS begin to be funded. The system analyses the orders in the queue one by one, checking that the booking of the two legs of the trade does not prevent compliance with three risk criteria relating to the accounts of the two participants involved: a) the overall balance of the account of each participant must remain positive after the trade is booked. This means that the equivalent value in dollars of the currencies with positive balances must exceed the equivalent value in dollars of the currencies with negative balances following the application of a hair-cut system; b) the debit position in a currency considered on its own must not exceed a limit set for each currency that is common to all participants; and c) the sum of the equivalent value in dollars of the negative balances of the different currency sub-accounts shall not exceed a limit set by the system for each participant. CLS sets this limit individually on the basis of the credit rating of each participant. If the booking of the transaction does not result in non-compliance with these criteria, the relevant credits and debits are actually executed, and the order is taken out of the queue. In normal circumstances, the settlement of orders takes place before 9:00 CET.

iii) CLS payments to participants in "central bank money" are made through the real time payment systems for settlement of the currency in question, by means of a single credit per currency to each participant (or its correspondent). CLS has an algorithm to optimise this phase, in order to reduce to a minimum the drainage of liquidity into the CLS. At the end of the session, the accounts of the participants in all the currencies must have a nil balance.

The CLS system significantly improves *management of the risk* inherent in foreign exchange transactions. Credit risk is almost completely eliminated by the "payment versus payment" procedure, which is conditional upon compliance with three risk criteria. The control of liquidity risk also merits special attention. CLS has designed a mechanism to alleviate this risk and enable payments to be completed in the currencies originally planned in the event that a participant fails to perform its payment obligation in a particular currency. For this purpose, CLS envisages overnight swaps with liquidity providers (4), so that creditors can receive the payments from CLS in the currencies they expected, thus avoiding chain failures. Even so, in extreme circumstances, and in spite of the agreements with liquidity providers, participation in CLS may entail losses for participants, and therefore CLS has an agreement for dividing the losses among its members.

A risk that may become important owing to the large amounts involved, the rigidity of the payment timetable with its narrow one-hour bands and the time differences between the three zones, is *operational risk.* Both the CLS and the Eurosystem have worked hard to make the systems robust and to improve the contingency mechanisms in order to avoid this risk.

---

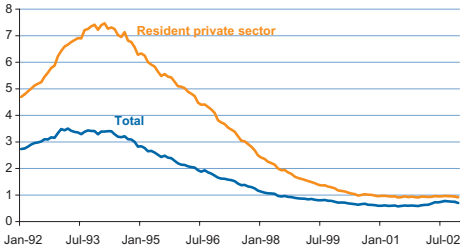
(1) The principal risk that arises in the settlement of those FX trades in which there is a lag between the time at which the two agreed payments (one in each currency) are settled.

(2) CLS settles payments in 7 different currencies: the US dollar, the euro, the Japanese yen, the pound sterling, the Swiss franc, the Australian dollar and the Canadian dollar.

(3) In the euro area, the system has five time bands of one hour each, between 07:00 and 12:00 CET.

(4) Liquidity providers are institutions that have entered into an agreement with the system to provide liquidity in certain currencies in case of need. This liquidity is provided through currency swaps between the provider and CLS Bank.

Chart I.13. *Ratios of total and resident private sector doubtful assets (%). Deposit institutions*



I.3. Liquidity risk

Markets

Turnover on the *government debt market* grew significantly in 2002 (15.9 %), both in terms of the operations of account holders and of third parties. By type of transaction, most of this growth is explained by the growth of spot bond transactions (26.8 %) and bond repos (19.9 %).

Even though it bears no causal relationship whatsoever to the growth just noted, it is worth mentioning the emergence of electronic repo trading in Senaf and MTS España. Although its impact on liquidity management might become significant in future, such trading has so far been rather modest.

Another change that will entail an improvement in market liquidity conditions is the programme of the Directorate General of the Treasury to reduce the number of lines of Treasury bills, while simultaneously increasing the amount outstanding per benchmark. The policy of issuing 12 and 18-month Treasury bills every 15 days was abandoned as from August 2002 and these bills are now issued once a month. In addition, since September, a single benchmark Treasury bill is tendered on various occasions and the liquidity of the first tranche of 18-month Treasury bills has been particularly boosted. Although the re-opening of Treasury bills was first applied to 18-month bills, this policy will be applied in 2003 to shorter-dated bills too, in order to boost their liquidity.

On *stock markets* the liquidity of the most significant Spanish securities continued to deteriorate on average. Specifically, the weighted average ranges (12) of the three firms with the largest market capitalisation were, in February 2003, 100 %, 31 % and 42 % wider than in mid-2000. Final investors seem to have withdrawn from the market and the volumes traded recently relate instead to technical operations and proprietary trading.

Institutions

As a result of the strong growth in credit to the private sector and much more moderate growth in liabilities to the same sector, in June 1999 there was a change of sign in the net balance of the sector (13) and, subsequently, a gradual increase in the net financing extended thereto. Since mid-2002 the gap between the growth of credit to and financing from the resident private sector has widened again (Chart I.14).

The net debit balance with the resident private sector has been financed through recourse to the non-resident sector, to unsectorised accounts (basically the institutions' own funds and special provision funds) and through a reduction in the net financing extended to public authorities (Chart I.15) (14).

Although there are differences between groups of institutions (in general banks

(12) The weighted average range is the ratio between the difference in prices of the five best selling positions, each weighted by their respective volume, on one hand, and the central price of the security in question, on the other.

(13) As regards their business in Spain, banks and savings banks have, in net terms, gone from receiving financing (net credit balance) to granting it (net debit balance) to the resident private sector (which, in this case, also includes the corresponding part of equities in the assets and debt securities and subordinated debt in the liabilities).

(14) If the analysis is based on total business (business in Spain plus the foreign branches of Spanish banks) the conclusions regarding the trend in balances and the sources of financing are similar, even though the amounts may be smaller.

Chart I.14. *Activity with the resident private sector. Banks and savings banks. Business in Spain (€ bn and %)*

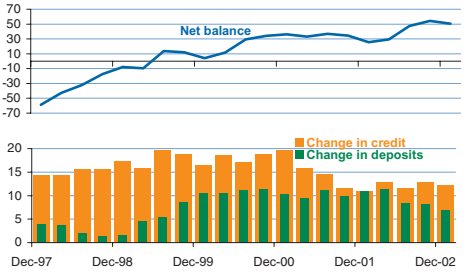
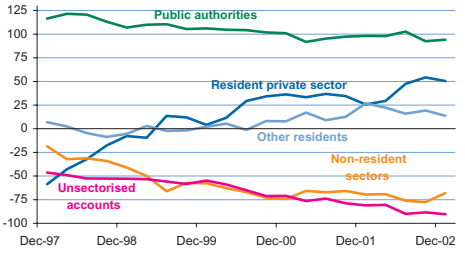


Chart I.15. *Net balances. Banks and savings banks. Business in Spain (€ bn)*



have historically had a net debit balance with the resident private sector and savings banks a credit one), the trends are very similar in the two groupings of institution: progressive increase in the debit balance and decline in the credit balance, respectively. This trend is not a result of the behaviour of a few large institutions but is common to most banks and savings banks.

The trend in the net balance with the resident private sector and its financing through the non-resident sector may mean that some institutions will have to review the medium-term sustainability of their credit expansion policies.

