Situación

BBVA

Spain

Index

1. International environment

Slower growth in 2003

The prospect of a military conflict in Iraq, the start of which became increasingly imminent from the end of 2002, has created a climate with a high level of uncertainty in the past months, putting upward pressure on oil prices, and negatively affecting the main stock market indices. This has all been reflected in falls in the confidence levels of economic agents, and finally in real data, whose evolution has disappointed in the first months of 2003.

Within this context, the indicators available point to the leading economies growing less than expected in the first half of 2003. This negative development has led to downward revisions in forecasts for world growth for the whole year, despite the maintenance of a scenario in which uncertainty will ease and activity will pick up in the second half. The prospects for world growth stand at 2.9% for 2003, with a moderate recovery to 3.7% in 2004.

However, apart from the growth figures themselves, what is also a source of concern is their make-up. In the United States, people are beginning to ask whether the increase in public spending is excessive. Added to the strong fiscal expansion in the past few years are the tax cuts and costs of the war in Iraq in 2003. All of this implies a drop in public saving that will not be compensated for an equivalent increase in private saving. The consequent drop in the saving rate will put upward pressure on interest rates and could affect medium and long-term growth perspectives. The other side of the coin is the high current account deficit, which stands at historic highs, close to 5% of GDP. Therefore, within a context of a slowdown in private consumption and a delay in the recovery in investment, public consumption will play an important role in propping up activity in the short term. However, what we have in hand is growth of a less virtuous nature that will heighten the imbalances in the U.S. economy and which could limit economic growth in the next few years.

In the EMU, the ability of domestic demand to take over from the external sector, which contributed three quarters of total growth in 2002, is a source of concern. In 2003, within a context of weak foreign demand, and a further appreciation of the euro, it seems difficult that this situation will repeat itself. Contrary to what is taking place in the United States, there is scant margin for manoeuvre in fiscal policy. Many countries are close to the 3% limit agreed under the Stability and Growth Pact (SGP), which has even led to considering an exceptional relaxation of the deficit ceiling due to the war. In this sense, it should be remembered that the SGP is an imperfect mechanism for the coordination of national fiscal policies that is necessary in a monetary union. The relaxation of the SGP could throw the credibility of the area in fiscal matters into question and make the formulation of monetary policy by the ECB difficult. Besides, a key period has begun for the EMU on the institutional level, with the debate about reforming the ECB, the continuation of the process of drawing up a European Constitution, and the enlargement of the EU towards the East, which will culminate with 10 new countries joining in the middle of 2004.

Inflation remains at subdued levels in the main economies. However, with the exception of Japan, whose economy continues in a spiral of low growth and negative inflation, the fear of deflation appears to be overdone. The increase in oil prices will put upward pressure on producer and consumer prices, and demand policies continue to have a notable expansionary bias. On top of this, one needs to take into account the depreciation of the dollar in the case of the United States. The inflation forecasts for 2003 are 2.4% in the United States and 2.2%

Graph 1.1.
Oil prices
Dollars per barrel of Brent

Source: Bloomberg

Graph 1.2.
Consumer confidence
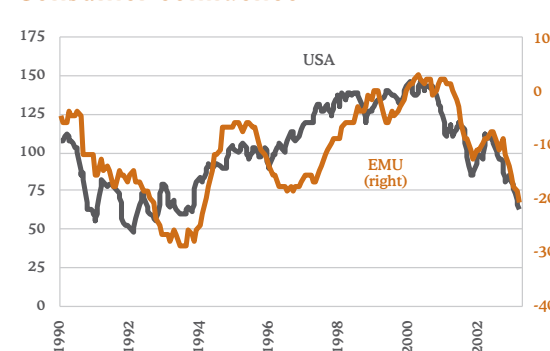
Sources: Conference Board and European Commission

Table 1.1. GDP growth
Year-on-year

	2001	2002	2003	2004
OECD	0.8	1.8	1.7	2.5
USA	0.3	2.4	2.0	3.0
EMU	1.4	0.8	1.0	2.0
Japan	0.4	0.3	0.6	1.0
Developing countries	3.8	4.4	4.6	5.1
Transition countries	5.0	4.0	4.1	4.1
World	2.2	2.9	2.9	3.7

Sources: IMF and BBVA

Table 1.2. Inflation
Year-on-year

	2001	2002	2003	2004
OECD	2.3	1.6	2.1	1.7
USA	2.8	1.6	2.4	1.8
EMU	2.4	2.2	2.2	1.8
Japan	-0.7	-0.9	-0.5	-0.4
Developing countries	5.8	5.4	6.0	5.2
Transition countries	16.3	11.2	9.5	7.6
World	4.4	3.6	4.0	3.4

Sources: IMF and BBVA

in the EMU. In 2004, inflation in both areas will ease as a result of the more favourable evolution of the energy component.

Within this context of low growth and with inflation relatively under control, monetary policy in the main industrial countries will have an expansionary bias. In fact, forecasts point to cuts in interest rates of between 25 and 50 basis points in the EMU, a movement that could be followed by other central banks. However, the margin for lowering is limited, and in a context of a recovery in activity, the trend for interest rates is likely to be upwards. This trend could start at the end of the year in the case of the Federal Reserve.

The markets; to the tune of the war

During the first few months of the year, the markets were very much affected by the geopolitical uncertainty, placing a high probability on a very negative economic scenario. The stock markets generally registered falls in the face of the uncertainty regarding the evolution of activity and the impact of this on corporate earnings. In this context, the debt market was the main beneficiary. Fixed income-interest rates stayed at minimum levels because of the safe-haven effect associated with the geopolitical uncertainty. The price of oil, impacted by the fear of a possible restriction in supply, stayed above 30 dollars a barrel until the start of the conflict. Lastly, the uncertainty also affected the foreign currency market, with a general depreciation of the dollar. Its exchange rate against the euro reached maximum levels since the start of EMU.

However, at the start of the conflict there was to a large extent a correction of the pessimism that reigned in the market. In fact, the dollar rate, the price of oil and interest rates on debt have moved to levels much closer to those compatible with relatively benign scenarios. The markets have responded positively to news increasing the probability of a rapid end to the war and the uncertainty associated with it. Following this trend, it is to be hoped that with the end of the war and the disappearance of the uncertainty accompanying it, stock market prices will pick up. The unwinding of the risk premium will raise long-term interest rates to levels in accordance with their fundamentals, and the penalty imposed on the dollar could partly correct itself. However, in the medium term, the elevated borrowing requirement of the U.S. economy is a source of concern, which currently is being almost totally met by portfolio investment. As a result, the dollar will continue to depreciate in a gradual and mild manner.

What if the conflict is not over...

It needs to be asked what the consequences would be of a serious complication of the situation in the Middle East. Under a scenario in which the uncertainty were to continue into the second half of the year, producing a shock in oil prices (supply shock) and a notable deterioration in confidence levels with significant falls in the stock markets (demand shock), growth in the United States would feel the effect considerably, entering a recession again in 2003. In the EMU, where the wealth effect of the falls in the stock markets and the impact on confidence levels would be lower, the impact would be felt less, although it too would suffer a recession. Inflation would rise because of the increase in the price of oil despite the deterioration in activity. In this context, there would be renewed monetary expansion, particularly in the United States. Long-term interest rates would stand at minimums and the dollar would depreciate considerably because of the loss in confidence in the U.S. economy.

In short, a significant worsening in the Middle East would imply a very negative panorama for the major economies in the next few years. However, this negative scenario currently appears unlikely, and a recovery in the world economy is to be expected.

FDI: Enlargement is not the problem

Foreign direct investment: Spain and CEES
Millions of dollars
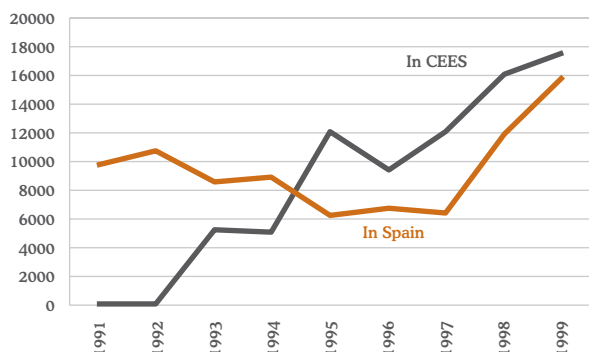
Source: IMF

Foreign direct investment in the EU

| | %/GDP | | | | % of the EU/total | |
| | Total | | From the EU | | | |
	81-85	86-90	81-85	86-90	81-85	86-90
France	0.37	0.87	0.19	0.45	53	57
Italy	0.25	0.44	0.03	0.04	42	53
Ireland	1.06	0.71	0.35	0.30	33	40
Spain	0.79	2.10	0.33	1.05	44	58

Sources: OECD and BBVA

Fears that the enlargement of the European Union (EU) towards the Eastern European countries could end up diverting a substantial portion of the foreign direct investment (FDI) that Spain receives have heightened in recent months in the wake of the decision by some car manufacturers to re-locate part of their production to those countries. Though this decision is often justified on the basis of lower labour costs (between 20%-70% below those of the EU-15), a more detailed analysis of the factors that explain the direction of FDI flows allows us, on the one hand, to qualify the role of labour costs in investment decisions and, on the other, to dissociate the possibility of a slowdown in FDI flows towards Spain from the process of EU enlargement.

A broad set of factors determines investment decisions. The majority of these factors can be included in one of the following groups: 1) the specific characteristics of the host country (per capita income, labour costs, infrastructure, fiscal incentives for investment and repatriation of profits, etc.); 2) the degree of openness of the economy (exports, tariffs, royalties, etc.); 3) the stock of factors of production (physical and human capital, R+D, etc.); 4) the scale economies generated by the concentration of activity (location advantage) as against the advantages of proximity to the export market for production (proximity advantage); and 5) the level of economic integration with other countries, that is, membership of an economic area (EU, Nafta, Mercosur, etc.). The available empirical evidence suggests that the countries that have received the largest FDI flows are those with higher per capita incomes, a larger stock of infrastructures and human capital, and greater economic and political stability. In contrast, the competitive advantages resulting from lower labour costs are not determinant for investment decisions[1] . In the case of Spain, the studies carried out conclude that the size of the domestic market and expectations of potential growth are the variables that have had the largest role in explaining FDI flows towards Spain in the past. Labour costs appear to have played a less important role, the availability of skilled labour and its cost being the most important labour variables. Therefore, the idea that investment will be diverted from Spain to Eastern European countries on account of their lower labour costs needs qualification since there are other factors that will maintain Spain's position as an attractive destination for investment projects. In fact, in he graph above, the FDI received since 1991 by the countries entering the EU in 2004 did not cause flows towards Spain to fall, except in years when the level of privatization in these countries was high; rather, FDI trends have been similar in both areas. Likewise, there is no evidence that Spain and Portugal's entry into the EU sparked a process of redistribution of FDI from other member countries towards the new entrants. The table above confirms that FDI received by France, Italy and Ireland not only was not interrupted, but actually strengthened both in terms of the total and that coming from the EU[2] . This means that in these countries the positive effect associated with greater integration and the opening up of new markets outweighed the negative effect of any possible diversion of investment.

Further evidence of the secondary role that enlargement may be playing with respect to FDI flows towards Spain is provided by analyses based on gravity models[3] . These suggest that FDI towards Spain increased in the years prior to EEC and EMU entry at a much faster rate than its determinants were indicating[4] . Though this "over-investment" was sustained up to the end of the 1990s, it gradually slowed because the stock of FDI was approaching its equilibrium level, defined as the level compatible with the structural characteristics of Spain's economy. This result would point to a slowdown in FDI flows towards Spain even if the process of EU enlargement towards Eastern Europe were not taking place. Therefore, the continuity of FDI will depend on the capacity of the Spanish economy to increase its level of development, the size of the domestic market and external market share, and the reduction in transportation costs. This confirms the need to adopt economic policy measures that raise the potential growth rate of the Spanish economy, making it a more attractive destination for international investors.

[1] See Bajo, O and C. López (2001), "Foreign direct investment in a process of economic integration: The case of Spanish manufacturing 1986-1992". Forthcoming.
[2] With respect to Ireland, the decrease in terms of GDP was due to the fast growth of the Irish economy in the 1980s, at a 12.6% annual rate.
[3] See Bush, C., R. Kokta and D. Piazola (2001), "Does the East Get What Would Otherwise Flow to the South? FDI Diversion in Europe. Kiel Institute of World Economics, Paper No. 1061.
[4] According to these models, FDI is a function of the size of the domestic market, distance, the degree of openness and the level of development.

2. The real economy

After a soft landing in 2002, a timid recovery in 2003 if all goes well...

Spain's economy is expected to grow by 2.5% in 2003 - 0.5 points up from 2002 - bringing to an end the slowing phase that began in 2000. Activity will be underpinned by very low real interest rates, with little prospect of any increase in the short term, and by the stimulus to household income provided by the reform of IRPF - personal income tax-. Also, when the current geopolitical uncertainty has cleared, the recovery in world trade will support growth in 2003, though with some delay and to a lesser extent than previously anticipated. The recovery will be held back by the deterioration in competitiveness due to both an ongoing inflation differential with the EMU and the appreciation of the euro in the international markets. All of this will result in a strengthening of consumption and investment that will boost domestic demand. The contribution of the external sector to growth will be more negative than in 2002. This combination of improving world trade, rising domestic demand and weakening competitiveness will be reflected in a greater relative dynamism in imports than in exports.

In sum, the acceleration in 2003 will be underpinned by demand-side shocks (fiscal reform and low interest rates) within an external context that is expected to pick up in the second half of the year as a result of the resolution of the geopolitical uncertainty and a significant push from fiscal and monetary policy in the United States and from monetary policy in the EMU. This will compensate for the brake applied to growth by the modest gains in productivity and the loss of competitiveness resulting from the accumulation of inflation differentials with the EMU and a low stock of capital owing to relatively meagre levels of investment in the current cycle. The transitory nature of the shocks that will drive activity this year introduce additional uncer-

Graph 2.1
Contributions to growth
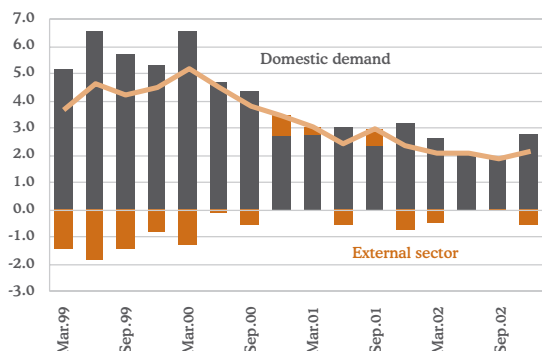
Sources: INE and BBVA

Table 2.1. Macroeconomic data

seasonally-adjusted data % year-on-year rates	2001				2002				2003				2001	2002	2003
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Household consumption (1)	2.2	2.2	2.9	2.8	2.4	1.8	1.5	1.8	1.7	2.3	2.9	2.8	2.5	1.9	2.4
Public consumption	3.1	2.7	3.2	3.3	3.8	3.8	3.7	4.0	4.0	3.8	3.8	3.8	3.1	3.8	3.8
Gross fixed capital formation	5.2	4.0	2.6	1.3	0.7	1.0	1.6	2.5	3.2	2.9	2.7	2.5	3.2	1.4	2.8
Capital goods and other products	3.7	1.2	-0.8	-2.8	-3.1	-3.0	-2.4	-0.2	1.8	2.0	2.0	1.5	0.3	-2.2	1.8
Construction	6.4	6.4	5.7	4.8	4.0	4.5	5.0	4.6	4.4	3.6	3.3	3.2	5.8	4.5	3.6
Inventories (*)	-0.4	0.2	-0.6	0.6	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Domestic demand (*)	2.7	3.0	2.3	3.1	2.6	2.0	1.9	2.7	2.6	2.8	3.1	3.0	2.7	2.3	2.9
Exports	10.1	4.5	1.8	-2.1	-2.9	-1.6	4.2	6.0	4.0	3.0	1.5	3.0	3.4	1.4	2.9
Imports	8.3	6.1	-0.2	0.4	-1.1	-1.7	4.2	7.4	5.5	4.0	3.0	3.0	3.5	2.2	3.8
Net exports (*)	0.3	-0.6	0.6	-0.8	-0.5	0.1	-0.1	-0.6	-0.6	-0.4	-0.5	-0.1	-0.1	-0.3	-0.4
GDP at market prices	3.0	2.4	2.9	2.3	2.0	2.0	1.8	2.1	2.0	2.4	2.6	2.9	2.7	2.0	2.5
Agriculture	-2.2	-3.7	-0.8	-5.7	1.7	-0.9	-3.3	-5.7	-6.4	-6.0	-6.6	-0.2	-3.1	-2.1	-4.9
Industry (2)	1.4	1.6	2.8	0.0	-0.5	0.1	2.0	2.4	2.9	2.4	0.2	2.0	1.4	1.0	1.9
Construction	6.0	5.8	5.2	4.8	4.5	4.8	5.6	4.8	4.2	3.7	2.8	3.3	5.4	4.9	3.5
Services	3.4	3.5	3.4	2.6	2.4	2.4	1.9	2.2	2.2	2.2	2.9	3.5	3.2	2.2	2.7
market	3.6	3.7	3.5	2.5	2.2	2.1	1.5	1.7	1.7	1.8	2.8	3.8	3.3	1.9	2.5
non-market	2.6	2.8	3.1	3.2	3.3	3.3	3.5	3.9	3.7	3.2	3.2	2.6	2.9	3.5	3.2
Net tax on products	4.6	-3.2	0.3	7.7	3.5	3.3	-0.3	1.8	0.3	6.8	11.2	2.3	2.4	2.1	5.0

(*) Contribution to GDP growth (1) Includes NPISH
(2) Energy and industrial branches

Sources: INE and BBVA

tainties regarding the economic outlook for 2004. The end of the stimulus provided by the IRPF reform and the fact that interest rates will most likely rise next year, along with continuing modest gains in productivity, suggest that the external sector is likely to be one of the key factors of the Spanish economy in 2004. However, the positive impact of the external sector will be constrained by the deterioration of competitiveness in Spain, and because the fiscal and monetary excesses already seen around the world will forestall any additional stimulus.

