# FINANCIAL STABILITY REPORT INFORME DE ESTABILIDAD FINANCIERA



November 2002



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# **Foreword**

One of the functions attributed to the Banco de España is to promote the stability of the financial system. The publication of a half-yearly Financial Stability Report will help this function to be performed with the utmost efficiency and also transparently. The Report will seek to convey to society as a whole, and to the financial sector in particular, the Banco de España's ongoing assessment of trends in financial stability and the various factors (whether endogenous or exogenous, domestic or international, conjunctural or structural) that may be affecting the system. Naturally, objectivity will be the guiding principle, not only because intellectual rigour so demands, but also for practical reasons, insofar as the view offered may be taken as a basis for decision-making.

The Report will not bear an author's name, as it does not express an individual view. Rather, it represents a collective, institutional standpoint which, using different approaches, draws on the everyday work conducted at the Banco de España in connection with the financial stability of our system and its determining factors. A Spanish edition of the Report has also been published in the *Revista de Estabilidad Financiera* ("Financial Stability Review"). Both language versions of the Report can be found on the Banco de España website.

In a financial system such as ours, with its strongly entrenched banking presence, the monitoring of financial stability and its conditioning factors will, inevitably, first pay particular attention to all matters pertaining to deposit institutions. The core of this Report thus focuses on these institutions. The introduction summarises the most significant latest developments in financial stability, while the three following chapters respectively address banking risks, profitability and solvency.

The banking data used in this and subsequent reports will essentially be taken from individual and consolidated financial statements. As befits a financial stability report, both public and confidential data will generally be offered in aggregate form, based on the groupings which, in each circumstance, are deemed most suitable for the different analyses.

Irrespective of whether, in relation to deposit institutions, this format can be maintained in the future, the Report will strive to broaden its purview. Its text and box analyses will, as current events so require, cover the full range of topics in the complex and dynamic field of financial stability.

## INTRODUCTION

As at June 2002, Spanish deposit institutions (banks, savings banks and credit cooperatives) showed a high level of solvency along with high levels of profitability and efficiency. Nonetheless, the slowdown in activity, developments on financial markets and uncertainty over the global economic recovery, particularly in Latin America, are all affecting banking business and earnings. Consequently, Spanish deposit institutions face significant challenges in respect of risk management.

#### Banking risks

Among the numerous risks institutions must face, credit risk is the most important and, therefore, that on which this Report will most concentrate. Naturally, this does not exclude the analysis of other risks which, in specific circumstances, may be substantial.

Credit risk has begun to emerge in the form of a slight change in direction of doubtful assets ratios. This change is the outcome of relatively high credit growth and of an increase in doubtful assets by a slightly higher proportion. However, a substantial portion of the increase in such assets is attributable to transactions with non-residents, and is the outcome of the far-reaching crisis besetting the Argentine economy.

In the first half of the year, the Spanish economy sustained a growth rate of around 2 %, substantially above the average for the euro area. Credit growth has continued on a moderately slowing trend, although mort-

gage loans are still growing at a high rate. Financing for businesses is growing at a rate more in keeping with the lesser pace of economic growth.

A key element for assessing the trend of credit risk is the low level of interest rates. This contributes to lessening the financial burden on borrowers, thereby reducing their risk of insolvency. Nonetheless, this favourable effect has been offset, in part, by the increased levels of debt of households and firms.

As regards credit risk in business abroad, mention should be made of the heightening pressures on Brazil since April on the financial markets, with a strong increase in the spread on its sovereign debt, related to the widespread uncertainty surrounding the Brazilian elections. These pressures have a direct effect on Spanish institutions present in Brazil and have led to a notable depreciation of the Brazilian real and also, albeit to a lesser extent, of other currencies in the area. That has had a bearing on the capital of the institutions with a strong presence in the area.

That said, Mexico and Chile, which account for almost 70 % of Spanish institutions' assets in Latin America, are the countries that have shown most stability in the region, particularly as regards credit risk and the exchange rate. The assets of the Spanish banking subsidiaries operating in these two countries account for 8.9 % of the total consolidated assets of Spanish deposit institutions, compared with 2.3 % in Brazil.

With regard to *market risk*, stock market indices have fallen notably and volatility has increased substantially, above even the levels of September 11th last year. The cause here has been the uncertainty over the pick-up in global activity and investor wariness in the wake of certain corporate scandals. Nevertheless, the fall in stock market prices means that price/earnings ratios (PER) are moving closer to their historical average levels.

## **Profitability**

The cyclical position of the international economy – which appears to be pointing to a phase of moderate growth – combined with developments on financial markets have had a bearing on the profits and profitability of Spanish institutions, which have fallen in relation to the same period a year earlier.

In step with the lower growth of margins, attributable to the less favourable course of profits relating to financial transactions and of commissions linked to operations with securities, there have been greater provisions for bad debts, a reduction in income stemming from consolidated corporations valued by the equity method and a lower level of extraordinary income. Conversely, the drive to contain operating expenses (including personnel expenses) should be underscored, particularly in the main banking groups.

If the pick-up in international activity is delayed for longer than expected and the uncertainty affecting financial markets does not lift, provisioning requirements will foreseeably continue to increase. However, for two years Spanish institutions have been setting aside funds for the so-called statistical provision, which has made them more robust and which has reinforced the stability of the system as a whole.

Compared with European institutions, the profits of Spanish institutions have been relatively favourable. The main European banking groups have seen their earnings fall significantly, the result of greater loan defaults and of the decline in their wholesale investment banking and asset management business. The efficiency of Spanish institutions has remained comparatively high. At end-2001, the return on equity in Spain was high in relation to that of other European banking systems, despite the sizeable funds set aside for the statistical provision, which reduced the earnings for the year.

## Solvency

The solvency ratios maintained by Spanish institutions are far above the regulatory minimum, and have increased slightly. It is worth recalling, moreover, that Spanish capital regulations are more demanding than those of the Basel Committee on Banking Supervision. The level of the solvency ratio has trended favourably due to the significant slowdown in credit risk requirements, while own funds have increased, albeit at moderate rates.

As regards the quality of own funds, the issuance of preference shares has virtually come to a halt, with their absolute and relative amount falling since the Banco de España recommended a limit in respect of Tier 1 capital.

In sum, the Spanish banking system is immersed in a more complex period than that experienced in recent years as a result of a more uncertain cyclical situation in Spain and, to a greater extent, internationally. Despite the resilience evidenced by the system as a whole, institutions face significant challenges which will require proper and prudent risk management. They must also continue to improve efficiency through the reduction of operating expenses.

## **CHAPTER I**

# **Banking risks**

# I.1. Introduction to Spanish deposit institutions' risk

The growth rate of deposit institutions' balance sheets has slowed somewhat, in step with the trend apparent at the end of last year. A lesser rate of increase in credit to the private sector (1) can be seen, associated with the more moderate growth in economic activity in Spain. Nonetheless, credit continues to increase at high rates, in particular if compared with the course of GDP. A decline in the relative weight of business abroad is also observable, due partly to the greater uncertainty and instability marking international financial markets.

#### Consolidated balance sheets

At the consolidated level, the total *assets* of Spanish deposit institutions grew by 1.3 % from June 2001 to the same month this year (see Table I.1), compared with 19.7 % in the previous twelve months (2). Growth at present is the lowest seen in recent years and confirms the slowdown initiated in early 2001.

The trend of total business reflects, first, the slowdown in business in Spain, which has grown at an annual rate of 7.9 % compared with 19.1 % previously. Further, it shows the decline in foreign business, which has fallen by 18.8 % against a 21.5 % increase the previous year. Consequently, the relative weight of foreign business in total assets has diminished by almost five percentage points, meaning it now represents one-fifth of total assets.

The reduction in assets abroad is essentially due to two causes. First, to the depreciation of Latin American currencies against the euro, which generates a "price effect" in bank balance sheets, without the activity in local currency outside Spain having necessarily fallen (3). The second cause is the greater caution of institutions in the face of the heightened uncertainty marking the global economy and, in particular, certain Latin American countries.

The relative weight of credit to the private sector in relation to total assets has increased by three percentage points, furthering the trend of recent years. However, its growth rate has diminished (7.1 % against 17.3 %) owing to the fall in credit abroad (–18.2 %) and to its lesser growth in Spain (12.5 % against 19.8 %).

Total doubtful assets are increasing slightly owing to the fact that their growth in business in Spain (22.1 % against 5.6 %), with residents and non-residents alike, is offset

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

<sup>(2)</sup> Unless otherwise stated, the amounts relate to June 2002 and comparisons are always between this month and June 2001. The presence of certain seasonal elements, particularly in the profit and loss account and in the solvency ratios, makes this comparison advisable.

<sup>(3)</sup> Adjusting for the price effect shows, for the four Latin American countries where the presence of Spanish banks is greatest, a stagnation in total assets; therefore, the decline in assets abroad measured in euro is due virtually in its entirety to the impact of depreciations.