I.4. Market risk

Recent developments on international financial markets have continued to be characterised by falling prices, against a background of high volatility and dollar depreciation. This instability on financial markets, related to the geopolitical uncertainty and to a certain lack of confidence in the strength of the recovery in various countries, has prompted investors to move to lower-risk assets, which partly explains why medium and long-term government debt yields are, in many developed countries, at minimum levels.

The fall in *share prices* has been sharper in the euro area than in the US. As at mid-April 2003 the DJ Euro Stoxx index was 35 % below its January 2002 level, while the S&P 500 was down 23 % over the same period. By sector, the correction has been particularly severe for European insurance companies; as at April this year their prices had fallen by 56 % since January last year.

This correction in share prices on the main equity markets has brought price-earnings ratios (PER) back close to their historical average levels.

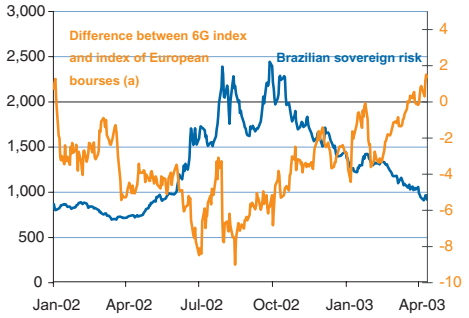
The share prices of Spanish firms have performed more favourably than the euro area markets as a whole. Between January 2002 and April 2003, the Madrid Stock Exchange General Index fell by 18 percentage points less than the DJ Euro Stoxx. In the case of firms with interests in Latin America, the market perception of lower levels of risk in Brazil seems to have contributed to the relative improvement in the share prices of the large Spanish firms with interests in this region (Chart I.16).

Latin-American stock markets have decoupled somewhat from the world situation, particularly in recent months (Chart I.17).

The sharp depreciation of the *dollar* against the euro was accompanied by a decline in flows of investment to the US, especially direct investment. At the same time the US external deficit was widening, despite the economic slowdown from 2002 Q4. There is a high degree of uncertainty surrounding the future course of the euro/dollar exchange rate.

As for the *Latin American currencies,* their considerable depreciation with respect to

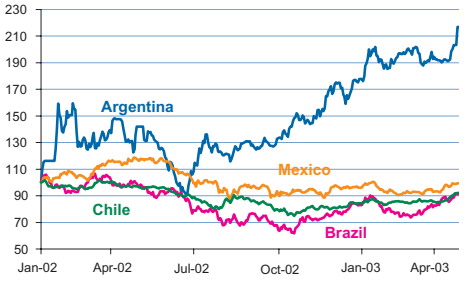
Chart I.16. *Comparative developments in the share prices of Spanish companies with interests in Latin America*



Sources: J. P. Morgan and in-house calculation

(a) The 6G index has been constructed with the share prices of the six Spanish firms with the biggest presence in Latin America. The index of European bourses has been constructed using the DJ Euro Stoxx sectoral indices replicating the sectoral composition of the 6G index.

Chart I.17. *Stock market indices*



Source: Bloomberg.

Note: Indices equal 100 on 1 January 2002.

the euro during 2002 has already been mentioned (15). These depreciations have contributed to the deterioration of the outlook for inflation in most of the countries of the region, while at the same time eroding the own funds of the Spanish deposit institutions with permanent investments in the area.

The fragility of stock markets and the low returns offered by risk-free assets have tended to favour the Latin-American *fixed-income markets* in recent months, despite the global environment of strong risk aversion. A large number of sovereign issuers in the region have capitalised on these circumstances to cover part of their external borrowing requirements.

(15) The Argentine peso depreciated by 74 %, the Venezuelan bolivar by 53 %, the Brazilian real by 44 %, the Mexican peso by 24 % and the Chilean peso by 22 %.

CHAPTER II
Profitability

II.1. General situation

In a year characterised by uncertainty as to the likelihood of economic recovery, considerable financial market instability, difficulties in the Argentine economy and depreciation of the main Latin-American currencies, the profitability of the Spanish deposit institutions deteriorated slightly (1). However, the institutions exposed to these adverse circumstances were able to make substantial write-downs without detriment to their solvency, and their earnings were eroded relatively less than those of the institutions in other European countries.

The previous years' upward trend in attributable *net income* after taxes at the group level was reversed, with a fall of 7.5 % with respect to 2001 (Table II.1) (2). Moreover, this decrease in income in absolute terms entailed a diminution of 7 basis points (b.p.) relative to average total assets (ATA) to 0.72 %. This relative fall was similar in size to that in 2001, due to the sharp slowdown in growth of ATA (2.2 % against 16.1 %) (3).

Table II.1. *Consolidated profit and loss account of deposit institutions (€m and % ATA)*

	Dec-01		Dec-02		Change
	Amount	% ATA	Amount	% ATA	d.02-d.01
Financial revenue	86,306	6.42	75,220	5.47	-12.8
Financial costs	49,778	3.70	39,302	2.86	-21.0
Net interest income	**36,528**	**2.72**	**35,919**	**2.61**	**-1.7**
Net commissions	13,865	1.03	13,355	0.97	-3.7
Result on financial transactions	1,739	0.13	1,454	0.11	-16.4
Gross income	**52,132**	**3.88**	**50,728**	**3.69**	**-2.7**
Operating expenses	31,801	2.36	30,351	2.21	-4.6
Net operating income	**20,331**	**1.51**	**20,376**	**1.48**	**0.2**
Provisiones and write-downs (net)	9,540	0.71	7,244	0.53	-24.1
Profits from group transactions (net)	1,665	0.12	267	0.02	-84.0
Extraordinary income (net)	3,250	0.24	494	0.04	-84.8
Profit before tax	**15,706**	**1.17**	**13,893**	**1.01**	**-11.5**
Net income	12,646	0.94	11,678	0.85	-7.7
Memorandum item					
Group's net income	10,675	0.79	9,876	0.72	-7.5
ATA	1,344,720	100	1,374,767	100	2.2

The decline in net income attributable at group level has affected a growing number of banks and savings banks. Also, there has been a decrease in the number of institutions whose net income has slowed. However, the number of institutions reporting income acceleration remained high in 2002 (Chart II.1) and, in addition, the number of institutions with negative net income decreased.

The overall *ROE* (4) of deposit institutions fell by 1.4 percentage points to 12 % in De-

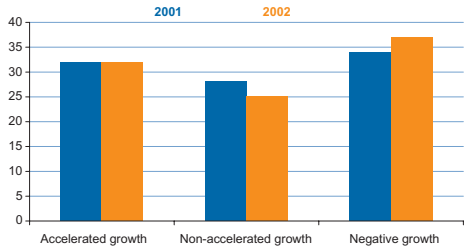
(1) In this and the following chapter of the FSR, foreign bank branches based in other European Union countries are not included. The number of institutions analysed therefore holds constant, since this sub-group is not subject to capital requirements. This gives rise to discrepancies with the information contained in the Report on Banking Supervision in Spain (2002). In any event, the relative weight of the institutions excluded is very small.

(2) The profit and loss account for analytical purposes in this chapter differs to some extent, in certain groupings of headings, from the public profit and loss account.

