BBVA

SpainWatch

Economic Research Department

July 2008

The weaknesses of the Spanish economy come to the surface:

- Indebtedness, due to the financial crisis
- Energy dependence, due to the increase in oil prices
- Housing over-supply, due to the Real Estate crisis

In the future, a challenge for sectors not connected to construction

Index

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The following people have contributed to this publication:

J. Julián Cubero	34 91 537 36 72	jcubero@grupobbva.com
Juan Ramón García	34 91 374 33 39	juanramon.gl@grupobbva.com
Miguel Jimenez	34 91 537 37 76	mjimenezg@grupobbva.com
Mayte Ledo	34 91 374 40 75	teresa.ledo@grupobbva.com
Jorge Rodríguez-Vález	34 91 537 48 90	jorge.rv@grupobbva.com
Virginia Pou	34 91 537 77 23	virginia.pou@grupobbva.com

1. In summary

In the three months since the last edition of this publication, the structural adjustment through which the Spanish economy is passing has gained momentum. The global scenario has been more adverse than anticipated, and this has highlighted some of the weaknesses of the Spanish economy.

The global economic scenario deteriorates

The global economic scenario is dominated by three different global shocks whose impact is heightened by their interrelationship. Firstly, a financial crisis that is being longer and deeper than we previously expected. Far from moderating, tensions in the primary financial markets remain and risk premiums are increasing once more in the secondary financial markets. It implies a prolonged stage of financial deleveraging. Secondly, the current increase in oil prices is as severe as that happened at the end of the 1970s. The result has been a significant drain on disposable income, and a dilemma as to the direction that monetary policy should take in order to face persistent inflationary pressures. So far, the reaction to this dilemma in the euro zone has been an increase in official rates to 4.25%. Although we do not expect this July change to be the trigger for a chain of rate hikes, the market is already discounting additional rises, thus creating interest rate tensions. The third shock is the current adjustment in the housing sector, which is intensifying and spreading across the developed countries. The role of financial factors in the performance of the Real Estate market generates a feedback that results in lower growth both in the sector and the economy as a whole.

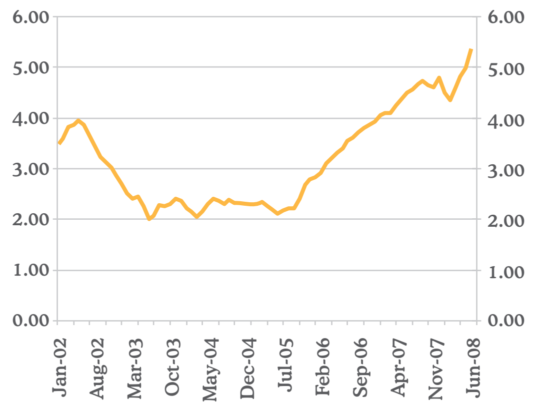
Increased speed of adjustment in the Spanish economy

The situation outlined above has produced an intense and rapid deterioration in Spain's cyclical position, greater than it was expected a few months ago. The Spanish economy is particularly vulnerable to these three global shocks, and because they have intensified throughout the first half of 2008, the adjustment is being more far-reaching.

According to our own estimates, Spain's GDP has fallen on a quarterly basis from nearly 0.8% in the second half of 2007 to no more than 0.1% in the first half of 2008. This involves stagnation in the second quarter of this year, which will probably continue over the next few quarters. The financial crisis is unlikely to be resolved speedily. In fact, even if there were a swift reduction in risk premiums and a complete return to the normal functioning of the most affected markets, a process of financial deleveraging at a global level would still have to be completed. History shows that these periods during which the capital ratios of financial institutions are restored tend to be relatively long. This makes it likely that the financial conditions will not be as easy as they have been over the last few years.

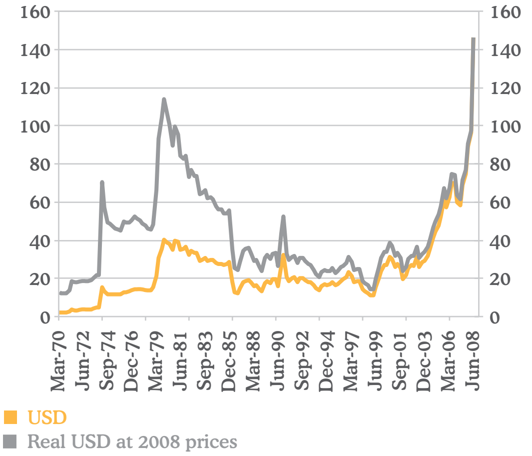
In all, given the high level of uncertainty with regard to how the shocks will evolve, the best policy appears to project the economic scenario within ranges. Thus the rate of growth in 2008 is expected to be between 1.7% and 1.3%, while for 2009 it is not expected to be over 1%, and possibly as low as zero. The middle ground would be a growth of 1.5% in 2008 and 0.5% in 2009, 0.4 and 0.9 percentage points respectively below the forecasts made three months ago.

Euribor 12M
(%)



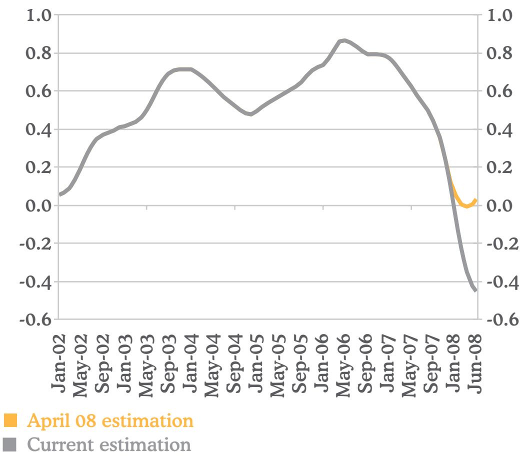
Source: BBVA ERD

Oil price
(Dollars per barrel)



Source: Datastream and BBVA ERD

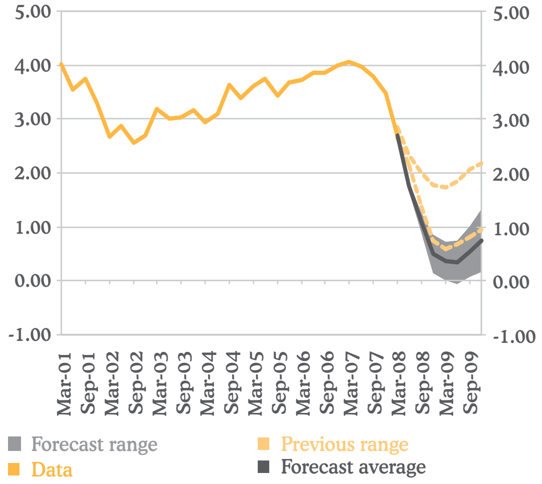
IA-BBVA, Spanish Activity Indicator



Source: BBVA ERD

Spain, GDP

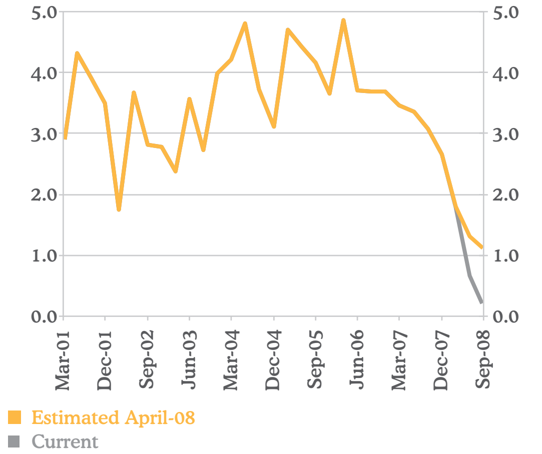
(% y-o-y growth rate)



Source: INE and BBVA ERD

ISC BBVA, Consumption Synthetic Indicator

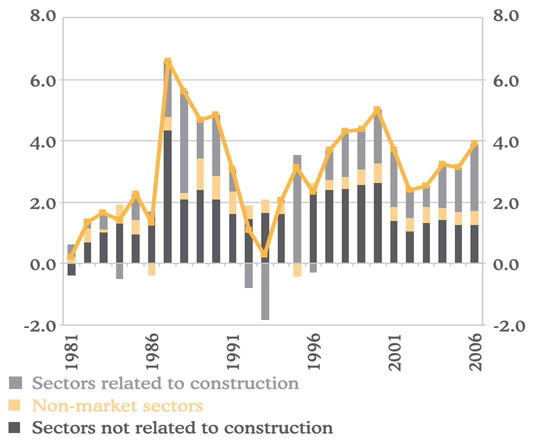
(% y-o-y growth rate)



Source: BBVA ERD

Spain, Gross Value Added

(% y-o-y growth rate and contributions)



Source: BBVA ERD

Household consumption is in a process of adjustment and it is vulnerable to a situation of greater financial austerity

From the demand perspective, much of the revision in the Spanish economic forecasts are made on investment in capital goods, and above all on household consumption. The economic indicators for the first half of 2008 show that there has been a sharp fall in consumption. This reflects a combination of deteriorating household spending fundamentals and an overreaction in expectations in the light of the rapid economic adjustment. Higher inflation represents a drain on real disposable income, that it has been combined with a brake in job creation throughout 2008, and which will likely result in a net fall in employment in 2009. The trend for housing prices to stabilise has an impact on household non-financial wealth. Household wealth has also been affected by a less dynamic financial component as a result of stock market price falls. In addition, interest rate tensions and increased risk premiums lead to deterioration in the financial conditions affecting household spending decisions. Finally, the high level of household debt reached in the last expansive phase makes it difficult soften the slowdown in spending by additional indebtedness. This represents an additional element of vulnerability for household consumption.

The activities less related to construction face an important challenge for the future

The cyclical adjustment phase of the Spanish economy is going to be relatively long-lasting. But apart from any adjustments, the key question for the future is how dynamic our economy can be. This question is particularly relevant following a prolonged period of high growth: since 1994 activity has increased at an average rate of 3.6%. The answer to the question may be approached from different perspectives. In our case, we will give a sector-based analysis. It can be seen that those activities linked to construction and the Real Estate sector represent about 30% of added value in the economy. These sectors have been particularly dynamic, showing an average growth rate of 4.5% since the start of the decade. The growth rate of the remaining sectors was nearly half, at 2.4%. Overall these more sluggish sectors were characterised by an intensive use of technology, strong links to long-term changes in lifestyles and notable export dynamism, which has reduced their exposure to the domestic cycle. Thus these sectors have characteristics that allow them to take the lead in future growth. However, the analysis of their recent performance leads to the conclusion that the growth rate of the economy as a whole will be lower than that of recent years.

2. Intense adjustment in the Spanish economy

The cyclical adjustment affecting the Spanish economy is more intense as a result of a rapid worsening in global conditions. Indeed, the combination of three global shocks over a vulnerable economy might be causing an overreaction to new information. As a result, Spain will continue its pronounced slowdown over the next quarters. It is expected that in 2008 the economy will continue to grow within a range of 1.3% and 1.7%. The slowdown will intensify in 2009, with a growth rate which may fluctuate from 1% (in the best-case scenario) to 0%. Employment will stagnate in 2008 and fall in 2009 with an unemployment rate that could be over 14% of labour force at the end of 2009.

The economic scenario has become more adverse to growth in Spain throughout the first half of 2008, and this has had an impact on activity

The Spanish economy is currently experiencing an intense adjustment which has gained momentum due to a rapid worsening in global conditions. Some of the risks for the Spanish economy outlined a few months ago are now materialising and might complicate the economic scenario and the perspectives for the next few quarters. In fact, the path in some key activity variables has been particularly adverse, posing further risks than those underlined three months ago. The reaction of the Spanish economy to this additional deterioration has been a sharp overall decline. This was inevitable, given the large swings observed in global conditions.

Table 2.1 includes some of the variables of the external scenario, and compares the first and second quarter of the year with the April forecasts made in the previous edition of the *Spain Watch*. In general, the forecasts have been overtaken by events. For example, the tensions in the energy markets continue and oil prices have reached all-time levels, at nearly 140 dollars in the second quarter, and 145 dollars at the start of July. As seen in the table, there has been a significant deviation from the expected 34 dollars a barrel, with the result that the drain on real income for consumers and companies continues very high. The renewed tensions in prices in the oil market, together with other factors dealt with below, generated prolonged inflationary upturns at the end of 2007. Inflation reached its highest level since 1995 in June, at 5% (and it is forecast to increase by a few decimal places more in the summer), with a quarterly average also far from that forecast.