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

ASSETS	Jun-01	Jun-02	Relative weight Jun-02 (%)	Growth J-02 / J-01 (%)	LIABILITIES	Jun-01	Jun-02	Relative weight Jun-02 (%)	Growth J-02 / J-0 <sup>-</sup> (%)
Cash on hand and on deposit at Central Banks	23,959	25,566	1.8	6.7	Central banks	17,872	23,615	1.6	32.1
Due from credit institutions	183,620	171,875	11.9	-6.4	Due to credit institutions	253,509	240,561	16.6	-5.1
Credit to public authorities	53,352	52,089	3.6	-2.4	Creditors from public authorities	45,832	41,752	2.9	-8.9
Credit to private sector	702,158	750,626	51.9	6.9	Customer deposits	721,217	759,702	52.5	5.3
Fixed-income portfolio	256,917	239,155	16.5	-6.9	Marketable debt securities	125,322	109,096	7.5	-12.9
Doubtful assets	11,309	11,488	0.8	1.6	Other liabilities	43,527	45,277	3.1	4.0
Equity portfolio	55,512	56,377	3.9	1.6	Accrual accounts	26,343	25,006	1.7	-5.1
Property and equipment	29,434	26,633	1.8	-9.5	Provisions	56,847	53,859	3.7	-5.3
Goodwill in consolidation	20,134	20,321	1.4	0.9	Negative difference in consolidation	276	130	0.0	-52.8
Intangible assets	1,818	1,718	0.1	-5.5	Subordinated debt	25,631	30,878	2.1	20.5
Own stakes and shareholders	494	475	0.0	-3.8	Minority interest	23,491	20,778	1.4	-11.5
Other assets	54,184	50,563	3.5	-6.7	Capital stock	8,257	8,690	0.6	5.2
Accrual accounts	29,048	26,837	1.9	-7.6	Reserves	56,067	59,677	4.1	6.4
Prior year's losses at the controlling entity	316	481	0.0	52.5	Reserves at consolidated companies	16,536	20,443	1.4	23.6
Losses at consolidated companies	5,476	11,594	0.8	111.7	Net income	7,003	6,335	0.4	-9.5
					Group	6,045	5,634	0.4	-6.8
TOTAL ASSETS	1,427,793	1,445,880	100.0	1.3	TOTAL LIABILITIES	1,427,793	1,445,880	100.0	1.3
Memorandum item:									
Credit to private sector	747,543	800,790	55.4	7.1					
Exposure to public authorities	256,787	229,039	15,8	-10.8					

in part by a decline in doubtful assets in foreign business (–20.7 %). Despite this fall, resulting from balance-sheet restructuring and, above all, from the price effect, the doubtful assets ratio in business abroad stands at 4 %, far above the figure of 1 % for business in Spain. This latter ratio has risen slightly on December 2001, suggesting a break in the declining trend shown in recent years.

The relative weight of financing to public authorities has fallen by 2.2 percentage points as a result of less activity abroad. As regards business in Spain, the related relative weight has been maintained, but growth has moderated (8.1 % against 15.2 %).

Both the equity portfolio and goodwill have stabilised in relative terms, in clear contrast to the strong growth shown until end-2000, owing to the taking of equity interests in financial institutions and non-financial corporations during those years.

Turning to *liabilities*, the relative weight of customer deposits has increased by two percentage points, although the related growth rate is moderate (5.3%). The relative significance of interbank financing has declined by somewhat more than one percentage point, as has that of

debt and tradable securities. The relative weight of preference shares has diminished by one-tenth of a point to 1.2 %, in clear contrast to their strong growth from 1998 to June 2001.

Subordinated financing has been on a rising trend in recent years, with a year-on-year growth rate of 20.5 % and with an increase in its relative weight of three-tenths of a point. The weight of own funds has risen by two-tenths of a point to 7.7 %. Also of note is the 6.8 % decline in net attributable earnings at group level, entailing a turnaround in the profitability of recent years.

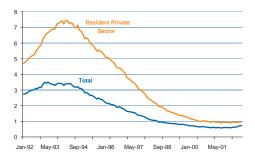
The trend of Spanish deposit institutions' balance sheets at the individual level confirms the main trends indicated at the consolidated level.

#### Evolution of risks

The information on individual balance sheets (4) shows that the *ratios of doubtful*, total and resident private-sector *assets* (see Chart I.1) have recently undergone a slight

<sup>(4)</sup> Business in Spain plus the business abroad of branches of Spanish institutions, but without including the business abroad of the subsidiaries of such institutions.

Chart I.1. Ratios of total and resident private sector doubtful assets (%). Deposit institutions



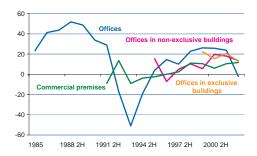
change in trend, after a protracted ongoing decline.

Since mid-2001, total doubtful assets have been increasing (35.6 % in year-on-year terms). Despite the fact that resident private-sector doubtful assets account for more than 75 % of the total, their contribution to the aforementioned increase is less than 40 %, since a considerable portion of this stems from credit extended from Spain to non-residents (public and private sectors, and credit institutions). The difficulties beleaguering the Argentine economy largely explain this.

Resident private-sector doubtful assets, whose trend is more closely linked to the level of economic activity in Spain, are increasing, albeit at a lesser rate (17.9 %), owing to the slowdown in economic growth. This increase is not surprising in view of the low absolute level reached by doubtful assets, despite the sharp growth of credit investment in recent years.

Credit to households for *house* purchases continues to grow at a high annual rate (16.7 %), in step with house prices (15.8 % in June 2002). Financing to the construction and property development sector continues to grow forcefully (17.1 %). That said, this rate has eased substantially from the figures posted two years back (close to 30 % in annual terms). The office lets market can be seen to be moderating – notably so in some cases – in respect of prices. So far, this does not appear to be affecting commercial premises (see Chart I.2).

**Chart I.2.** Year-on-year rates of change of office and commercial premises prices (a)



Source: TINSA.

(a) The long series of office prices refers only to certain areas of Madrid, while the other three series are considered at a national level.

The fall in stock market prices and their increased volatility has been a common feature of international markets (see Chart I.3). Despite the swift rally in prices after September 11th 2001, the marked declining trend witnessed since May 2002 has brought indices to levels below those prevailing at the former date, with an even higher implied volatility. Spain has been no exception (5).

The loss of value of shares translates into an erosion of investors' financial wealth either through their direct holdings or through their shares in investment or pension funds (6). Moreover, this may have an impact on the net worth of deposit institutions and of insurance companies, either in their accounts or through a reduction in the latent capital gains that might have built up.

In Spain, the erosion of latent capital gains in deposit institutions' equity portfolios has been considerable since, comparing them with own funds, their relative weight has been more than halved in the past two years. Although the weight of equities has trended upwards, for insurance companies as a whole it stands at only 6 % of total

<sup>(5)</sup> The correlation between the returns on the Ibex-35 and the DJ Stoxx 50 as from January 2001 was 0.87 (0.91 since January 2002)

<sup>(6)</sup> Throughout 2002 there has been a net outflow (subscriptions less redemptions) in Spain from investment funds with a higher proportion of equity in their net asset value.

Chart I.3. Stock market indices and their implied volatility



assets, far below the average in other countries.

Credit risk trends in Latin America are important for institutions whose banking subsidiaries are operating in the region. Sovereign debt spreads have behaved unevenly since difficulties began for the Argentine economy. There has been a prominent increase in spreads in Brazil, while they have been more stable in Mexico and Chile (see Chart I.4).

Of Spanish institutions' total foreign assets (7), 48 % are in Latin America. Mexico and Chile, the two countries with the smallest and most stable sovereign debt spreads. account for almost 70 % of the assets in Latin America (see Chart I.5). The foreign assets in Brazil, whose GDP accounts for one-third of the region's total, represent 13 % of Spanish banks' assets in Latin America.

Chart I.6 shows the composition of Spanish institutions' assets in Brazil. 82 % of such assets relate to local activity in local currency (see Box I.1). This exposure is distributed, in almost equal proportions, between credit institutions, general government and other sectors.

#### T.2. Credit risk

The deceleration in the Spanish economy is, as was to be expected, translating into a

Chart I.4. Sovereign debt spreads

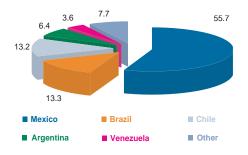


Source: Bloombera

slowdown in credit growth and something of an increase in doubtful assets. However, credit to the resident private sector and, in particular, mortgage loans are still growing briskly, especially if compared with the pace of economic activity. The overall effect of the course of doubtful assets and of credit make for a slight change in the direction of doubtful assets ratios, recalling the fact that banking activity, like other non-financial activities, has a sizable cyclical component of which bank managers are well aware.

A favourable and substantial element for assessing credit risk in the Spanish economy is the low level of interest rates. This contributes to lessening the financial burden on borrowers, thereby reducing the risk of insolvency. Nonetheless, the sizeable growth of credit in recent years, which has led to an increase in the indebtedness of households and firms, has partly countered this positive interest-rate effect.