(3) This slowdown in activity is largely explained by the fall in absolute terms in foreign business activity (as against high growth in 2001), basically due to the depreciation of the Latin-American currencies against the euro, although there was not necessarily any fall in business conducted in local currency outside Spain.

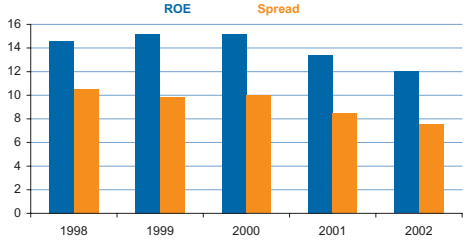
(4) The ratio between the net income attributable to the group and the average own funds (equity) of the group, calculated as the sum of capital, the reserves of the controlling entity and, in consolidated entities, the net income of the group and the fund for general banking risks less shareholders, own shares, the losses of the controlling entity from prior years and the losses at consolidated companies.

Chart II.1. *Number of banks and savings banks according to net income at group level*



Note: Institutions with negative income are excluded.

Chart II.2. *ROE and its spread with 10-year government debt (%). Deposit institutions*



cember 2002. Despite having declined, this continues to compare very favourably with 10-year Spanish government debt (difference of 7.6 percentage points). Therefore, against a background of low long-term interest rates, Spanish institutions continue to enjoy substantial returns well above those offered by risk-free assets (Chart II.2).

Net interest income and *gross income* posted falls, compared with double-digit growth in recent years. In terms of ATA, the fall in the net interest margin, caused by lower interest rates and high competition, was 10 b.p., to which must be added the decreases in commissions (6 b.p.) and in income on financial transactions (2 b.p.), which also fell in absolute terms.

Behind the decrease in *commissions* lies the reduction in those for securities services (4 b.p.) and for non-bank financial product marketing (2 b.p.), in line with the downward trend in the securities markets in the period. This contrasted with the growth in collection and payment service commissions (1 b.p.), driven by the brisk growth in business in Spain (10.2 %), following the trend in recent years (Chart II.3).

The decrease in income on financial transactions is explained by the losses on the trading book in a year of stock market falls and by the lower income from futures transactions, associated with derivatives not booked as hedges for accounting purposes.

Net operating income remained practically stagnant, which meant a fall of 3 b.p. in terms of ATA, in contrast to the strong absolute and relative growth in the previous two years. This margin was positively influenced by the fall in *operating expenses,* both in absolute terms (4.6 %), largely due to the "exchange rate effect"(5), and in relative terms (16 b.p.). However, expenses continued to grow appreciably in savings banks in 2002, at nearly twice the inflation rate in the period.

The overall *efficiency ratio* (percentage of gross income absorbed by operating expenses) of deposit institutions at the total business level improved (from 61 % to 59.8 %), although banks and savings banks performed differently. The efficiency ratio of banks improved from 60.5 % to 58.3 %, while that of savings banks worsened from 62.3 % to 62.7 %.

Given the performance of net operating income in 2002, the institutions should focus a considerable part of their efforts in 2003 on increasing their efficiency, against a background of heightened uncertainty, low interest rates and strong competition.

Provisions and write-downs decreased appreciably with respect to 2001 (24.1 %, down 18 b.p. in terms of ATA), due mainly to the sharp reduction in net provisions to other specific funds (20 b.p.), the size of which had increased considerably in the previous two years.

Provisions for bad debts to cover credit risk were slightly lower than in 2001 because the

(5) Adjusted for the impact of depreciation of the main Latin-American currencies, the operating expenses of deposit institutions grew by 5.3 %.

Chart II.3. *Year-on-year rates of change of net commission income and contribution of its components (%)*

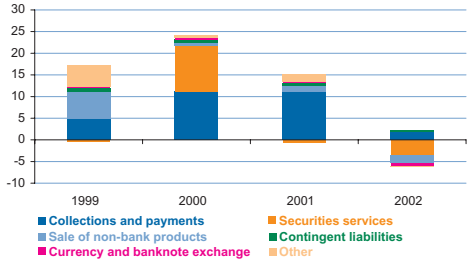
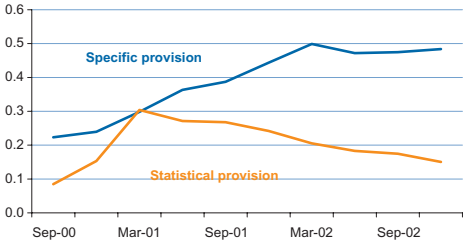


Chart II.4. *Net provisions for bad debts (% of credit to the private sector)*



Note: The figures are annualised to facilitate comparison.

negative influence of the cyclical upturn on doubtful exposures on specific provisions (4 b.p.) was more than offset by the opposite movement in the statistical provision (5 b.p.), the sign of which is still positive. This evidences the stabilising effect of the statistical provision, which clearly helps to reduce the volatility of deposit institutions' earnings and, in short, to raise the stability of the Spanish financial system (Chart II.4). Finally, the general provisions were unchanged from 2001.

Provisions to the security price fluctuation fund were much higher than in previous years (2 b.p.), in step with the performance of stock market prices in the last twelve months and following the declines in the preceding two years (6).

Net income on *group operations* was considerably lower than in 2001 (10 b.p.), due to the lower net income of companies valued by the equity method and to losses on disposals of holdings in the group. These developments manifest the less favourable performance of corporate net income. This effect was offset by lower amortisation of goodwill, following the considerable effort devoted in 2001 to the write-down of investments in Argentina.

Net extraordinary income was much lower than in 2001 (20 b.p.). Contributing to this were the decrease in earnings and the rise in losses.

(6) The correlation coefficient between the provisions to the security price fluctuation fund and the Ibex 35 in the period from June 1998 to December 2002 (half-yearly data) is –0.72.

In short, the smaller margins and the considerable decreases in extraordinary income and in profits from group transactions could not be offset by the reduction in operating expenses, the stability of the provisions for bad debts and the lower provisions to other specific funds. As a result, the profit before tax and the net income attributable at group level fell both in absolute terms and as a percentage of ATA.

The slowdown in economic growth, the increase in doubtful assets, the heightened uncertainty in the securities markets and the low interest rates mean that operating expenses have become a key strategic variable for the institutions in 2003. Naturally, the proper management of credit risk cannot be neglected, given the still substantial growth of lending in Spain. Also, the institutions should pay special attention to the quality of their credit portfolio.

II.2. Analysis based on individual institutions

The analysis in the preceding section has focused on aggregate indicators, which does not allow differences to be detected between the earnings performance of institutions. The present section analyses in greater depth the possible differences in the institutions' earnings performances.

The *distribution of the profitability* of the institutions shifted slightly towards the lower ROE brackets. This indicates that the aggregate fall in ROE was due to a general

Table II.2. *Breakdown of profitability by bracket. December 2002*

ROE BRACKETS	% OF ATA	No. OF INSTITUTIONS
<0	0.2	9
0-5	2.5	22
5-10	7.9	77
10-15	76.5	53
15-20	9.5	14
>20	2.9	3

Table II.3. *Breakdown of the efficiency ratio by bracket. December 2002*

EFFICIENCY RATIO BRACKETS	% OF ATA	No. OF INSTITUTIONS
>100	0.9	11
90-100	0.4	1
80-90	1.2	8
70-80	13.3	27
60-70	40.2	63
50-60	40.5	44
40-50	0.6	16
<40	3.0	8

decline in the profitability of deposit institutions. Moreover, the shift in the profitability distribution is more pronounced when profitability is expressed in terms of ATA, indicating the importance of the falls in ROE in certain large institutions.