...but there are significant external risks

The current economic environment is marked by various uncertainties, in particular the geopolitical uncertainty linked to the Iraqi crisis. This scenario has brought about a combination of supply and demand shocks that have adversely affected the outlook for activity. This uncertainty has been reflected in rising oil prices since the second half of 2002[1], which represents a negative supply shock. In addition, however, there has been a deterioration in the expectations of companies and households, which has a negative effect on aggregate demand. The combined effect of these shocks, and their resolution, will determine the behaviour of the economy in the coming quarters.

The short-term impact will clearly be an increase in prices, though this could be offset in the longer term by the easing of demand pressures. This effect will persist even if a "speedy and uncomplicated" resolution of the crisis takes the price of oil down to levels below $25 a barrel. The risk premium paid on crude in recent quarters will over time feed through into the whole productive system[2].

As far as the external sector of the Spanish economy is concerned, growth in world trade in 2002, at around 1.5%, was finally higher than the expectations prevailing three quarters ago, although annual rates of growth slowed in the latter part of 2002. This trend looks likely to continue in the first half of 2003. The continuing weakness in world trade will make difficult the recovery in goods and services exports, so that their growth rates are likely to fall short of our current forecast of 2.9%. This forecast is based on the hypothesis that trade recovers in line with the Western economies in the latter part of the year, reaching rates close to its historical average growth rate of 6%. Also, the deterioration in the economy's competitiveness will continue in 2003, both because of the accumulation of a further inflation differential with the EMU and the appreciation of the euro vis-à-vis the other currencies. At some future stage, this will lead to a loss of market share, both at home and overseas.

The deterioration in competitiveness represents a brake on exports that will eventually curb their capacity to expand, particularly if competitiveness is lost at the same time as a fall-off in external demand.

The problem posed by faster relative increases in domestic costs can be alleviated with a compression of margins in the sectors more exposed to external competition. This seems to have happened in industry, which is exposed to strong competition both abroad and domestically. Thus, the industrial branches are the only supply sector in which business margins, approximated as the differential between the growth rate of the deflator and unit labour costs, have been negative since 1996. This behaviour is unsustainable in the medium term, however. As growing cost pressures exert upward pressure on prices, market share will be lost both at home and abroad.

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[1] The fall in the supply of oil caused by the strike at PDVSA in Venezuela between December of 2002 and February of 2003 has also had an impact.
[2] The effect of this risk premium is partly offset by the appreciation of the euro.
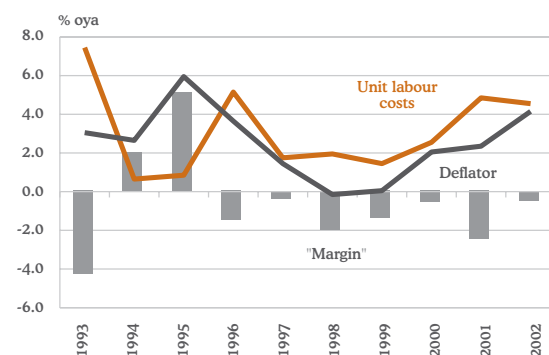
Graph 2.2
Volume of trade
Goods imports
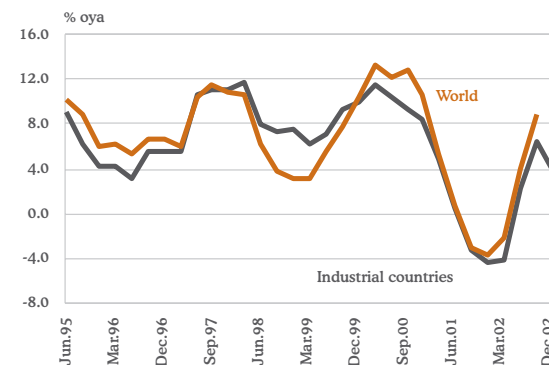
Source: IMF

Table 2.2. Competitiveness
Real effective exchange rate (% oya)

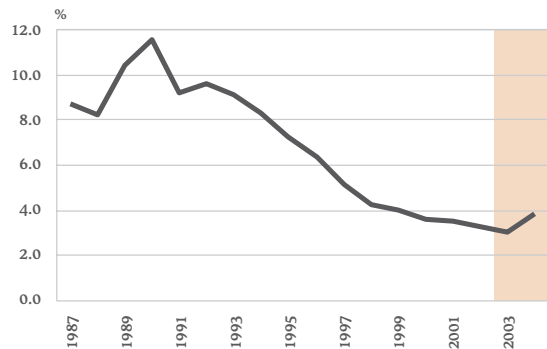|	SPAIN-WORLD	SPAIN-EMU	EMU-WORLD	$/€
1999	-1.5	1.1	-6.1	1.07
2000	-3.1	1.2	-9.7	0.92
2001	2.1	1.0	2.5	0.90
2002	3.2	1.3	4.4	0.94
2003	3.8	1.2	6.1	1.03

Source: BBVA

Graph 2.3
Industry: prices and costs

Sources: INE and BBVA

Graph 2.4
Real cost of capital

Source: BBVA

Table 2.3. Growth in Construction, National Accounts and ECIC

% oya	2000	2001	2002	2003
QNA, investment	6.1	5.8	4.5	3.6
ECIC, investment	6.9	7.8	5.5	4.0
ECIC, building	8.6	6.7	7.5	6.0
ECIC, public works	1.1	10.4	3.0	0.0

Sources: INE, Ministry of Development and BBVA

Graph 2.5
Capacity utilization in industry (%)

Source: Ministry of Science and Technology

Investment on hold until uncertainty clears

External demand developments will also be crucial for companies' expectations for activity. This factor, along with the real cost of capital, accounts for the behaviour of capital goods investment. This component of spending declined by 2.2% in 2002, the first fall since 1993. In 2003 the moderate recovery that got under way in the second half of last year is expected to continue, allowing average growth for the year to come in at 1.8%. After the historic lows of 2002 and the prospect of a further decline in 2003, the environment for long-term real interest rates poses no restrictions for the development of new investment projects (the "threshold" return required of potential investors is relatively low). In addition, although the indebtedness of non-financial corporations has been rising since 2001[3], the decline in nominal interest rates enabled financial spending to continue to fall in 2002. According to the Central Balance Sheet Office, the financial spending of non-financial corporations fell by 9.5% in the first three quarters of 2002 in comparison with the same period of 2001. In the same period, the gap between the return on assets and the cost of liabilities almost doubled, from 2.0 to 3.9 percentage points.

The favourable financial environment for undertaking new investment projects is nonetheless not enough to compensate for the deterioration in activity expectations and the uncertainty that exists at present. The degree of capacity utilization, which is an indication of the margins of slack existing before new investment is undertaken in industry, recovered in the course of 2002: in the fourth quarter of 2002, at 80.3%, it was above its historical average of 79.9% for the first time since the second quarter of 2001. However, in the first quarter of 2003 capacity utilization has fallen to 78.9%. This decline has occurred both in the capital goods industry and in the intermediate goods industry, whereas capacity utilization in the consumer goods sector has continued to rise.

If the international situation remains uncertain after the resolution of the military conflict in Iraq or if the conflict lasts longer than expected, the recovery in activity both internationally and domestically would be longer in coming. Any improvement in business expectations would therefore be highly unlikely and, as a result, investment in equipment would be sluggish in 2003. The likely reduction of interest rates in such a scenario would not be enough to boost productive investment given the considerable uncertainty that would persist with regard to the future path of activity.

Housing will offset the stagnancy in public works

While the resolution of the global uncertainty will shape developments in capital goods investment, the impact on construction investment, which is more affected by domestic factors, will be limited. For the fourth year running, construction was the fastest-growing component of domestic demand. As a result, it increased its share of the economy as a whole in 2002 to 18% of GDP, a 2.6-point rise from 1999 and 3.7 points above investment in capital and other goods.

With respect to residential building, housing investment in 2002 continued to benefit from the increase in demand resulting from lower interest rates and continuing job creation. An additional stimulus was the expectation that property asset values would continue to rise. This in a context of fierce competition among financial institutions in the development of mortgage products. The propitious investment environment, spurred by growing demand from households, has pushed up prices. House prices rose by 16.6% in 2002, 1.2 points above the

[3] According to the Bank of Spain's financial accounts data, the cost-bearing financial liabilities of non-financial corporations represented 85.4% of their financial assets in the third quarter of 2002, 7.9 points up from the same quarter of the previous year.

increase in 2001. This rise, the third annual increase over 10%, together with a less positive employment environment in 2003 and the limited additional impact of possible interest rates cuts on household purchasing power, is expected to result in a slight moderation of residential building activity (at 6%, 1.5 points down from 2002). The intensity of the slowdown will nonetheless be limited by the sector's inertia (houses already started will be finished), as confirmed by the information already available on houses approved by architects and quantity surveyors in 2002, which rose 3.5% and 2.5% from 2001, respectively.

The rate of growth of public works slowed in 2002, to a forecast rate of 3%, according to the ECIC activity indicator, 7.4 points down from 2001. Activity in the sector is projected to stagnate in 2003. The behaviour of public works is affected by the electoral cycle, a factor which boosts spending in the quarters leading up to elections. Declines on the scale of those seen in past cycles are unlikely, however, since there are fewer financial constraints both because of funding from the European Union and because financial control of the projects is to a large extent unaffected by budgetary restrictions.

In sum, investment in construction depends more on internal factors, essentially linked to the situation of households, meaning that it is the spending component least exposed to the vagaries of the international environment. However, the slight deceleration from 4.4% to 3.6% assumes that, in the course of the year, there is a recovery in consumer expectations from the lows of the first quarter of 2003 (related to a greater or lesser extent to an improved external environment) and that the labour market can sustain job creation, a key factor in the outlook for construction.

IRPF reform a support for household spending

Household consumer spending rose by 1.9% in 2002, a 0.6-point fall from the previous year. Spending growth slowed until the third quarter of the year, before recovering slightly in the final quarter (to an annual rate of 1.8%, up 0.3 points from the previous period) on the back of a strengthening (a slower rate of decline) in durable goods sales (cars). Household expectations, as reflected in the European Commission's confidence indices, are running at their most negative levels since 1996, with little prospect of an early recovery for as long as the geopolitical uncertainty lasts. The performance of household spending in 2002 was nonetheless somewhat better than seemed likely in view of the behaviour of its determinants: disposable income[4] and household wealth in the long term, and real interest rates, unemployment and consumer confidence in the short term[5]. The forecast for consumption growth in 2003 remains unchanged at a real rate of 2.4%, 0.6 points up from the growth rate registered in 2002. This unchanged outlook masks the changes in the contribution of the determinants in relation to what was expected at the end of 2002. Thus, the recent behaviour of the stock market means that there is unlikely to be an increase in the value of household share portfolios in 2003, as had been expected in the middle of last year. The forecast now is only for equity wealth to fall by less that the decline registered in 2002. In addition, despite the improved outlook for the other component of household wealth - property wealth - which accounts for 80% of total household wealth, as a consequence of the upside surprises in house prices, the total effect continues to be clearly negative.

Graph 2.6
Public works and elections
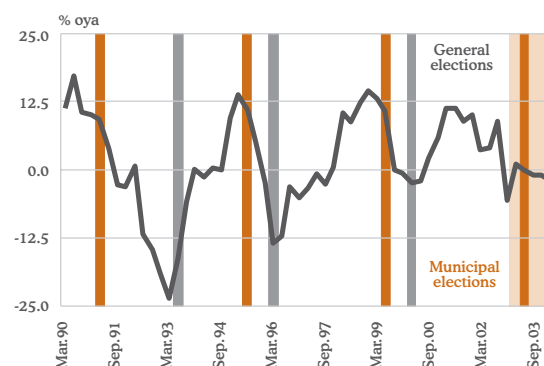
Sources: Ministry of Development and BBVA

Graph 2.7
Consumer confidence

Source: European Commission

Graph 2.8
Household saving rate and consumption

Sources: INE, Bank of Spain and BBVA

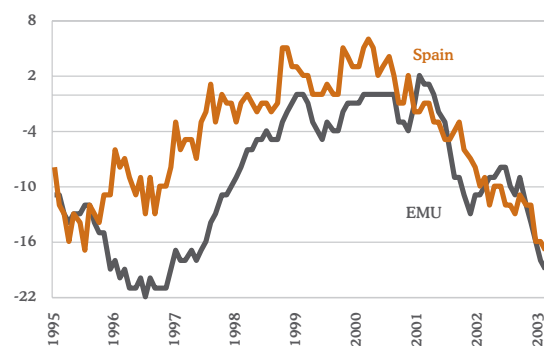[4] The INE has revised up the household disposable income series relative to the data released originally.
[5] For a more detailed analysis, see Balmaseda, M. and P. Tello, "Have the determinants of private consumption changed in Spain?", Situación Spain, July 2002, BBVA Research Department.
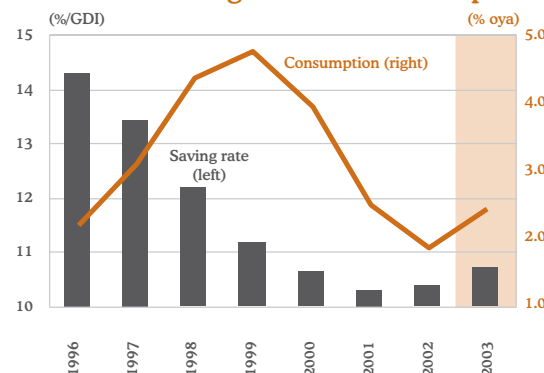
Graph 2.9

Employment growth

% oya

Graph 2.10

EPA labour survey

% oya
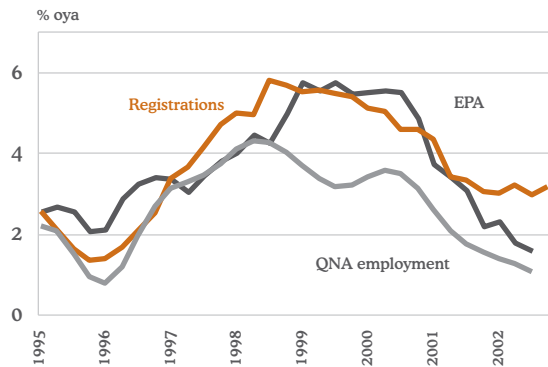
The net effect of wealth on the outlook for consumption will therefore be negative because of weaker developments in the stock market and household expectations. However, the larger increases projected for household disposable income and a reduction in interest rates (by more than expected at the end of 2002) will underpin consumption in 2003 with a greater relative contribution than estimated previously.

Against this backdrop of a high level of external uncertainty, it is difficult to foresee a sustained recovery of expectations and the financial markets in the very short term. The role of the IRPF reform as a support for the acceleration expected in consumption will thus be decisive. This reform should lead to an estimated increase in household disposable income of some 3 billion euros in 2003 followed by a further 600 million in 2004. It is assumed that approximately 50% of this additional income will be allocated to increased consumption, the remainder going to strengthen the incipient upturn in household saving. In a scenario of risk in which the gradual recovery in expectations and financial markets does not materialise in the second half of 2003, there would be an increase in precautionary saving by households. A smaller proportion of the income obtained from the fiscal reform would therefore be devoted to consumption. This effect would then be added to the direct impact on consumption of the likely reduction in activity, employment, confidence and wealth accumulation, etc. In a risk scenario, therefore, the momentum of consumption would be curtailed both by the direct impact of weaker developments in its determinants and by the indirect impact of a smaller stimulus from the IRPF reform.

Job creation despite the uncertainty

The central scenario described assumes that the Spanish economy continues to create jobs in 2003, though at slightly lower rates than those of 2002 as the deceleration taking place since the middle of 2000 continues. Despite this, the unemployment rate is expected to rise slightly in 2003, to 11.7% from 11.4%, owing to the relatively larger increases expected for the active population. The new 2001 Census shows that the Spanish population is increasing as a result of immigration flows, and this segment of the population has higher activity rates than the rest of the population[6].

By sectors, employment in construction and services rose in 2002, though growth rates slowed in the course of the year. Employment in industry fell by 0.4% on average in 2002, according to the EPA survey, but recovered in the second half of the year in line with the acceleration in the IPI. This year, in an environment of wages growth no higher than that of 2002[7] and gradually improving activity expectations, EPA employment should rise by 1.9%, 0.1 points less than it did in 2002. In a risk scenario in which the improvement in activity expectations does not materialise, and hence with no improvement in business investment either, the employment performance would be relatively weaker, though probably not to the extent where employment would be destroyed in 2003.

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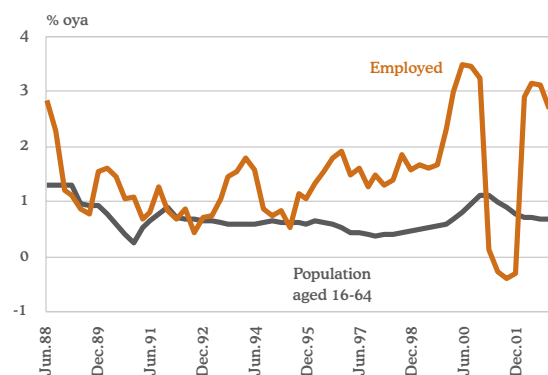
[6] Moreover, the EPA labour force survey has corrected the underestimation in the age brackets between 24 and 45 years of age, which are the age groups with the highest activity rates.
[7] Increases will be limited by the extension of the inter-confederation agreement between employers and trade unions, though significant declines in wages growth are unlikely because of the inflation-adjustment clauses in effect.