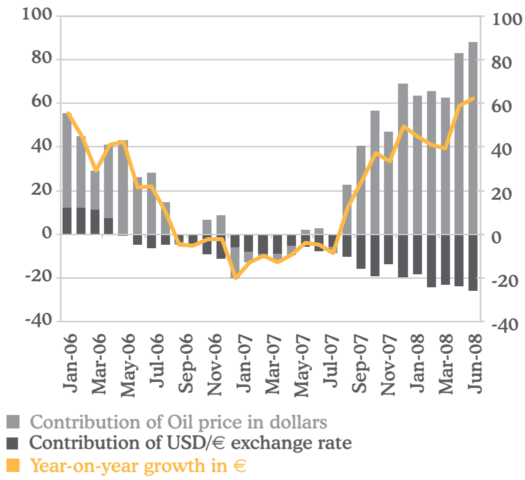
The financial situation, which was already adverse since the start of the global financial crisis a year ago, has also continued to worsen. The financial crisis, together with the gradual change in monetary policy expectations derived from inflationary tensions, are behind the additional upturn in interest rates in the second quarter of the year, with the Euribor at its highest levels since the creation of the euro zone, at an average for the quarter of one percentage point above the forecast 3 months ago. Although we expected that tensions would be maintained (unlike those who claimed the market would stabilize), in

Table 2.1.
Global Scenario: forecasts and data

	Q108	Q208	
		Forecast Apr-08	Data
Oil ($/barrel)	97	88	122
Inflation (% / year)	4.4	3.7	4.6
Exchange rate			
Euro (Dollar/euro)	1.50	1.56	1.55
Real exchange rate (1999=100)	123.5	126.3	126.3 (*)
ECB interest rate (f.d.p)	4.00	4.00	4.25 (**)
Euribor 12 M	4.5	4.1	5.1
Mortgage rate	5.5	5.2	5.65 (*)
TED spread 3M	55	50	80

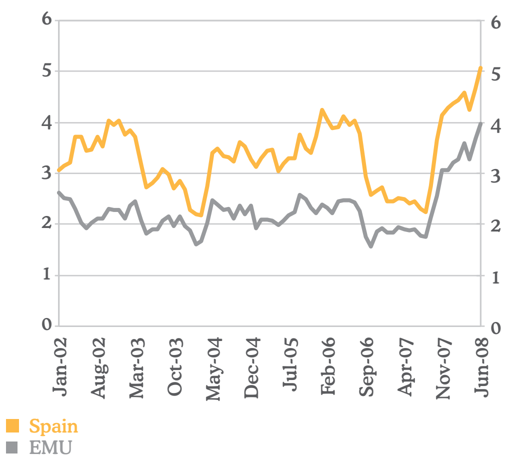
Source: BBVA ERD
(*) Current forecast for Q208
(**) July 2008

Chart 2.1.
Oil Prices
(% y-o-y growth rate and contributions)



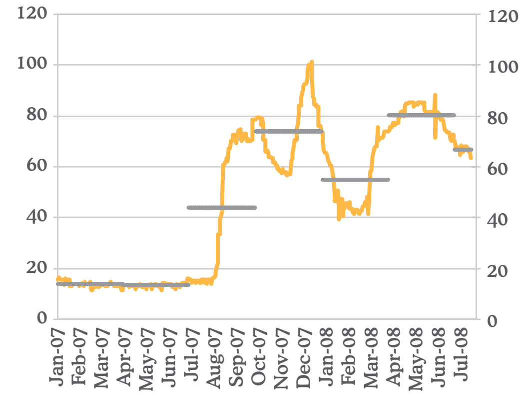
Source: BBVA ERD

Chart 2.2.
Harmonised CPI
(% y-o-y growth rate)



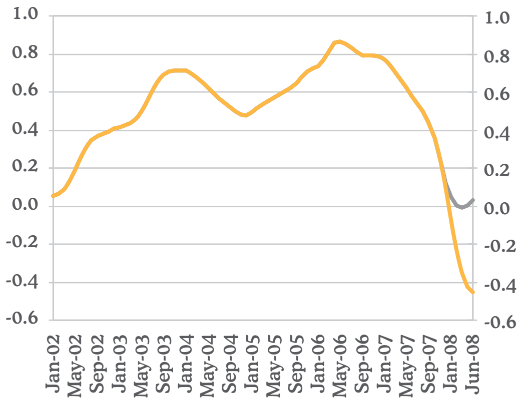
Source: BBVA ERD

Chart 2.3.
Spain, 3M TED spread
(interbank rate-treasury bill)



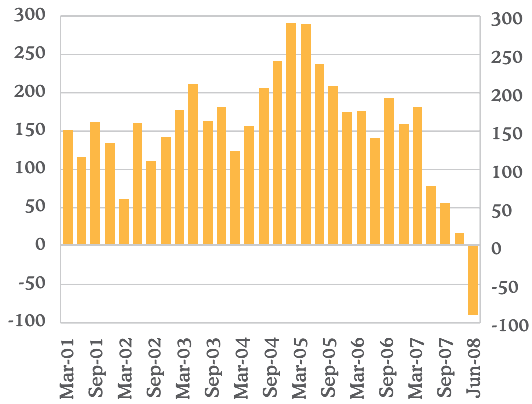
Source: Bloomberg and BBVA ERD

Chart 2.4.
IA-BBVA, Spanish Economy Activity Indicator



Source: BBVA ERD

Chart 2.5.
Spain, Employment (LFS)
(Quarterly change in thousands, Seasonally-Adjusted)



Source: INE and BBVA ERD

fact the tensions have not only been maintained but have actually intensified. In fact, in the April forecast scenario, we assumed that the tensions in the financial markets would remain at the levels of the first quarter of 2008. Measured by TED spread (the difference between the inter-bank rate and risk-free finance such as Treasury bonds), this would represent a differential of around 50 basis points (bps), a figure still far above the average levels before the start of the financial crisis (when they were around 15 basis points). In fact, the financial tensions have increased to an average of 80 basis points, 30 more than it was estimated in our April scenario.

The economic data show a major slowdown of the Spanish economy that is greater than anticipated, particularly for consumer and labour market indicators

The economic indicators have been worsening steadily since 2007, but this situation has speeded up in the first half of 2008. The IA-BBVA activity indicator, which provides a synthetic information from 45 partial economic indicators, illustrates this situation clearly. It not only shows a clear trend for slowing activity since the end of 2006, but also with the latest update it presents a level well under zero (i.e. below its trend), clearly less than the figure registered at the height of the 2001-2002 slowdown. Specifically relevant is the intense deterioration observed in some key indicators related with consumption, the housing sector and the labour market. In the case of consumption indicators, the clearest case is consumer durables, with sharp falls and well above our previous forecast, as a response to both the lack of direction in their fundamental drivers (as we shall comment in the third part of this report), and as a precautionary response associated to worsening expectations in the face of rapid economic decline.

The labour market needs a specific mention. Two different phenomena play a part in it. First, the economy has slowed job creation in line with the pronounced slowdown in GDP. The data from the Spanish Labour Force Survey (EPA) for the second quarter reveal that, allowing for seasonal adjustment, for the first time since 1994 the economy is no longer creating jobs. In addition, the active population continues to grow at an extraordinarily high rate close to the p during the expansive phase of the cycle (an average of 3.2% between 2004-2007). As a result, unemployment (and the unemployment rate) is growing strongly. In fact, some of the data for registered unemployment in recent months have shown the worst evolution in this historical series.

The adjustment of the Spanish economy gathers pace in the face of a combined triple shock

Since the end of 2007 the world economy has been undergoing three major related shocks, whose future is uncertain: the financial crisis, tensions in commodity markets and the property adjustment. The tensions in the financial markets that emerged a year ago have led to worldwide moderation in the availability of credit and an increase in its cost. This has simply given a renewed impulse to the steady adjustment process that the property sector has been undergoing since 2006[1].

[1] The limited rate of financial deleveraging (at least until now) of the economic agents most involved in the process makes it difficult to think of the situation returning to normal in the short or medium term.

The weakening of the property sector is responsible for the lower wealth effect on consumer spending. It has also increased the levels of default loans and bank losses, particularly in the U.S. All this affects the profits of the financial sector, thus increasing turbulence. In addition, tensions in the financial markets, particularly the weakening dollar, have generated increasing flows to commodities. The financial situation, together with other factors affecting supply and demand, explains the huge upturn in the commodities markets, including energy such as oil. Their impact on inflation has been immediate. They have generated a change of expectations towards a more restrictive monetary policy, as well as a dilemma in terms of applying such policies in the current phase of the cycle. This dilemma has so far been resolved in the euro zone with a return to path of uninterrupted rate rises, which began precisely a year ago with the start of the financial crisis. Once more, the interest rate rises affect the adjustment in the property sector.

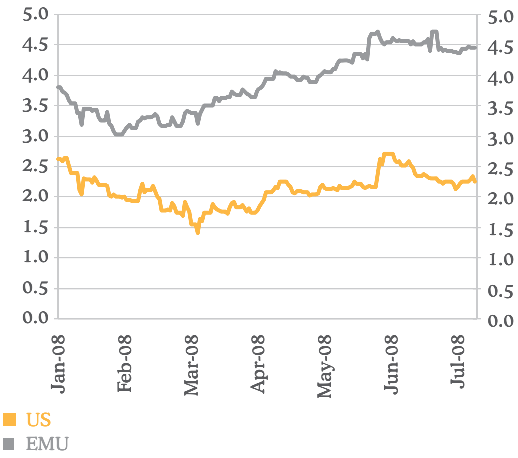
Throughout the first half of the year it has been clear that these shocks have been more persistent and intense than expected. This has led to a review of the assumptions used to determine the perspectives for the Spanish economy. As we will see below, the Spanish economy is particularly sensitive to adverse changes at global level, because each of these shocks affects aspects in which the Spanish economy is particularly vulnerable. The result can only be a downward revision of growth forecasts.

Shock one: a global financial crisis more intense and persistent than expected makes more difficult to attend the funding needs for the whole economy

The Spanish economy is particularly vulnerable to the current financial crisis. A situation of less abundance of liquidity has a greater impact on economies with higher funding needs. This is the case of the Spanish economy, where recourse to overseas funding is the result of both an increasing current account deficit (which has practically quadrupled over the last four years to 106 billion euros in 2007) and significant Foreign Direct Investment outflows (50 billion euros in 2007). In a context of plentiful liquidity, easy financial conditions, membership of the EMU and economic expansion, there are no problems to finance the external deficit. The problems arise when the previous scenario completely changes, and primary financial markets are partially closed to the issue of certain types of assets. In that case, the funding needs for the economy as a whole become more expensive and the average maturity is significantly shortened. This situation is currently hitting the Spanish economy, particularly affected by a significant shift towards short-term related financing instruments, because of the reduced attraction of assets on international markets (see Box: "The funding needs of the Spanish economy will remain high in 2008 and 2009").