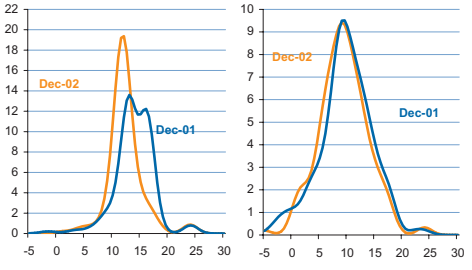
As regards the *efficiency ratio* (Table II.3 and Chart II.6), in the less efficient institutions it remained at similar levels to those in the previous year, while in the more efficient institutions it worsened slightly. However, the distribution in terms of ATA shifted slightly to the right, indicating that the efficiency improvements were concentrated in the large institutions.

Comparison with European banks

The economic stagnation in Europe last year led to an increase in the doubtful assets ratios of European banks and, therefore, in the provisions for bad debts, which negatively affected the institutions' earnings. In fact, the major European banks, except the British ones, saw their *earnings* fall (7).

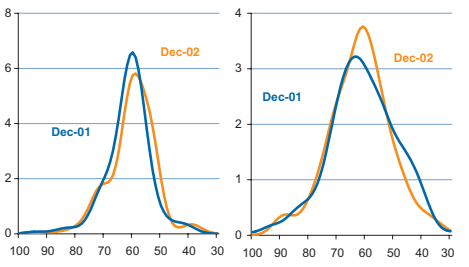
The difficulties of numerous European economic sectors (telecommunications, new technologies and insurance), together with the uncertainty as to the likelihood of a prompt and sustained recovery in economic growth, have continued to put downward pressure on the European stock markets. Consequently, the business associated with securities services, asset management, mergers and acquisitions advice and stock market flotations has suffered considerably. In addition, the interest rate falls associated with the weak economic situation put pressure on the institutions' margins.

Chart II.5. *Percentage breakdown of ATA (left) and of the number of institutions (right) according to the ROE [density functions (a)]*



(a) In this case, as in the rest of the FSR, the density function is approximated by a kernel estimator.

Chart II.6. *Percentage breakdown of ATA (left) and of the number of institutions (right) according to the efficiency ratio (density functions)*



(7) The main Spanish banks (three institutions) experienced a weighted fall in earnings of 16.7 %, compared with 25.8 % in France (two institutions) and 31.8 % in Italy (three institutions). In the United Kingdom there was an increase of 5.3 % (4 banks).

Box II.2

Return on risk-adjusted capital

In recent years the need for an ex ante method of measuring transactions that takes into account not only nominal return but also the risk incurred has prompted the development of different measures which have in common the incorporation of expected costs (including expected losses) and, above all, the measurement of return as a function of the capital consumed. Competition for capital among different business units of the same institution and the chance to improve objective-based compensation policies have spurred interest in such measurements. Finally, the strong competition between institutions to attract business, which on occasions may lead them to accept transactions at very low prices, requires a tool able to select the deals that contribute value to the institution by delivering a yield that is sufficient to cover costs and provide a return on capital. A threshold marking the minimum risk-adjusted return constitutes a tool that enables a decision to be made on whether or not to accept a transaction.

Of particular note among these measures is the so-called *RORAC* (Return on Risk-Adjusted Capital). Given a unit, which can be a transaction, a portfolio, a line of business, etc., the basic formula is:

$$RORAC\ (Unit) = \frac{I_E - C_E - EL}{K_{eco}}$$

where, I_E is the expected income associated with the unit, *EL* the expected credit loss, C_E the other expected direct and indirect costs and K_{eco} the economic capital consumed. This capital covers the unexpected losses up to a certain limit (or confidence level) which depends on the probability of default *(PD)* that the institution wishes to establish. This basic formula has variants that basically depend on which elements are included in the term C_E. For example, regulatory capital can be considered to be a cost, a return can be assigned to the capital consumed, etc.

Depending on the association of the economic capital with each unit, the RORAC systems can be classified into two groups:

1) "Bottom-up" schemes: The starting point is the capital needed for each transaction, and from there the transaction RORAC is obtained. By aggregating the revenues and costs and taking into account the effects of diversification on the capital consumed, the RORAC are calculated for the rest of the units. This system requires there to be ratings in all the units in order to calculate capital requirements from the transaction level (1).

2) "Top-down" schemes: The starting point is a figure for the required total economic capital (2). This figure, together with the amount relating to diversification of the various units, is allocated among the units. The scheme continues down to transaction level. The other known elements are used to calculate the various RORAC. The advantage of this procedure is that in principle it does not require there to be rating systems in all the units. Its drawback is the strong subjectivity involved in allocating the capital and in assigning the diversification gains.

The *main applications of RORAC methodology* are: i) obtaining minimum reference prices; ii) implementing compensation systems based on return on capital consumed; iii) quantifying the diversification effect across different units; iv) serving as a tool for making strategic investment or divestment decisions; and v) furnishing shareholders and other agents with a quantitative measure of the return on capital that incorporates the risk incurred in obtaining it.

In practice there are certain *difficulties* with these systems. The first is calculating the economic capital required for a unit and, therefore, quantifying the effects of diversification. There is no accepted standard for assigning economic capital, not even for credit risk. Moreover, all the capital consumed (not just that relating to credit risk) must be incorporated. Second, both calculating the expected loss for certain portfolios and allocating indirect costs can be difficult.

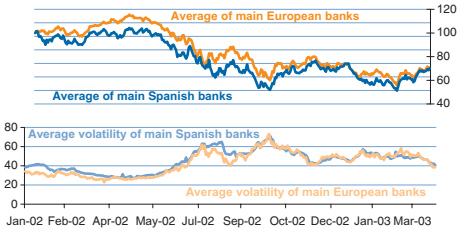
Despite the difficulties, in Spain the largest institutions have RORAC systems in place, although they differ greatly in scope of application, complexity and operation. There is no large institution with a "bottom-up" RORAC system for all its business units, basically because of the lack of reliable rating systems in some units. RORAC's main use is to prepare reports for senior management on the risk-adjusted return (on credit) of the various business units. In addition, some institutions use it for the approval of transactions and for pricing.

Although the current RORAC systems are undergoing major improvements, they still do not adequately take all costs into account, they only have regard to credit risk in calculating the required capital and their use in pricing is usually not fully binding but merely one more source of data.

(1) The ratings enable the determination of the expected loss (EL) associated with the transaction and, after building a model, of the unexpected loss (UL).

(2) This implicitly means having to set a certain probability of default (PD) that will lead the rating agencies to assign a certain rating to the institution's long-term issues.

Chart II.7. *Stock market prices and implied volatility of the large European banks*



Source: Bloomberg and in-house calculation.

Note: Prior to calculation of the average, the stock market prices have base 100 in January 2002.

This conjunction of factors explains the relative performance of the banking sector's *stock market indices*. Thus since January 2002, the European index DJ Stoxx Banks has fallen by 26.9 %, a slightly higher decline than that in the Madrid Stock Market Financial Index (23.9 %).