More investment and less consumption in the IPI

Composition of the Industrial Production Index by type of product

% of total	Base year 1990	Base year 2000	Change
Consumer goods	38.1	29.7	-8.4
Durables	7.5	4.3	-3.2
Non-durables	30.6	25.4	-5.2
Intermediate goods	30.5	37.4	6.9
Energy	16.7	12.9	-3.8
Capital goods	14.7	20.0	5.3
Total	100.0	100.0	

Source: INE

IPI: consumer durable goods
(Smoothed growth)
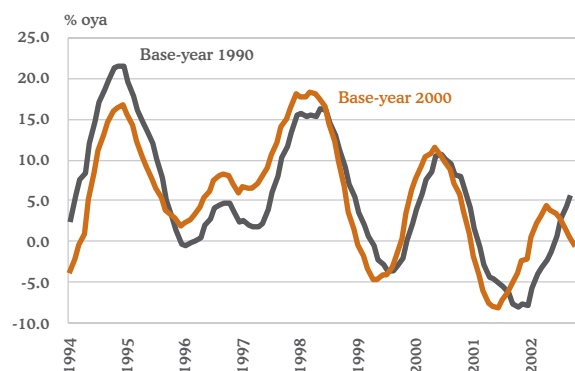
Sources: INE, Bank of Spain and BBVA

Updating of industrial statistics

The National Statistics Institute (INE) has updated the short-term statistics of the industrial sector. The structure of the sector prevailing in 2000 rather than that of 1990 will now be the base period and their compilation will be adapted to European Union regulations. From now on and until the next updating, the year 2000 becomes the reference for the products, activities and establishments considered in the different industry surveys. With this base-year information, the INE compiles every month both the IPI (industrial production index) and the IPRI (index of industrial prices), as well as two new statistics that it will begin to release in September of this year: the Industrial Turnover Index and the New Orders Received Index.

Industrial activity is registering a slow but steady loss of weight in GDP. Between 1990 and 2002, it declined as a percentage of GDP from 20.1% in current euros to 15.4%. In constant euros, the gross value added of the sector has fallen from 18.3% to 17% of GDP. Despite this, tracking its short-term behaviour is still essential in order to gauge the cyclical situation of the economy. Industry is the sector most exposed to the external environment, so that external shocks, both negative and positive, affect it more intensely. Together with construction, industry is nonetheless the sector with the most volatile growth and it also shows a high level of correlation with the cyclical position of the economy.

More cars in the investment in equipment

Using the information available in the Annual Industry Survey of Companies (EIE) and Products (EIP), it turns out that, in terms of the industrial category of the goods produced, the share of intermediate and capital goods is increasing at the expense of a loss of relative importance in the production of consumer and energy goods.

In greater detail, it is interesting to note the decline in the share of consumer durable goods production, which decreased from 7.5% of industrial production with 1990 information to only 4.3% using base-year 2000. Meanwhile, the production of capital goods has increased as a share of the IPI by 5.3 points, from 14.7% to 20%. Swings of this magnitude (consumer durables fall 3.2 percentage points, almost one-half of its previous share) are not only due to the variations deriving from the greater or lesser relative importance of the production of the various products. There has also been a change in the product category to which the production of certain industrial branches is assigned, as a result of the application of the National Classification of Economic Activities of 1993 (CNAE 93).

According to this reference, therefore, and taking into account the European regulations in this area[1], capital goods will from now on include the entire division 34 of the CNAE 93, a grouping that, together with commercial vehicle (lorries, vans) and bus manufacturing, includes all motor vehicles manufacturing (code 34.1000), irrespective of whether they are intended for household "consumption" or company "investment". Therefore, the only transportation elements that remain in the consumer durable goods category are motorcycle and bicycle manufacturing, as well as other smaller elements such as forklifts and the like. Under the previous classification, the production of private transport material was included in the consumer goods category, with a weighting of 4.2% in total IPI.

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[1] Specifically, Commission Regulation (EC) No. 586/2001 of March 26 of 2001 on the short-term statistics referring to the definition of the Large Industrial Sectors.

The 2001 House Census

Spain: population and houses, 2001 Census

	Total houses	Primary homes	Secondary homes	Empty houses and others	People/ household
Total	20,823,369	14,270,656	3,323,127	3,229,586	2.86
Andalusia	3,482,229	2,431,805	485,789	564,635	3.03
Aragón	650,011	445,255	114,985	89,771	2.70
Asturias	518,735	391,645	52,904	74,186	2.71
Balearic Islands	495,079	308,625	94,350	92,104	2.73
Canary Islands	827,787	558,362	111,596	157,829	3.03
Cantabria	281,792	183,699	50,571	47,522	2.91
Castilla León	1,469,463	892,912	349,798	226,753	2.75
Castilla-La Mancha	975,911	613,566	222,987	139,358	2.87
Catalonia	3,289,076	2,332,751	505,194	451,131	2.72
Valencia	2,525,659	1,499,711	557,913	468,035	2.78
Estremadura	586,689	368,072	107,001	111,616	2.88
Galicia	1,297,708	904,086	165,329	228,293	2.98
Madrid	2,497,300	1,885,817	290,800	320,683	2.88
Murcia	571,604	379,778	98,595	93,231	3.15
Navarra	257,565	189,632	29,804	38,129	2.93
Basque Country	886,733	745,144	47,762	93,827	2.79
La Rioja	165,659	101,877	36,946	26,836	2.72
Ceuta and Melilla	44,369	37,919	803	5,647	3.64

Source: INE

In Spain there was a total of 20.8 million homes in 2001. Of the total, 68.5% corresponded to primary homes, and 16% to secondary homes. Ownership is the predominant form of occupancy.

Every 10 years, the Census provides valuable information on the existing housing stock in Spain, its use and the type of tenure. In the past 10 years, the increase in the housing stock took place mainly in primary residences while ownership has been the predominant type of tenure.

In 2001, there was a total of 20.8 million houses in Spain), according to the preliminary results from the latest Census compiled by the National Statistics Institute (INE). Of this total, 14.27 million were used as primary homes, 3.23 million as secondary homes, with the rest either empty or coming under another category of residence. With respect to the 1991 Census, there has been a 21% increase in the total number of homes, comprising a 21.6% increase in primary homes and a 13.7% rise in secondary homes. Over the same period, the increase in the population in Spain was 5.1%. As a conse-quence of the above, throughout the past decade the average size of the Spanish household fell 0.45 points to stand at 2.86 people per household, although this figure continues to be 0.35 points above the European average.

The biggest growth in relative terms in housing in the period between the two surveys took place in the Canary Islands, with an increase of 41.5% in the housing stock, in the autonomous regions of Madrid and La Rioja, with increases above 29%, and in Navarra, with a rise of 27.4%. In the autonomous regions of Asturias, Aragon, Galicia and the Basque Country, the rise in the total housing stock was below 15%.

Of the total current housing stock, secondary homes account for 18.9% of family homes, a figure from which empty and other types of houses have been excluded. In the autonomous regions of La Rioja, Castilla La Mancha, Castilla Leon and Valencia, more than 22% of the housing stock takes the form of secondary homes. In the Basque Country, Madrid and Asturias, the proportion of secondary homes is much lower than the average, amounting in all cases to no more than 12% of the total.

The type of tenure of the principal residence in Spain is mainly ownership, currently accounting for 81% of the stock of primary homes. Rented homes, which in 2001 represented 11.3% of the former, have gradually seen their share fall since the middle of the last century, when they made up more than 40% of the total of primary homes. In absolute terms, the

Spain: Primary homes, type of tenure

	1960	1970	1981	1991	2001
(absolute values)					
Ownership	3,558,537	5,394,326	7,629,659	9,166,124	11,550,278
Rented	2,988,161	2,555,116	2,168,661	1,757,469	1,615,911
Other	481,953	554,884	632,575	901,256	1,104,467
Primary homes	7,028,651	8,504,326	10,430,895	11,824,849	14,270,656
(Relative values)					
Ownership	50.6%	63.4%	73.1%	77.5%	80.9%
Rented	42.5%	30.0%	20.8%	14.9%	11.3%
Other	6.9%	6.5%	6.1%	7.6%	7.7%

Source: INE population and housing census

Spain: houses and demographic variables

	Population	Number of households	Number of houses	People/ household
1960	30,582,936	7,028,651	7,726,423	4.35
1970	33,956,047	8,504,326	10,655,785	3.99
1981	37,742,561	10,430,895	14,726,859	3.62
1991	39,433,942	11,824,849	17,206,363	3.33
2001	40,847,371	14,270,656	20,823,369	2.86

Sources: INE and BBVA

number of rented homes in 2001 was 45% below those existing in the year 1960. Currently, rentals are mainly concentrated in the large cities, with almost 40% of the stock of this type of home located in Madrid and Catalonia.

Of total existing households in 2001, 40% moved to their primary home after 1991, a percentage that falls to 24% when the period of consideration is the last five years. Rented houses show, as is to be expected, a greater turnover. Out of the total of households renting, 46% moved to their residence in the past five years, a percentage that falls to 20.5% as far as habitual residences are concerned.

The divergent relationship that exists between population, households, and the number of houses in Spain during the course of the last ten years suggests there is a need to revise the models of housing demand, given that they are essentially based on the formation of households as the motor of demand for housing. Since 1960, the population in Spain has increased 25%, while, in the same period, the number of households has doubled, and the housing stock tripled.

Graph 3.1
CPI of restaurants and bars

Sources: INE and BBVA

3. Prices and wages

Trend inflation takes a step down

Consumer price inflation[1] fell in the first two months of 2003 to 3.7%, three tenths of a point down from the rate registered in the final quarter of 2002. The decrease in inflation was not only seen in the CPI, but also in the measures of inflation that strip out the more volatile components of the price basket, the IPSEBENE and BBVA Trend CPI. The annual rates of change of both indices fell by 0.3 percentage points between the fourth quarter of 2002 and January-February of 2003, from 3.6% to 3.3%. In the same period, the residual component of inflation[2] remained high, at an annual rate of 5.1%.

Among the residual components of CPI inflation, there was a compensatory movement involving the deceleration in fresh food prices (particularly intense in some meats and for vegetables) and the increase in energy prices. The latter was due to increases in fuel and heating oil prices, and a hike in electricity charges in January. Among the trend components of CPI inflation, the rise in the prices of processed food has been checked by the sharp deceleration registered in the price of cooking oils, since the other products are trending in the opposite direction. Services prices decelerated by 0.6 percentage points between the fourth quarter of 2002 and the first two months of 2003, from 4.5% to 3.9%, as the euro-rounding that took place in 2002 begins to work itself out. This positive comparison effect is already apparent in the prices of bar and restaurant services, which, after maintaining a record-high rate of inflation of 5.9% in the six months from June to November of 2002, slowed to 4.8% in February. Non-energy industrial goods, meanwhile, have also registered slower price increases, though, in this case, more as a result of higher discounts in the sales than the previous year. The rate of growth of these prices fell from 2.6% in the fourth quarter of 2002 to 2.2%.

In 2003 a euro-induced fall in inflation

The step downwards in inflation in the first quarter of 2003 due to last year's euro-rounding and the freezing of special taxes in 2003 is expected to continue in the second quarter. This was the period in 2002

[1] The INE has updated the weights of the basket of goods according to the new information available on the composition of household spending.
[2] Fresh foods, oils and fats, tobacco, energy, telephony and tourism services. In total, 25.7% of the CPI basket of goods.
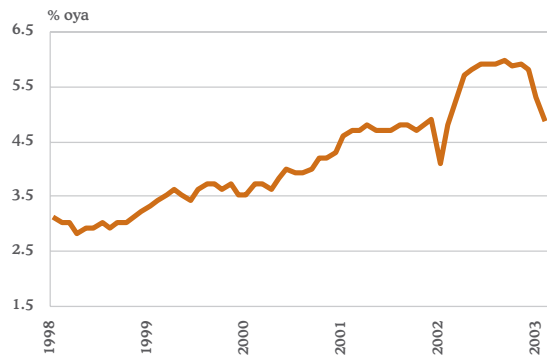
Table 3.1. Inflation

	Overall CPI			IPSEBENE			Residual CPI			Trend CPI		
	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004
Jan	3.1	3.7	2.9	3.6	3.2	3.1	2.0	4.9	1.7	3.5	3.3	3.4
Feb	3.1	3.8	2.8	3.6	3.3	3.1	2.0	5.3	1.4	3.5	3.3	3.3
Mar	3.1	3.7	2.7	3.5	3.3	3.2	2.7	4.8	0.8	3.3	3.3	3.4
Apr	3.6	3.3	2.6	3.9	3.0	3.2	3.5	3.9	0.9	3.7	3.1	3.2
May	3.6	2.9	2.8	4.1	2.9	3.1	3.5	2.3	1.6	3.6	3.1	3.2
Jun	3.4	3.0	2.9	4.1	2.9	3.2	2.3	2.9	1.7	3.8	3.0	3.3
Jul	3.4	3.1	3.0	3.8	3.1	3.3	2.7	3.1	1.8	3.6	3.1	3.4
Aug	3.6	3.2	3.0	3.8	3.2	3.3	3.1	3.8	1.9	3.8	3.0	3.4
Sep	3.5	3.2	3.1	3.5	3.3	3.4	3.9	3.0	2.0	3.4	3.3	3.5
Oct	4.0	2.9	3.1	3.7	3.0	3.3	5.4	2.2	2.1	3.5	3.2	3.4
Nov	3.9	3.2	3.1	3.6	3.1	3.3	4.9	3.6	2.2	3.6	3.1	3.4
Dec	4.0	3.2	3.1	3.6	3.2	3.3	5.0	3.6	2.3	3.7	3.1	3.4
Average	**3.5**	**3.3**	**2.9**	**3.7**	**3.1**	**3.2**	**3.4**	**3.6**	**1.7**	**3.6**	**3.2**	**3.4**

Sources: INE and BBVA forecasts

when the adjustment to more manageable prices in euros was probably most intense in view of the dual circulation of pesetas and euros until February. Moreover, the arrival from March of 2002 onwards of the new season's clothing and footwear products encouraged the rounding-out of prices after this period. This will produce a downward basis of comparison effect in the second and subsequent quarters of this year.

A second factor linked to the euro that will moderate inflation in 2003 is the increase in value of the currency itself. The euro is expected to appreciate against the dollar by 9.2% (from 0.94 dollars on average in 2002 to 1.03 in 2003)[3] . This appreciation of the European currency is helping to moderate the inflationary effect of higher oil prices. Since the first week of November, when the latest rising phase started, the price of a barrel of Brent has risen by 35% in dollar terms, but only by 22% in euro terms. The difference is explained by the appreciation of the euro.

The third factor that will help to curtail any increase in inflation is the fall in oil prices expected in the second half of the year once the geopolitical uncertainties linked to the Iraqi conflict have dissipated. The risk premium included in the price of crude would also disappear, taking prices down to a range between 26 and 28 dollars a barrel. The combined behaviour of the euro and oil should allow energy price inflation to slow to around 3% on average in 2003, half the rate of increase registered in the first quarter of the year. However, it is important to stress the considerable uncertainty surrounding the oil price scenario, even after the uncertainty arising from the war has worn off.

In short, it may be said that the basis of comparison effect of euro-rounding, the appreciation of the exchange rate and the likely fall in oil prices in the second half of 2003 will more than compensate for the upward impact on the spending of the economic agents, and hence to some degree on prices, of low interest rates and the IRPF reform. As a result, inflation will probably fall by two tenths of a point in 2003, from an average rate of 3.5% in 2002 to 3.3%.

However, the fall in inflation will not significantly reduce the inflation differential with the EMU in 2003. For the fifth year running, the differential will stay above 1% (specifically, at 1.3%, 0.1 points down from 2002), contributing to the deterioration in the competitiveness of the Spanish economy. This loss of competitiveness will stem from both the acceleration in relative prices in Spain and the effects of the appreciation in the nominal effective exchange rate of the euro. It should be noted, too, that the ongoing inflation differential is not the result of a process of price convergence within a monetary union, justified by higher increases in productivity in the tradeable sector. The inflation differential is the result of higher relative increases in Spain of employee compensation, which have not been offset to a large enough extent by stronger productivity advances or by adjustment of margins.

Wage moderation but with inflation catch-up clauses

According to the latest collective bargaining data, the wage agreements revised or signed registered an annual increase of 3.4% in January of this year for 3.5 million workers, 0.4 points higher than the average increase agreed in 2002, without considering inflation-adjustment clauses. By sector, the largest increases have been recorded in agriculture (3.91%) and construction (3.90%). The 3.1% pay award negotiated in 2002 increased, according to initial estimates, to 3.8% when inflation-adjustment clauses were incorporated. Such clauses have become increasingly common after the "surprises" registered in recent years in actual inflation in comparison to initial projections[4] .