Chart I.5. Percentage breakdown of assets in Latin America. June 2002



<sup>(7)</sup> Box I.1 analyses in greater depth the characteristics of Spanish institutions' foreign financial assets at the consolidated level.

#### Box I.1

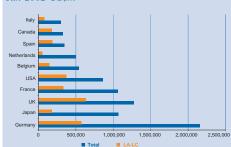
#### Foreign financial assets

At the consolidated level, an institution's foreign financial assets comprise both those that are a consequence of the local activity engaged in by its subsidiaries in the host country and those resulting from non-local or cross-border activity, which is usually conducted in the home country from the parent company. Both types of assets can be denominated in the currency of the host country or in any other currency. Consequently, the *foreign assets* of a bank or a set of banking institutions of a country can be classified in four groups: local activity in local currency (LA-LC); local activity in non-local currency (LA-NLC); non-local activity in non-local currency (NLA-NLC); and, finally, non-local activity in non-local currency (NLA-NLC).

The type of business and the risks assumed by a banking subsidiary with a strong presence in a country are substantially different from those assumed from abroad. A presence in the country (especially via retail business) gives institutions a comparative advantage in the selection and monitoring of debtors, which may translate into a lower level of credit risk and into a greater and swifter capacity to respond to adverse developments. The knowledge obtained through subsidiaries flows throughout the consolidated group, enabling cross-border transactions also to benefit from less credit risk. Moreover, proximity to the customer allows for the sale of other non-bank products which generate sizeable commissions and which contribute to increasing cost efficiency. Likewise, the credit risk associated with local activity in local currency is exempt from *country risk*. The credit activity of subsidiaries is usually financed in local currency, unlike the case for cross-border activity. The consequence for credit activity is a substantial reduction in *foreign exchange risk*, or in the cost of hedging against such risk, and also in *liquidity risk*, insofar as international markets can, for a banking group, be closed with greater ease than local markets (especially if what is involved is an institution that is large in the host country, but relatively small at the international level).

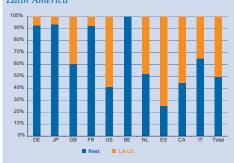
Drawing on the public information of the Bank for International Settlements (BIS), the differentiating features of the expansion abroad by Spanish banks can be analysed. In short, Spain, which ranks eighth in terms of its volume of foreign assets (see Chart A), is prominent for the high relative weight of its assets in Latin America, especially when compared with other European countries (see Chart B). In respect of Spanish banks' activity in Latin America (Chart C), LA-LC accounts for 74.8 % of total foreign assets in the region against the figure of 58.7 % for US banks, with the percentages for other European countries being much smaller. This high local presence gives Spanish banks something of a competitive edge over other foreign banks in terms of risks. More than half of Spanish banks' exposure in Latin America is in Mexico (Chart D).

**Chart A.** Foreign total assets and LA-LC. Jun-2002 US\$m



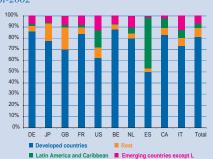
Sources: BIS and in-house data.

**Chart C.** LA-LC and the rest of foreign assets in Latin America



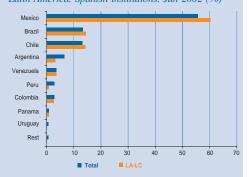
Sources: BIS and in-house data.

**Chart B.** Composition of foreign total assets. Jun-2002

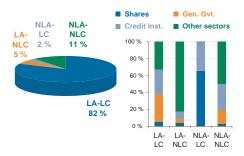


Sources: BIS and in-house data.

Chart D. Total assets and LA-LC by country in Latin America. Spanish institutions. Jun-2002 (%)



## Chart I.6. Assets in Brazil. June 2002 (a)



(a) Local activity in local currency (LA-LC); non-local activity in local currency (NLA-LC); local activity in non-local currency (LA-NLC); and non-local activity in non-local currency (NLA-NLC).

# I.2.1. Impact of the macroeconomic context

## I.2.1.1. Spain and the euro area

The latest available data show that the growth rates of the European economies are tending to stabilise (see Chart I.7). In year-on-year rates, euro area GDP rose to growth of 0.6 % in Q2 this year, up from a trough of 0.3 % the previous quarter. However, the future outlook is uncertain, since the latest data on activity and consumer and business confidence show no clear signs of recovery.

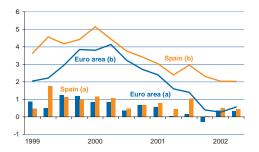
In Spain, the year-on-year growth rate of GDP was 2 % in 2002 Q2, unchanged on the previous quarter and clearly higher than the average for the euro area.

Despite this positive differential, the Spanish economy remains sensitive to international economic developments. Further, in the medium term there are potential risks stemming from the loss of competitiveness of the Spanish economy, from the increase in non-financial private-sector debt and from house price trends.

# Non-financial corporations

During the first six months of the year, the gross operating profit of the set of corporations reporting to the Banco de España Central Balance Sheet Data Office Quar-

Chart I.7. Real GDP (%)



Sources: INE and Eurostat

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

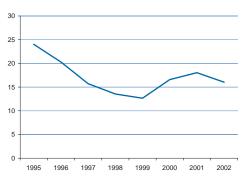
terly Survey grew by 0.7 %, compared with 3.4 % in the same period in 2001. The ordinary net profit, which also takes into account the reduction in financial costs, grew by 3.5 % (5.6 % in 2001).

Nonetheless, there has been a notable impact on corporations' profit and loss accounts as a result of the extraordinary provisioning by certain large firms to cover previous non-viable investments and, at the other end of the scale, via the capital gains realised by other companies through the disposal of assets. Thus, the net profit of the corporations reporting to the Central Balance Sheet Data Office (CBSO) fell by 47.6 % in the first half of the year compared with the same period a year earlier.

This performance is in contrast to that of the *profitability* of regular business (which excludes extraordinary expenses and income) and that of the average cost of borrowed funds. This latter item has fallen to 4.6 %, a low in the CBSO series. The difference between the ordinary return on assets and the average cost of borrowed funds has grown substantially (from 3.1 % in 2001 to 4 % in the period to date in 2002), as has the ordinary return on equity (from 10.8 % to 11.7 %), despite the less favourable economic environment.

Along with the fall in the average cost of borrowed funds, there has been lower growth in these corporations' *indebtedness*. In the first half of the year, borrowed funds

Chart I.8. Interest burden of Spanish nonfinancial corporations (as a % of their income)



(a) The burden is calculated as interest on financing received divided by gross operating profit plus financial revenue.

as a percentage of total funds edged up from 48.3 % to 49.1 %, in contrast to the increases of 2.3 and 2.4 percentage points in 2001 and 2000, respectively. Consequently, the financial burden on these corporations as a percentage of their income has diminished (see Chart I.8).

Total credit extended to non-financial corporations as a whole has continued slowing in the past six months, albeit at a moderate rate. In Q1, according to the Financial Accounts, total financing (credit from Spanish institutions, foreign loans and securities issues) raised by the sector was still growing at a nominal rate of 16.7 % year-on-year (17.1 % in 2001 Q4).

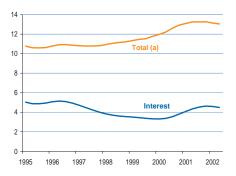
## Households

The level of *debt* of Spanish households has continued to climb in recent months. The growth rate of credit to individuals quickened somewhat in Q1, resuming an identical rate to that of the previous year (15.6 % in nominal year-on-year terms) in Q2.

There was a notable moderation in the growth rate of consumer credit in Q2, while credit for house purchase or reform rose by 16.6 %, marginally down on Q1.

The foregoing development, against a background in which household gross disposable income continues to grow, albeit at a lower rate than that of credit, has naturally entailed a

Chart I.9. Indicators of households' financial burden as a % of their gross disposable income



(a) Includes interest and regular repayments.

fresh increase in debt as a proportion of household income to 78.3 % in Q1, 2.9 percentage points up on the level six months earlier.

Nonetheless, the course of the *financial* burden has been cushioned by lower interest rates. Chart I.9 thus shows how this burden fell in recent months both in terms of interest and of the total burden.

A second relevant element for analysing the financial position of households is the recent fall in stock market prices. From 1995 to 1999, equity prices grew rapidly, boosting household net *financial worth*. From 2000 onwards the process reversed, with continuous reductions in equity prices that have once again become prominent in the period to date in 2002.

Conversely, given the direction of the market value of *real estate assets*, the net property wealth of households has increased sustainedly in recent years despite the rise in mortgage loans.

Hence, if both types of wealth are taken jointly into consideration, the wealth position of Spanish households has very likely not worsened in recent years.

#### I.2.1.2. Rest of the world

In the first half of the year, the data on the international economy have generally confirmed that a mild recovering trend is under way, although actual and expected growth rates have generally been revised downwards.