The differences in the cyclical position of the European economies, the different types of business engaged in (both according to customer segment and at geographical level) and the risk profile chosen by the institutions make for a wide dispersion in the stock market performances of the large banks and in their *implied volatility* (a measure of the risk perceived by the market). The Spanish institutions are not far from the European average (Chart II.7), despite their significant presence in Latin America and the difficulties, mentioned in Chapter I, of the region in 2002.

The *betas* of the main Spanish banks (8) increased in 2002 with respect to 2001. However, in relative terms, the Spanish institutions improved, moving up from the last to the second-last quartile in comparison with the main European banks.

The banks' specialisation in different customer segments is probably related to the return obtained by them and to the *risk* assumed (9). The effect of these factors

(8) Estimated by the CAPM (Capital Asset Pricing Model).

(9) Box II.1 analyses a measure of risk-adjusted return used to a greater or lesser extent by the deposit institutions in their management.

Table II.4. *Correlation coefficients between lending business segments and return and risk variables. Large European banks*

	Mortgages	Personal	SMEs	Large Corp.	Other
Total shareholder retrun	0.41(**)	0.08	-0.31(**)	-0.11	-0.20
ROE	0.28(*)	-0.10	-0.23	-0.07	-0.02
Bad debt prov. / debt	-0.29(**)	0.25 (*)	0.34(**)	-0.03	-0.08
Efficiency ratio	-0.41(**)	-0.11	0.15	0.25(*)	0.20
Volatility	-0.26(*)	-0.23	-0.03	0.30(**)	0.20
Doubtful assets ratio	-0.50(**)	-0.07	0.19	0.42(**)	-0.01
Solvency ratio	0.33(**)	0.23	-0.34(**)	-0.03	-0.15

Source: In-house calculation, Schroder Salomon Smith Barney and Moody's

Note: All the correlation coefficients are calculated between each explanatory variable and a given segment's percentage of the total credit portfolio. Both the total shareholder return and the volatility are calculated from the beginning of 2001 to March 2003. * denotes significance at 10 % and ** at 5 % levels.

can be roughly assessed by analysing the partial correlations between the credit portfolio composition by business segment and various measures of return and risk (10).

Although certain of the conclusions must be regarded with caution given that the number of observations is limited, that many of the institutions' variables refer to 2001 (because the December 2002 data are not yet available) and that the usual limitations of a partial correlation analysis apply, the results are, in general, consistent (Table II.4).

The shareholder return of the institutions highly specialised in mortgage lending has performed more positively in the last two years. Similarly, although the correlation is lower, there is a positive relationship with the ROE. The higher return is related to lower provisions for bad debts and higher efficiency. In addition to a higher return, the mortgage portfolio had a greater weight, which resulted in lower volatility of the shareholder return, in a lower doubtful assets ratio and in a higher solvency ratio. Nevertheless, a prolonged deterioration of the financial position of households could reverse these results.

(10) A recent report by Schroder Salomon Smith Barney (Equity Research: Europe. Banks, January 2003) estimates the distribution by business segment (mortgages, personal loans, SME financing, large corporates financing and rest of portfolio, including financing of public authorities) of the credit portfolio of 50 European banks in 15 countries.

The greater specialisation in small and medium-sized enterprises meant that the shareholder return was more unfavourable, partly because of the greater need for bad debt provisioning. Nonetheless, greater specialisation in this business segment does not seem to involve higher risk, despite the lower solvency ratio.

Noteworthy last year regarding the institutions with a stronger presence in the provision of financing to large companies was their greater inefficiency and their higher level of risk, including both stock market risk and that reflected in doubtful assets ratios. The higher volatility of these institutions' stock market prices could be the result of the uncertainty generated by increasing default levels and by their greater general exposure to wholesale business (investment banking and asset management). This contrasts with the situation at the end of the last decade, when this type of business contributed to the institutions' high profitability, helped along by a favourable stock market.

Wider diversification of a credit portfolio contributes to reducing risk. It is therefore to be expected that the institutions bear this in mind in managing their credit risk. The institutions with scant comparative advantage in certain business segments not forming part of their traditional core activity should take into account the cost entailed in diversifying into unfamiliar segments. In these cases, their diversification efforts should probably focus on the traditional credit portfolio.

CHAPTER III
Solvency

III.1. General situation

The *solvency ratio* of the deposit institutions measured under Spanish regulations was practically unchanged from the level of December 2001 (11.1 %), although there was a slight decline (0.3 percentage points) in that calculated under the rules of the Basel Committee on Banking Supervision (BCBS), which are less demanding. Nevertheless, the latter ratio stood at 12.6 %, still well above the minimum requirement of 8 % (Chart III.1).

The above-mentioned stability of the total solvency ratio (eligible capital in relation to risk-weighted assets) masks the sharp slowdown in the growth of its two components. The growth of own funds slowed sharply from a year-on-year rate of 14.7 % in 2001 to 2.1 % in 2002. The capital requirements also grew more slowly (down from 9.2 % to 2.3 %), in line with the credit slowdown in the private sector and the increase in the relative weight of mortgage-secured credit.

The *Tier 1 ratio* (Tier 1 capital as a proportion of risk-weighted assets) continued its downward trend and fell 0.2 percentage points to 8.5 % as a result of the slight decline in Tier 1 capital and the moderate increase in capital requirements. Nonetheless, the ratio is more than twice the minimum requirement (4 %).

The slight fall (0.1 %) in Tier 1 *capital,* which accounts for 77 % of the total capital, was caused by the lower contribution from reserves as a result of the smaller amount of preference shares, and by the higher losses in consolidated companies, due basically to the depreciation of the Latin-American currencies (Chart III.2). However, the contribution of reserves in consolidated companies to Tier 1 capital was to raise it.

Tier 2 capital was practically unchanged, after growing by 30.8 % in 2001 (Chart III.2). This stagnation essentially arose because of the smaller contribution to its growth made by subordinated debt (which accounts for more than 90 % of the total).

Chart III.1. *Solvency ratios of deposit institutions (%). Spanish and Basel (BIS) rules*

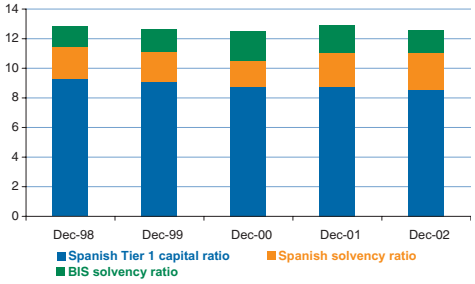


Chart III.2. *Contribution to the change (%) in Tier 1 (left) and Tier 2 (right) capital*

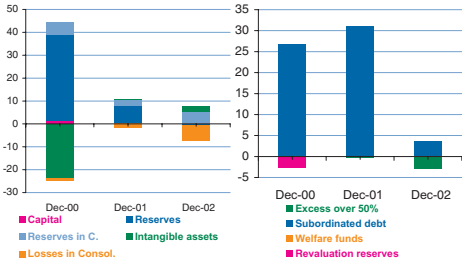


Chart III.3. *Contribution to the change (%) in capital requirements (left) and credit risk (right)*

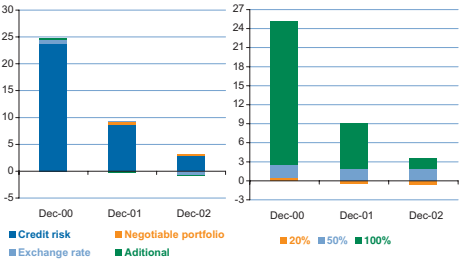
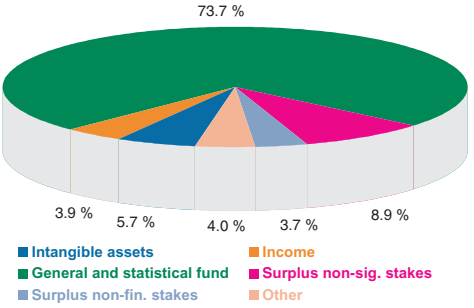


Chart III.4. *Differences between capital under Basel (BIS) and Spanish rules. Dec-2002. Deposit institutions*



Another less important reason was that the developments in Tier 1 capital had the effect of putting a cap on Tier 2, thus giving rise to an increase in the deductions (1).