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[3] In terms of the effective exchange rate, the euro is forecast to increase in value by 5.4% in 2003, which would be the third consecutive year its value has risen.
[4] The latest official data, corresponding to 2001, put the percentage of workers with inflation-adjustment clauses at 71%, 6 points more than registered in 2000 and 23 points more than 1998 when there was also an inflation surprise, with actual inflation coming in below initial projections. For 2003, the social agents foresee the percentage of workers with inflation-adjustment clauses rising to over 90%.
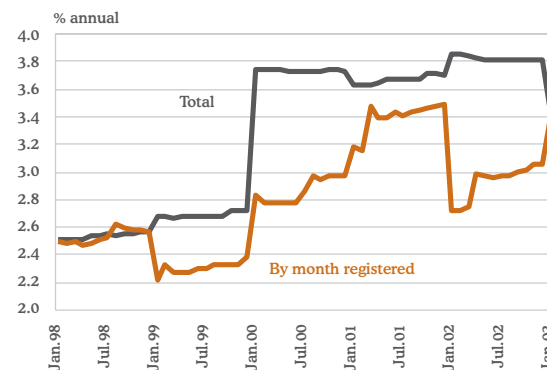
Graph 3.2
Brent: prices per barrel
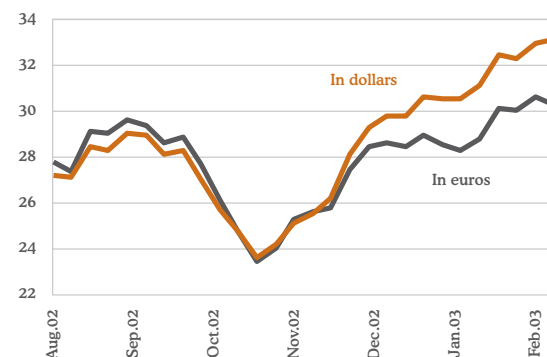
Sources: Datastream and BBVA

Graph 3.3
Inflation
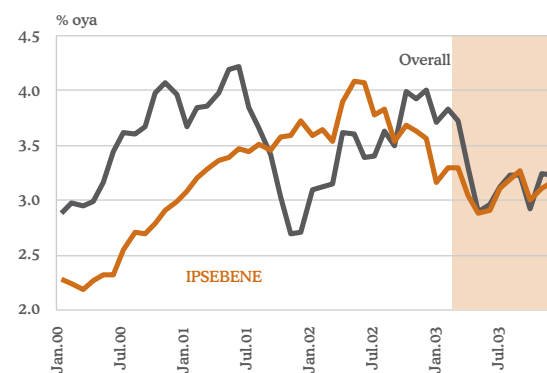
Sources: INE and BBVA

Graph 3.4
Collective bargaining agreements
Accumulated wage increase

Sources: Ministry of Labour and Social Affairs

Table 3.2. Deflators, growth and composition

%annual	1999	2000	2001	2002
1. Total deflator	2.7	3.5	4.2	4.4
2. Unit labour costs	2.1	3.0	3.8	3.2
Compensation	2.7	3.7	4.1	4.0
Productivity	0.6	0.8	0.3	0.7
"Margin" (1-2)	0.6	0.5	0.4	1.1

Sources: INE and BBVA

Graph 3.5
Economy

Sources: INE and BBVA

Wages growth in 2002 including inflation-adjustment clauses was 0.1 points higher than that of 2001 (3.8% and 3.7%, respectively). This, despite the fact that the agreements signed produced an increase of 3.1%, a figure also 0.4 points lower than the previous year's negotiated settlement. This deceleration in collectively-bargained wages for the first time since 1998 was the result of the Inter-confederation Agreement for Collective Bargaining of 2002, which was recently extended to continue in effect in 2003. Under this agreement, employers and trade unions agreed to exchange wage moderation (accepting the importance of wage gains in step with productivity) for improvements in employment, which is understood to mean not only the creation of jobs, but efforts to enhance job stability, training, equal opportunities and safety at work.

The results obtained in 2002 show the effects of wage indexation *ex post*: a pay settlement that produced a moderation of wages growth *ex ante* of some 0.4 percentage points (from 3.5% to 3.1%) finally led to an acceleration in wages *ex post* of 0.1 percentage points (from 3.7% to 3.8%). The extension to 2003 of the wage agreement between the employers organizations and trade unions will, given that inflation once again overshot projections, lead to the general application of inflation-adjustment clauses to the vast majority of workers with collectively bargained wages. The correlation of employee compensation with past inflation will thus increase, and it will be more difficult for compensation to adjust to productivity developments and hence for possible cost shocks – for example because of a sudden rise in energy costs - to be absorbed.

The "margin" accelerated throughout 2002

Despite the slight slowing in inflation, measured as the variation in the CPI in 2002 (from 3.6% to 3.5%), other more comprehensive measures of price increases trended up. Thus, the GDP deflator increased by 4.4%, 0.2 points faster growth than that registered in 2001. A breakdown of the growth in prices shows that this was the result of an acceleration in margins (a concept that includes taxes and operating surpluses), since unit labour costs grew by 0.6 points less in 2002 than they did in 2001 (3.8% and 3.2%, respectively). In addition, the deceleration in unit labour costs was the result of the combined effect of virtually stable growth in employee compensation (4.1% in 2001 and 4% in 2002) and a faster increase in the apparent productivity of labour: 0.7%, up 0.4 points from 2001.

As a result, in 2002 there was an acceleration in the "margin", a variable whose moderate increases over the period 1998-2001 helped to curb the intensity of price rises in the economy. In that period, employee compensation rose at steadily increasing rates, increases that growth rates of the apparent productivity of labour under 0.8% could not absorb. The acceleration in margins took place throughout 2002 in all branches of activity except for services. Particularly noteworthy is the situation in industry (excluding energy), which, since 1996, has registered a period of steadily declining margins as a consequence of its greater openness to competition and probably the deterioration in competitiveness of the Spanish economy. This evolution cannot be sustained indefinitely, however, and also makes the absorption of negative supply (higher energy costs) or demand shocks (falls in external consumption in response to geopolitical uncertainties) more difficult.

Our projection for 2003 is for the GDP deflator to slow slightly, from 4.4% in 2002 to 4.3%. This is consistent with the modest deceleration expected in employee compensation (the inflation catch-up clauses will curtail any deceleration). In addition, although productivity could rise at faster rates than those seen in recent years, the advances would be absorbed by the "margin".
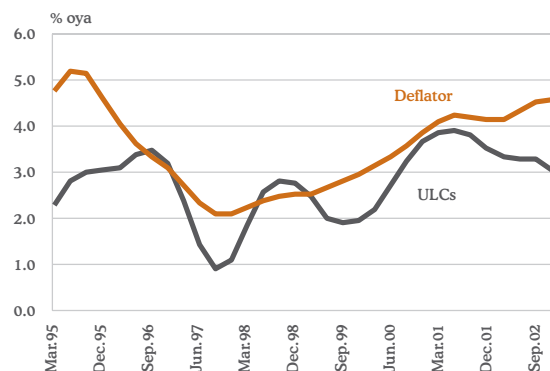
4. Fiscal policy

A lower-than-expected public sector deficit in 2002

In contrast to what happened in recent years, a better-than-expected performance by the regional government sub-sector enabled the overall public sector deficit to stand at 0.07% of GDP in 2002. This figure is below the one projected in the updated Stability Programme for 2002-2006 drawn up in December, and shows a situation of virtual balance after correcting for the impact of the Prestige catastrophe (0.04% of GDP). Part of this positive performance is the result of a change introduced by Eurostat in the accounting of certain outlays and revenue. Without these new accounting rules, the public deficit would have been one tenth of a point higher, at 0.17% of GDP (or 0.13% excluding the extraordinary expenditure caused by the Prestige). Even in this case, the deficit at end-2002 would have been similar to the one registered in 2001 (0.14% of GDP), a year which saw higher GDP growth, both in real terms (2.7% year-on-year compared with 2%) and nominal terms (6.9% compared with 6.5%).

In this context of economic slowdown, the deficit adjustment was underpinned by a positive revenue performance, since the share of the public sector in the economy increased. Revenue rose at an annual rate of 7.7%, reflecting the impact of exceptional factors which are unlikely to continue in the future (the tax treatment of re-invested profits, the regularization of employment, the creation of a tax on retail sales, etc.). According to the OECD, as a result of the growth in revenue, Spain is the EU country where tax pressure on labour income has increased most in the past year.

In addition, strong expenditure growth (7.5% year-on-year) cannot be explained by either the extraordinary spending associated with the Prestige catastrophe[1] or by the increase in financial outlays arising from substantial public debt repurchase programmes, since, if these items are excluded, expenditure would have grown by 8.3% year-on-year in 2002. A breakdown by type of spending shows that a significant portion of this increase may be attributable to the increase in funds needed to cover a number of benefits (for unemployment, and pensions as compensation for actual inflation overshooting the target) and especially to the difficulties encountered in controlling spending on health care, which rose by 9.9% in 2002 (above the ceiling set in the Pharmaceutical Stability Pact and faster than nominal GDP), and temporary disability.

As for the other sub-sectors of general government, the surplus in the social security system (0.7% of GDP, instead of 0.8% as forecast) easily offset the Central Government deficit, which was nonetheless lower than initially budgeted (0.5% and 0.6% of GDP, respectively). The central government therefore again posted a surplus (0.2% of GDP), allowing it to comply with the Budgetary Stability Law which comes into force in 2003.

An analysis of the available data on the public sector budget outturn in 2002 seems to indicate, first of all, that the sizeable surplus of the social security system was affected by transitory factors. These include a process of regularization of employment in order to benefit from employment-promotion incentives, thereby boosting revenue from social security contributions, and smaller numbers of retirees in the civil war generation. And, second, that the improvement of the fiscal situation of the regional governments is explained by accounting factors rather than by the increased fiscal co-responsibility arising from the entry into force

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[1] In 2002 the expenditure arising from the Prestige catastrophe was financed with credit balances from other departments and with the re-allocation of EU funding for other objectives.

Table 4.1. Public deficit and debt

| (%/GDP)	2001	2002 Actual	2002 Stability Programme 2002-2006
Central Government	-0.5	-0.5	-0.6
Social Security System	0.8	0.7	0.8
Regional Government	-0.4	-0.3	-0.4
General Government	**-0.1**	**-0.1**	**-0.2**
Public debt	56.9	54.0	55.2
Primary surplus	3.0	2.8	2.7

Source: Ministry of Finance

Table 4.2. Net lending (+) or borrowing (-)

Billions of euros	2001	% of GDP	2002	% of GDP	% oya
Non-financial revenue	259.1	**39.8**	279.1	**40.2**	7.7
Non-financial expenditure	260.1	**39.9**	279.6	**40.3**	7.5
Prestige spending			0.3	**0.04**	
Net lending (+) or borrowing (-)	**-0.9**	**-0.14**	**-0.5**	**-0.07**	
Interest	20.3	3.1	19.8	2.9	-2.5
Primary surplus	**19.3**	**3.0**	**19.3**	**2.8**	-0.2
Public debt	371.0	56.9	374.4	54.0	

Source: Ministry of Finance

Graph 4.1

Impact of accounting changes on the public deficit
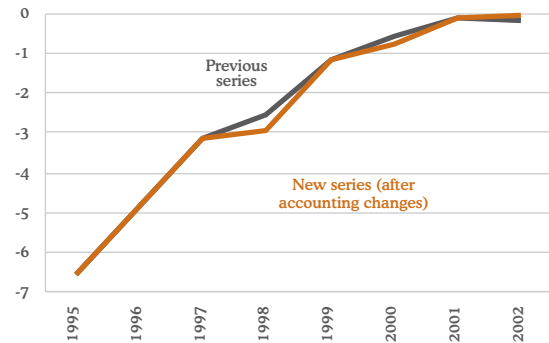
Source: Finance Ministry

of the new regional financing system, which guarantees the control of public spending in the future.

In spite of this, the public finances in Spain are in a healthier position than in most EU countries in 2002, according to Eurostat data. It is this better relative situation that has enabled the risk premium on Spain's sovereign debt with respect to that issued by Germany and France to be cancelled out.

Another indicator of the fiscal situation is public debt, which stood at 54% of GDP in 2002, almost 3 percentage points down from the previous year-end. Both the deficit adjustment and the decline in interest rates mentioned and higher inflation have played a role in this reduction.

Accounting changes in deficit measurement

Two accounting modifications have affected the deficit. Firstly, only those accounts receivable that have a high probability of being paid will now be booked as revenue, rather than all accounts, as had hitherto been the case. Second, Mintra, the regional company that manages rail infrastructures in the Madrid autonomous region, will now be considered a non-financial enterprise (until now it consolidated in the public sector accounts). If this company had consolidated in the general government accounts, the public deficit in 2002 would have been 0.1 points higher than the figure finally published.

This accounting change has also affected the deficit figures for previous years. The most important revisions have occurred in the years 1998 and 2000, when the final deficit (3% of GDP and 0.8% of GDP) was 0.4 and 0.2 points higher, respectively, than the previously-announced figure.

Direct taxes surprise positively in 2002, but indirect taxes reflect weaker consumption

The fall in the Central Government revenue and expenditure figures reflects the impact on the various sub-sectors of general government of the new regional financing system, which entered into force progressively over the year. The process of transferring health care responsibilities has taken place gradually, making it more difficult to assess the degree of execution of the budget projected for 2002. Particularly because, when it was drawn up, the budget only envisaged the assignment of indirect taxes to the 5 ordinary-regime autonomous regions that had assumed health care powers prior to January 1, 2001. Given that the Finance Ministry has reported the revenue figures corresponding to 2002 and 2001 for the Central Government and the autonomous regions[2] together, we shall go on

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[2] Overall revenue adds to State revenue the amount of the shares of the autonomous regions in IRPF, VAT and special taxes.

Table 4.3. State cash-balance deficit

Millions of euros	2001 Outturn	2002 Budget projection	% oya	2002 Outturn	% oya
Non-financial revenue	125,187	104,953	-16.2	108,456	-13.4
Non-financial expenditure	128,071	108,602	-15.2	111,082	-13.3
Cash deficit	-2,884	-3,649		-2,626	
%/GDP	-0.44	-0.56		-0.40	
Primary surplus	15,379	15,421		16,237	
%/GDP	2.36	2.37		2.49	

Source: Finance Ministry

to assess the revenue performance overall, since this is the only way of making a homogeneous comparison.

In contrast to the previous year, revenue in cash-balance terms in 2002 was better than budgeted. This above-budget growth was due to higher tax collections - up 8.9%, instead of the budgeted 5.9% - rather than to the evolution of other revenue. Despite slower economic growth (2% as opposed to 2.2% in the 2002 Budget), two factors helped to push up revenue. One was higher inflation, the GDP deflator rising by 4.4%, instead of 2.9% as budgeted, the other the change made to the tax treatment of re-invested profits[3], which led to early payment of taxes. This had the effect of temporarily increasing corporation tax receipts. Thus, direct tax receipts outstripped the official projection by some 4 billion euros, of which 62% corresponded to corporation tax collections (72% of total taxes), which rose 24.3% in 2002, as against a forecast rise of 10.2%. The rest reflects the positive path of Income tax receipts linked to labour income, which rose 8.5% year-on-year, reflecting both the creation of employment in 2002 and the fact that neither the Income tax schedule nor allowances are adjusted for inflation. In contrast, revenue from withholdings on capital income fell 15.1%, largely as a result of the negative performance of the financial markets and a reduction in the withholding rate from 20% to 18%. Overall, Income tax receipts increased by 7.1%, compared with a budgeted rise of 2.7%.

Higher tax pressure in 2002

The strong direct tax performance compensated for the negative behaviour of indirect taxes, a development which simply reflects the loss of momentum in private consumption. Both VAT and special tax receipts rose at lower-than-expected rates: 6.4% and 4.6% year-on-year, as against 7.7% and 6.3% in the budget[4]. As a result, indirect tax revenue fell for the third year running, undershooting the budgeted figure by some 614 million euros. Tax revenue nonetheless rose by 8.9% in 2002, far outstripping the 6.5% growth rate of nominal GDP and a budgeted growth rate of 5.9%. All the indications are that, after remaining virtually stable the previous year, tax pressure increased in 2002, as the OECD has already reported.

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[3] Law 24/2001 of December 27 on social, administrative and fiscal measures.
[4] The 2002 Budget did not contain a combined revenue figure for the State and all the regional governments, so that the overall figure has had to be estimated from the budgeted figure taking into account each regional government's share in IRPF and indirect tax revenue.

Table 4.4. State non-financial revenue (cash basis)

Millions of euros	2001 Outturn	2002 Budget projection	% oya	2002 Outturn	% oya
Direct taxes	**55,697**	**53,999**	**-3.0**	**55,531**	**-0.3**
IRPF	36,469	32,464	-11.0	32,268	-11.5
Corporation tax	17,217	19,703	14.4	21,420	24.4
Other	2,012	1,832	-8.9	1,843	-8.4
Indirect taxes	**53,157**	**37,276**	**-29.9**	**38,027**	**-28.5**
VAT	34,674	24,977	-28.0	25,720	-25.8
Special taxes*	16,612	10,333	-37.8	10,347	-37.7
Other	1,871	1,966	5.1	1,960	4.8
Other	**16,332**	**13,678**	**-16.3**	**14,898**	**-8.8**
Total revenue	**125,187**	**104,953**	**-16.2**	**108,456**	**-13.4**

* 2001 collections include revenue from specific means of transport, which from 2002 is collected by the autonomous regions.
Source: Finance Ministry

With respect to non-tax revenue, receipts were higher than projected initially, although by a much smaller amount than in previous years: 1.8 billion euros in 2002, compared with 2.368 billion in 2001 and 3.051 billion in 2000. Contributing to this weaker relative performance were: i) lower Central Government profits and dividends both because of the low profits of the Bank of Spain and a reduction in telephone rates; and ii) the decline in social security transfers due to the change in the funding mechanism for health care responsibilities.

2003 revenue will be affected by the delay in the economic recovery and the revenue impact of the Income tax reform

In 2003, slower growth in private consumption and a weaker corporate earnings outlook suggest that revenue is unlikely to outperform the figures budgeted. Two factors, one working downwards, the other upwards, will affect the behaviour of tax revenue. The first is the Income tax reform, with a revenue cost for the government of some 2.451 billion euros (0.34% of GDP) after taking into account the positive impact of the reform on the economy. The second is the realisation of capital gains, which will continue to have a positive effect on corporation tax revenue. The Income tax reform, which will reduce the effective rate of the tax[5], and the non-adjustment of the tax rates of special taxes introduce a slightly expansionary stance to fiscal policy. Overall, the tax cuts that will enter into force in 2003 will reduce the tax bill of companies and households by some 4.566 billion euros.

Current spending overshoots in 2002

In contrast to revenue, no figures for total spending (Central Government and regional governments) are available for 2002 that would allow a homogeneous comparison to be made, whether with the 2001 Budget outturn or with the budgeted figure. However, in cash-balance terms, expenditure registered a fall of 13.3%, compared with a projected fall of 10.8%. This reduction reveals the shrinking share of the Central Government in general government as a consequence of the assignment of new responsibilities to the regional governments (health care and social services) and the lower obligations payable at the end of 2001.

The progressive assumption of health care responsibilities by the regional governments introduces a break in the current transfers expendi-

[5] According to official estimates, individual tax pressure will fall by 11% after the IRPF reform.