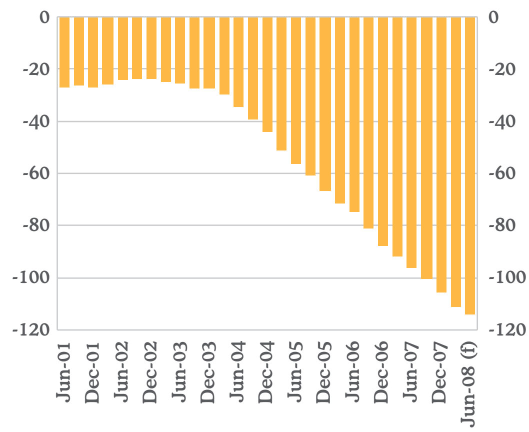
And over a year after the start of the financial crisis, it is clear that its intensity, duration and impact are greater than expected. The accumulated losses in part of the global financial system have already made this the most expensive crisis in the last 30 years. In addition, far from moderating, tensions remain and the risk premiums have recently begun to increase, whilst the difficulties in obtaining liquidity and issuing securities in credit markets continue. The lack of liquidity has not been substantially corrected, despite the actions of the central banks (increased provisions, extension of the collateral used in injection operations, extended auction time...). All this has generated a

Chart 2.6.
Implicit Official Rates in EONIA and FED Funds Dec-08 Futures



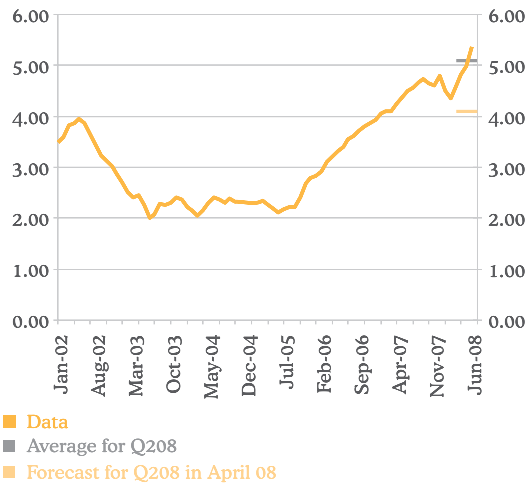
Source: Bloomberg

Chart 2.7.
Spain, current-account balance
(Billions of euros, yearly accumulated)



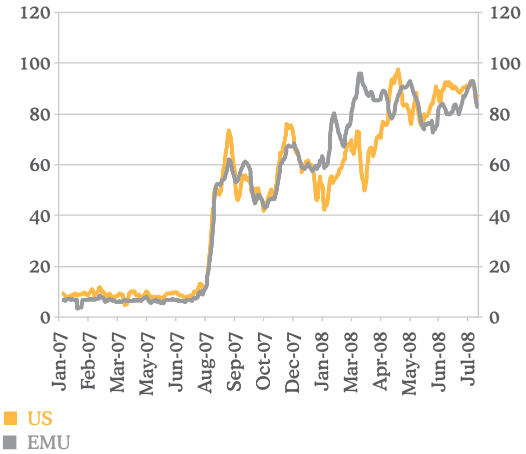
Source: INE and BBVA ERD

Chart 2.8.
Euribor 12M



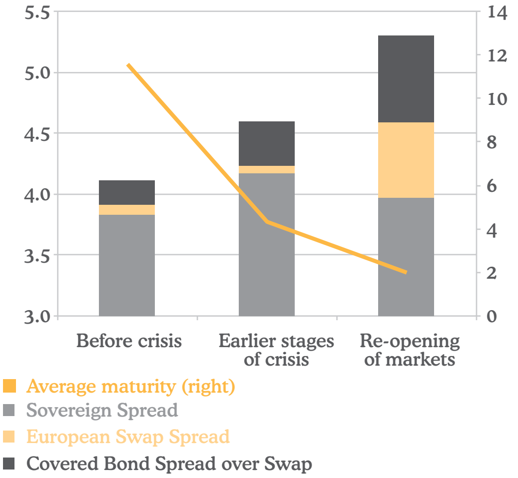
Source: BBVA ERD

Chart 2.9.
Liquidity tensions
(LIBOR - Monetary policy expectations, 12M differential)



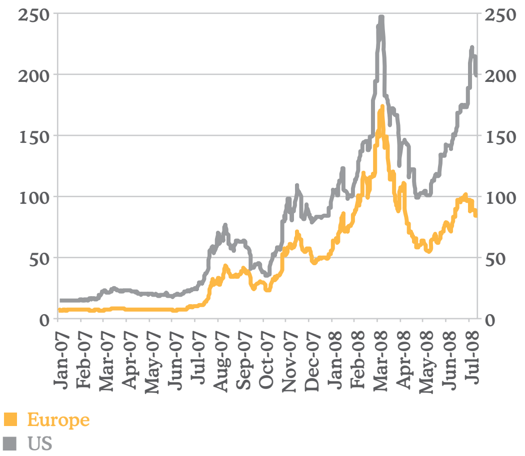
Source: Bloomberg (5-day moving average)

Chart 2.10.
Spanish Covered Bonds Issuance: Average Cost and Maturity



Source: Bloomberg and BBVA ERD

Chart 2.11.
Bank credit risk: 5-year CDS
(basis points)



Source: Bloomberg and BBVA ERD. Simple average of 5-year Senior CDS

significant and persistent pressure on interest rates on the interbank market. Last June the 12-month Euribor hits a three-year high of 5.4%, an increase of 1% each year. Although a chain of interest-rate rises is not expected from the ECB, tensions related to European rates will undoubtedly remain in the short term.

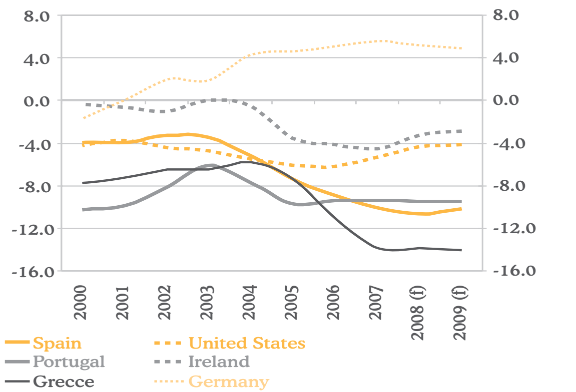
At the same time, the risk premiums in corporate bond markets have increased, and specifically in the bonds issued by the financial sector. In previous years, financial institutions had been able to expand their balance sheets thanks to their low risk premiums. Now the situation has changed radically. In the case of the U.S., it is striking that despite the 325 bps cut by the Fed, the current issuance costs are similar to those before the crisis, because of the increase in risk premiums. In the EMU the costs are even higher because the ECB has increased the official rates. Not only is issuance more expensive, but the difficulties faced by issuers are translated into a significant shortening of maturities. For example, in Europe at the start of 2008, 70% of the issues by the banking sector had a maturity below 2 years, compared with a figure of 50% of such issues before the crisis. A more specific example of this kind of behaviour can be found in the Spanish mortgage bond market, where this pattern is heightened, both in terms of increased cost and in lower maturity, as can be seen in the accompanying chart. Meanwhile, the stagnation in the issuance of structured products continues. To sum up, the primary markets are still not back to normal situation.

Some events at the start of the year appear to have marked a change towards a relaxation in risk premiums. This happened in March, when the Federal Reserve rescued Bear Stearns, bringing some relief to the investment banking segment, which was particularly affected. This marked a turning point in the crisis. Risk premiums relaxed somewhat, although liquidity tensions remained unchanged. However, after this slight fall, there was an upturn in risk premiums again in the summer of 2008. After the problems in Fannie Mae and Freddie Mac, the mortgage agencies sponsored by the U.S. government, and the growing difficulties in other institutions, it appears clear that the crisis was extending to a greater number of institutions and assets and that it would be of significant duration.

Box 1: The funding needs of the Spanish economy will remain high in 2008 and 2009

Spain's current account deficit widened in 2007 to 106 billion, or 10.1% of GDP[1]. This is an all-time record and relatively high compared with other industrialised countries. Only the U.S. had a bigger deficit, and Greece (-13.9%) and Iceland (-15.6%) higher percentages. The percentage was also higher than countries with traditionally high trade deficits, such as the U.S. (-5.3%) and Portugal (-9.4%). In addition, unlike what could occur in some of the countries mentioned, Spain's current account deficit is expected to widen in 2008 to 10.6% of GDP. In 2009 we estimate a 10.2% of the GDP.

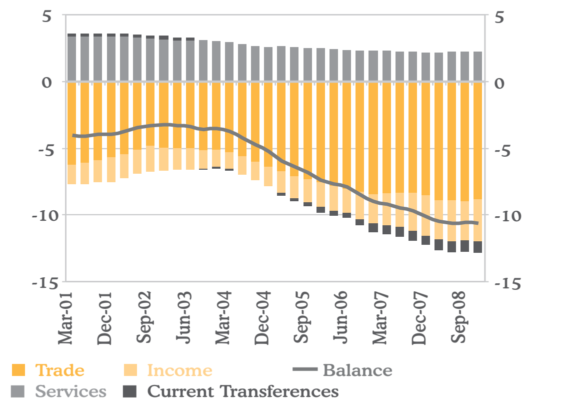
Chart 1.
Current-account balance
(Percentage of GDP)



(f) BBVA ERD forecast for Spain, IMF forecast for other countries
Source: BBVA ERD and IMF

The increase in the foreign deficit is the result of the deterioration of all its components, both those traditionally in the red (trade, income and transfers) and the surplus (in services). It is worth highlighting the impact of energy imports, given that nearly 4 percentage points of the Spanish trade deficit are the result of the import of oil and natural gas.

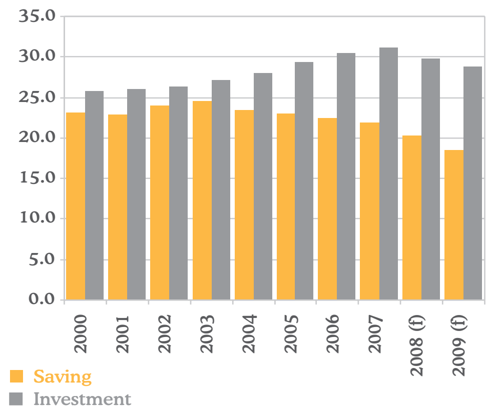
Chart 2.
Spain, Current-account balance Break-Down
(Percentage of GDP, yearly accumulated)



Source: BBVA ERD based on BoS

From the perspective of savings and investment, the current account deficit plus the capital-account surplus reflects the dynamic nature of investment in Spain. It is far greater than domestic savings, which is often compared favourably with levels in other countries. Against a background of a structural fall in interest rates, the Spanish economy has increased its level of consumption, both public and private. The result is a lower level of savings, which fell in 2007 by 0.6 points compared with the previous year, to 21.9% of GDP. Lower financing costs and an environment of easy credit resulted in a significant rise in the rate of investment, from 25.8% of GDP in 2000 to 31.1% in 2007. Households and companies are the institutional sectors concentrating this greater investment effort, which went into housing, other construction and equipment goods.

Chart 3.
Spain, Saving and Investment
(Percentage of GDP)



Source: BBVA ERD

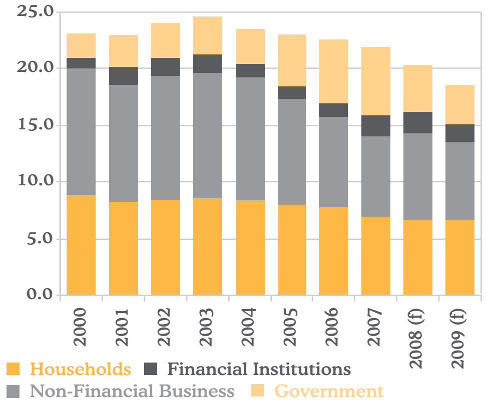
A more uncertain and financially more austere global environment makes it likely that investment rates will fall over the forecasting period. According to our estimates, the investment rate will in 2009 be slightly under 29% of GDP, nearly 2.5 points less than in 2007, dragged down above all by shrinking home investment. The hoped-for increase in public investment will not compensate the falling investment from private economic agents. In terms of savings, in 2008 and 2009 there will be a turnaround in the contributions of the public and private sectors of the economy. Public investment, which will have been compensating the fall in private savings, will be reduced by more than the expected increase in corporate and household savings. Thus public savings are expected to be 4% of GDP in 2008, nearly two points below the figure for 2007, and more than the expected upturn in household and non-financial corporate savings, which will be nearly half a percentage point of GDP during this period. In all, in the next two years there will be a fall in national savings of nearly 2.5 points of GDP to close to 19% in 2009.

[1] The reduced surplus of the capital balance means that the funding needs of the Spanish economy were 9.7% of GDP, 1.3 percentage points above the previous year.

Chart 4.