The uncertainties overshadowing the recovery are significant and varied. These include most notably: the possibility of a disorderly correction of the US economy's imbalances (current-account deficit, the dollar or stock markets); the vulnerability arising from the high debt built up by household and corporations, especially in the United States; the possibility of a fall in property market prices; and, finally, the prospect of a rise in oil prices.

Among the risks affecting the financial system, the following may be mentioned: the large volume of non-performing loans in the Japanese banking system; the deterioration in insurance companies' securities portfolios; the position of pension funds, particularly defined-benefit funds; and the deterioration in credit quality at certain banks, arising from their loans to new-technology companies.

In the *United States*, the National Accounts figures (which have been revised downwards) reveal that, following vigorous growth in Q1 (5 % in annualised quarterly terms), the increase in GDP in Q2 eased back to 1.1 %. Moreover, the pick-up in the pace of activity continues to be driven by the resilience of consumption, with no clear rebound in either corporate earnings or in non-residential private investment. The confidence indicators have clearly worsened, due in part to the slump in stock market prices.

In *Japan*, the first half of 2002 saw something of an improvement in the economic situation and in business confidence. However, consensus expectations still point to a moderate fall in output for 2002, while great uncertainty persists over the sustainability of the signs of recovery observed.

Following a positive first quarter in financial terms, the expectations of recovery in *Latin America* appear to have waned and, in a large number of countries, the financial variables have worsened.

In *Argentina*, the economic and financial indicators have stabilised, although the economic and financial crisis is deep-rooted. The crisis has carried *Uruguay* in its wake to a heavy depression. In *Venezuela*, the economy is contracting strongly. These three countries posted year-on-year declines in GDP equal to or higher than 10 % in Q2.

However, of most significance in recent months has been the situation in *Brazil*, given the economic weight of this country in the region as a whole. The radical turnaround in market perceptions (see Chart I.4) has placed Brazilian public debt in a complicated situation, one exacerbated by the absence of prospects of recovery in the short term. Neither economic policy measures (fiscal tightness, monetary activism) nor the strong support of the International Monetary Fund, which has extended US\$30 billion to Brazil, have managed so far to turn the situation around.

In the rest of the region, *Chile*, whose economy remains lacklustre, and *Mexico*, with a more favourable outlook, have been relatively unaffected by the above-mentioned financial turbulence.

The strong correction of exchange rates is exerting a negative effect on the sustainability of public and external debt. At the same time, however, depreciations are providing for a strong external adjustment: current-account deficits have moved towards balanced positions in the region as a whole. Moreover, short-term capital inflows have grinded to a halt and foreign direct investment has also slowed.

The macroeconomic situation in the region, along with a strong increase in the perception of risk on international markets, have made for a widening of *sovereign debt spreads*, unprecedentedly so in certain countries. That said, Mexico and Chile, the sole investment-grade issuers, have been relatively untouched by this process.

Despite the notable increase in sovereign debt spreads, *credit-rating* downgrading

has been very limited. Generally, Latin-American countries retained their ratings with the exceptions of Uruguay, Brazil and Venezuela, where they were downgraded. Conversely, Mexico's rating was upgraded.

Spanish institutions' assets in Latin America, measured in euro, fell by 18.1 %. The declines were prominent in Argentina and Brazil (-50.6 % and -28.3 %, respectively). Assets in the remaining countries also fell, albeit more moderately (-15.3 % in Chile and -8.8 % in Mexico).

Given the strong depreciation of the aforementioned four countries' currencies against the euro, the data on assets are very biased owing to the price effect. Stripping this effect out, the actual fall in assets is substantially less. In particular, as regards business in local currency, foreign assets have fallen by 2.1 % in Brazil and Chile, and have increased by 8.1 % in Mexico (8).

In sum, developments in Latin America over the period under analysis have not on the whole been favourable. That said, if regard is had to the relative significance of Spanish institutions' banking business in Mexico and Chile (9), where developments have been less unfavourable and where the structural foundations are notably more robust, the impact on the credit risk of Spanish groups with a presence in Latin America may be seen to be substantially less.

# I.2.2. Impact of institutions' credit policy

# Credit growth

Chart I.10 shows the progressive easing of credit growth in Spain over the past two years. Nonetheless, credit continues to

Chart I.10. Year-on-year rate of change of credit and its components. Deposit institutions



grow at a high rate, in particular if compared with GDP growth.

This high rate is due to the strong growth of *mortgage transactions* (18.5 % year-on-year), which account for half of total credit. A sustained increase in house prices and very low real interest rates help explain, inter alia, these developments (10).

However, under the *other* (non-mortgage) *credit headings*, the related growth rates can be seen to have eased substantially since early 2001. That accounts for the slowdown in total credit. In June this year, the year-on-year growth rate of other credit was 7.7 %, more in step with the course of economic activity.

For banks and savings banks as a whole (see Chart I.11), financing for *house* purchases is growing at a substantially higher rate than that of financing for *productive activities* (essentially non-financial corporations): 16.7 % against 9.8 % year-on-year. Under the latter item, financing to construction and property development companies continues to grow at a high rate, albeit one far off the growth recorded in 2000.

## Risk profile of the credit portfolio

The standard method for calculating the statistical provision, used by virtually all

<sup>(8)</sup> The data for Argentina are lacking in significance owing to "pesification" (discontinuation of the former currency board).

<sup>(9)</sup> The assets of Spanish banking subsidiaries in Mexico, Chile, Brazil and Argentina account for  $7.1\,\%$ ,  $1.8\,\%$ ,  $2.3\,\%$  and  $0.7\,\%$ , respectively, of the total consolidated assets of Spanish deposit institutions.

<sup>(10)</sup> Nevertheless, it should be stressed that mortgage credit has traditionally shown high growth rates, irrespective of the cyclical position of the economy (e.g. in 1993 it grew at over 12 % when nominal GDP was growing at only 3 %).

**Chart I.11.** Rate of change of financing to households and productive activities. Banks and savings banks



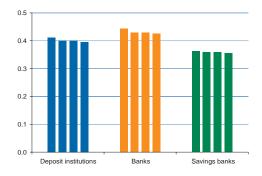
Spanish institutions, involves classifying the credit portfolio into six risk categories (11). Associated with each category is a parameter that approximates to the estimated average loss over the latest cycle. This parameter varies between 0 % for the risk-free category, and 1.5 % for the high-risk category. The intermediate values are 0.1 %, 0.4 %, 0.6 % and 1 %. Applying the foregoing percentages to the volume of credit of each category and dividing the result by total credit gives the average risk profile for each credit portfolio.

The average risk profile of Spanish deposit institutions' credit portfolios has diminished slightly since December 2000, more so at banks than at savings banks (see Chart I.12). However, savings banks show a notably lower level of risk, due essentially to the greater weight of mortgage credit (low and medium-low risk) and to the lesser weight of credit to corporations, which is encompassed mostly in the medium-risk category.

# Doubtful assets

As earlier mentioned, total doubtful assets are increasing at a higher rate than

Chart I.12. Half-yearly changes in average risk of institutions' credit portfolios. From December 2000 to June 2002 (%)



that for the resident private sector, owing to the increase in doubtful assets abroad. This growth is largely attributable to banks, where most foreign activity is concentrated.

In the resident private sector, the doubtful assets ratio is very similar for banks and savings banks, and is also moving similarly (see Chart I.13). However, total doubtful assets ratios show a different pattern, due to the developments set out in the foregoing paragraph. That said, their level is below that for the resident private sector owing to the lesser risk, in general, of lending between banks and to public authorities.

Significantly, both the doubtful assets ratios and the absolute value of doubtful assets are far below the average values for the past 20 years. Moreover, this affirmation is valid for most institutions (see Table I.2 and Chart I.14). Nonetheless, in June this year, a slight shift towards the higher doubtful assets ratio brackets was perceptible (12).

Turning to the end-use of credit, the doubtful assets ratio in productive activities (1.1 %) is rebounding, compared with the stability of the related figure for households (0.8 %), based on the flat curve for doubtful assets in financing for house purchases, which is traditionally a very low-default sector (0.4 % in June). The doubtful as-

<sup>(11)</sup> These six categories are: risk-free (exposures with EU member public authorities sectors); low risk (mortgage loans on finished houses with outstanding risk lower than 80 % of the rated property value or loans to corporations with an A or higher rating); medium-low risk (secured loans and leasing); medium risk (other risks); medium-high risk (financing of consumer durables); and, finally, high risk (outstanding balances on credit cards and overdrafts on current and credit accounts).

<sup>(12)</sup> Similar results are obtained with the total doubtful assets ratio, though with higher percentages in respect of the distribution in the lower brackets.

**Chart I.13.** Ratios of total and resident private sector doubtful assets (%). Banks and savings banks



assets ratio in the construction and property development sector (0.7 %) is rebounding slightly, but is still lower than that for non-financial corporations as a whole.

# I.3. Liquidity risk

The ongoing decline in stock market prices and the lack of confidence as to their recovery appear to have led to something of a shift in investors' portfolios towards more liquid assets.