Table 4.5. State non-financial expenditure (cash basis)

Millions of euros	2001 Outturn	2002 Budget projection	% oya	2002 Outturn	% oya
Current operations	114,795.1	96,431	-16.0	97,584	-15.0
Personnel costs	16,827.1	17,643	4.8	17,554	4.3
Goods and services	2,553.7	2,680	4.9	2,843	11.3
Financial spending	18,263.6	19,070	4.4	18,863	3.3
Current transfers	77,150.7	57,038	-26.1	58,324	-24.4
Contingency fund					
Capital operations	13,275.8	12,171	-8.3	13,498	1.7
Investments	6,460.9	6,263	-3.1	7,043	9.0
Capital transfers	6,814.9	5,908	-13.3	6,455	-5.3
Total spending	**128,070.9**	**108,602**	**-15.2**	**111,082**	**-13.3**

Source: Finance Ministry

ture series and impedes the detection of anomalous behaviour in its evolution, as well as departures from the initial budget. For this reason, Central Government current transfers fell by 24.4% year-on-year, compared with an increase of 5.9% in 2001. Even if the analysis is limited to the spending headings least affected by the transfer of responsibilities (interest payments, purchases of goods and services and real investments), the volume of modifications to credit affecting these headings as at November 30 amounted to 2.3278 billion euros, the equivalent of around 0.3% of GDP. This overshoot represents 2% of final credit, the limit established for the contingency fund.

Nonetheless, in 2002, the Central Government cash-balance deficit, which for the year as a whole should be unaffected by the entry into force of the new regional financing system (lower spending and lower revenue owing to the transfer of taxes to the regional governments to finance the new responsibilities), stood at 2.626 billion euros, or 0.4% of GDP (after 0.44% in 2001). This corresponds to a deficit of 0.5% in national accounts terms (after 0.6% in 2001), in line with the projection of the Stability Programme for 2001-2005. This discrepancy between the deficit in cash-balance and national accounts terms is largely explained by the different evolution of interest payments depending on the accounting criterion used: they rise by 3.3% in cash-balance terms, but fall by 2.3% in national accounts terms. This means that, in national accounts terms, the primary surplus decreased by 0.1 points in 2002, to 1.9% of GDP, which confirms that the economic slowdown is affecting revenue and that some non-financial expenditure items have increased at faster rates.

Social security system in surplus again

In 2002, the social security system ran a surplus of 5.551 billion euros (0.7% of GDP), compared with a surplus of 5.213 billion (0.8% of GDP) in 2001. Although the budget outturn of the social security system slightly underperformed that projected (0.8%), it was this sub-sector that made it possible for the central government collectively to continue to run a surplus: 0.2% of GDP.

Like the Central Government and the autonomous regions, the revenue and expenditure figures are affected by the entry into force of the new regional financing system in 2002. Although end-year data for all revenue and expenditure items are still not available, the behaviour of the main headings (social security contributions - around 81% of social security resources – and pensions expenditure – 73% of total expenditure in the budget for 2002) allows an initial assess-

Table 4.6. Social Security expenditure budget for 2002

Millions of euros	Programmed	Executed Jan-Jul 2002	Degree of execution (%)	Executed Jan-Nov 2002	Degree of execution (%)
FINANCIAL BENEFITS	**67,503.4**	**38,287.7**	**56.7**	**58,158.4**	**86.16**
- Pensions	57,985.8	32,698.4	56.4	49,444.3	85.3
, Contributory	56,230.6	31,736.3	56.4	47,892.6	85.2
, Non-contributory	1,755.2	962.2	54.8	1,551.8	88.4
- Temporary disability	4,026.8	2,475	61.5	4,012.6	99.6
HEALTH CARE	**12,188.5**	**3,762.5**	**30.9**	**4,255.7**	**34.9**
SOCIAL SERVICES	**639.1**	**336.3**	**52.6**	**523.2**	**81.9**
TREAS., INFOR. AND OTHER	**5,446.8**	**648.4**	**11.9**	**1,056.8**	**19.4**
TOTAL	**85,777.8**	**43,034.8**	**50.2**	**63,994.1**	**74.6**

Source: Ministry of Labour and Social Affairs

Table 4.7. INEM budget

Millions of euros	Initial budget 2002	Outturn 2002	Initial budget 2003
Total outlays	**8,784**	**10,505**	**10,507**
Contributory benefits	4,089	5,269	5,345
Unemployment benefits	1,416	1,526	1,461
Farm subsidy	985	982	926
Contributory contributions	1,724	2,230	2,192
Subsidy contributions	269	289	282
Reinsertion active income	301	209	301

Source: Ministry of Labour and Social Affairs

ment to be made. Revenue from social security contributions increased by 5.9% year-on-year (as against 4% in the budget projection), well down from the 9.3% pace of expansion registered in 2001. This sharp deceleration reflects, on the one hand, a smaller increase in social security registrations in 2002 – 3% compared with 3.9% the previous year – and, on the other, the lower contribution rates that apply to new jobs. In 2002, however, the additional revenue obtained from social security contributions exceeded the figure initially budgeted by some 3.0 billion euros (0.4% of GDP), down from the 4.0 billion euros (0.6% of GDP) of extra revenue received in 2001. This revenue moderation will probably continue in 2003, in line with a slower forecast rate of job creation.

With respect to outlays, contributory pensions expenditure rose by 6.5% in the year as a whole, a faster increase than the 5.4% rate budgeted. In 2002, it was once again necessary to compensate pensioners for inflation overshooting the targeted rate of 2%. In November, inflation stood at 3.9%, 1.9 percentage points above the target (as against 0.7 percentage points in 2001). This resulted in an extra payment to pensioners in January of 2003 amounting to 1.05 billion euros (0.16% of GDP), which will be imputed to the budget for 2002, and an additional 1.021 billion (0.14% of GDP) resulting from the consolidation of this overshoot in 2003. Added to this is the above-budget growth in worker disability spending, which rose by 13.5% in the first eleven months of the year, instead of the fall that was projected. In 2003, these two expenditure headings could accelerate significantly away from budget because of the need to compensate pensioners for inflation again missing the target (1.2 percentage points) and the insufficient funding set aside to cover worker disability outlays (-3.5% with respect to the budget projection).

The healthy financial situation of the social security system in 2002 nonetheless allowed a larger-than-anticipated endowment to be made to the Reserve Fund: 3.575 billion euros instead of 1.052 billion. As a result, the fund stood at 6.02 billion euros at the end of 2002. The Cabinet has approved a draft bill to regulate the endowment, use, composition and management of the Reserve Fund. The measures adopted include the following: i) a 3% ceiling on the annual amount that can be withdrawn from the fund to cope with deficit situations in the payment of contributory pensions; and ii) the creation of a Reserve Fund Management Committee.

With respect to INEM spending, unemployment benefits expenditure was much higher, in fact 20% higher, than the 10.505 billion euros budgeted. This substantial overshoot was both the result of an increase in the number of unemployed (6% in 2002, the first increase since 1994) and the coverage ratio (59.86% compared with 56.59% in 2001), and the imputation of benefits arising and paid in 2001 (417 million euros) to the budget for 2002. In 2003, the 3.6% increase expected in unemployment suggests that budgeted funding for unemployment benefits outlays is insufficient.

The accumulation of unforeseen factors will make achieving a balanced budget in 2003 difficult

In 2003, the undergoing correction in interest rates and the disappearance of the differential in long-term rates between Spanish and German debt, on the one hand, and the re-establishment of three- and six-month Treasury bill issues in a year in which debt maturities are way above those for 2002 (72.8 billion euros against 50 billion), on the other, will have a positive impact on interest payments. Even taking into consideration this positive impact on Central Government spending, the

risks continue on the upside. One must not forget the budgetary cost of the Prestige, which the Government has estimated at least at 1 billion euros (0.13% of GDP)[6] , the compensation for the Municipalities for the elimination of the IAE Tax on Economic Activity (0.1% of GDP)[7] , as well as the budgetary impact of political decisions that could be adopted to lessen the impact of unforeseen circumstances (an increase in transfers to companies and households, greater funding for the Railway Infrastructure Manager (GIF) for the high-speed train line, help for Babcock etc.), or the costs generated by the participation of Spanish troops in peace-keeping duties in the Iraqi conflict. All these factors point to an increase in unplanned Central Government spending above the amount of the Contingency Fund approved for 2003 (0.3% of GDP). This is the case, despite the fact that finally the Central Government will not assume Renfe's debt in 2003, which would have raised the deficit by 0.5%/0.8% depending on the formula approved[8] .

To these outlays must be added the following: i) the foreseeable compensation for pensioners arising from an increase in prices above 2% (3.2% is forecast in November), which would mean additional spending of 700 million euros (0.1% of GDP); ii) the impact of the regional and municipal elections; and iii) higher-than-expected growth in health spending, which rose 10% up to February against a target of 7.5 %.

All of this is taking place in the first full year of operation of the new regional financing system and coincides with demands from the autonomous regions for more funds to meet the impact on regional spending of the latest state laws approved[9] after the amount of the Sufficiency Fund was decided. Despite this, the autonomous regions committed themselves in the Fiscal and Financial Policy Council to achieve a balanced budget in 2003 and to maintain this until 2006, confirming their undertaking to meet the objective of the Law on Budgetary Stability.

On top of these uncertainties, the deterioration in the prospects for world growth and the Spanish economy, in particular since the 2003 Budget was approved, must also be taken into account. According to the Finance Ministry estimates contained in the Stability Programme for 2002-2006, if the economy were to grow one percentage point below the forecast 3.0%, the deficit of the public sector as a whole could increase 0.4 points in 2003 (0.4% of GDP), simply because of the functioning of automatic stabilisers. Given the high probability that the Spanish economy will grow below the official forecast and the impact on spending of developments not included in the 2003 Budget, the public sector deficit could come in above the 0.4% of GDP forecast by the government under a low growth scenario.

However, given the nature and size of the budgetary costs of the Prestige (0.13% of GDP according to official estimates), Eurostat could allow this extraordinary spending to be excluded from the calculation of excess deficit, and, therefore, it would not be taken into account in evaluating Spain's compliance with the Stability and Growth Pact.

Surplus up to February 2003 due to the favourable evolution of tax revenues

The Finance Ministry has published the evolution of the accounts of

Graph 4.2
State: modifications to credit as a percentage of total credit

Source: Finance Ministry

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[6] The EU could co-fund an extraordinary loan granted to Spain to finance the cost of the damages caused by the Prestige.
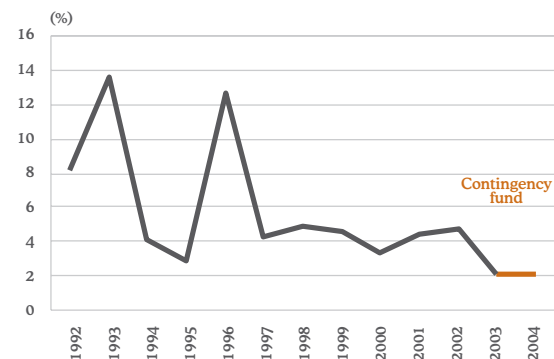[7] In the Cabinet meeting of February 7, the use of 331.6 billion euros from the Contingency Fund for 2003 was approved, mainly to meet the cost of the Prestige.
[8] The Bill on the railway sector proposes that the new Railway Infrastructure Administrator (ADIF) assumes the part of Renfe's debt corresponding to infrastructure – 5.8827 billion euros – and that RENFE-Operator assume the operating debt, about 1.5 billion euros.
[9] Among these are the Quality of Education Law, the Quality of Health Cohesion Law and the Patronage Incentives Law.
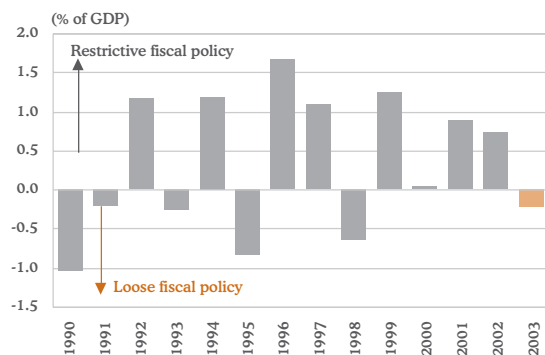
the Central Government sub-sector up to the month of February. The lack of homogeneity of these figures with those corresponding to the same period a year earlier makes the evaluation of the level of implementation of the Budget difficult. It should not be forgotten that in the first months of 2002, although the new regional financing system was in place, the autonomous regions adhering to the transitional period, financed health spending with transfers from the INSALUD (National Health Institute) and not through taxes ceded to them, the main source of financing in 2003.

Nonetheless, in the first two months of the year the Central Government registered a cash-balance surplus of 1.903 billion euros, 0.26% of GDP (0.14% of GDP in the same period of 2002). Although two months are not enough to extrapolate on the performance of the public accounts for the year as a whole, the good behaviour of tax revenue should be highlighted, especially VAT and Income tax receipts. Grouping together collections for the Central Government and the autonomous regions, Income tax revenue grew by 13.2% and VAT 9.6%, against the 3.1% and 6.2% budgeted, respectively. The strength of VAT receipts is surprising in the current context of uncertainty and in the absence of regulatory changes, from which an adjustment should be expected in its growth rates in line with the evolution of private consumption and imports. As regards Income tax revenue, its growth is biased by the lower tax rebates carried out in the first months of 2003, and it is to be expected that its growth rate will slow throughout the year owing to the impact of the reform. With respect to spending, the fall posted in the first two months of 2003 (8.6% year-on-year) reflects the impact in the early part of the year of the transitional period adhered to by some autonomous regions in assuming responsibility for health care, which makes it difficult to issue a judgement on the persistence of this adjustment.

Again an expansionary policy-mix in 2003

Despite the Spanish economy's loss of momentum, its cyclical position is more favourable than that of the EMU. As a result, the monetary policy stance is more expansionary than required by our economy. After the last cut in rates by the ECB, the gap between the level of interest rates that, according to a Taylor rule, the Spanish economy would need (3.4%) and that observed (2.5%) has widened. It seems unlikely that this expansionary bias in monetary policy will be compensated by a sufficiently restrictive fiscal policy. In fact, according to the estimates of BBVA Research Department, and taking into account the new deficit figures published by the Ministry of Economics, the stance of fiscal policy in 2003 would have to be classified as neutral or slightly expansionary. Graph 4.3 shows that the advances made in the process of structural deficit adjustment were undertaken in 2001 and 2002.

The spending limit for 2004 limits the counter-cyclical role of fiscal policy

In line with the fulfilment of the conditions fixed by the Budgetary Stability Law, in the first quarter of the year the Cabinet approved the ceiling on spending forecast for 2004. In this year, the Central Government can spend a maximum of 117.260 billion euros, which implies growth of 4%, similar to the 4.1% forecast for 2003. The limit includes the so-called Contingency Fund, which represents 2% of non-financial spending and totals 2.345 billion euros. The establishment of a ceiling allows stricter control of spending, and avoids the adoption of measures that make it shoot up in expansions during which greater revenues allow the funding of higher spending. This aspect takes on particular importance in the case of Spain, given that in the last expansion phase, the changes in loans represented on average

Graph 4.3
Fiscal impulse

(% of GDP)

Sources: Finance Ministry and BBVA

about 4.3% of total loans. Therefore, the amount established for the Contingency Fund in 2004 is restrictive.

The Stability Programme for 2002-2006: surplus in 2005

This limit on spending is consistent with the estimates contained in the updated Stability Programme for Spain for 2002-2006, which foresees a progressive reduction in the Central Government deficit to levels of 0.2% of GDP in the last year of the programme. Although this is positive, the most striking aspect is the attainment of a balanced budget in the Regional Governments, given the growing weight of the autonomous regions and local governments in the public sector as a whole and their importance in maintaining healthy public accounts. The commitment to this objective was ratified in the last agreement reached in the Fiscal and Financial Policy Council in which the autonomous regions undertook, on the one hand, to guarantee a balanced budget until 2006, and, on the other, that at the end of 2003 the level of debt reaches at most that seen at the end of 2002.

Despite this undertaking, the deterioration in the national and international economic situation since the Stability Programme for 2002-2006 was drawn up, the impact on public spending of extraordinary factors (Prestige, war with Iraq, the assumption of Renfe's debt), and the difficulty in controlling other factors (health spending and worker disability) indicate it will be hard to meet the targets fixed in the Programme.

However, in the current context of a relaxation in fiscal targets within the EU, it is positive that Spain is maintaining the objective of fiscal balance, given the lax stance of the ECB's monetary policy for Spain, and provided that this does not hold back the productive spending that is driving the long-term growth of the Spanish economy.

Table 4.8. Stability Programme for 2002-2006
(National Accounts, ESA-95)

| (% of GDP)	2002	2003	2004	2005	2006
Total revenue	39.8	39.8	39.8	39.8	39.8
-Tax collections	35.4	35.4	35.5	35.6	35.7
Total expenditure	40.1	39.8	39.7	39.7	39.6
Current expenditure	34.7	34.5	34.3	34.1	33.9
Financial expenditure	2.9	2.8	2.7	2.6	2.5
Capital expenditure	5.4	5.4	5.5	5.6	5.7
GFCF	3.5	3.5	3.6	3.7	3.8
Net lending (+) or borrowing (-)					
General gov.	-0.2	0.0	0.0	0.1	0.2
State	-0.6	-0.5	-0.4	-0.3	-0.2
Social security	0.8	0.5	0.4	0.4	0.4
Territorial Admin.	-0.4	0.0	0.0	0.0	0.0
Public debt	55.2	53.1	51.0	49.0	46.9
Primary surplus	2.7	2.8	2.7	2.7	2.7
Gross saving	3.9	4.0	4.2	4.4	4.6

Source: Finance Ministry

Pension benefits and working life

Changes in the 1st pension received relative to the current situation, 15 years (%)

No. of years considered for calculating the regulatory base	Individual I Without training	Individual II With average training	Individual III With high training
20	-3.9	-3.5	-2.6
25	-7.0	-6.3	-5.0
30	-12.0	-11.3	-9.8
35	-18.9	-17.7	-16.9
40	-23.7	-25.1	-25.0

Source: BBVA

Relative salary pattern
(%)

Source: BBVA
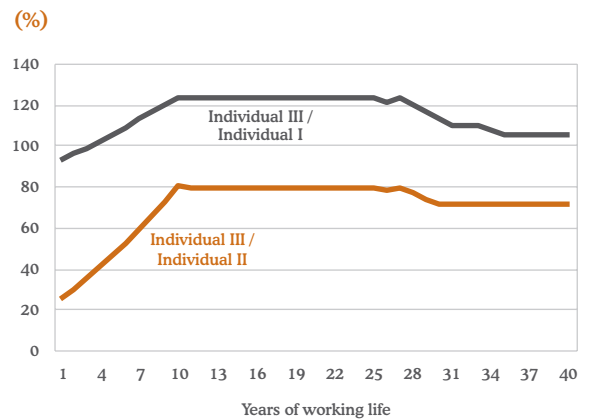
In a pay-as-you-go pension system such as the one in Spain in which benefits are determined by the defined contribution method, the contributory retirement pension depends on the career history of the worker, that is, his salary and the number of contributing years in the course of his working life. Under this system, therefore, the relationship between the first pension and the last salary is greater the lower the number of years considered for calculating the regulatory base of the pension.