As noted above, *risk-weighted assets* grew at more moderate rates than in previous years, following the trend initiated in 2001 (Chart III.3). This was mainly because the requirements for credit risk (the weight of which is 95 % of the total) grew less as a result of the smaller contribution from the assets weighted at 100 %. However, the more expansionary behaviour of mortgage lending, analysed in Chapter I, explains why more than half the increase in requirements arose from credit weighted at 50 %.

The last FSR (Box III.1) set forth the main differences between the definitions of capital under Spanish and under BCBS rules. In December 2002 most of the difference arose because Spanish Tier 2 capital did not include the general provision and statistical provision for bad debts (Chart III.4). These differences made capital under the BCBS definition 14 % higher than under Spanish rules.

As regards the quality of capital, preference shares (16 % of total capital) diminished by 4.7 %, while subordinated debt (25 % of the total) continued to grow, although more slowly (3.7 %).

(1) Tier 2 cannot exceed 50 % of Tier 1. The excess over this limit is not eligible as Tier 2. Given a certain Tier 2 volume, a decrease in Tier 1 can give rise to the non-eligibility of a certain portion of Tier 2. Obviously, institutions near the limit have no incentive to issue additional subordinated debt.

In analysing the solvency of Spanish deposit institutions, one should not overlook the *statistical fund* that they have been accumulating since July 2000 to cover expected or latent losses in the credit portfolio. In terms of credit to the private sector, the relative weight of this fund has been increasing (Chart III.5), although more and more slowly due to the progressive rise in the specific provisions analysed in Chapter II (Chart II.4).

In December 2002, the statistical fund stood at around €4,500 million, somewhat more than 0.5 % of the total credit to the private sector. Whether or not it is deemed to be capital, evidently this provision strengthens the stability of the Spanish financial system by its anticipatory coverage of unidentified future credit losses that are latent in the credit portfolio.

III.2. Analysis based on individual institutions

Banks' surplus capital over the regulatory minimum (31 %) held practically unchanged following the 0.1 p.p. decline in the Spanish solvency ratio to 10.5 %. Meanwhile, at 11.7 % the solvency ratio of savings banks was more stable, with a surplus of 47 %, while their Tier 1 ratio held on its trend and declined by nearly 0.5 p.p. to 9.1 %, somewhat nearer to that of the banks (7.9 %). Under BIS rules, both types of institution saw their surplus decrease, al-

Box III.1

Market discipline in financial institutions

The international regulation of the capital adequacy of the financial institutions under discussion includes, as one of its main policies, the promotion of credit institutions' information transparency as a preliminary step to involving the markets more deeply in the discipline of these institutions (1). The regulation of credit institutions is based on the assumption that the market fails to provide adequate incentives to the agents (shareholders and creditors) that have to see to the proper conduct of these institutions. The natural interest in involving the markets in the discipline of financial intermediaries has to be accompanied by analysis of the cause of market failure and of the specific circumstances allowing us to expect that market-based control mechanisms will be more effective in the future than they have been in the past. Efforts are focusing on, inter alia, a better understanding of regulation as a complement to or replacement of market discipline, within a reasonably general consensus about the special features of bank corporate governance, as distinct from the problems of control over the decisions of companies in other sectors of the economy.

In market economies the behaviour of companies is largely explained by the preferences and incentives of shareholders that, in exchange for contributing capital and being residual beneficiaries, receive the right to make the key management decisions. When circumstances make it necessary to delegate many of these decision-making powers to professional management teams, the behaviour of companies is explained by looking at the possible *conflicts of interest* between *shareholders* and *managers* and the possibility that shareholders actually have of influencing the conduct of those who control the use of the companies' assets. Second-last in order of priority when it comes to recovering the funds contributed by them, are the financial *creditors* that have entered into debt agreements. One of the aims of insolvency law is to provide a means of protecting creditors when companies fail to honour debt agreements. These creditors are protected contractually (guarantees, terms, interest rates, etc.) to prevent shareholders from unfairly benefiting from misuse of their powers of decision rooted in formal ownership of the company, and they thus become important players in the control of companies' activities.

Deposit institutions are entrusted by society with acting as "delegate supervisors" to control the proper use of the funds delivered to them by savers. Banking theory has shown that banks' incentives to act efficiently as delegate supervisors make it recommendable that the contract binding savers and banks should be a debt agreement, like a deposit agreement. The banking business emerges as a highly indebted one, much more so than undertakings in any other sector of the economy. The possible conflict of interest between shareholders and creditors takes on particular importance in companies with such high gearing, since the shareholders receive all the benefits of the favourable results and their losses are limited in the event of unfavourable results arising from risky investments. The shareholders extract wealth from the creditors by taking risks in excess of those that would maximise the joint wealth of creditors and shareholders. When the shareholders delegate management of the bank to professional managers, the assessment of the *ex ante* risk of expropriation of the creditors/depositors requires these professionals' incentives and decision-making ability to be taken into account. Savings banks, where the residual decision-making rights are shared by various groups (workers, depositors, general government representatives and founding entities), give rise to other issues of their own.

The adoption of market discipline as a part of the governance of any company makes it necessary to consider, among other factors, the advantages and drawbacks for economic efficiency of a dispersed or concentrated *shareholder structure.* The dispersal of ownership among small shareholders that purchase and sell shares in the market with no commitment to the organisation promotes capital market liquidity and facilitates the assignment of risk, thereby reducing the company's cost of capital. In exchange, the small shareholders do not involve themselves in direct control of the company's management and therefore the managers have a wide margin to act at their discretion, within the limits imposed on them by the threat of take-over and by competition in the product market. This is why external control mechanisms are of such importance in these cases and it is necessary to take initiatives to ensure than they work effectively by, for example, promoting transparency. Large shareholders have incentives to control the managers and they themselves may even direct the company. Possible drawbacks are their entrenchment in positions of control and the opportunities for them to extract excessive private income to the detriment of minority and floating shareholders.

Similar factors are found in the banking business and they must be taken into account when assessing the strengths and weaknesses of a given shareholder structure and when considering the viability of external control mechanisms. Chart A shows that there are important differences in the concentration of capital in Spanish banks. As in other countries, the larger the institution the lower the concentration of capital in the higher-ownership brackets. Also, the shareholder structure is more fragmented than that of companies in other sectors of the economy.