Spain, Saving

(Percentage of GDP)



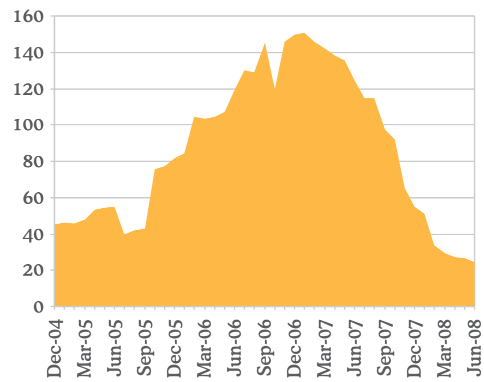
Source: BBVA ERD

In addition, the capacity of the Spanish economy to raise foreign capital in a very favourable environment has enabled the financing of the intense process of investment of Spanish companies abroad. In 2007 Spain registered net capital outflows as direct investment of 50 billion euros (4.7% of GDP), which in practice represents an increased need to fund the economy. The new environment is more adverse for growth, and is halting the process of investment abroad. Thus the most recent data on Spanish corporate mergers and acquisitions abroad (up to June) show an accumulated fall in the first half of the year of more than 50% compared with final investment in the second half of 2007, which was already half of the accumulated amount for the first six months of 2007.

Chart 5.

Spain, Mergers and Acquisitions abroad. Completed transactions

(Yearly Accumulated, billions of dollars)



Source: Thomson One

Financing instruments move towards the short term

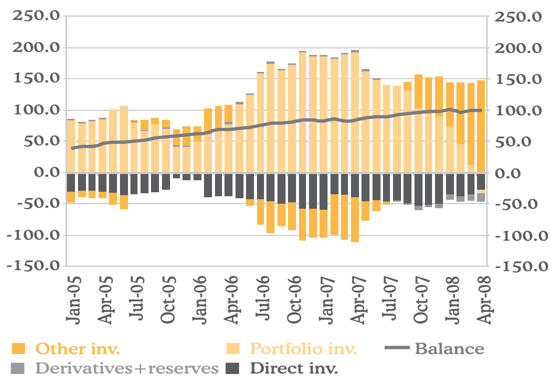
Until mid-2007 Spain's funding needs were basically covered with portfolio investments, mainly from the placement abroad of bonds issued by companies and financial institutions. Starting in September 2007, the global financial turbulence led to a change in the type of instruments that the Spanish economy used to cover its funding needs. A significant movement could be observed in financing instruments towards the short term, in clear detriment to long-term issues.

By institutional sectors, the financial institutions, along with other resident sectors (households and corporate) continue to be the sector that captures the greatest volume of resources abroad, although the same change in its financing instruments can be seen, with an increase in short-term debt.

Chart 6.

Spain, balance of payments (financial account)

(Billions of euros, Yearly accumulated)



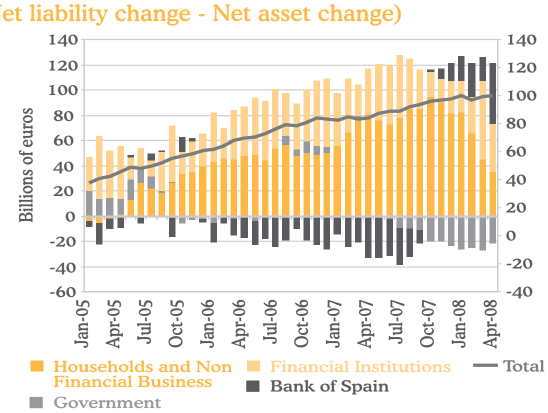
Source: BBVA ERD based on BoS

In the current situation of financial markets that are closed to certain types of assets, and with foreign direct investment abroad falling, the funding needs are around -10.1% of GDP, 0.4 pp more than in 2007, drawn down by the deterioration in the trade deficit. Given the increased expense of issuance costs, and without capital markets returning to normal, it will continue to be very difficult to obtain capital.

Chart 7.

Spain, net financial flows abroad, by institutional sector

(Net liability change - Net asset change)



Source: BBVA ERD based on BoS

A second stage in the financial crisis is beginning, the financial deleveraging becomes real

The duration of the financial crisis is conditioned by a number of factors, including the capacity of the financial institutions to undertake a process of deleveraging, either by increasing capital or cutting assets. This is because losses restrict their activity by reducing capital. Initially, nearly 70% of the losses of the American banks and 50% of those in Europe were compensated by capital injections, mainly using sovereign-wealth funds based in emerging countries. However, after being very active in the first phase of the crisis, these funds gradually became less inclined to intervene, and it has become difficult to place the latest recapitalisations. In fact, in the last few months there has been a growing negative signal effect, given that those institutions that issue capital are perceived as being more vulnerable. If the institutions are unable to obtain new capital, their option would be to reduce their balance sheet. Thus from now on we can expect that institutions will turn to a reduction in the size of their assets. This process will no doubt take time, and will have consequences in terms of a lower growth of bank assets and the economy as a whole.

We estimate a higher impact of the financial crisis on growth: 0.2 pp more than previous calculations in 2008 and 0.5 pp more in 2009

In our April forecast we had considered two alternative scenarios: in the first, the financial tension could continue until the second quarter of 2008 at the same level; in the second, the tension would last throughout 2008, also at a similar level to that seen in the first quarter. Given the subsequent development of the crisis, both scenarios now appear somewhat optimistic. As a result, we have revised this hypothesis and adopted the assumption that financial tensions will persist until the first quarter of 2009 at the same level shown in the second quarter of 2008. From the quantitative point of view, the level of tension in the financial markets is approximated by the TED spread, the difference between the inter-bank interest rate and the return on risk-free assets (Treasury bills), assumed at a level of 80 basis points.

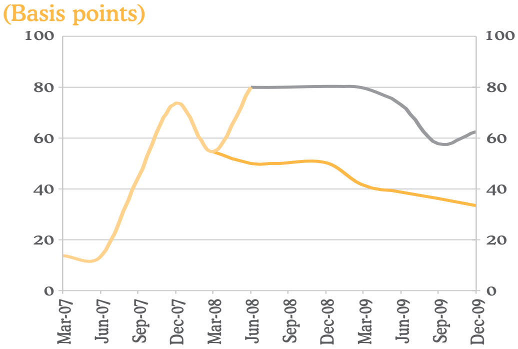
The persistent tension in financial markets moderates the real growth of credit, and thus economic growth. According to our estimates, continued financial tensions as described in the scenario above would have an impact in terms of lower GDP of around 1 pp in 2008, 0.2 p.p. more than estimated in April, when the spread was assumed to be 50 basis points. The effect would be greater in 2009, when the impact would be 1.6 pp, half a point more than estimated three months ago[2].

Shock two: the Spanish economy makes a relatively intensive use of oil per GDP unit, so it is more vulnerable to higher oil prices

The Spanish economy uses oil more intensively than comparable countries. As can be seen from the adjoining chart, despite the reduction over the last few years, it is far higher than in other developed countries. As a result, our economy is more vulnerable to the current energy price tensions. The energy bill of the Spanish economy has more than doubled over the last 3 years, and is now 40 billion euros a year (a third of Spain's total external deficit), or nearly 4% of GDP in 2007.

[2] For more details on the model for estimating the impact of the financial crisis, see *Spain Watch*, April 2008.

Chart 2.12.
Spain, 3M TED spread scenarios
(Basis points)

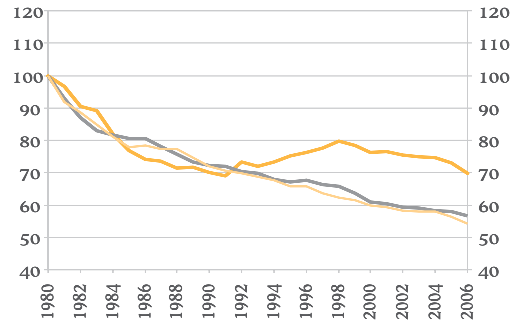


Source: Bloomberg and BBVA ERD

Chart 2.13.
Spain, effects of the financial crisis on GDP
(percentage points)

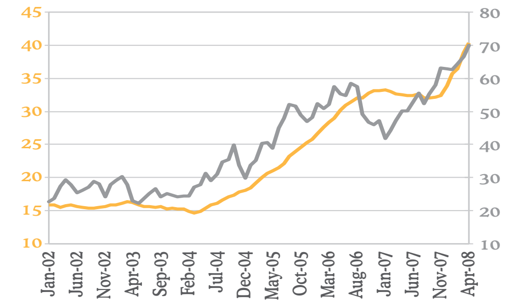
Source: BBVA ERD

Chart 2.14.
Oil use per GPD unit
(1980=100)



Source: BBVA ERD, European Comission and BP

Chart 2.15.
Spain's energy bill

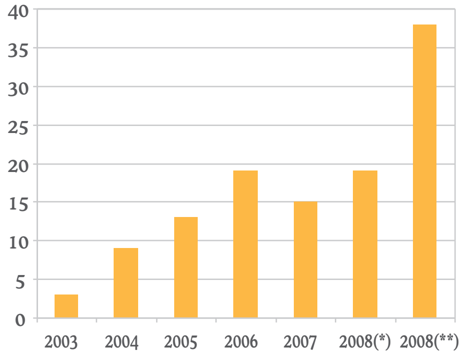


Source: BBVA ERD

Chart 2.16.
Oil price
(USD per barrell)

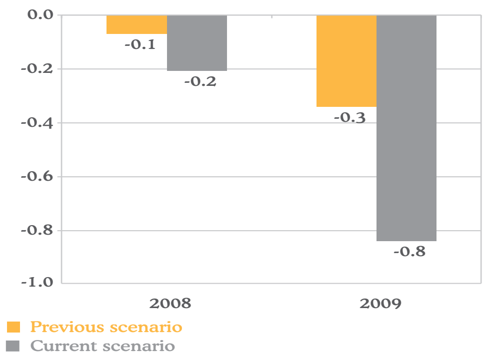
Source: Datastream and BBVA ERD

Chart 2.17.
Net flows into commodity funds
(billions of dollars)



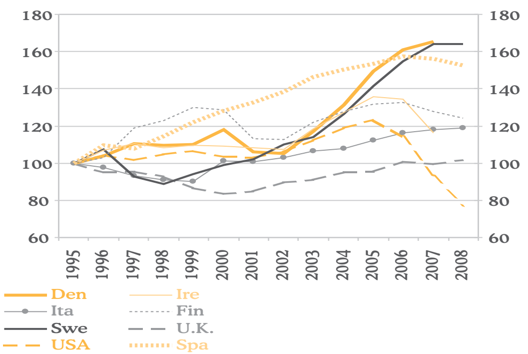
Source: JP Morgan, based on a sample of 400 funds
(*) Provisional; (**) Annual extrapolation

Chart 2.18.
Spain, effects of the oil shock on GDP
(deviations from % growth rate baseline in porcentual points)



Source: BBVA ERD

Chart 2.19.
Housing investment / GDP
(1995=100)



Source: BBVA ERD

The energy deficit is mainly due to higher oil prices. The upturns could already be observed at the end of 2007, and have been increased in the first half of 2008. In fact, the current tensions in oil markets are in real terms comparable both in intensity and speed to those of the oil crises of the 1970s. The cause, however, is very different. Unlike what happened before, this crisis is not the result of a (negative) supply shock. The trend for increasing oil prices since 2004 was driven by the strength of demand, spurred by exceptional growth in emerging countries, which are not very energy-efficient.

However, the differences between supply and demand do not at all explain the levels oil prices have reached recently. In fact, demand is slowing in developed countries and there have been no surprises on the supply side. Oil (as is the case with commodities in general) has become another financial asset, and as can be seen in the adjoining chart, this market is attracting funds as a result of the re-evaluation of the risks of other financial assets. Thus in the first few months of 2008 there was already as much flow into funds investing in commodities as in the whole of 2007. But although the fundamentals do not justify current prices, the tensions could be more persistent than in other cycles. The weight of the financial component, providing there are no surprises or regulatory changes, could be fairly long-lasting.

The change in oil price forecasts gives us a greater than expected drain on income and consumption. The negative impact on GDP is calculated at around 0.2 pp in 2008 and one point in 2009, respectively

In the medium and longer term, a return to a market more dominated by factors of supply and demand could help soften the tensions in these markets. This could be accompanied by a financial component, if there is finally a recovery in the dollar or elements that reduce incentives for operations in the commodities futures markets.