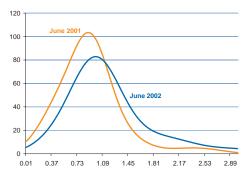
At deposit institutions, the interbank *position* (13), in terms of total assets, has held at the June 2001 level (–4.8 % of total assets). The decline in the liquidity position, the weight of which has fallen by two points to 5.3 %, is largely attributable to

**Table I.2.** Breakdown of the resident private sector doubtful assets ratio into brackets. Deposit institutions. June 2002

BRACKETS	%	No. OF
DOUBTFUL A. RATIO	CREDIT	INSTITUTIONS
0	0.9	41
0.0-0.5	16.8	41
0.5-1.0	47.9	61
1.0-1.5	25.6	43
1.5-2.0	5.3	23
2.0-2.5	1.8	12
>2.5	1.9	46

<sup>(13)</sup> The interbank position is defined as the difference between the funds due to and received from other credit institutions. The liquidity position is the interbank position plus the position with central banks and the fixed-income portfolio less repurchase agreements, net of reverse repurchase agreements. The position in traditional banking business is credit less private-sector creditors.

Chart I.14. Percentage distribution of credit according to the resident private sector doubtful assets ratio [density function (a)]. Deposit institutions



(a) Both here and in the rest of the Report, the density function is proxied by a kernel estimator.

the reduction in the fixed-income portfolio. Despite credit growth easing, the traditional banking business position has increased from 1.8 % to 2.8 % of total assets.

On the *stock market*, despite the ongoing decline in prices, the volume of trades has grown slightly in the first half of 2002 compared with the same period a year earlier. There have not been significant changes in other liquidity indicators (average ranges, depth of the Ibex 35, etc.).

With regard to market infrastructure, in May 2002 the MTS España *debt trading* system came on stream, in competition with Senaf. In the short time since elapsed there has been a minor shift in trading towards MTS España, to the detriment of Senaf and of the second tier of the market (the OTC segment among financial institutions).

On the *foreign exchange markets*, the Continuous Linked Settlement (CLS) system commenced operating in September 2002. This is a private international settlement system that seeks to eliminate Herstatt risk (14). Although a definitive assessment on its impact would not yet be appropriate, all the signs are that the CLS "payment ver-

<sup>(14)</sup> Principal risk arising in the settlement of foreign exchange transactions where there is a lag between the time at which the two payments agreed upon, one in each currency, are settled.

sus delivery" procedure will, for currencies included in the system, demand more complex intra-day liquidity management.

#### I.4. Market risk

International financial developments have been marked by heavy falls in stock market prices and by a significant depreciation of the dollar. Admittedly, both movements involve a movement towards what are considered to be equilibrium values. But fears that they will prove excessive or disorderly have ultimately given rise to a raised perception of risk that has influenced Latin American markets in a particularly adverse way.

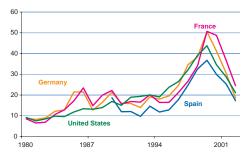
The growing lack of confidence about corporate data, linked to the significant accounting scandals in the United States, has possibly been the main trigger for the fall in stock market prices, which has been accompanied by high volatility (see Chart I.3). Moreover, the scant pick-up in corporate earnings and the easing off of expectations of an economic recovery have compounded the negative perception of the markets.

The fall in equity prices has not been confined to the US market but has spread across international bourses. Nonetheless, the latest corrections have placed price-earnings ratios at levels more in keeping with their historical average (see Chart I.15).

Although the uncertainty in Latin America has continued to overshadow the large Spanish corporations with interests in the area, the stock market performance of the sectors affected (banking, energy and telecommunications) has been similar in the past six months to that in Spain and in the euro area (see Chart I.16).

The *dollar*, after holding fairly stable in Q1 against the euro at around \$0.87 per euro, depreciated sharply to levels exceeding parity, although it subsequently made up

Chart I.15. PERs (a)



Sources: Morgan Stanley and in-house.

(a) The PER is calculated as the moving average of profits over the past 10 years expressed in constant monetary units.

some of this lost ground. The depreciation has been brought about by greater market sensitivity to the high and growing US current-account deficit.

Following the collapse of the Argentine peso early in the year, there was an across-the-board depreciation of most of the *Latin-American currencies* against the dollar (see Chart I.17). The depreciation was sharpest in the case of Brazil (35 %), Uruguay and Venezuela (around 45 %), and somewhat more moderate in Chile and Mexico (close to 10 %). The Argentine peso has managed to stabilise at levels slightly above 3.5 pesos per dollar (a depreciation of around 70 % in respect of the levels prior to its being allowed to float freely).

Chart I.16. Comparison of share prices of Spanish corporations with interests in Argentina and Brazil



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

(a) The 6G index has been constructed with the six share prices of the Spanish corporations with the biggest presence in Argentina and Brazil. 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.** Exchange rates against the dollar. 1 Jan 2001=100



Source: Bloomberg.

Naturally, the depreciation of the Latin American currencies has adversely affected the net worth of banks with permanent investments in the region.

The recent difficulties in Brazil have passed through to other countries in the area. The average correlations – between Brazil and

the other countries – of exchange rates, sovereign debt spreads and stock market indices have increased in some cases, although they are not very high.

The government debt fixed-income markets in the industrialised countries posted strong price rises as a result of the use of these instruments as a safe haven in the face of the poor performance of equities, weaker expectations of economic recovery and a generalised decline in inflationary pressures. This fall in long-term interest rates is in contrast to their traditional behaviour at times of worsening public finances.

In sum, market risk has increased over the past year. Accordingly, given that the cyclical profile of this risk is not unknown to bank managers, banks should have analysed and monitored both short-term operations and strategic decisions more closely.

# **CHAPTER II**

# **Profitability**

#### II.1. General situation

The relatively unfavourable cyclical situation in Europe and, to a lesser extent, in Spain has been manifest in a turnaround in the profitability of institutions. The lower level of activity, the greater need for write-offs owing to credit risk and the unfavourable stock market trend will adversely affect the profitability of institutions this year, as is already highlighted by the profit and loss accounts posted for the first half of the year.

Attributable *net income* after taxes at the group level has fallen in absolute terms by 6.4 % in the first half of 2002 (1) (see Table II.1) (2). This fall involves a turnaround in relation to the performance in recent years (with year-on-year growth of 6.9 % in 2001, 21.6 % in 2000 and 13.4 % in 1999). However, the decline in the *ROE* (3) has proven more moderate: 12.9 % in June 2002 against 13.4 % in 2001 and 15.2 % in 2000 and 1999.

The decline in net income affects a growing number of institutions, more than 30 of which banks and savings banks, some of considerable size. There has also been a slight increase in the number of institutions whose profitability has grown at a lower rate than in the same period of the previous year.

Margins have posted positive growth, albeit at lower rates than in recent years. In relative terms (as a proportion of average total assets), the net interest margin has widened by 3 basis points (b.p.); but this has not offset the fall in commissions (especially on securities services and the marketing of funds and insurance) and in income on financial transactions (essentially in the trading book, in futures transactions and in the fixed-income available for sale portfolio). Nevertheless, these adverse effects have largely been cushioned by the earnings associated with foreign exchange gains.

Net operating income has grown at a rate of 9.6 % (compared with rates of 28 % and 25 % in June and December 2001, respectively) and in relative terms the related margin has widened to 1.57 %, thanks to the fall in *operating expenses* (by 14 b.p. in terms of ATA). This decline has been particularly significant in the major banking groups owing to the early retirement of staff and to the reorganisation of business further to the mergers of recent years.

In the first half of the year, the three components of operating expenses (personnel costs, overheads and depreciation of tangible fixed assets) moved in the same direc-

<sup>(1)</sup> In this and the following chapter, foreign bank branches based in other European Union countries are not included. In this way, the number of institutions analysed holds constant, since this sub-group is not subject to capital requirements in Spain. In any event, the relative weight of the institutions excluded is very small.

<sup>(2)</sup> 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. The percentages over average total assets (ATA) are annualised, while the absolute values are not (these are cumulative values to June).

<sup>(3)</sup> 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 stock, the reserves at the controlling entity and at consolidated companies, the net income of the group and the fund for general banking risks less own stakes and shareholders, the losses at the controlling entity from prior years and the losses at consolidated companies.

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

	June-01		June-02 % ATA		Growth
		70 AIA		70 A I A	3.02-3.01
Financial revenue	45,492	6.81	38,520	5.58	-15.3
Financial costs	27,622	4.13	19,900	2.88	-28.0
Net interest income	17,870	2.67	18,620	2.70	4.2
Net commissions	6,889	1.03	6,773	0.98	-1.7
Result on financial transactions	847	0.13	724	0.10	-14.6
Gross income	25,607	3.83	26,116	3.78	2.0
Operating expenses	15,716	2.35	15,280	2.21	-2.8
Net operating income	9,892	1.48	10,837	1.57	9.6
Provisions and write-downs (net)	3,705	0.55	4,276	0.62	15.4
Profits from Group transactions (net)	414	0.06	1,012	0.15	144.2
Extraordinary income (net)	2,458	0.35	518	0.06	-78.9
Profit before tax	9,058	1.36	8,091	1.17	-10.7
Net income	6,952	1.04	6,328	0.92	-9.0
Memorandum item					
Group's net income	5,700	0.85	5,333	0.77	-6.4
ATA	1,336,302		1,381,636		3.4

tion, posting changes in absolute terms of a negative sign (see Chart II.1).