(1) Particularly by means of Pillar 3 of the new capital accord being developed by the Basel Committee on Banking Supervision.

Chart III.5. *Statistical fund. Millions of euros and % of credit to the private sector. Deposit institutions*

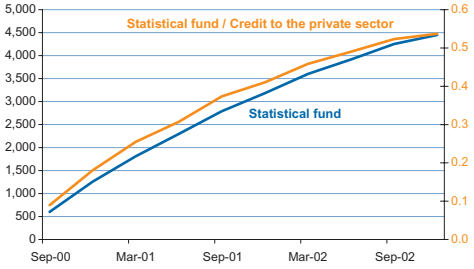
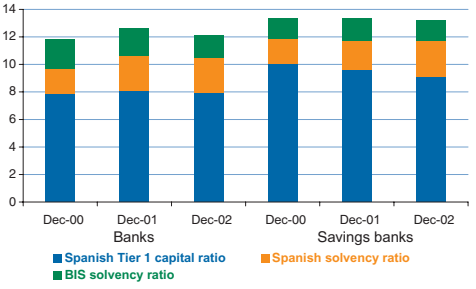


Chart III.6. *Solvency ratios (%). Spanish and Basel (BIS) rules. Banks and savings banks*



though their ratios are both still above 12 % (Chart III.6).

Banks saw a decline in total capital and in capital requirements that broke a long-standing upward trend. Within total capital, both the Tier 1 and the Tier 2 components decreased (7.1 % and 10 %, respectively). The former did so because of the sharp rise in losses in consolidated companies and the decrease in reserves for the reasons noted above (Chart III.7). The latter fell as a result of the decrease in subordinated debt (Chart III.8) and, indirectly, of the fall in Tier 1 capital.

The lower credit growth in the business in Spain and the substantial fall in foreign business ("exchange rate effect") explain the decrease in requirements in respect of credit risk in the banks (Chart III.9). However, mortgage credit continued to rise at consolidated level, which accounts for the positive contribution from the 50 % bracket.

In *savings banks,* Tier 1 and Tier 2 capital continued to increase (8.1 % and 20.2 %, respectively), but more slowly than in 2001. The change in Tier 1 capital was mainly caused by the lower contribution from reserves (Chart III.7), while that in Tier 2 capital was due to the lower growth in subordinated debt (Chart III.8).

Risk-weighted assets continued to grow at high rates (13.8 % in December 2002), including both those weighted at 100 % and those secured by mortgages (Chart III.9). This can be attributed to the concentration of lending activity in Spain and to the expansion of lending in 2002.

Preference shares and subordinated debt behaved differently in banks and savings banks. In the case of banks, the outstanding balance of preference shares fell (owing to redemption and to the "exchange rate effect" of the depreciation of the dollar against the euro, since some of them were issued in dollars), as did that of subordinated debt. However, nearly half of the total capital consists of these instruments (Chart III.8). Both types of security continued to grow in savings banks, although at lower rates. Despite this, the relative weight of both was 37 % of the total.

The breakdown of the solvency ratio by number of institutions shows a higher concentration in the brackets below 10 % (Table III.1). In 2001 the institutions with a solvency ratio below 10 % did not represent more than 10 % of ATA, while in 2002 they accounted for 33 %.

Large exposures

A very high exposure to a single borrower can jeopardise the stability of an entity if the customer should get into difficulty. An appropriate credit policy should consider the question of large exposures very carefully, even if, as is usually the case, this concentration of financing (loans, guarantees, fixed income, equities and certain de-

Box III.1 (continuation)

The participation of non-residents (mostly institutional investors or other banks with which there are cross-holdings) in the capital of Spanish banks exceeds 50 % in certain institutions, while in others, normally the smaller ones, the percentage is very low (Chart A). These institutional investors with individual holdings, on average around 1 %, have the incentive and the capacity to watch over bank managers more closely.

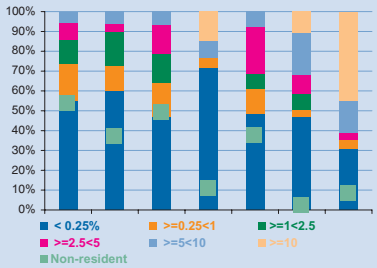
In addition, institutions differ substantially in the percentage of shares owned by members of the Board of Directors (Chart B). However what is important in this case is having information on the percentage of capital r*epresented* by the Board.

Eliminating directors' golden parachutes should increase the scope of action for external control mechanisms, while the competition and rivalry to which Spanish credit institutions are subject is probably the most important stimulus to efficient action. This same competition likewise stimulates savings banks which, as is known, are impenetrable to control mechanisms acting via external acquisition.

The singularity of banking derives from the importance of funding attracted in the form of debt (deposits), generally spread among many small creditors. The scant individual incentive for these creditors to involve themselves in active control of the management of banks (due to the well known free-rider problem) must be contrasted with the risk of expropriation borne by them. The risk of runs on banks as a result of their function of providing liquidity to the economy has made it advisable to establish deposit insurance to reassure the small savers that hold bank deposits. This insurance encourages depositors to be even more passive and raises the incentive of shareholders/managers to take excessive risks.

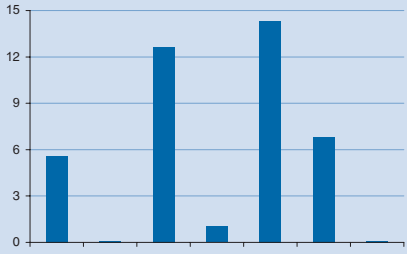
One of the challenges of market discipline for credit institutions is to involve creditors in control, since they are in principle the ones most affected by the inclination to take excessive risks when the bank is only concerned about the wealth of its shareholders. To do this, information transparency will have to be improved to reduce the cost of obtaining the information used as a basis for control, but it will also be necessary to ensure that there are adequate incentives so that the private benefits to the creditors that involve themselves in control are positive. For this condition to be met, the creditors will have to be significant and possess certain professional monitoring skills. The subscription of subordinated debt may provide a means of achieving these objectives and the assessment of this debt by national and international regulatory agencies should take into consideration, among other things, the opportunities offered by this financing instrument to involve the significant creditors in the control of credit institutions. Spanish experience indicates that to date in deposit institutions full advantage has not been taken of the possibilities offered by their subordinated debt to involve creditors in control, since a significant part of this debt, and of the preference shares, is placed in retail markets (2).

Chart A. *Breakdown of capital by ownership concentration and non-resident stakeholding. Large banking groups (%)*



Note: non-residents include only those with a percentage of capital ownership exceeding 0.25 %. It is therefore a minimum level.

Chart B. *Shares owned by the Board of Directors (March 2003 data). Large banking groups (%)*



Source: CNMV.

(2) This matter was analysed in detail in Chapter III of the last FSR.