For all these reasons, the assumption of oil prices used as a hypothesis for our April forecast has been revised up. We now estimate that the oil price could moderate slightly in the second half of the year, closing slightly above 100 dollars, giving an average for the year of 110. For 2009, our current forecast is 90 dollars. This new scenario represents an upward revision of nearly 25 dollars in 2008 and 15 in 2009, respectively, compared with the figure used in April. According to our estimates, the increased tensions in oil markets will reduce Spanish GDP growth by 0.1 pp. in 2008, and by 0.5 pp. vis-à-vis the estimates made in April.

Shock three: the adjustment in the global property sector is leading to a correction of activity and housing prices

After a decade of uninterrupted housing price rises in many OECD countries and the generalised increase in property activity, the sector has entered a stage of rapid deceleration or even contraction. The adjustment in the sector is already fairly comprehensive, although as can be seen in the adjoining chart, this has to be qualified, both in terms of the scope of the previous expansion, and the degree of adjustment that has begun. Financial factors have been determinant in the expansion of recent years, and are now an element of vulnerability. The sector underwent a change in the cycle with the change in financial conditions in 2005. The current financial crisis has changed expectations in a sector that was already showing clear signs of exhaustion, given the long duration of the upward cycle and the clear sensation that the movements in price levels and property stocks could not be sustained.

This is the case in the Spanish property sector, where the adjustment has intensified, in activity, demand and, to a lesser extent, in prices. At present, the economic data show the most profound adjustment ever seen, as can be seen in the synthetic housing activity indicator, which is an aggregate of a set of sector indicators, some of them leading indicators. As can be seen in the adjoining chart, the current levels of adjustment are far above the all-time low. Nevertheless, the data on investment in housing in the national accounts show that the fall in investment is still limited. Comparing these figures with the economic data, this suggests that the sharpest phase of the adjustment is still to come, and that it will be more intense than that forecast three months ago.

Although no two cycles are the same, a historical and cross-sectional comparison may give an indication of the size of the adjustment pending in key variables (prices and activity), considering the fundamental factors explaining them. An initial estimate of the extent of the fall of the current housing cycle can be made by observing the length and extent of past falls in prices and activity. Although there is considerable variation between the different cycles (with shorter cycles occurring within longer ones), the periods of falls in real prices from 1970 have lasted an average of 14 months (three and a half years in all), in 2 or 6 episodes of falls (depending on the country), while the average fall in real prices has been 20%, at 1.4% per year.

In addition, the changes in prices tend to be associated with cycles of activity in the same direction. According to our estimates the periods of fall in residential investment as a ratio of GDP have had an average duration of 4.5 years, and have in total represented a fall of 1.8 percentage points (0.4 per year). In this case the variations between the average cycles of the different countries are significant: in some European countries (France, Italy, Spain) the falls in activity have been historically lower than in the United States, Ireland or Nordic countries.

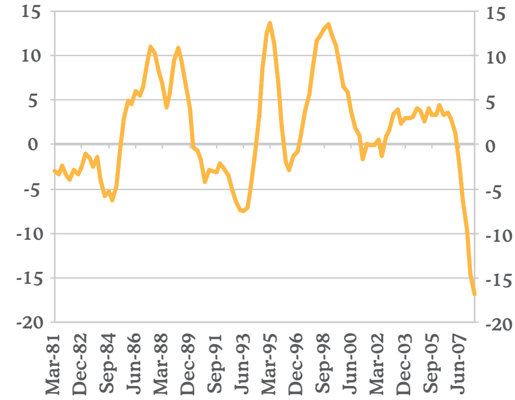
Although obviously what occurred in past property cycles does not necessarily determine what is going to happen in the future, given the variety of factors that influence each housing cycle and their relation to other variables of activity, the history of the last three decades appears to indicate that cyclical adjustments in housing may be prolonged, and they certainly contradict the idea that property prices (not only real but nominal prices) cannot fall. Given that the recent expansion in the housing sector has been one of the longest and most intense on record, we could expect that the duration of the ongoing downward cycle at the international level may also be significant. However, everything depends on to what extent expansion is explained by structural factors and the role that financial factors (which is the real difference in this cycle) are going to play in the adjustment. Financial factors could contribute to intensify the rate of adjustment given the lower availability of credit.

What, then, is the margin of the fall in prices and activity in Spain? To answer this question SEE BBVA has carried out a study outlined in detail in the July number of *Real Estate Watch* estimating housing

Chart 2.20.

Spain, Synthetic Indicator of Construction Activity (housing)

(% y-o-y growth rate)

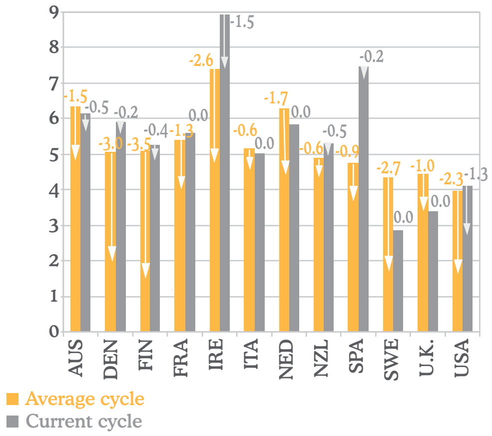


Source: BBVA ERD

Chart 2.21.

Residential investment / GDP: Fall from cyclical maximum

(% of GDP)



Note: Local maximum in last cycle beginning 2002 (Australia), 2005 Ireland, US), 2006 (Finland, Spain, United Kingdom, Denmark).
Source: BBVA ERD

Table 2.2.

Cycles in property sector

(falls in real prices)

	No. Cycles	Average fall in real prices	Average no. quarters	Average quarterly fall
Australia	6	-9.1%	9.2	-1.0%
Denmark	4	-24.2%	12.0	-2.0%
Finland	2	-40.3%	22.0	-1.8%
France	2	-10.3%	13.5	-0.8%
Ireland	3	-11.2%	12.3	-0.9%
Italy	4	-35.5%	15.8	-2.3%
Holland	3	-19.0%	12.0	-1.6%
New Zealand	5	-12.8%	11.6	-1.1%
Spain	4	-18.7%	15.5	-1.2%
Sweden	3	-22.9%	16.0	-1.4%
United Kingdom	3	-24.9%	16.3	-1.5%
US	3	-10.3%	16.3	-0.6%
Non-weighted average	3.5	-19.9%	14.4	-1.4%

Source: BBVA ERD

Table 2.3.
Cycles in the property sector
(associated change in housing investment)

	Average duration of cycle (years)	Average accumulated fall in investment housing/GDP	Average fall in investment/ GDP per year
Australia	2.2	-1.5%	-0.4%
Denmark	4.0	-3.0%	-0.9%
Finland	9.5	-3.5%	-0.4%
France	5.3	-1.3%	-0.2%
Ireland	4.0	-2.6%	-0.8%
Italy	4.0	-0.6%	-0.2%
Holland	5.0	-1.7%	-0.4%
New Zealand	2.3	-0.6%	-0.3%
Spain	3.8	-0.7%	-0.2%
Sweden	5.0	-2.7%	-0.5%
United Kingdom	4.8	-1.0%	-0.3%
US	4.0	-2.3%	-0.6%
Non-weighted average	4.5	-1.8%	-0.4%

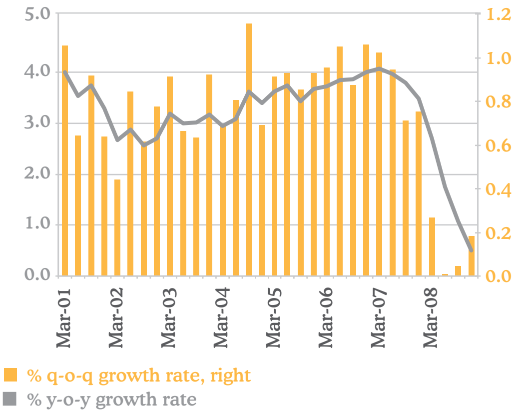
Source: BBVA ERD

Table 2.4.
Global Scenario: forecasts

	April-08 Forecast		Current Forecast	
	2008	2009	2008	2009
Oil ($ / barrel)	86	75	110	90
InflaInflation (% y/y CPI)	3.7	2.7	4.4	2.8
ECB interest rate (f.d.p)	3.50	3.75	4.25	3.50
Euribor 12 M	4.4	4.0	4.9	4.0
Mortgage rate	5.3	5.1	5.7	5.0
TED spread 3M	50	38	74	68
Exchange rate				
Euro (dollar/euro)	1.53	1.45	1.52	1.43
Real exchange rate (1999=100)	126.8	126.4	125.1	125.6
GDP growth (% y/y)				
US	1.0	1.6	1.2	1.0
EMU	1.4	1.5	1.6	1.0

Source: BBVA ERD

Chart 2.22.
Spain, GDP Growth



Source: INE and BBVA ERD

price and residential investment equations in order to calculate the over-valuation of prices or the excess activity above the levels explained by the fundamentals. According to our results, real prices are be clearly over-valued in Ireland, and rather less so in the rest of the countries under consideration. Spain is somewhere in the low-middle area, with an imbalance of real prices of just under 15%. This could be absorbed in a few years through price stability or small falls in nominal prices, as an effect of inflation.

The estimates of imbalances in residential investment equations are smaller in percentage terms for nearly all the countries, and only equal to or greater than 10% in Sweden, Denmark and Spain. However, it should be taken into account that in the United States a considerable part of the adjustment in activity has already taken place over the last two years, and that Ireland has also experienced significant falls in investment. In the case of Spain the results are compatible with a fall in residential dwellings investment as a ratio of GDP from the current 7.5% to around 5-6%, depending on the rate at which the excess of accumulated supply is taken up.

Thus the housing sector in Spain will continue with a process of adjustment for a few years. The duration of the recessive period will depend on the degree of price adjustment and the intensity of the fall in residential investment. In any event, the adjustment to a balanced level will most probably take more than 4 years, indicating that at least until 2012 investment in housing will not again experience significant growth.

Perspectives: downward revision of growth

The adjoining table sets out the new assumptions on variables related with the external environment that condition the performance of the Spanish economy. These are compared with the forecasts from three months ago. In all these variables there has been a change reflecting the worsening of our expectations with regard to the scenario in which the Spanish economy is performing. In some cases this change is very significant.

The high prices of commodities and consequent inflationary upturn have led to an increase in expectations of interest rates. In the U.S. they have led to the Federal Reserve ending its cycle of official interest rate cuts, stopping at 2%. In the case of Europe, the change in expectations was more significant. Not only was the possibility of rate cuts no longer discounted, but in July there was a rise that aimed to restrain inflationary expectations. Although the market discounts additional interest-rate rises, in the current global context it does not seem that this rise will be the start of a new cycle of rate rises. Quite the reverse, our scenario suggests the possibility of rate cuts in 2009 as activity slows down in Europe. In all, it is to be expected that a slowdown in the euro zone ends up favouring lower short-term rates and also relatively low long-term rates.

In this sense, there appear to be limits to the euro's rise. After the downward pressures in the short term, in the medium term the dollar could recover something of its value against the euro, supported by the increase of FDI flows towards the US economy. At the same time, the divergent paths of official rates we forecast for both zones (rises in 2009 for the Fed and cuts for the ECB) should also favour the dollar and support a gradual depreciation of the euro in 2009.

As a result of the global deterioration, growth in developed countries will be less strong, with the balance of risks clearly tending to fall. Thus in the U.S. growth will be around 1.2% in 2008 and 1.0% the following year. In Europe growth showed some resistance at the start of 2008, but the symptoms of slowdown are strengthening. First there was a significant fall in expectations, and now there is a slowdown in real indicators. Some smaller economies are registering negative growth. Overall, the EMU could grow at 1.6% in 2008, under its growth potential, slowing down to 1.0% the following year. The weakening of the world economy limits the growth of external demand for the Spanish economy.