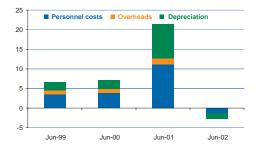
The fall in operating expenses has provided for a notable improvement in the efficiency ratio (the proportion of gross income absorbed by operating expenses), which has fallen by 2.9 percentage points to 58.5 %.

*Provisions and write-downs* grew at a rate of 15.4 % owing to higher net provisions for bad debt and country risk. In both cases, the greater effort in terms of write-downs has meant an increase of only four b.p. in terms of ATA.

The increase in provisions for bad debts is due to the strong growth (of close to 40 %) of net specific provisions, consistent with the increase in doubtful assets. Net general-purpose provisions, of a substantially smaller amount than specific provisions (see Chart II.2), also show considerable growth due to the still-high growth rate of credit.

Conversely, and as a result of the increase in specific provisions, the growth rate of net contributions to the statistical fund has fallen. Despite this, the statistical fund stands at almost €4 billion, at around 42 % of its maximum amount and 0.5 % of credit investment.

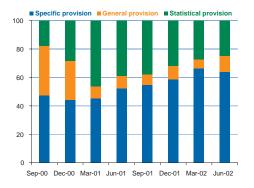
Chart II.1. Year-on-year rate of change of operating expenses and contribution of their attendant components (%)



The coverage of credit risk (made when the risk is assumed, i.e. when the credit is extended and not only when it translates into a bad debt) entailed by the statistical provision gives substantial soundness to institutions at the current phase of the cycle. Spanish institutions are going to see less volatility in their results, which will no doubt contribute to the greater stability of the Spanish financial system, even if the expectations of economic recovery are delayed.

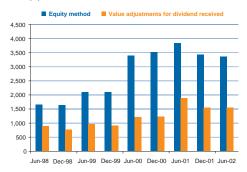
Net income on group operations has more than doubled in relation to the same period a year earlier. This is a consequence of the slight growth in earnings and, essentially, of the reduction in losses relating to the lesser amortisation of goodwill, which has been more than halved in relation to June 2001 (4).

**Chart II.2.** Composition of net provisions for bad loans (%). Cumulative data for the year



<sup>(4)</sup> Due principally to the exceptional bringing forward of amortisation of goodwill last year.

Chart II.3. Results from companies valued by the equity method and dividend received. €m (a)



(a) The June values are multiplied by two to facilitate comparison.

Results from consolidated corporations valued by the equity method (those of a non-financial nature and insurance companies) have, like dividend received, fallen slightly in absolute terms, highlighting the course corporate earnings have taken (see Chart II.3).

In contrast to last year, *net extraordinary income* has fallen sharply in both absolute and relative terms (–29 b.p.), which accounts for the heavy fall in pre-tax income (–18 b.p.).

In short, despite a reduction in operating expenses, the moderate growth of margins has been unable to offset in full increased write-down requirements and the reduction in extraordinary income. Consequently, pre-tax income and net income attributable at group level have fallen slightly, both in absolute terms and as a proportion of ATA.

# II.2. Analysis based on individual institutions

The aggregate nature of the analysis in the preceding section does not allow differences to be established among institutions. However, results have not been uniform across institutions.

In step with lower profitability at the aggregate level, the *distribution of the profitability* of Spanish institutions has shifted

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

ROE	% OF	No. OF
BRACKETS	ATA	INSTITUTIONS
<0	0.4	10
0-5	2.5	26
5-10	15.3	74
10-15	41.6	41
15-20	36.2	23
>20	4.0	4

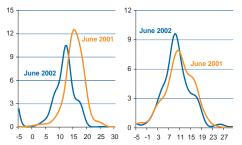
slightly towards the lower ROE brackets. This can be seen in the shift to the left (indicative of lower profitability) of the density function, both in respect of the number of institutions and of ATA (see Table II.2 and Chart II.4).

Spanish institutions display a high level of *efficiency* (see Table II.3) which, moreover, has improved over the past year. This level is inversely proxied by the efficiency ratio (the ratio of operating expenses to gross income).

#### Comparison with European banks

Last year was not generally a good year for European banks. In addition to the difficulties facing investment banking, arising from the unfavourable stock market performance and from problems in specific industries (including most notably new technologies), there was an increase in doubtful assets owing to low economic growth in the euro area and the consequent need for greater provisioning for bad debts.

**Chart II.4.** Percentage breakdown of ATA (left) and of the number of institutions (right) according to the ROE (density functions)



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

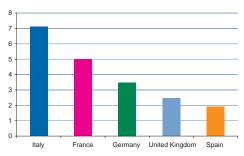
EFFICIENCY RATIO BRACKETS	% OF ATA	No. OF INSTITUTIONS
>100	0.4	12
90-100	0.2	1
80-90	2.1	9
70-80	10.0	26
60-70	13.1	52
50-60	70.7	53
40-50	0.6	17
<40	3.0	8

Significantly, the decline in profitability in Spain was amongst the mildest, despite the difficulties Spanish institutions have had to face in the wake of the Argentine situation. A lower doubtful assets ratio (see Chart II.5) and improved efficiency help explain this (see Chart II.6) (5).

The results of the main European banks continued to worsen in the first half of 2002 due to the above-mentioned problems persisting and new ones emerging (most notably Brazil). Overall, Spanish banks have seen their earnings fall, but less so than at other European banks (see Chart II.7).

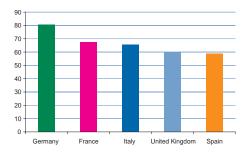
The markets' perception of the risk associated with Spanish institutions has in-

Chart II.5. Doubtful assets ratio. Main European banks (%). December 2001



Sources: BankScope and in-house.

**Chart II.6.** Efficiency ratio. Main European banks (%). December 2001



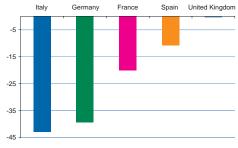
Sources: BankScope and in-house.

creased, despite the fact that, as analysed in section I.2.2, the risk profile of Spanish institutions' credit portfolios has diminished slightly and doubtful assets ratios have changed only marginally.

The beta (6) of the main Spanish banking groups has increased during 2002 although, compared with their European counterparts, Spanish institutions have improved somewhat.

The existence of share options and stock market indices makes it possible, under certain assumptions, to obtain information on the implied volatility that the market assigns to such shares or indices. In this respect, a very similar trend over time of

**Chart II.7.** Change in profits of main European banks. June 2001-June 2002

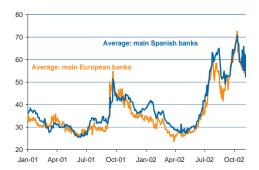


Sources: Bloomberg and in-house.

<sup>(5)</sup> The comparison has used the total assets of each institution to calculate the average weighted value for each country. Four German, three Italian, four British, two French and three Spanish banks have been included.

<sup>(6)</sup> The beta of a value denotes the sensitivity to changes in the market situation. It is thus an indicator of investors' perception of systematic risk. The beta has been obtained from the estimation of the CAPM model, using the DJ Stoxx 50 Index as a market portfolio.

**Chart II.8.** Implied volatilities of main European banks



Sources: Bloomberg and in-house.

the implied volatility of the main Spanish groups is observed (see Chart II.8) in relation to the average of their European counterparts.

In short, certain indicators signal that investors' perception of the risk associated with Spanish banks and with other European banks is increasing. Nonetheless, the comparative information on defaults, efficiency and profitability is more favourable for the main Spanish institutions than for their counterparts in Europe. This is partly in response to their greater specialisation in the retail banking business, which is more stable and regular.

## **CHAPTER III**

# **Solvency**

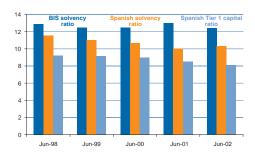
#### III.1. General situation

The solvency ratio maintained by deposit institutions is far higher than the minimum requirement of 8 %, measured both against the regulations of the Basel Committee on Banking Supervision and the more demanding Spanish regulations (1) (see Chart III.1).

Under Spanish regulations, the *total solvency ratio* (eligible capital in relation to risk-weighted assets) has grown by three-tenths of a point, reversing the previous trend which had been on a declining course since June 1997 (see Chart III.1). It has thus risen to 10.3 %, i.e. over 25 % above the regulatory minimum.

Nevertheless, Chart III.1 shows how the Spanish *Tier 1 ratio* (Tier 1 capital as a proportion of risk-weighted assets) has fallen to 8.1 % (four-tenths of a point less than in June 2001).