Chart III.7. *Contribution to the change in Tier 1 capital (%). Banks and savings banks*

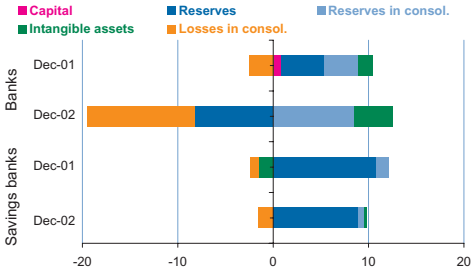
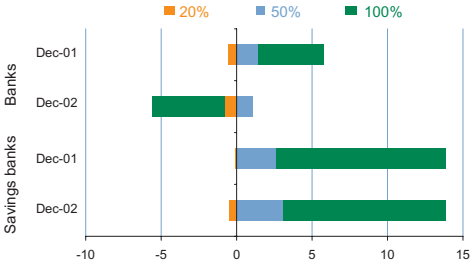


Chart III.9. *Contribution to the change in capital requirements for credit risk (%). Banks and savings banks*

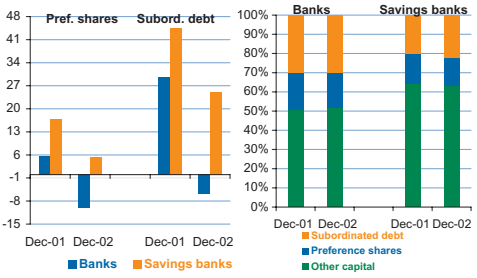


rivatives) is extended to borrowers of high credit quality with a very low probability of default.

The regulator pays particular attention to large exposures because of their potential impact on institutions' solvency. A large exposure is defined as one to a single person or economic group the amount of which exceeds 10 % of the group's capital. The maximum limit set on a large exposure, after deductions, is 25 % of eligible capital (20 % if there is a relationship of control). Also, there is an overall limit on the total large exposures that an institution can assume: the amounts so classified cannot exceed eight times the total capital of the group in question.

The number of Spanish deposit institutions' large exposures subject to the overall limit decreased by nearly 8 % in 2002. In particular, this decrease was more than 20 % among those large exposures that make up more than 15 % of the institutions' capital. Chart III.10 shows that a substantial portion

Chart III.8. *Change (%) in preference shares and subordinated debt (left) and weight in total capital (right)*



of the large exposures is concentrated in the brackets with a lower relative weight in capital. Measured as a percentage of credit to the private sector plus the equity portfolio, in December 2002 the large exposures stood at 9 %, compared with 9.6 % in 2001. This decline may be due, among other factors, to the purchase by the institutions of protection through credit derivatives.

Despite the decrease in the number and relative importance of large exposures, the institutions have to continue monitoring counterparty quality in detail because of the impact that these transactions can have on the institutions' capital.

Dividends

The net income earned by institutions can be used to compensate shareholders (or augment the resources of savings banks' welfare funds) or to build up the institutions' own funds. The payment of dividends in banks is discretionary. However, trans-

Table III.1. *Breakdown of solvency ratio by bracket (%). Total deposit institutions*

SOLVENCY RATIO BRACKETS	% OF ATA	No. OF INSTITUTIONS
<8	0.0	0
8-9	1.6	8
9-10	31.5	34
10-12	48.3	45
12-15	16.2	35
>15	2.5	55

Chart III.10. *Density function of the number of large exposures versus their amount as a proportion of capital (%). Deposit institutions*

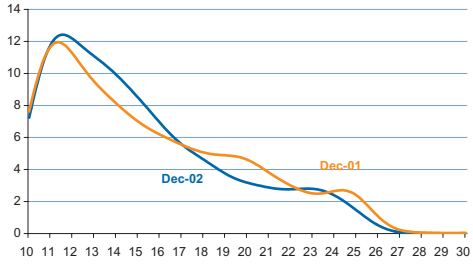
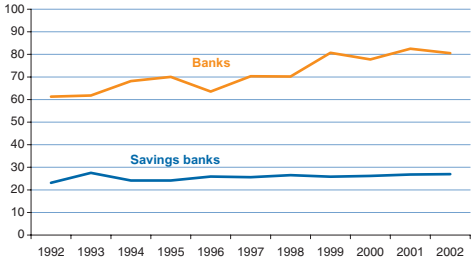


Chart III.11. *Pay-out of banks and savings banks. Data of individual institutions*



Note: The pay-out is calculated by dividing the dividend or transfer to the welfare fund by the after-tax income.

fers to savings banks' welfare funds are regulated due to the nature of these institutions, which cannot increase their capital. The tax treatment of dividends and of transfers to welfare funds is another differentiating factor: the payment of dividends is not tax deductible for the institution while the financing of welfare funds is.

These differences in nature and legal status mean that the ratio of dividends to income after taxes (pay-out) differs substantially between the two groups of institutions (Chart III.11). As might be expected, the pay-out is much lower in savings banks because they depend on retained earnings for business expansion, because transfers to welfare funds are regulated and because of the tax effect (2).

The ratio is notably stable over time in savings banks, as compared with the tendency to grow in banks. If the largest banks (the four included in the Ibex-35 index) are excluded, the pay-out is much more stable over time, although clearly higher than that of the savings banks (it has hovered around 50 % in recent years).

The pay-out of the above-mentioned four largest banks, which have large consolidated groups, is usually calculated in terms of the net income attributed to the group. Thus calculated, it can be seen (Chart III.13) that in 2002 there was a significant increase in the pay-out. At the same time, in 2002 the growth of the income attributed to the group changed sign from positive to negative (3).

Although there are different theoretical hypotheses (backed to varying degrees by empirical evidence) on the role of dividends as a signal, there is no doubt from the standpoint of prudence that the dividend policy must have close regard for the institution's level of own funds, their quality and the uncertainties that may bear on them in the future (4). A significant increase in the pay-out in a year of falling profits and high uncertainty about economic performance has to be assessed carefully, particularly in relation to the capital surplus maintained and to how it will foreseeably change in the future.

Although the relative weight of dividends in the institutions' overall capital is usually small, the high pay-out level means that their importance increases substantially in relation to the flow of capital. The decrease in capital in absolute terms at certain institutions in 2002 is another factor to be taken into account when deciding on the income to be distributed to shareholders.

The increase in the pay-out in 2002 could reflect the banks' interest in maintaining a certain stability in the dividend per share

(2) The tax effect results in there being a lower pay-out in savings banks whenever the absolute amount of the pre-tax income and of the distributed income is the same as in banks.

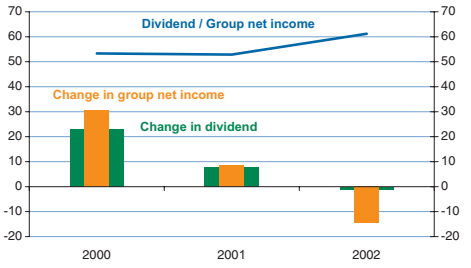
(3) This development was largely attributable to the two biggest institutions.

(4) This matter is also analysed in the Report on Banking Supervision in Spain (2002).

paid. A stable per-share dividend may be part of the institutions' financial policy, because it reduces the variability of the cash income received by their shareholders. However, a dividend distribution policy that seeks to stabilise the per-share dividend discourages shareholders from playing their role of sharing and assuming the economic and financial risks of deposit institutions.

The risk profile of deposit institutions depends not only on the income flow they can generate or on the solvency level reached. It is increasingly important for them to manage risk properly and have good internal control systems and *corporate governance* mechanisms that are capable of imposing discipline on institutions, both internally and externally. Box III.1 analyses this last matter in detail.

Chart III.12. *Pay-out of the banks included in the Ibex-35*



Note: The pay-out is calculated by dividing the dividend by the after-tax income attributed to the group.