Due to the ongoing deterioration of the hypotheses used in the previous forecast, the growth perspectives for the Spanish economy have been revised downwards. The intensification noted in the most recent quarters will continue. Overall, the Spanish economy is now expected to grow in a range between 1.7% and 1.3% as an average for 2008. Compared with the April forecast, this means that the minimum growth expected then now becomes the maximum expected for the year. There has been a greater revision of the ranges for 2009. In 2009 the economy will not grow more than 1%, and it is even possible for there to be zero economic growth that year. The new forecasts (1.5% in 2008 and 0.5% in 2009) represent a downward revision of 4 pp and 0.9 pp respectively in the average of the ranges on the forecasts made only three months ago.

The quarterly profile of the slowdown offers some interesting characteristics. According to our estimates, the Spanish economy would have reached on a quarterly basis zero growth in the second quarter of 2008. This would in year-on-year terms represent a rate of 1.7%, one point less than the growth in the first quarter. The Spanish economy would continue with very moderate growth rates in the following quarter, and could begin a slow recovery in the second quarter of 2009.

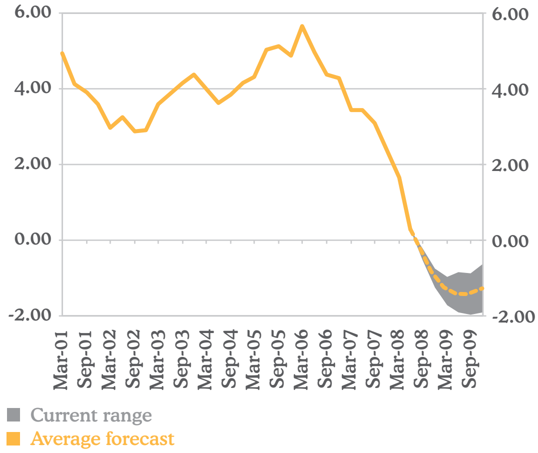
In this situation, there will be a significant effect on job creation. The employment forecast has been revised down for 2008, when the number of people in work will remain practically stable, from the 600,000 jobs created in 2007. The low forecast growth of the economy for 2009 will mean that the Spanish economy will reduce employment level at a rate of 1.4%, or 275,000 fewer jobs on average.

At this stage of intense adjustment, some of the imbalances in the Spanish economy will be corrected, although probably not to the extent that they had been in previous cycles. The difficulty of funding the large current account deficit involves the need to reduce the gap between investment and savings. In the case of households, the severe adjustment in consumer spending will more than compensate the slowdown in available income. This makes it reasonable to forecast a recovery of the rate of savings to 11% of disposable income in 2009. The fall in investment in housing will enable households' need for finance to be reduced as well. In all, the savings rate for the domestic economy as a whole will not increase, given the expected fall in savings of the public administrations, so the need for financing the domestic economy will be maintained above 9% of GDP in 2008 and 2009 (see the adjoining Box: "The funding needs of the Spanish economy will remain high in 2008 and 2009").

Chart 2.23.

Spain, employment (LFS)

(% y-o-y growth rate)



Source: INE and BBVA ERD

Table 2.5.

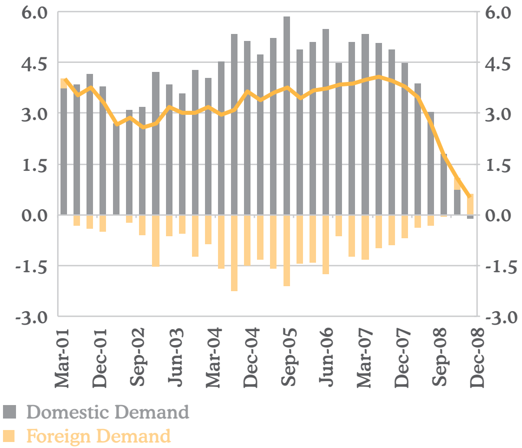
Spain, change of forecasts from April-08 to July-08

% y-o-y growth rates	2008	2009
Household consumption	-0.7	-0.7
GFCF	-1.0	-3.5
Capital Equ. and Other Prod.	-2.1	-5.2
Construction	0.0	-1.8
Housing	0.1	-2.0
Domestic demand (*)	**-0.7**	**-1.4**
Exports	-0.2	-1.7
Imports	-0.8	-2.6
Foreign balance (*)	**0.2**	**0.5**
GDP	**-0.4**	**-0.9**
Total employment (LFS)	-0.8	-1.3
Unemployment rate (% Labour Force)	1.2	2.8

(*) contributions to growth

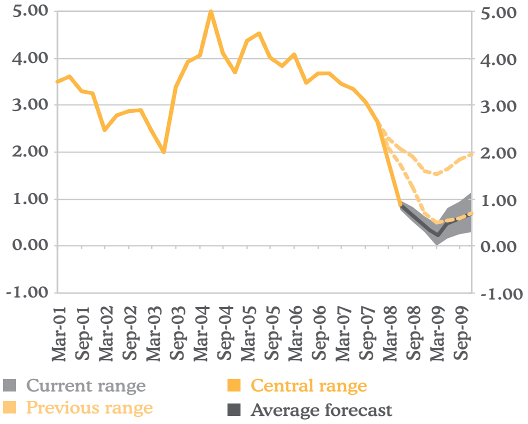
Source: INE and BBVA ERD

Chart 3.1.
Spain, GDP
(% y-o-y growth rate and contributions)



Source: INE and BBVA ERD

Chart 3.2.
Spain, Consumption
(% y-o-y growth rate)



Source: INE and BBVA ERD

3. Consumption, a "fundamental" adjustment

Household consumption is decelerating as a result of the deterioration of its fundamentals. In addition, there has to some extent been an overreaction in households to the sudden economic deterioration. Increased inflation, the sluggish rate of job creation, the slowdown in housing prices and the fall in the financial component of household wealth all contribute to restraint private spending. In addition, the high level of debt run up by households may make it difficult to obtain additional indebtedness to ease the moderation of spending as the economy contracts.

Downward revision of the growth ranges, particularly in investment in capital goods and consumer spending. Imports will fall in 2009 because of weak domestic demand

As a result of the changes described above, we have revised downwards the growth rate for 2008 and 2009 by 0.4 and 0.9 percentage points, taking as a reference the average of the ranges expected for each period. In other words, GDP growth is now expected at 1.5% in 2008 and 0.5% in 2009. The Spanish economy (see table below) will continue its intense slowdown throughout 2008, with quarterly GDP figures of around zero, and with a year-on-year rate at the end of the year of 0.5%, compared with 3.5% for the same period in 2007. The most important components affecting this downward revision have been investment in capital goods and other products and household spending. In the former case, it is simply the result of weak domestic demand, falling expectations of activity in foreign markets and tighter financial conditions. For all these reasons, investment in capital goods will probably fall in 2008 and 2009 after a

Table 3.1. Spain, Macroeconomic Table

YoY rates	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	2006	2007	2008	2009
Household consumption	3.5	3.4	3.1	2.7	1.8	0.9	0.7	0.5	3.7	3.1	1.0	0.5
Public consumption	6.1	5.0	5.1	4.4	4.7	5.0	5.8	6.2	4.8	5.2	5.4	5.2
Gross Fixed Capital Formation	6.3	6.7	5.8	4.8	3.2	1.1	-2.6	-5.3	6.8	5.9	-0.9	-5.7
Equipment and Others	8.8	10.0	9.0	7.7	5.9	2.9	-1.6	-4.4	8.2	8.9	0.7	-5.8
Construction	4.9	4.6	3.8	2.9	1.3	-0.6	-3.6	-6.0	6.0	4.0	-2.2	-5.6
Housing	4.0	3.7	2.9	1.8	-0.2	-4.0	-9.8	-15.5	6.4	3.1	-7.4	-16.5
Other Construction	5.8	5.6	4.8	4.0	3.0	2.5	2.0	2.5	5.5	5.1	2.5	3.3
Domestic demand (*)	**5.1**	**4.9**	**4.5**	**3.9**	**3.0**	**1.8**	**0.7**	**-0.1**	**5.1**	**4.6**	**1.4**	**-0.3**
Exports	3.6	4.7	7.7	5.1	5.0	3.5	0.7	-0.2	5.1	5.3	2.2	0.3
Imports	6.0	6.7	8.4	5.4	5.0	2.7	-0.3	-1.7	8.3	6.6	1.4	-1.8
Foreign Demand (*)	**-1.0**	**-0.9**	**-0.7**	**-0.4**	**-0.3**	**-0.1**	**0.3**	**0.6**	**-1.2**	**-0.7**	**0.1**	**0.8**
GDP	**4.1**	**4.0**	**3.8**	**3.5**	**2.7**	**1.7**	**1.1**	**0.5**	**3.9**	**3.8**	**1.5**	**0.5**
%, q-o-q	**1.0**	**0.9**	**0.7**	**0.8**	**0.3**	**0.0**	**0.0**	**0.2**				
Pro-forma												
GDP less Housing	4.0	4.0	3.8	3.7	2.9	2.2	2.0	1.8	3.4	3.9	2.2	1.8
GDP less Construction	3.9	3.8	3.7	3.6	2.9	2.2	2.0	1.7	3.2	3.8	2.2	1.6
Total employment (LFS)	3.4	3.4	3.1	2.4	1.7	0.3	-0.4	-1.0	4.1	3.1	0.1	-1.4
Construction	9.4	7.6	4.9	2.7	-1.7	-7.9	-11.0	-13.2	7.9	6.1	-8.5	-15.4
Other Activities	2.6	2.8	2.8	2.3	2.2	1.5	1.3	0.9	3.5	2.6	1.5	0.6
Total Employment (Nac. Account)	3.3	3.1	3.0	2.5	1.7	0.1	-0.5	-1.0	3.2	3.0	0.1	-1.3
Unemployment Rate (% Lab. Force)	8.5	8.0	8.0	8.6	9.6	10.4	11.0	11.9	8.5	8.3	10.7	13.8

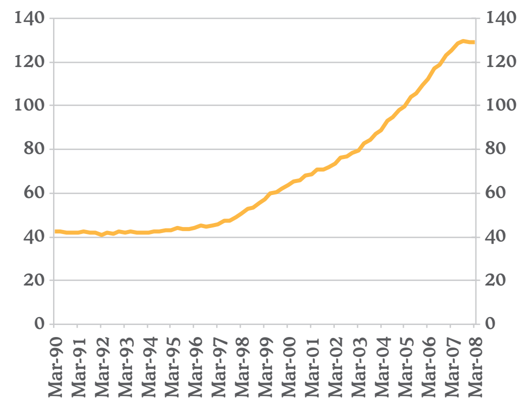
(*) contribution to growth
Source: INE and BBVA ERD

few years of extraordinary capitalisation in the Spanish economy. Our expectations on investment in construction have not changed. The sector is facing the largest adjustment in its recent history. The expected maintenance of investment in other construction (in particular public works) will not compensate for falls in housing. In all, the economy’s gross fixed capital formation will fall. Foreign demand is also being modified by incorporating lower figures for both exports (because of the lower expectations of growth in foreign markets) and imports (because of the strong check on domestic demand). As a result, the foreign sector will probably not have a negative contribution on GDP. In fact, it may well have a positive contribution in 2008 and even more likely in 2009, the first time this will have occurred since 1997.

With regard to consumption, and taking as a reference the average ranges of the forecasts, we have revised down our April forecasts by 0.7 pp for both 2008 and 2009. This would mean the lowest average annual growth rates since 1991-1993. The reasons for this revision are to be found in the impact produced by the new scenario on this component of demand. Obviously, in a contracting phase of the cycle, the determining factors in consumer spending (income, interest rates and wealth) are affected, as we will analyse below, and we can expect a moderation of previous growth rates. In addition, the slowdown of the Spanish economy has resulted in a greater constriction of the fundamentals of consumption than a few months ago. As a result, consumption in the first half of 2008 has also been moderated to a greater extent than expected.