The objective of this box is to evaluate the impact that changes in the length of the reference period considered for calculating the regulatory base could have on the contributory retirement pension of workers with different salary histories[1]. To arrive at this estimate, career histories have been constructed for theoretical individuals[2] with different salary profiles throughout their lives. Three types of individuals are considered according to the level of their training. Individual I, without professional training, initially receives the minimum salary, which is below the average salary provided in the Labour Cost Index, and after 10 years of work experience his remuneration represents 88% of the average wage[3]. The salary of Individual I develops over time in line with the average salary, with the exception of the years prior to retirement at 65, when it grows in line with inflation. Individual II, with an average level of training (professional training to a higher grade), initially receives a salary above the average, and, after 10 years, it is 9% above the average. This difference remains constant throughout the majority of his working life, falling as he reaches retirement age. Finally, Individual III, with a high level of professional training, maintains a salary much higher than the average throughout all of his working life. In the three cases it is assumed that during the final years of their working lives, their salaries increase at the rate of inflation (for example, 2% annually). In addition to the particular characteristics of each of these individuals, it is assumed that they contribute for the same number of years (with a maximum of 40 years, equivalent to their entire working life), that shifts between activity and inactivity, employment and unemployment do not take place, and that they retire when they reach the legal retirement age of 65 (early retirement is not considered).

The table displays how the pension of each of the individuals would vary if the number of years considered for calculating the regulatory base of the pension is increased from the current 15 years to 20, 25, 30, 35 and 40 years. Given that salaries are lower at the start of a working life, it is to be expected that the pension will fall as these years are included. The simulations back up this hypothesis. On increasing the period for calculation, the first pension received is reduced for all of the individuals, although the magnitude of this reduction depends on the type of individual and the length of the new reference period. If the period of calculation is increased only five years (from the current 15 to 20), the pension of Individual I undergoes the highest adjustment. However, if the period for calculation continues to be extended, this effect is corrected, and the percentage fall is similar for all the individuals. These differences are explained by the different labour profiles considered. The graph compares the evolution of the remuneration of Individuals I and II with that of Individual III. It is seen that the differences in salaries are greatest in the middle years of the working life. This is due to the fact that normally the salary at the start and the end of the working life is below that received in the middle years. This explains why on increasing the number of years used for calculating the regulatory base to 20, the fall that takes place in the first pension received with respect to that obtained under the current system (15 years) is relatively greater in the case of Individual I and relatively less if the whole working life is considered.

These results are similar to those obtained in other studies, in which it is estimated that the extension of the period of calculation of the regulatory base for the pension to the last 30 (45) years of a working life would reduce the average pension by 10% (30%) with respect to the current situation in which only the last 15 years are considered[4].

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[1] The impact that changes in the calculation of a pension would have on the supply of labour, and therefore, on salaries and on changes to labour status will not be taken into consideration.
[2] The data on career histories are generally not available for researchers outside the Ministry of Labour and Social Affairs.
[3] The percentage salaries for each individual are obtained from the Salary Structure Survey (EES) of 1995 on the basis of the salaries received according to the level of training.
[4] See Jimeno, J. F. (2002): "Incentivos y desigualdad en el sistema español de pensiones contributivas de jubilación." Working Paper 2002-13. Fedea.

5. The financial system

Household savings directed towards more conservative products

After the spectacular fall in the savings rate between 1995 and 2001 (4.2 pp), in 2002 the economic slowdown and the uncertainty affecting the world economy have led to a more cautious approach by households, which have increased their savings rate to a moderate extent.

Net acquisitions of financial assets up to September 2002 grew 24% with respect to the previous year. However, the evolution of the stock markets, which have remained very depressed and volatile, led to a 2% fall in the financial wealth of households in the same period. Between the bursting of the technology bubble in March 2000 and now, the Ibex-35 index has fallen 50%, which has led savers to increase their preference for more conservative financial products. Therefore, the main increase in accounts managed has taken place in deposits and fixed-interest rate products (through investment funds) to the detriment of direct investments in equities and equity investment funds.

Over a longer time horizon, the placement of new household financial saving has gone through two distinct phases in the past two years. In the first, which extends from 1996 to 1998, a process of disintermediation took place. During this period, 73% of new savings went to the acquisition of shares and investment fund units, while only 5% of the new resources were directed towards deposits.

The second phase, which ran between 1999 and 2002, was characterised by the impact of the 1999 tax reform and low levels of interest rates. In this environment, deposits once again became the main investment product of households. Thus, during this period, 68% of new savings were placed in this financial instrument, 56% of which were in time deposits. On the other hand, net acquisitions of shares and investment units were negative.

However, it should be highlighted that during the past two years, despite the deterioration in the stock markets, households have not reduced their investment position in shares and investment funds. That is to say, accumulated capital losses have not been taken in the past few years. What is more, net acquisitions during 2001 and 2002 were positive, accounting for 18% of net acquisitions of financial assets in the first three quarters of last year.

Life insurance policies on the other hand increased their share in the distribution of new savings by five percentage points in the second period, to 19%. Conversely, the percentage of resources directed towards pension funds remained relatively stable during the two periods, accounting for 10% of new savings.

Distribution of savings in 2002

During 2002, the intensity of the fall in the stock markets brought about a recomposition of savings towards more secure assets in a more accentuated manner than in previous years.

New hoardings of cash

The entry into circulation of the physical euro brought about an influx of cash hoardings during 2001, which led to a sharp fall in money in circulation. Part of this effect was corrected in 2002 when cash in circulation rose 23%.

In this way, cash increased its share in financial wealth one percentage point during the first three quarters of the year, accounting for 4.4% of the total.
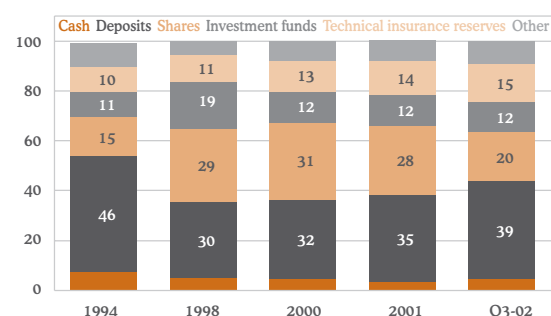
Graph 5.1
Placement of new savings (*)
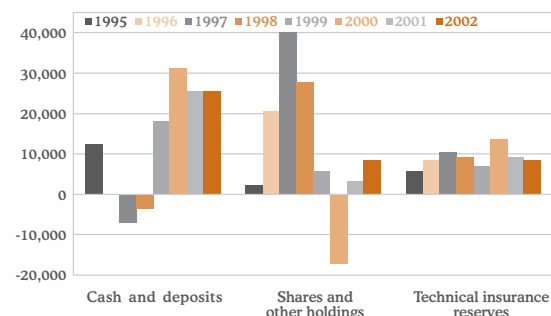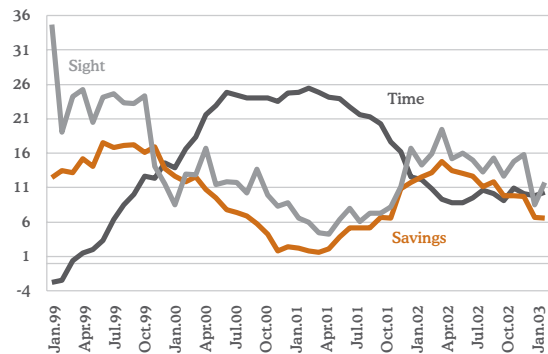

(*) Accumulated between January and September
Source: Bank of Spain

Graph 5.2
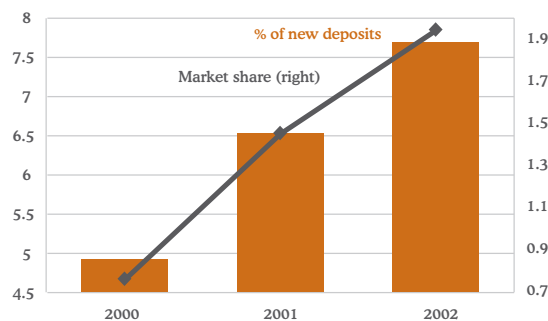**Breakdown of household financial assets**

Source: Bank of Spain
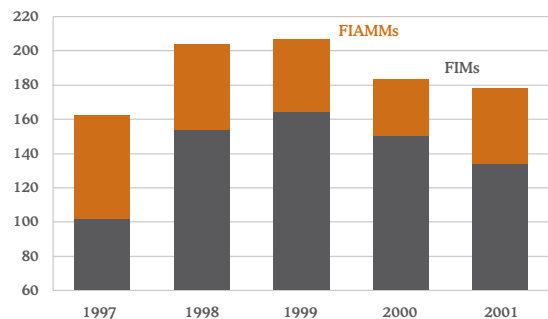
Graph 5.3
Credit institution deposits

Source: Bank of Spain

Graph 5.4
Deposits collected by on-line banks

Sources: AEB, Bank of Spain and BBVA

Graph 5.5
Net assets of investment funds
Billions of euros

Source: Bank of Spain

However, the most striking aspect of the evolution of cash holdings has not been the extent of the increase but rather the strong growth seen in high-denomination notes (500, 200 and 100). These notes, which could be classified as "non-transactional," have gone from accounting for 40% of total cash in January of 2002 to 56% at the end of the year, which may point to a re-hoarding of cash on the part of households.

Deposits increase their importance in savings

Despite a slowdown in their growth from 13% to 8%, deposits increased their share in the composition of household assets by four percentage points, accounting for 39% of the total at the end of the third quarter. However, the evolution of transactional deposits and time deposits has been very different.

Transactional deposits (sight and savings) closed the year with growth of 7.6% against 14.4% the previous year. This slowdown could be due to a basis of comparison effect with the strong growth seen at the end of 2001 as a result of the euro coming into circulation[1]. In fact, transactional deposits on average surged from 6.6% to 13% growth.

In the case of the collection of time deposits, the slowdown was less marked, although average balances increased 10% against 21% in 2001. On the other hand, the term period of deposits taken out lengthened. Thus, while growth in deposits with terms of less than two years fell 10 percentage points to 3.6%, the growth in deposits with terms of more than two years increased 20 percentage points to 29%.

Online banking has continued to play an important role in the collection of deposits. The strategy of these entities continues to be offering a return well above that of the rest of their competitors in saving products[2] (mainly transactional deposits). Thus, during last year, 8% of new saved deposits were taken by online banks, which now hold a market share of 1.9%.

The fall in the market has had an impact on shares and investment funds

In 2002, net household investment in shares was positive. However, the fall in equity markets (19%) led to a drop of eight percentage points in the share this instrument has in household assets to 20%, while investment funds maintained their share at the levels of 2001 (12%). However, the net assets of Collective Investment Institutions (Securities and Real Estate Investment Funds) saw a fall of 3.5% last year.

In the case of securities investment funds (86% of the net assets of Collective Investment Funds and Companies), the fall in net assets amounted to 4%, due exclusively to losses in portfolios deriving from the fall in the financial markets. In fact, net subscriptions to investment funds were positive to the amount of 4.7 billion euros (3% of total net assets at the end of the year).

In addition, household aversion to risk and the fall in the financial markets have led to a significant recomposition in the structure of wealth, with the trends seen in 2001 strengthening. Thus, from 2000, Money Market Mutual Funds (FIAMM) increased their share in fund portfolios by 13 percentage points to 31%. Among the Mutual Funds (FIM), funds with a more conservative profile (bond, bond-mixed and guaranteed funds) increased their share by 12 percentage points from 2000 and now account for 78% of the total portfolio of funds. In con-

[1] Given the proximity of the euro coming into circulation, demand for cash dropped at the end of the year, which gave rise to a higher level of deposits.
[2] In 2002, the average return on current accounts was 3.9% TAE, 71 basis points above the ECB intervention rate.

trast, equity funds have seen sharp falls in their net assets, with international equity funds experiencing the largest drop, moving from a situation in which they accounted for 21% of total FIMs to 13% at the end of the year.

Of the remainder of the collective investment institutions, the institutional investment products with the best performance have been real-estate investment funds, whose net assets increased 39% with respect to last year. However, despite this they still only represent 1% of the total portfolio of collective investment institutions.

Pension funds slow

The net assets of pension funds have seen a slowdown in growth to 10% from 16% in 2001, which means that this instrument has simply maintained its share in the financial wealth of households (about 6%). The fall in the stock markets has also affected the portfolio of pension funds, although to a lesser degree than investment funds given that the former have an average profile that is much more conservative.

It also has to be borne in mind that investment in this product has been driven in the past few years by the externalisation of pension schemes. However, the greater intensity in the volumes externalised in 2000 and 2001 has made itself felt in the slowdown seen in 2002.

Prospects for 2003, a return to disintermediation

In 2003, the uncertainties affecting the economy, combined with the increase in liquidity produced by the IRPF reform, will give rise to a moderate increase in the household savings rate. This will bolster the new resources available for investment in financial assets.

In a scenario of low and stable interest rates, with expectations of a recovery in the stock markets once the current uncertainties have been dispelled, term deposits should lose their attractiveness compared with other assets such as investment funds. In addition, these have been favoured by the elimination of the fiscal charge levied on changes between funds, which is already having an impact in the first months of the year.

In effect, during the first two months of the year the volume of business (the sum of subscriptions and withdrawals) of investment funds increased 6.7% year-on-year. In addition, during the first quarter the transfer of funds from one entity to another has yet to be fully implemented, as the client has to lodge requests to do so with both entities. When the electronic system of transfers begins to operate at the start of April, there should be an even bigger increase in transactions. The elimination of the fiscal charge has facilitated an increase in competition in the fund sector, as manifest in the strategies initiated by some entities to reward the transfer of funds.

However, the taking-on of financial assets has continued to be focused in low-risk products (FIAMM, bond and guaranteed funds), although as the international economic uncertainties are cleared up, a progressive and moderate increase in mixed and equity products should be observed.

Another factor, which from a medium-term perspective, could impact on the growth in investment funds is the low level of their development in comparison with Europe. In 2001, the net assets of investment funds represented 27% of GDP against a European average of 40%.
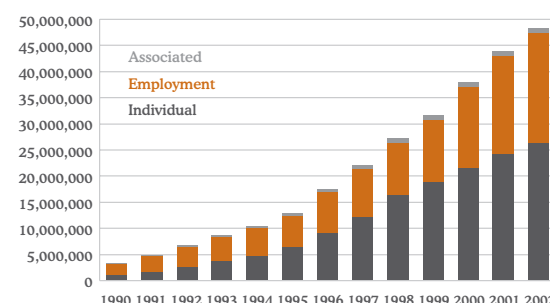
Competition has also increased in the area of retirement savings plans. During 2003, Guaranteed Retirement Savings Plans (PPAs) have begun to be marketed. PPAs are basically life insurance policies that ben-

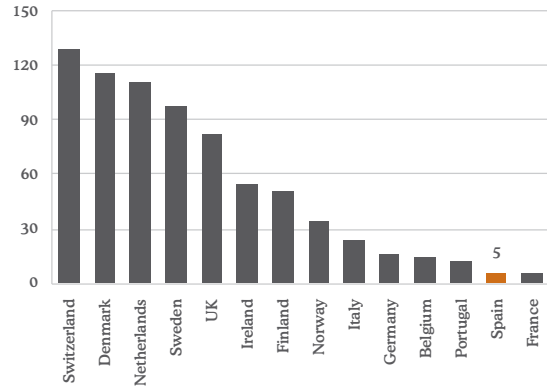Graph 5.6
Investment funds participants
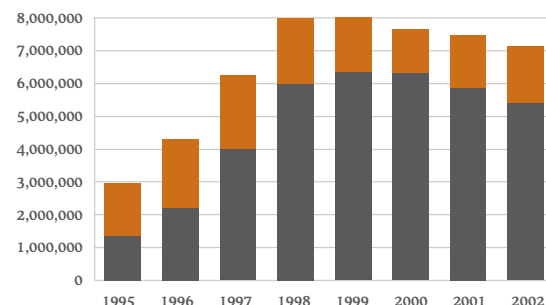
Source: Inverco

Graph 5.7
Net assets of pension funds

Source: Inverco

efit from the same fiscal conditions as pension plans and offer a fixed return according to actuarial tables. The current aversion to risk could help foster their development, representing an alternative to pension funds with indefinite benefits.

In any case, as seen in Graph, retirement saving in Spain continues to be an immature market that should increase in importance in the medium term.

To sum up, until the uncertainties that are weighing on the evolution of the financial markets clear, savers will continue to direct their savings towards conservative instruments. The tax reform and greater competition in the fund industry, both investment and pensions, should lead to an increase in new savings being directed towards these products. This trend would imply a return to the process of disintermediation observed in the second half of the past decade.