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



<sup>(1)</sup> Box III.1 analyses the differences between Spanish regulations and those of the Basel Committee on Banking Supervision.

The differing behaviour of both solvency ratios highlights (see Chart III.2) the different course taken by Tier 1 and Tier 2 capital. The year-on-year rate of change of Tier 1 capital has been negative as a result of the lesser contribution of reserves, in turn the outcome of the reduction in preference shares (integrated therein as minority interests) and of the increase in losses at consolidated corporations brought on by the depreciation of Latin American currencies. Further, the change in the sign of the contribution of goodwill is of note owing to its accelerated amortisation, in contrast to the increase seen in prior years.

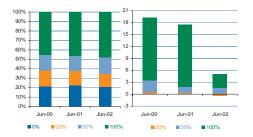
Tier 2 capital, standing at around 27 % of the total, has grown strongly owing to the increase in subordinated financing (2) (25 % year-on-year). The strong expansion in Tier 2 capital (witnessed in previous years) combined with a lesser volume of deductions accounts for the increase in total capital (see Chart III.2).

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



<sup>(2)</sup> Subordinated financing is, in respect of the priority of claims, behind all other common creditors.

**Chart III.3.** Asset group weighting distribution (left) and contribution to the change in capital requirements in respect of credit risk (right)



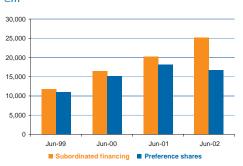
The reduction in the growth of total *capital requirements* is due almost exclusively to the slowing of those required in relation to credit risk (94 % of total requirements), which slowed from an increase of 16.5 % to only 5 %. This deceleration is in response to the lower contribution of assets weighted at 100 % and to the slight reduction in interbank credit, with a 20 % weight (see Chart III.3).

The higher growth of mortgage lending continues to raise the relative weight of assets with a 50 % weight, the cause for 30 % of the growth in capital requirements.

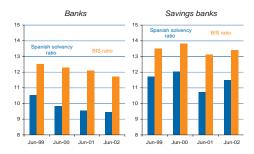
Although Spanish institutions show a sizable surplus of capital in relation to the regulatory minimum, particularly when measured against the Basel Committee regulations, the slight fall in Tier 1 capital involves a certain deterioration in the average quality of total capital.

Chart III.4 shows the turnaround in preference shares since June last year, when the

**Chart III.4.** Preference shares and subordinated financing. Deposit institutions. *€m* 



**Chart III.5.** Solvency ratios. Spanish and Basel rules. Banks and savings banks



Banco de España recommended restricting them (3), and the continuous growth of subordinated financing.

# III.2. Analysis based on individual institutions

Set against Spanish regulations, the surplus of capital at *banks* has fallen slightly, although the total solvency ratio still stands at 9.5 %. Conversely, for *savings banks*, this ratio has increased substantially to 11.5 %, partly offsetting the reduction seen in June 2001 (see Chart III.5). The difference of two percentage points (using Spanish criteria) between banks and savings banks falls to 1.7 points when measured against Basel Committee regulations. Note that, using the latter criteria, the distance from the regulatory minimum is far greater, as the ratio maintained stands at 11.7 % and 13.4 %, respectively.

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

SOLVENCY RATIO BRACKETS	% OF ATA	No. OF INSTITUTIONS
<8	0.0	0
8-10	62.1	47
10-12	22.3	47
12-15	13.9	35
15-20	1.3	20
20-25	0.1	9
>25	0.3	22

<sup>(3)</sup> Box III.2 analyses preference shares in greater detail.

#### Box III.1

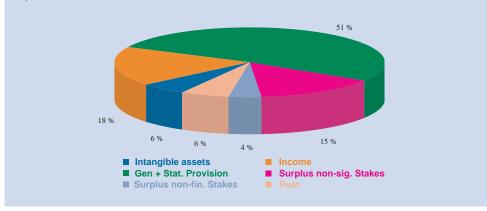
# Comparison between the Spanish solvency ratio and that of the Basel Committee on Banking Supervision

The differences between the more demanding Spanish rules and those of the Basel Committee lie in the definition of capital (the numerator of the ratio) and not in the risks subject to the requirement (the denominator), which are virtually identical.

For the calculation of Tier 1 capital, the Spanish rules (Banco de España Circular 5/93) do not include the profits generated to June (they are included in December), all intangible assets (not only goodwill) are deducted along with financing to third parties for the purchase of securities eligible as Tier 1 capital, together with Tier 1 capital held by non-consolidable institutions of the group. For the calculation of Tier 2 capital, the Spanish rules do not include the general provision and statistical provision for bad debts, and financing to third parties for the purchase of Tier 2 capital is deducted. Moreover, Spanish rules envisage additional deductions: surplus of non-significant stakes when they exceed 10 % of capital, surplus of stakes in non-financial corporations and the shortfall of provisions.

The foregoing differences make for a solvency ratio which, in June 2002 and pursuant to Basel Committee criteria, was 2.1 points higher than that calculated under Spanish rules for total deposit institutions. The Tier 1 ratio was six-tenths of a point higher. Capital according to the Basel Committee is 19 % higher than that obtained under Spanish rules. The differences (see Chart A) are mainly due to the general provision and the statistical provision. After that are the profits for the year and the deduction for surplus of non-significant stakes. At a considerable distance are intangible assets and surplus of stakes in non-financial corporations. As regards requirements, the difference is less than 1 % (they are greater under Spanish rules).





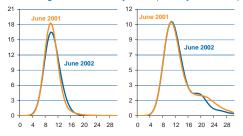
In line with the greater total solvency ratio, its distribution by institution shows a slight shift from the brackets closest to the regulatory minimum to the higher brackets (see Table III.1 and Chart III.6). In this way, the improvement seen at the end of last year is maintained, prompted now by the shift by savings banks towards the brackets between 12 % and 15 %.

The number of institutions -19 – that has issued preference shares is small, although

their ATA account for 77 % of the total (see Table III.2). The relative weight of preference shares is greater at big institutions. In relation to June 2001, a shift by institutions can be seen towards the brackets with a greater relative weight of these shares, although this is attributable virtually in its entirety to the period from June to December last year.

Tier 2 capital could be found at 111 institutions, although only at 16 did this account for more than 30 % of their total capital.

Chart III.6. Percentage distribution of ATA (left) and of the number of institutions (right) according to the solvency ratio (density functions)



## Preference shares

The characteristics of preference shares change notably over time and, above all, from one type of institution to another (see Table III.3) (4).

The preference shares issued by banks have been mainly targeted on institutional investors. They are traded on international markets (some on the AIAF as well) and, generally, they are fixed-rate. There have been fewer issues over the past two years, while a bigger proportion of floating-rate issues has been aimed at the retail market that are AIAF-listed. Recently, savings banks have been much more active as issuers; they place their securities on the retail market, usually at a floating rate, and these are almost exclusively AIAF-listed.

**Table III.2.** Breakdown of the ratio into preference shares and Tier 1 capital (%)

BRACKETS	% OF ATA	No. OF
Pref. Shar./Tier 1	ATA	INSTITUTIONS
0	23.3	161
0-10	0.0	0
10-20	5.3	4
20-25	7.5	4
25-30	4.5	6
30-40	26.2	3
>40	33.1	2

<sup>(4)</sup> In this and the following section, the analysis covers the period until December 2001. The information available for the current year does not alter the qualitative conclusions presented in this Report.

**Table III.3.** Characteristics of preference shares

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1998									
Banks	9	2,833	7	2	9	0	0	2	9
1999									
Banks	6	2,851	0	6	5	1	1	6	5
Saving b.	5	2,600	0	5	1	4	4	5	1
2000									
Banks	3	819	1	2	2	1	1	1	2
Saving b.	3	2,400	0	3	0	3	3	3	0
2001									
Banks	3	732	2	1	2	1	1	1	2
Saving b.	9	1,140	0	9	0	1	9	9	0
June-02									
Banks	1	500	0	1	0	1	1	1	0
Saving b.	1	100	0	1	0	0	1	1	0

Note: (a) Number of issues. (b) Total in millions of euro. (c) Institutional placement. (d) Retail placement. (e) Fixed interest rate. (f) Guaranteed minimum rate. (g) Floating interest rate. (h) Listed on AIAF. (i) Listed on foreign stock exchange.

Resorting to institutional investors or to the retail segment entails consequences in terms of the cost for the institution and, therefore, of the return for the investor. Chart III.7 broadly shows the narrower (or even negative) spread on savings banks' issues of preference shares (5).

Although Spanish *secondary market* trading in preference shares has increased slightly in the past three years (see Table III.4), annual liquidity (6) stood at 0.11 in late 2001, and slightly higher so for savings banks. By way of comparison, the liquidity of book-entry government debt was slightly above 50.

# Subordinated debt

During the period 1998-2001, Spanish institutions made slightly over 100 subordinated debt issues (see Table III.5). The 12 issuing *banks* did so both through the parent company, from Spain and targeted on the retail sector, and through specific-purpose undertakings, targeting the issues on inter-

<sup>(5)</sup> The issues in Chart III.7 are ordered by issuance date.