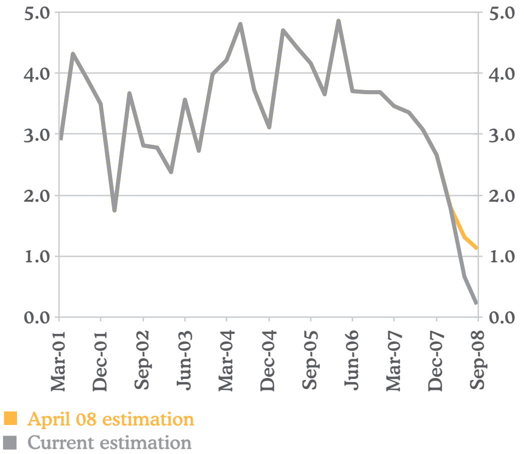
The key point that makes the adjustment in consumption in this cycle relatively different is the high level of debt that households accumulated in the previous expansive phase. Until 1997 household indebtedness was very stable at levels below 50% of disposable income. From that moment a process of growth began. The data for the last two quarters suggest that it has stabilised, but at a level higher than 130% of disposable income. This process of indebtedness is, in essence, a rational response to a structural fall in interest rates level after the EMU entry. The indebtedness helps ease spending when the fundamentals of consumption deteriorate. However, the combination of expectations of lower dynamism in consumption fundamentals together with the high level of debt could mean that economic agents may have a lower amount of credit available. This would make it more difficult to smooth consumption in the current downward phase of the cycle. (See adjoining Box: Credit availability and household consumption).

Chart 3.3.
Spain, Household Debt
(Loans as % of Disposible Income)
(Yearly Accumulated)



Source: BBVA ERD, based on Bank of Spain and INE

Chart 3.4.
ISC-BBVA, Synthetic Consumption Indicator
(% y-o-y growth rate)



Source: BBVA ERD

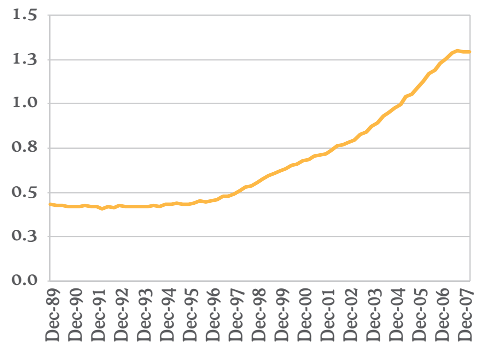
Box 2: Credit availability and household consumption

The availability of credit allows households to maintain a pattern of consumption that is relatively stable over time, smoothing over any changes in consumption that could be induced by changes in determinant factors such as falls in disposable income. These situations tend to occur in contractive phases of the economic cycle, as is the case at present. However, a high level of household indebtedness (see Chart 1) increases the financial burden for households when financial conditions are tighter. This is the situation in which the world economy finds itself as a result of the current financial crisis. Given that this situation represents an increase in the probability of default, the revision of risk criteria may limit the amount of credit resources available, at least for some operations.

Chart 1.

Spain, Ratio of loans / disposable family income

(Yearly Accumulated)

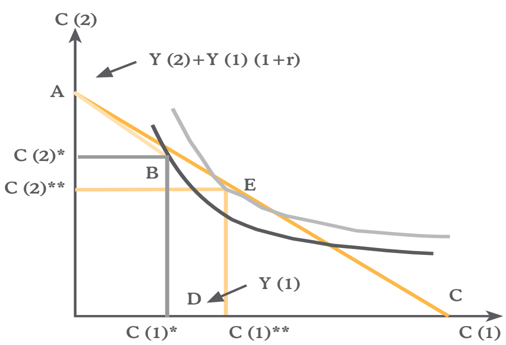


Source: BBVA ERD

A high level of indebtedness thus limits the capacity of households to maintain their level of consumption and deal with possible drains on their income or the value of their assets, whether financial or property. In addition, a fall in the value of assets reduces the value of the collateral or guarantee, and hence further restricts access to financial resources, giving rise to the so-called credit accelerator effect. The existence of limits to credit associated with high levels of indebtedness thus gives rise to imbalances in the decisions of economic agents, amplifying the effects of negative shocks.

Chart 2.

Credit constraints in the inter-temporal consumption model



As a simple illustration of this argument, we can use the model of inter-temporal consumption choice between two periods. According to this model, consumption decisions are determined by the permanent income of agents. In the initial period or moment 1 the consumer has an income y_1 which he can use to consume, c_1, or to save, $s_1=y_1-c_1$, at a real interest rate r. Obviously if he decides to consume above his income level, the saving will be negative, and he will have to borrow, as long as he has no credit limitations. In the following period (or moment 2) he has to decide how much to consume, c_2, bearing in mind his available income, y_2, as well as savings (or non-savings) from the previous period $(1+r)s_1$. All this can be summed up in the inter-temporal budget restriction:

$$c_1 + \frac{c_2}{1+r} = y_1 + \frac{y_2}{1+r},$$

According to this model, the present value of lifetime consumption (in the two periods) is equal to the present value of lifetime income. The best consumption/savings decision is that which allows consumers to obtain the greatest utility (welfare) possible, bearing in mind the limitations of the inter-temporal budget restriction. Chart 2 illustrates this point. The best decision is the tangent point (point E) between the budget restriction (a line joining the points *ABC*) and the so-called indifference curves, showing consumption combinations offering the same satisfaction. This optimum represents a consumption of $c(1)^{**}$ in period 1 (abscise axis) and $c(2)^{**}$ in period 2 (ordinate axis).

The existence of limitations in the availability of credit alters the optimum achieved. To show this, let's suppose that at the initial period, the consumer cannot obtain a loan, and thus his consumption cannot exceed his income during the period, i.e. $c_1 \leq y_1$. In this case, the budget restriction becomes the broken line (ABD), where D delimits income y_1. The best choice, in this case combination B, implies a lower level of consumption in the initial period $c(1)^* < c(1)^{**}$ with regard to the previous situation when there was no credit restriction. The contrary happens in the following period, although in terms of utility this increase does not compensate the agent for the loss caused by the restriction of credit in the initial period. As a result there is a greater correlation between consumption and current available income. Thus, credit disruptions limit the possibilities of maintaining a stable pattern of consumption which smooth over fluctuations in the inter-temporal profile of income.

Despite the relevance that the limitations on credit availability may have on household consumption, the empirical evidence is relatively scarce[1]. For quantifying these effects on the

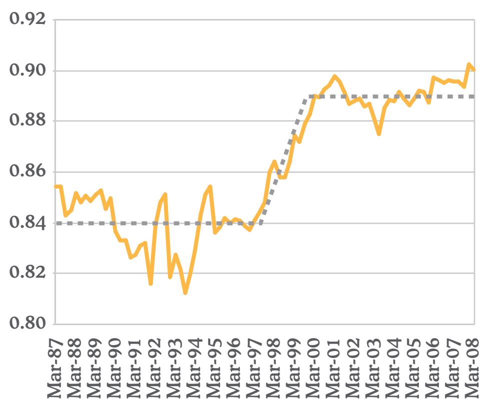
[1] A recent contribution for Spain is the work of Martínez Carrascal and Del Río (2004): "Household Borrowing and Consumption in Spain: A VECM Approach", published as a Bank of Spain Working Document no. 421

Spanish economy, a multi-equation empirical model has been developed for household spending[2]. The model has a consumption equation in the form of an error correction mechanism which imposes a long-term relationship linking consumption with available household income. Chart 3 shows the ratio between these two variables, where we see a possible structural change starting in the mid-1990s.

The consumption equation assumes that the short-term dynamics of the variable is determined not only by the changes in disposable household income, but also by other factors: changes in relative prices of consumer goods with respect to the GDP deflator; property wealth; real interest rates weighted by the ratio between debt and available income (i.e. a proxy of the financial burden); and, finally, the availability of credit. This latter variable aims to include succinctly the possible direct effects of limiting the availability of credit on household consumption. These effects are also transmitted indirectly in the model through property wealth and changes in the financial burden.

Chart 3.

Spain, Ratio of consumption / Real Gross Disposable Household Income



Source: BBVA ERD

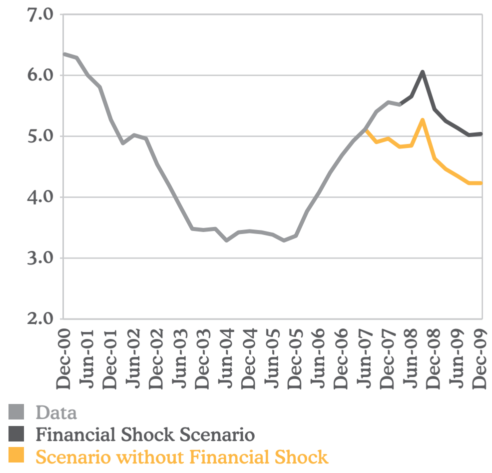
In accordance with this specification of the consumption equation, a fall in the availability of credit will have a negative effect on investment in residential housing by families. A fall in this demand would put a downward pressure on housing prices and thus on household property wealth, with the consequent negative effect on consumption. The remaining equations in the model, approximating the behaviour of housing investment and real housing prices, explicitly incorporate a credit amount variable.

[2] The starting point is the model developed in SEE BBVA by Broto, Cubero and Escriva: "Decisiones de gasto y crédito de los hogares españoles y tipos de interés" [*Spanish household spending and credit decisions and interest rates*], *Spain Watch*, November 2005.

The first simulation outlines the impact on consumption caused by the financial shock associated with increased interest rates. The impact of the global financial crisis is measured at approximately 80 basis points from 2007, as shown in chart 4. As can be seen in chart 5, this shock would have reduced real credit growth significantly, by 1% on average in 2008 and 3.5% on average in 2009, compared with a shock-free scenario. The tightening of financial conditions also have a negative effect on residential housing investment, which would grow an average of 1.2 pp less in 2008 and 3.6 pp less in 2009 than would be the case without the shock.

Chart 4.

Spain, Mortgage Interest Rate

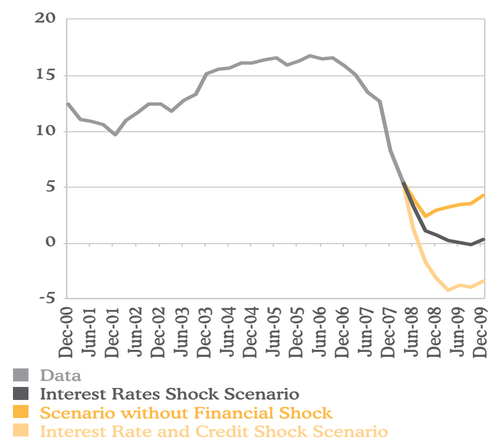


Source: BBVA ERD

Chart 5.

Spain, Household Credit (real)

(% y-o-y growth rate)



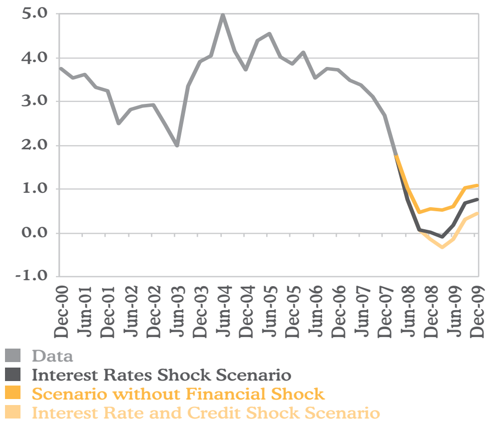
Source: BBVA ERD

The slowdown resulting form the financial shock has an impact on consumption. Consumption would increase about 0.4 pp less on average in 2008 and 2009 than it would have without the shock. Table 1 sums up all this information. If in addition to this interest rate shock there is also a limit on the amount of credit available to households, the moderation in consumption would be greater. If we consider that the year-on-year rate of credit growth in real terms over the next two years is, for example, 3% less with regard to the previous situation, as a result of the limitation of high indebtedness, the simulation shows that the negative impact on consumption would intensify, as observed in Chart 6.

Chart 6.

Spain, Household consumption

(% y-o-y growth rate)



Source: BBVA ERD

To sum up, these simulation exercises show the impact of tighter financial conditions on the spending decisions of households and their vulnerability to a situation of possible limitations of the availability of credit, given the high levels of debt during the expansion phase of the Spanish economy in recent years.

Table 1.