Graph 5.8
Pension funds
(% of GDP)

Source: William Mercer

Table 5.1. Financial variables

(% oya, unless otherwise indicated)

	2001*	2002*	oct-02	nov-02	dic-02	ene-03	Stock (Bn euros)
Private sector deposits	13.6	8.5	11.8	11.7	8.5	9.7	494
- Sight and savings	14.4	7.6	12.4	12.9	7.6	9.3	277
- Time	12.6	9.8	10.9	10.1	9.8	10.3	217
Net assets of investment funds	-2.9	-4.0	-0.8	-2.0	-4.0	-2.6	172
- Money Market Funds	32.0	22.0	27.3	24.3	21.6	21.8	54
- Mutual Funds	-11.0	-12.0	-9.6	-10.3	-12.3	-10.8	117
Net assets of pension funds	15.8	9.8	—	—	9.8	—	48
- Individual	12.7	8.2	—	—	8.2	—	26
- Company	21.1	12.6	—	—	12.6	—	21
Credit to private sector	11.7	12.3	14.1	13.1	12.3	13.8	709
Non performing loans debt ratio (credit institutions)	1.22	1.09	1.23	1.21	1.09	1.09	n.a.

* year-end
Sources: Bank of Spain and Inverco

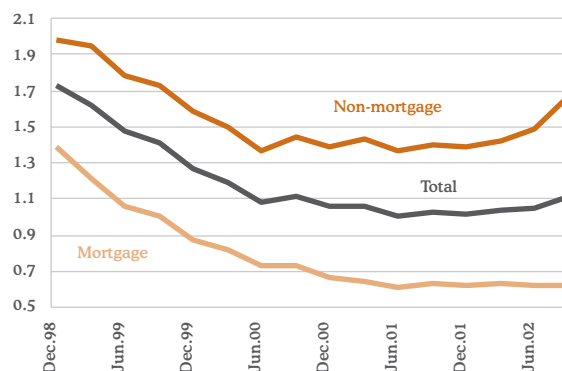# Structural change in the non-performing loans ratio

Non-performing loans ratio and economic growth (1982-2002) (*)
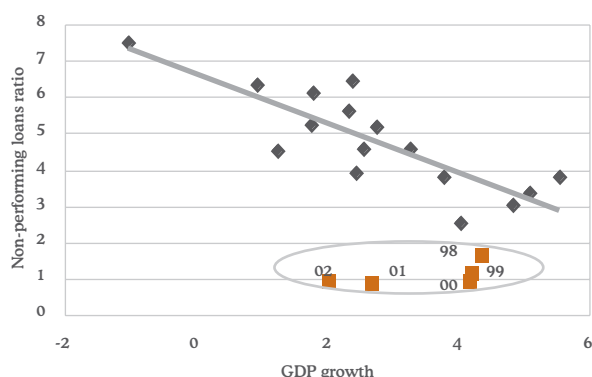
(*) The non-performing loan ratio is corrected in 1993 for the Banesto intervention

Source: Bank of Spain, INE and BBVA

Non-performing loans ratios

Source: Spanish Mortgage Association

The fall in the non-performing loans ratio has a structural component

The non-performing loans ratio of banks and savings banks defined as the volume of doubtful loans over gross loan investment ended 2002 at 0.96% and 0.86%, respectively, as against the 0.9% registered by both types of financial institution in 2001. This moderation of the ratio is striking in a context in which the Spanish economy has been experiencing a slowdown in activity since the middle of 2000. In line with its historical performance, the normal lag with which the non-performing loans ratio responds to the cyclical situation should have shown itself in a more pronounced rise than that observed. However, as can be seen in the graph, the relation that exists between the non-performing loan ratio and economic growth appears to have been broken in the past few years. Temporary and permanent factors behind this moderation should be differentiated.

What stands out among the first is the intense growth in loans to other residential sectors, a phenomenon that is at odds with the economic slowdown referred to. However, the strength in lending has been sustained by the buoyancy of the real-estate sector and the corresponding increase in housing loans. The prospect of a slowdown in this sector, and therefore, in mortgages, should lead to the non-performing loans ratio reflecting to a greater extent the evolution in the volume of non-performing loans. In fact, this last variable has shown a profile that is quite different from the non-performing loan ratio in 2002. From the middle of 2001, the volume of doubtful loans has started to show positive growth that became more pronounced throughout 2002.

However, although the non-performing loan ratio could move away from the minimum levels registered in the past few years, there exists several structural factors that point to part of the fall registered in this variable as being of a permanent nature. In the first place, since the last maximum non-performing loans ratio was registered over nine years ago, the risk management techniques of financial institutions have improved in a significant manner. In the second place, the increase in bank portfolios of mortgage loans has led to a less risky business mix. Housing loans are characterised by a lower non-performing ratio than other forms of credit, which has led to the moderation of the overall non-performing loans ratio in the past few years. In fact, as can been seen in the graph, non-performing loans to the private non-mortgage sector experienced a slight increase in the second half of 2002, which is more in keeping with the reduced dynamism in economic activity.

In fact, a few indicators related to business loan risk such as the liabilities stemming from bankruptcies and suspension of payments showed an upward trend in the second half of 2002. Despite this deterioration, the situation in Spain remains far apart from that in other countries such as Germany, an economy where the high number of companies going bust has required large amounts of provisions for insolvencies that has complicated the weak situation of the German banks.

The greater economic stability and reduced interest rates related to our country belonging to the Economic and Monetary Union are the determinants in this relatively better performance. Taking into consideration the structural nature of these changes, it can be expected that the non-performing loans ratio, although it could increase from current levels, will not return to the levels seen during the 1980s and 1990s.

Estimated model

Dependent variable: log real non-performing loans volume
Estimated period: 1984:01-2002:04

	Coefficient	T-ratio
Long term		
Constant	24.4	1.7
Log real GDP (ly)	-8.3	-1.7
Unemployment rate (u)	35.2	3.3
Log real credit (lcr)	5.2	1.8
Short term		
Δ ly-Δ ly(-1)	-6.8	-2.4
Δ ly(-2)	-4.4	-2.2
Δ u (-2)	3.5	4.8
Δ (12-m real interest rate)	0.7	2.4
Δ log (nominal credit/GDP) (-6)	0.4	1.7
ECM	0.1	2.4
R^2	0.88	
DW	1.69	
Standard error	0.0254	

Note: The model also includes a series of dummy variables that capture regulatory changes and the seasonal behaviour of the dependent variable.

Source: BBVA

Non-performing loans ratio of banks and savings banks
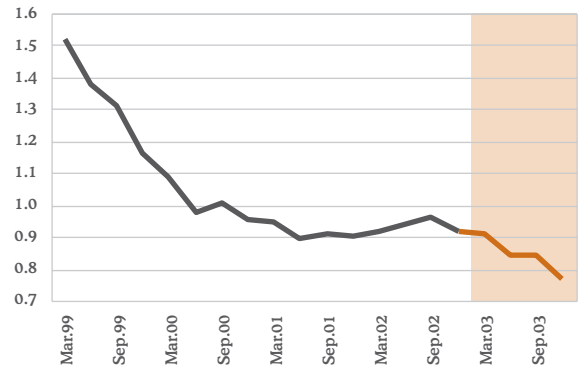
Source: BBVA

Baseline scenario
(annual average)

	2001	2002	2003
GDP	2.7	2.0	2.5
12-month interest rate	4.1	3.5	2.4
Inflation	3.6	3.5	3.3
12-month real interest rate	0.5	0.0	-0.9
Unemployment rate	10.50	11.40	11.70
Credit/GDP (*)	0.87	0.92	0.95

(*) year-end
Source: BBVA

Short-term prospects

On a shorter-term horizon, the evaluation of the trend in the non-performing loans ratio should be based on the macroeconomic and financial scenario. The relatively favourable evolution of the first should help to maintain non-performing loans at levels not much different from those current in 2003. Economic prospects will improve as the year advances, the unemployment rate will not see substantial changes and interest rates will remain at very low levels, thus avoiding pressure on household and company debt-servicing.

From the banking point of view, the growth in credit has a different impact depending on the timeframe considered. In the short term it leads to a concurrent fall in the ratio, while in the long term expansions in credit are reflected with a lag in the increase in the non-performing loans ratio.

To see the interaction of all of these variables, we have estimated a model that explains the evolution of banks and savings banks non-performing loans in real terms. The model takes the form of an error correction mechanism that in the long term incorporates as explanatory variables real GDP, the unemployment rate and real credit, with the latter as dependent variable. In the short term, growth in the volume of non-performing loans in real terms is negatively related to growth in GDP and the change in GDP with a two-quarter lag. The unemployment rate lagged two quarters also shows up as a positive contributing element in the movement in non-performing loans. The cost of financing, whose trend is captured by the 12-month real interest rate, has a positive contemporaneous impact. Lastly, the change in loans to GDP ratio captures the negative impact that expansions in lending normally show in the non-performing loans ratio, which explains why it has a positive sign. The rest of the variables are dummies reflecting regulatory changes and the seasonal behaviour of the dependent variable.

The simulations carried out using this model on the basis of the central scenario proposed for 2003 presented in the attached graph point to the non-performing loan ratio showing a slight downward trend for this year. Taking into account the confidence interval for these estimates, the fundamental conclusion that should be drawn from this exercise is that the non-performing loans ratio, conditioned by the baseline macroeconomic scenario for the Spanish economy, will not register significant changes during the next few months.

6. Article: IA-BBVA, an activity indicator for the Spanish economy

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Introduction

The goal of the analysis of short-term economic trends is to diagnose the state of the economy on the basis of its situation over the recurrent fluctuations that it experiences. However, despite being recurrent, one of the fundamental features of economic cycles is that they differ from each other. Their evolution is determined by the different underlying shocks that can cause them and by the economic conditions at the time these shocks occur. The disparity among cycles and the great diversity of economic indicators that exists mean that determining the state of the economy using individual and hence partial variables can be misleading. An indicator can be a good signal in a given cycle yet not provide significant information in the next. Because of this, the combination of a broad range of indicators in a single synthetic variable, exploiting the common trend that individual indicators nonetheless show, allows us to make a more accurate assessment of the state of the economy.

The BBVA activity indicator, referred to as the IA-BBVA, is a synthetic indicator that combines the information of 31 individual indicators. This set of indicators is representative of output, income and consumption, employment, construction and expectations. The method of statistical aggregation used is based on principal components factor models (Stock and Watson, 1999) which make it possible to combine the common information of the set of individual variables selected. This methodology, with the help of advances in computing, allows us to work with a large number of data series in order to obtain a monthly indicator of the state of the economy.

The article is organised as follows. The next section looks at the principal components methodology. We then present the construction of the IA-BBVA indicator. In the following section we analyse the relationship between the synthetic indicator obtained with the economic cycle measured in terms of GDP growth. Next, we evaluate the impact of the different components of the IA-BBVA in the recent evolution of the aggregate indicator before, finally, summarising the main conclusions.

Activity indicators based on principal components

The series usually considered as being representative of the state of the economy in relation to activity generated is Gross Domestic Product (GDP). As a result, the economic cycle is normally defined according to its behaviour, or that of a sub-aggregate, such as, for instance, GDP excluding farm activity and non-market services[1]. However, the quarterly nature of GDP and the delay with which it is published do not allow us to undertake a reliable assessment of the state of the economy in real time. Other variables exhibit a strong correlation with the cycle, however and are, because of their characteristics – higher frequency (monthly instead of quarterly), speedier availability, and no revisions to data releases – a very valuable source of information about the state of activity.

Activity indicators synthesise the information furnished by the various records or surveys available on consumption, activity, prices and eco-
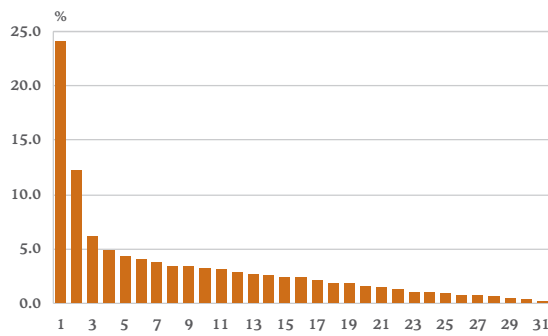
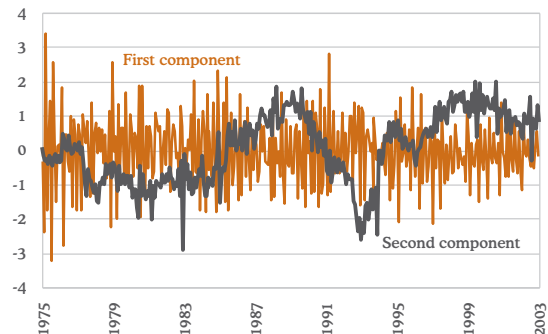**Graph 1**
GDP growth
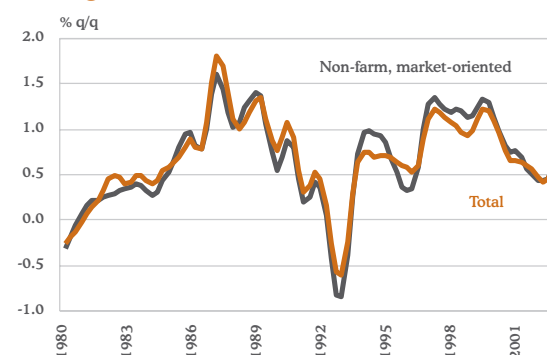
Source: INE

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[1] The National Statistics Institute (INE) takes non-farm, market-oriented activity as a reference for its System of Cyclical Indicators.

Graph 2

IA-BBVA: variance explained by each autovector

Source: BBVA

Graph 3

Principal components of individual variables

(seasonally-adjusted series)

Source: BBVA

nomic agents' expectations. This "simplification" of the available information without any significant loss of explanatory power is possible because the economic series move together, in a fashion consistent with the underlying state of the economy. This paper focuses on the procedure for calculating activity indicators based on factor models, and, specifically, on the principal components method used by Stock and Watson (1999) for the U.S. economy.

In short, the elaboration of the indicator involves the aggregation of different indicators of the Spanish economy (in concrete, the IA-BBVA includes 31 different series) by applying a weighted average. The co-movement of the economic series implies that there exists a common factor ("state of the economy") which accounts for a significant percentage of the total variability of the series selected. It is therefore a matter of selecting the common factor or factors that best represent the economic cycle.

The weight with which each series contributes to the final indicator is estimated using principal components factor models. This method allows us to transform a set of *n* economic variables, and hence correlated, into *n* linearly independent series which reproduce the variability of all of the original series. This transformation of the original set of indicators makes it possible to reduce the dimension of the analysis by eliminating the autovectors (principal components) with the lowest explanatory power for the overall variance of the original series. In the extreme case, in which only the first principal component is chosen, the dimension of the analysis is reduced to 1, transforming the set of original variables *n* into a single series with the power to explain a high percentage of the overall variability.

Development of the IA-BBVA

On the basis of the methodology described above, we intend to develop an indicator for the state of the Spanish economy. This suggests that the economic variables used should be in real terms, that is, adjusted for inflation. The use of real variables indicates that the first principal component will reflect the evolution of economic activity[2]. Additionally, the original variables are corrected for seasonality[3] in order to obtain a more stable statistical signal corrected for deterministic effects, eliminating the seasonal volatility that contributes nothing to determining the state of the economy.

The series were chosen on the basis of statistical criteria referring to availability, frequency (monthly) and sample length, attempting to span at least the period of time for which GDP data exist. GDP data are currently available from the first quarter of 1980. Bearing in mind these restrictions, in order to obtain the IA-BBVA, we selected 31 monthly series representative of 5 economic categories:

1. Output (18 series): includes industrial production indices for different activities and products (IPIs) and business activity indices (bankruptcies and suspension of payments).
2. Construction[4] (3 series): includes data relating to the sector (apparent consumption of cement, order books and housing permits).
3. Labour market (2 series): social security registrations and registered unemployment.
4. Income and consumption (6 series): includes income variables (real wages) and consumption variables (car registrations, electricity consumption, etc.).

[2] Given their correlation with activity, the inclusion of financial variables was considered. However, Spain's entry into the European Monetary Union and financial market integration mean that, currently, the financial indicators do not reflect activity trends in any single member country but rather those of the euro area as a whole.
[3] The series were seasonally-adjusted using the SEAT and TRAMO programmes.
[4] The explicit inclusion of the construction sector was prompted by its importance in the dynamism of the Spanish economy in recent years.

5. Expectations (2 series): captured using surveys of industrial trends.

Before aggregating the variables to construct the IA-BBVA, the individual series are transformed to render them stationary. In practice, this means that trend variables are taken in log first differences, whereas variables without trend are not transformed. In addition, all the stationary series are standardised with a mean of zero and a standard deviation of 1.

Using these standardised data, we proceed to calculate the IA-BBVA, extracting, first of all, the principal components of the set of indicators used. This allows us to construct the IA-BBVA according to the weights of each indicator in the aggregate. For example, a principal component y based on three series can be expressed as $y_t = w_1 x_{1t} + w_2 x_{2t} + w_3 x_{3t}$, where x_1, x_2 and x_3 are the three original indicators and w_1, w_2 and w_3 are the weights assigned to each series.

Constructed in this way, the monthly indicator compiled has a mean of zero and a standard deviation of 1. As a large number of the individual indicators are deviations of growth rates from their average, the aggregate activity indicator may be interpreted as deviations of the indicator from trend. A value of zero would therefore show that the indicator is growing at its trend rate.

The initial data used to estimate the IA-BBVA were seasonally adjusted, that is, corrected for the effect of seasonal variations, atypical values and other irregular factors such as calendar effects[5]. However, it turns out that the first principal component obtained using these data, the one which explains the highest percentage of the variance (22%), shows no type of recurrent fluctuation over time. In contrast, Stock and Watson (1999) find that for the United States the first principal component of the seasonally-adjusted data captures the state of the economy. In the case of the Spanish economy, it is the second principal component, which captures only 12% of the overall variability of the data, that shows cyclical fluctuations. Thus, it turns out that using seasonally-adjusted data, almost one-quarter of the common variability of the 31 economic series considered seems to have no correlation with the state of the economy.