<sup>(6)</sup> Defined as the ratio between nominal traded volume and nominal outstanding balance.

#### Box III.2

#### Preference shares as capital

Last year, the Banco de España expressed its concern over the growing weight of preference shares in the Tier 1 capital of certain institutions and over the way in which, in certain cases, these instruments are sold to traditional retail customers. The Banco de España's criterion regarding preference shares is that it considers it unadvisable that they exceed 30 % of Tier 1 capital.

The rise in preference shares is not solely a Spanish phenomenon. And nor is the above-mentioned concern, which is shared by all supervisors and which may adversely affect the ratings given by rating agencies to issuing groups. Summarised below are the essential characteristics of preference shares, the incentives for issuing them and the reasons for having recommended their relative weight be restricted.

The *characteristics* of preference shares cover an extensive range of different cases. Accordingly, only the most habitual and significant ones will be mentioned here (1). Preference shares are securities regulated by the mercantile regulations of other countries, habitually offshore centres, which is where they are issued by specific-purpose subsidiaries, created solely for this end by the group. The latter is the owner of the subsidiary's ordinary shares and backs its issues of preferential instruments. The funds thus raised are used by the subsidiary to extend financing (a subordinated deposit) to another institution in the group, usually the parent.

Other characteristics of preference shares are as follows: they do not confer a voting right; the return thereon is the same as that for fixed-income securities, albeit conditional upon the group obtaining profits and on a non-cumulative basis (2); and, although their maturity is unlimited, the issuer normally reserves itself the right to redeem them further to authorisation from the supervisor (the Banco de España in our case).

Merely outlining these characteristics does not clarify sufficiently what *incentives* institutions have for using preference shares. Above all, institutions are motivated by the suitability of preference shares for increasing Tier 1 capital (generally at a cost far below the ROE) in circumstances such as those recently experienced by the main Spanish institutions: rapid expansion, based on the acquisition of significant share packages; a decline in Tier 1 capital, owing to the goodwill generated; and the temporary nature of this decline, which explains why the issuer reserves itself the right to repurchase the preference shares, once it should have concluded the accelerated amortisation of the aforementioned goodwill.

Having outlined the characteristics of these instruments and the incentives for institutions to issue them, it remains for us to consider what justifies the *recommendation that their relative importance be limited*, bearing in mind that the requirements laid down by the Banco de España for preference shares to be eligible as Tier 1 capital are particularly rigorous (3), and the related verification exhaustive.

Firstly, the recommendation of the Basel Committee on Banking Supervision should be recalled, namely that the predominant elements in Tier 1 capital should be ordinary capital and reserves. This means restricting the relative significance of preference shares to 50 % thereof, at most, although supervisors have in practice set stricter limits, in line with the Banco de España's recommendation that they should not exceed 30 %. The ceiling at the international level partly responds to the fact that it is not permitted to offset current losses, rather only those arising in extreme cases.

Secondly, but of equal importance, since certain preference shares have not been aimed at the international market but have been distributed among retail customers (with less capacity to assess the risk associated with the instrument), and given that their liquidity on the secondary market (4) is very thin and that they offer a return that is not commensurate with the risk assumed, institutions might be incurring reputational risk. Specifically, if the risk premium derived from the low priority of preference shares, the premium receivable for its illiquidity and the price of the call option granted to the issuer (aspects with which small investors are unfamiliar) are deducted from the return offered, it is doubtful that, in some of these issues, the residual return will exceed that on a fixed-term deposit.

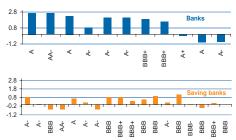
<sup>(1)</sup> Note that the preference shares to be discussed are not the privileged shares regulated by Article 50.1 of the Spanish Companies Act or the non-voting shares referred to in Articles 90 to 92 of this Act.

<sup>(2)</sup> In the Spanish case, as they are Tier 1 capital they cannot confer a dividend entitlement if the group shows a deficit in capital of over 20 % and authorisation from the Banco de España is needed if the deficit is less.

<sup>(3)</sup> See Circular 5/1993 (rule 8)

<sup>(4)</sup> Complaints have been addressed to the CNMV (National Securities Market Commission) over the scant liquidity of the preference shares listed on the AIAF market.

Chart III.7. Spread between the rate of issue on preference shares and that on 5-year public debt. Issue rating. Banks and savings banks



national customers. Approximately half the issues were at a fixed rate, and the redemption term was, in the main, 10 years.

Generally, for fixed-rate issues, the spread or risk premium was less than one percentage point, while for floating-rate issues it stood at around 60 b.p. (see Chart III.8) (7). In both cases, it is the issues with lower premia that were aimed at retail customers.

Only 7 issues (18 % of the amount issued) have the AIAF as a secondary market. As with preference shares, the market is relatively illiquid (see Table III.6), as is evidenced by the low liquidity value of around 0.10. Some months, no transactions are even traded.

Savings-bank issues have been much more uniform than those of banks. In general, the amount of each issue has been below €100 million, the usual term is 10 years and they have been aimed mainly at retail customers. They have almost always been issued at a floating rate, using mainly the CECA (Spanish Confederation of Savings Bank) deposit rate or the EURIBOR as a reference. Each year, a bigger proportion of issues has the AIAF as a secondary market.

**Table III.4.** Trading of preference shares on AIAF. 000s of euro (a)

	Nominal value	No. of transactions	Average volume per transaction	Liquidity
1998	48,972	480	102	0.45
1999	81,640	2,166	38	0.17
2000	95,243	6,372	15	0.12
2001	97,426	8,697	11	0.11

Sources: AIAF and in-house data.

(a) Nominal value and number of transactions are monthly averages. Liquidity is in annual terms.

In fixed-rate issues, the risk premium has almost always been negative. In floating-rate issues the risk premium has been negative, nil or very small for a large number of issues (see Chart III.9) (8). There is a negative correlation coefficient (-0.32), significant to 5 %, between the size of savings banks – measured by their ATA – and the risk premium, whereby (generally) the bigger the savings bank, the smaller the risk premium. Possibly, this is a reflection of the level of risk attributed to the issuer, although it more likely denotes the capacity to place issues with retail customers.

Since the spread, when it is positive, is small, and bearing in mind that placement is mainly through office networks and among retail customers, the information

**Table III.5.** Characteristics of subordinated debt issues

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1998								
Banks	8	767	-	-	7	1	3	11.9
Savings b.	11	746	-	-	1	10	1	10.3
1999								
Banks	6	1,222	-	-	3	3	1	9.1
Savings b.	12	1,393	-	-	1	11	4	10.8
2000								
Banks	12	3,709	9	3	6	6	1	9.7
Savings b.	20	1,378	3	13	5	15	11	10.3
2001								
Banks	16	4,560	11	5	4	12	2	11.5
Savings b.	15	2,350	2	13		15	10	10.6

Note: (a) Number of issues. (b) Total in millions of euro. (c) Institutional placement. (d) Retail placement. (e) Fixed interest rate. (f) Floating interest rate. (g) Listed on AIAF. (h) Average redemption term.

<sup>(7)</sup> The risk premium is defined, for fixed-rate issues, as the difference at the time of issuance, and for the related term, between the interest rate at which the subordinated debt is issued and the rate at which the government debt of the country in whose currency the issue is denominated was quoted. For floating-rate issues, the premium is defined as the margin over the reference interest rate, which is usually the EURIBOR at 3. 6 or 12 months.

<sup>(8)</sup> The definition of the risk premium here is the same as for banks.

**Chart III.8.** Spread on banks' subordinated debt issues (a)



(a) In 1998, two convertible ordinary share issues are excluded.

provided to potential buyers of this instrument should be clear and precise, in particular as regards the associated risk, which is higher than on a traditional fixed-term deposit, for instance.

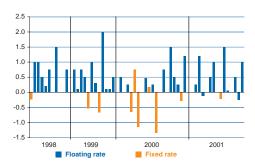
Of all the issues by savings banks, almost half (accounting for 65 % of the amount issued) are traded on the AIAF. The market for them

**Table III.6.** Trading of subordinated debt on AIAF. 000s of euro

	Nominal value	No. of transactions	Average volume per transaction	Liquidity
1999	67,179	2,906	22.7	0.11
2000	229,214	9,383	24.1	0.15
2001	221,454	18,815	11.7	0.09

Sources: AIAF and in-house data.

Chart III.9. Spread on saving banks' subordinated debt issues



is also rather illiquid, as the related liquidity value is lower even than that for banks.

When debating the usefulness for banking supervisors of market information, it is argued that its use may help supervisors better detect and monitor institutions' risks. Specific proposals are afoot to structure banking supervision around the information supplied by the secondary markets for subordinated debt. However, one of the necessary conditions if this proposal is to be of practical use is that subordinated debt should be traded on a broad, deep market, with proper price formation reflecting appropriately the level of risk incurred. This does not appear to be the case at present as far as subordinated debt trading in Spain is concerned.

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