However, if data corrected for both seasonality and the irregular factor are used, then the first principal component obtained does show cyclical fluctuations. This first factor captures 24% of the overall variability of the 31 series. In addition, as can be seen in Graph 4, the second principal component of the seasonally-adjusted variables is very similar to the first principal component obtained using the trend-cycle variables. The orthogonality of the components therefore suggests that the first autovector (principal component) of the seasonally-adjusted data provides no significant information on the state of the economy in Spain. An activity indicator for the Spanish economy could therefore be constructed using both the first principal component of the trend-cycle data and the second principal component of the seasonally-adjusted data. In this case, for the elaboration of the IA-BBVA we chose the trend-cycle data as the original data. The principal component of these data accounts for almost one-quarter of the overall variability of the individual indicators, compared with 12% in the case of the seasonally-adjusted data. In addition, in both cases the estimation of time series models is necessary in order to extract the non-observed components corresponding to each of the data series. However, the resulting monthly indicator shows a high volatility, which makes the task of tracking current economic activity difficult. We overcome this problem by making

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[5] The data maintain the irregular component, but since its effects are of limited duration, it should have no impact on the economic cycle.

Graph 4
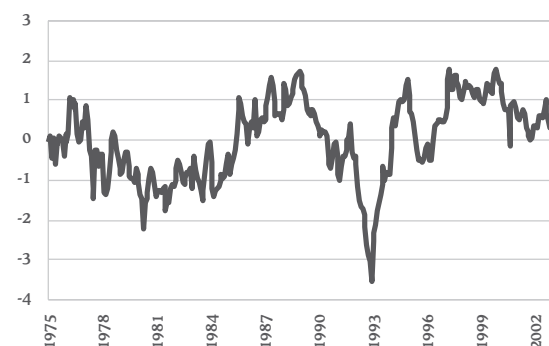**Principal components of set of indicators**
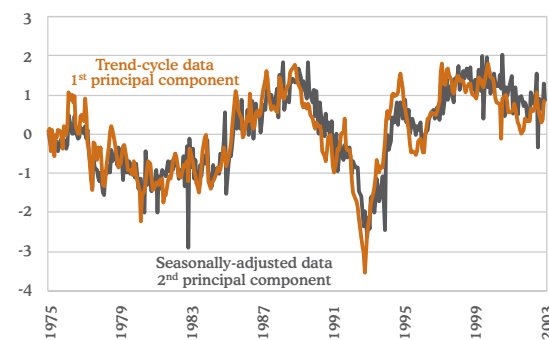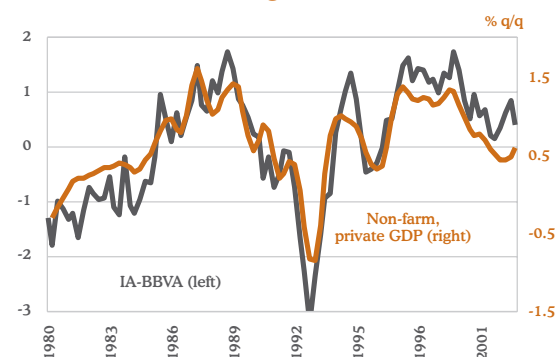

Source: BBVA

Graph 5
IA-BBVA

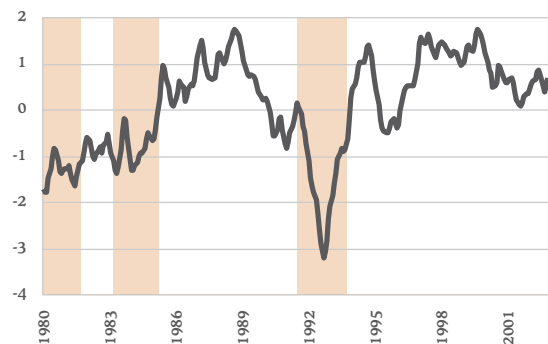Source: BBVA

Graph 6
IA-BBVA and GDP growth

Sources: INE and BBVA

Table 1. Correlation of IA-BBVA ($t+k$) with:

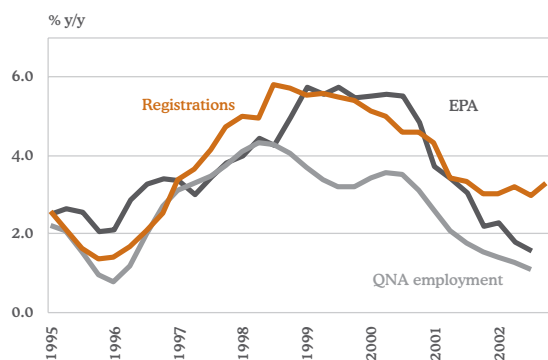|	GDP growth (t)	Non-farm, private GDP growth (t)
K=-3	0.62	0.60
K=-2	0.75	0.77
k=-1	0.83	0.88
K=0	0.85	0.91
K=1	0.79	0.86
K=2	0.72	0.77
K=3	0.64	0.68

Source: BBVA

Graph 7
IA-BBVA and periods of recession
(IA-BBVA, quarterly moving average)

Source: BBVA

Graph 8
Employment growth

Sources: INE and Ministry of Labour

use of a non-centred 3-month moving average of the indicator, thus reducing its volatility.

IA-BBVA, sub-indices and the GDP cycle

The estimated IA-BBVA activity indicator is found to have a strong correlation with GDP, the benchmark signal of the economic cycle. The coefficient of contemporaneous correlation of the IA-BBVA with monthly GDP growth is 0.85, and it stays above 0.70 even with two lags or leads. If we take non-farm, private GDP as the benchmark cyclical signal, the contemporaneous correlation rises to 0.91, and stands at 0.77 with two lags or leads.

The strong correlation between the IA-BBVA and the benchmark signal for the cycle makes it a good signal of the probability that the economy will enter a recession at a given time (Balmaseda *et al.* 2002). Graph 7 illustrates how the IA-BBVA fits the periods of recession in the Spanish economy[6].

Despite the strong correlation that exists between both variables throughout the entire sample period, there are nonetheless a number of noteworthy differences given the current composition of the IA-BBVA and the characteristics of GDP. In particular, the evolution of the indicator shows a more pronounced deceleration in the period 2000-2001 despite departing from a higher level. The reason for this may be the fact that the synthetic indicator includes social security registrations within the group of employment variables, a series that since 1998 has maintained higher growth rates than employment growth measured in national accounts terms. Following the updating of the EPA labour survey[7], the base-year of the National Accounts has yet to be changed to the year 2000. It is foreseeable that this will lead to a change in the trend of national accounts employment growth, bringing it more into line with current EPA employment and hence closer to the evolution of social security registrations, a variable included in the IA-BBVA. This would result in changes not only in the level of GDP of the Spanish economy, but also in the pattern of growth in recent years.

As noted above, the set of indicators included in the IA-BBVA are representative of 5 groups of economic activity: output, the labour market, construction, income and consumption, and expectations. It is possible to disaggregate the IA-BBVA into specific sub-indices for each group. To do so, we use the same methodology as for the aggregate indicator, but considering only the individual indicators of each group and the weights estimated. Once aggregated, each sub-index is standardised (a mean of zero and standard deviation of one) so that the comparison with the IA-BBVA and other sub-indices is direct. It can be seen that historically all of the sub-indices show a very similar evolution to that of the aggregate index. The output sub-index is the one which comes closest to the IA-BBVA.

This breakdown allows us to analyse what elements have underpinned the expansion in GDP and which factors have caused the deceleration of activity in Spain to be slower than in other countries in recent years. The relative performance of the 5 sub-indices with respect to the aggregate reveals that, as expected, the construction sub-index registers higher levels than the IA-BBVA. This group recorded a monthly average of 1.04 between January 1998 and January 2003, 0.2 points above the IA-BBVA. Construction trended fairly in line with the general indicator until the latter began to fall. The construction indicator held at stable levels in the period of deceleration and contin-

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[6] Defined as annualised quarterly GDP growth below 1% (Balmaseda *et al.* 2002).
[7] In keeping with the new 2001 census and a re-weighting of the age structure that gives a greater weight to the more active groups and those with a higher activity rate.

ues to show relatively greater strength at present. This better-than-average performance is also registered in the expectations sub-index, which shows the highest average monthly level since January of 1998 among all the sub-groups (1.20). However, in contrast to construction, the level of expectations does record a decline, although less intense, and with a slight lag with respect to the IA-BBVA. The expectations indicator has subsequently stabilised at a slightly higher level than the aggregate.

The strength of construction and expectations compensated for the downward impact on the state of the economy of the output and income and consumption components of the IA-BBVA. Both sub-indices stood on average 0.57 and 0.21 points, respectively, below the aggregate indicator in the past 5 years. The output and consumption indicators posted falls in the final months of 2001 and early in 2002, which were intensified by the global uncertainty in the wake of the terrorist attacks of September 11 in New York (with significant repercussions for the consumption indicator, especially air transportation and the number of hotel nights). A further factor exerting downward pressure was the power supply shortages at the end of 2001, when supply was unable to meet demand at peak periods. This factor had a negative impact on both consumption and output. Despite the subsequent recovery, the output indicator has again fallen to below zero in recent months, as a consequence of the renewed global uncertainty associated with the war in the Middle East. The deterioration in the expectations indicator has been smaller than might be expected in this context of uncertainty. The reason for this may be that it specifically captures the accumulated order books and inventories of Spanish companies, variables with relatively strong performances. Finally, the labour market indicator has trended in line with the IA-BBVA, both during the expansion phase and the slowing phase.

The latest IA-BBVA data (January 2003) indicate that the state of the economy prevailing in the final months of 2002 has carried over into the beginning of 2003.

Conclusions

This paper has described the construction of the IA-BBVA activity indicator, which seeks to capture each month the state of economic activity in Spain by synthesising the information provided by a broad range of individual indicators. The use of real indicators from different areas of the economy (output, construction, the labour market, income and consumption, and expectations) allows the IA-BBVA to accurately reflect the evolution of the economy, as shown by its strong correlation with GDP. In addition, its compilation using monthly data furnishes a coincident indicator of general activity almost in real time.

The construction of the IA-BBVA is based on principal components methodology, following the work of Stock and Watson (1999) for the U.S. economy. This technique makes it possible to extract orthogonal components (independent) from the set of indicators chosen. Unlike the results obtained for the U.S. economy, where the first principal component of the seasonally-adjusted series captures the state of the economy, in the case of the Spanish economy the second principal component has to be used, since the first factor of the seasonally-adjusted data shows no cyclical trend. Alternatively, the first principal component of the trend-cycle data, which exhibits a pattern similar to the second principal component of the seasonally-adjusted data, also captures the state of the economy. Given the high percentage of the variance of the set of individual indicators that this variable explains, it is the one selected as the IA-BBVA.

Graph 9
IA-BBVA and output component
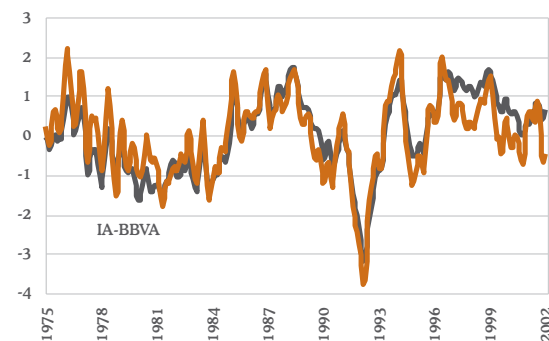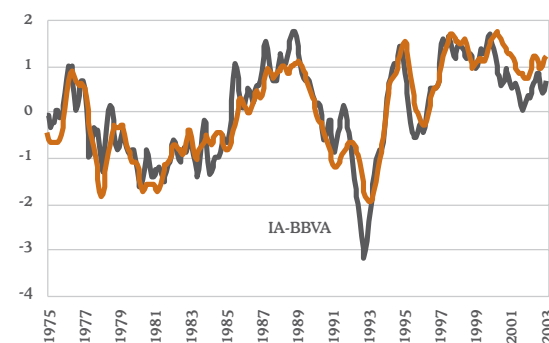
Source: BBVA

Graph 10
IA-BBVA and labour market component
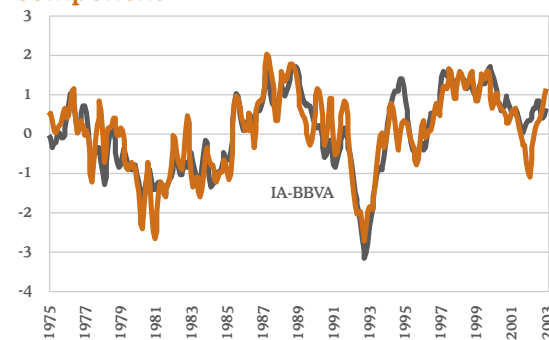
Source: BBVA

Graph 11
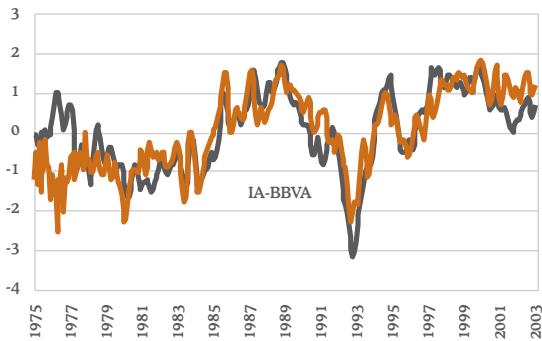### IA-BBVA and expectations component

Source: BBVA

Graph 12
IA-BBVA and income and consumption component

Source: BBVA

Graph 13
IA-BBVA and construction component

IA-BBVA

Source: BBVA

The IA-BBVA shows a strong correlation with GDP, the usual benchmark signal for the economic cycle. In addition, an analysis of its different sub-indices confirms that the state of construction and expectations, at levels above trend, are the factors that have contributed most to the high levels reached by the IA-BBVA in the past 5 years and that they have helped to moderate its recent slowdown.

Finally, the goal of estimating an indicator for the state of economic activity has conditioned the variables used in the analysis, restricting it to real indicators, which exclude price effects. Taking into account nominal variables would provide a basis, using the same methodology, for estimating indicators of inflationary and/or wage tensions.

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Summary of forecasts

(% change y/y, except for express indication)

	1999	2000	2001	2002	2003
GDP at constant prices	**4.2**	**4.2**	**2.7**	**2.0**	**2.5**
Expenditure					
Private consumption	4.7	3.9	2.5	1.9	2.4
Public consumption	4.2	5.0	3.1	3.8	3.8
Gross Fixed Capital Formation	8.7	5.7	3.2	1.4	2.8
Capital Goods	8.4	5.1	0.3	-2.2	1.8
Construction	9.0	6.1	5.8	4.5	3.6
Inventories (*)	0.1	-0.1	0.0	0.1	0.0
Internal Demand (*)	**5.6**	**4.5**	**2.8**	**2.3**	**2.9**
Exports (goods and services)	7.7	10.1	3.4	1.4	2.9
Imports (goods and services)	12.7	10.6	3.5	2.2	3.8
External Demand (*)	**-1.4**	**-0.3**	**-0.1**	**-0.3**	**-0.4**
Activity					
Industry	3.7	4.0	1.4	1.0	1.9
Construction	8.6	6.4	5.4	4.9	3.5
Services	4.1	4.0	3.2	2.2	2.7
GDP at current prices	**7.1**	**7.8**	**6.9**	**6.5**	**6.8**
Euro, billions	565	609	652	694	741
Prices and costs					
GDP Deflator	2.7	3.5	4.2	4.4	4.3
Private Consumption Deflator	2.4	3.2	3.3	3.6	3.2
CPI	2.3	3.4	3.6	3.5	3.3
Inflation gap with EMU (p.p.)	1.1	1.2	1.0	1.4	1.1
Compensation of employees	2.7	3.7	4.1	4.0	3.9
Unit Labour Costs (ULC)	2.1	3.0	3.8	3.3	2.6
Competitiveness (real effective exchange rate)	-1.5	-3.1	2.1	3.2	3.8
Labour Market					
Labour force	1.8	3.3	-0.2	3.0	2.4
Employment, LFS	5.5	5.5	3.8	2.0	1.9
Increase, thousands of people	760	802	576	312	315
Employment, National Account	3.6	3.4	2.4	1.3	1.2
Unemployment rate (% of labour force)	15.7	13.9	10.5	11.4	11.7
Productivity	0.6	0.8	0.3	0.7	1.3
Public Sector					
Debt (% GDP)	63.1	60.5	57.1	55.2	53.9
Deficit (% GDP)	-1.2	-0.8	-0.1	-0.1	-0.6
External Sector					
Trade Balance (% GDP)	-5.8	-7.1	-6.6	-6.0	-6.4
Current Account Balance (% GDP)	-2.2	-3.2	-2.4	-2.6	-2.6
International Outlook					
GDP: World	3.6	4.7	2.2	2.9	2.9
USA	4.1	3.8	0.3	2.4	2.0
EMU	2.6	3.5	1.4	0.8	1.0
World Trade	5.3	12.4	-0.2	1.4	3.9
CPI: USA	2.2	3.4	2.8	1.6	2.4
EMU	1.1	2.3	2.4	2.2	2.2
Exchange rate: € / $	1.07	0.92	0.90	0.94	1.04
Brent Barrel, price ($)	18.0	28.4	24.9	25.0	27.9

Exchange rate and interest rate (**)	mar-03	jun-03	sep-03	dic-03	mar-04
Official interest rate					
USA	1.25	1.25	1.25	1.75	2.25
EMU	2.50	2.00	2.00	2.00	2.50
10 year interest rate (**)					
USA	3.80	4.30	4.60	4.90	5.10
Germany	4.02	4.20	4.40	4.50	4.80
Exchange rate (**)					
€/$	1.08	1.00	1.03	1.05	1.07
¥/$	119	125	127	128	128

Source: official institutions and BBVA

(*) Contribution to GDP growth

(**) end of period, except mar-03: monthly average

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