Impacts of financial shock

Interest rate shock	2008	2009
Mortgage interest rates	0.8	0.8
Household credit	-1.0	-3.5
Private consumption	-0.3	-0.4
Housing investment	-1.2	-3.6
Interest rate + credit shock	**2008**	**2009**
Mortgage interest rates	0.8	0.8
Household credit	-3.2	-7.5
Private consumption	-0.3	-0.7
Housing investment	-1.3	-5.3

Note: All the variables are expressed in real terms, except for the interest rates. The figures indicate deviations from the average year-on-year growth rate of a shock-free scenario.
Source: BBVA ERD

Pedro P. Alvarez-Lois
pedro.a_lois@grupobbva.com

Household income will grow less given the stagnation of the employment. The persistence of inflation complicates the situation in the short term

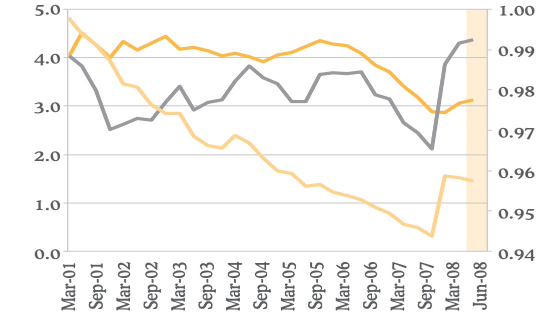
The component with the greatest importance to explaining the consumption evolution is the real household disposable income. The rapid and intense increase in oil prices has led to consumption becoming relatively more expensive compared with demand as a whole, as observed in the adjoining chart that gives the consumption deflator as a ratio of the GDP deflator. As can be seen, from the end of 2007 there was a sudden reversal of the trend of relative cheapening of consumption. Given that in the long term agents tend to maintain a relatively stable nominal ratio of consumption over income, the increase in prices of consumption lead to it being checked in real terms, as can clearly be seen between the fourth quarter of 2007 and the second of 2008. In addition to this effect derived from prices, we have to add the greater tightening of household income as a result of the financial component of their expenses, given the gradual trend of rising interest rates on growing debt, as reflected in Chart 3.6.

In addition to the sudden increase in the cost of consumption and greater interest-rate payments there has been a slowdown in household income. This has been produced since 2005 as a result of moderation in employment, which is its main determinant of the household income together with salaries. As has been pointed out in the point above, the labour market figures reflect an increasing moderation in job creation. In fact, according to estimates by BBVA ERD, in seasonally-adjusted terms the Spanish economy already reduced its employment level in the second quarter of 2008, something that had not occurred since 1994. The slowdown in the labour market is consistent with the intense decline experienced by the economy in the first half of 2008. This trend will be maintained over the coming quarters, but the process of deterioration in employment will not reach the levels of previous recession, given the improvements that have been introduced in the labour market functioning. As pointed out in the above section, the most recent figures have shown an extraordinary dynamic growth in the active population, boosted by the increased rate of female activity and large inflows of immigrants into the labour market. This may contribute to a more efficient readjustment between sectors than in previous periods of adjustment.

Thus the size of the slowdown faced by the Spanish economy will lead to two years of falling employment, however the situation is tackled. Thus in 2008 as a whole, employment will be practically stagnant, while in 2009 there will be a net destruction of employment of 1.4% (as an average of the established ranges), or 250,000 fewer jobs. This fall in employment is caused to a very significant extent by the construction sector, which in 2009 destroyed just over 350,000 jobs, while the rest of the economy still maintains some buoyancy, and its employment will grow, although at a relatively modest level. The combination of a dynamic active population and a severe disruption on job creation will lead to a very significant increase in the unemployment rate, which will reach a figure of around 14% in 2009.

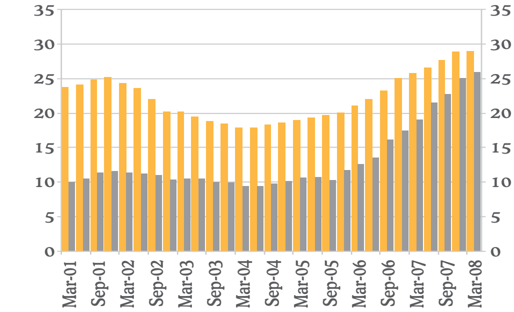
This deterioration of labour market conditions will restraint the growth rate of disposable income, whose labour income component has been supported in the short term by wage increases. Increases in labour factor costs could already be observed in 2007, and thus unit labour costs have increased their rate of growth by nearly a point in a year to around 3%, according to figures for the first quarter of 2008. The deterioration in job creation is occurring at the same time as an upturn

Chart 3.5.
Spain, relative prices



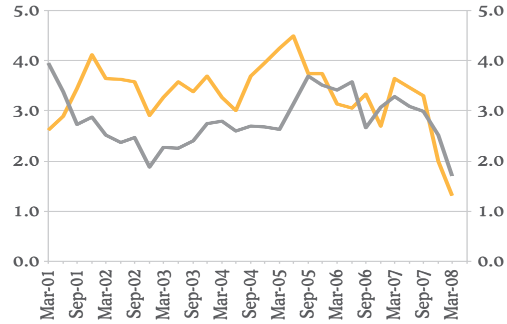
Source: BBVA ERD, based on INE

Chart 3.6.
Spain, interest paid and received by Households
(billions of euros)



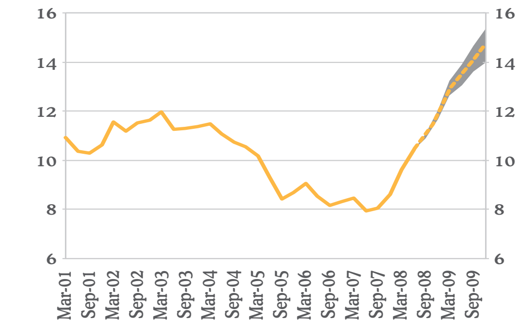
Source: Bank of Spain

Chart 3.7.
Spain, employment and real disposable income (% y-o-y growth rate)



Source: INE and BBVA ERD

Chart 3.8.
Spain, Unemployment rate
(% of labour force)

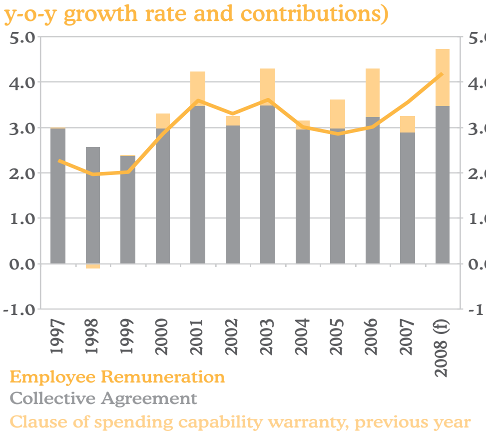


Source: INE and BBVA ERD

Chart 3.9.

Spain, wage growth

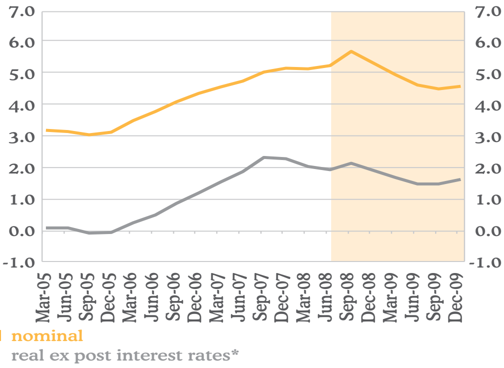
(% y-o-y growth rate and contributions)



Source: BBVA ERD based on INE and Ministry of Labour

Chart 3.10.

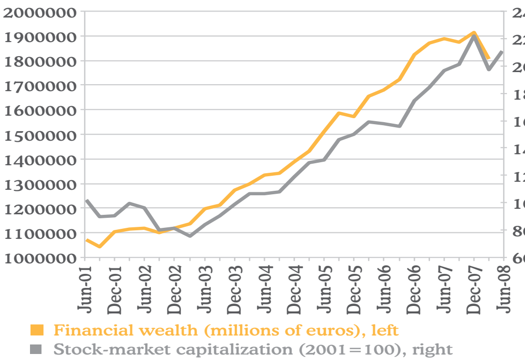
Spain, mortgage interest rates



Source: BBVA ERD, (*) smoothed using Coogley filter

Chart 3.11.

Spain, Households financial wealth and Stock Market

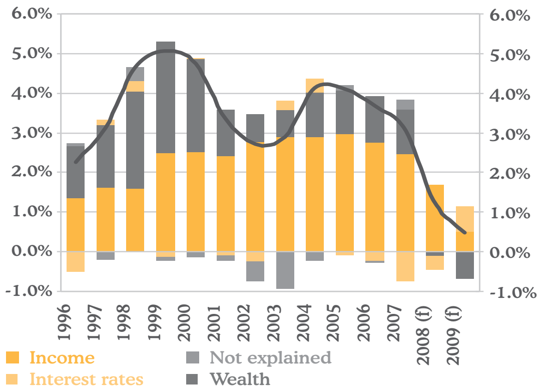


Source: BBVA ERD

Chart 3.12.

Spain, Household Consumption

(contributions to growth rate in %)



Source: BBVA ERD

in labour costs (given the normal indexing of wage settlements in the Spanish economy coupled with a situation of inflationary tension). This introduces a risk element on job creation during a downturn in the cycle. In all, real household income will moderate significantly in 2008 and 2009 to growth rates of around 1%, from 3.2% in 2007.

Wealth and interest rates will support the expansion of consumption less than expected, as they are affected by the financial crisis and the changing expectations of monetary policy

The rise in official interest rates in the euro zone has supported the gradual change of expectations of monetary policy resulting from the persistence of inflation in the EMU. Even before the markets discounted this rise in official rates, there was a strong tension in expectations of monetary policy, so the rates in the euro zone have reached the highest level in their (brief) history. Interest rates will remain upward at least until the third quarter of the year in terms of mortgages, initiating a sequence of falls, although remaining within the range of 4.5-5% at the end of 2009. The moderation of financial tensions and the easing of monetary policy we expect for the start of 2009 will help this trend, once the risks to growth in Europe are clearer and property anchored to inflationary expectations.

With regard to household wealth, it will continue to slow down in line with the expected moderation in housing prices (which impact on the 80% of household wealth represented by its property component). Given the current stock market performance, perspectives for financial wealth are also negative.

An additional factor determining the changes in consumption is that related to expectations. The combination of impacts and the rapid deterioration experienced by the Spanish economy since the end of 2007, particularly in terms of unemployment indicators, may be provoking a certain overreaction in the agents, particularly consumers, via expectations. In fact, indicators show a swift fall in confidence, both in companies and consumers. This has speeded up in recent years to levels close to those during the recession of 1991 to 1993. As a result, there could be a faster adjustment towards more sustainable growth rates and an overreaction in the short term. This would explain the deterioration that the economic indicators referring to consumption have been showing throughout this first half of the year, particularly those related to large purchases such as cars.

As a result of the changes in fundamentals, the situation is one of intense slowdown in household spending in 2008 and 2009. In 2008 consumption will grow within the range of 1.1-0.8% (from 3.1% in 2007), while in 2009 growth in consumption will be within a range of 0.8 and 0.2%. As can be seen in the adjoining chart, in 2008 disposable income is expected to contribute less to growth in consumption (the lowest level rate since 1998), and there will be a negative contribution from both wealth and interest rates. In 2009, only the contribution of interest rates would change its sign, whereas the positive contribution of income will be reduced and the negative contribution of wealth will be intensified.

The lower limit of the forecast ranges for growth in consumption is linked to two types of uncertainties. The first is related to a change in fundamentals that is different from that expected, particularly in employment. The second is the possibility that there may be some kind of credit shortage, given the high level of household indebtedness, as can be seen in the adjoining Box.

4. A sectorial approach to growth

A relevant question in this severe adjustment process is the duration of the slowdown, and the strenght of the Spanish economy to generate long-term growth. The Real Estate adjustment makes that there will be a relatively more favourable performance in those branches of activity less related to the construction sector. The performance of these activities is determined to a greater extent by structural factors such as the degree of techonological intensity, certain aspects related with the way of life and demographic trends, and, specially, export dynamism. The adjustment intensity and duration predicted for the housing sector, and the relative contribution to activity and growth of sectors not related to construction, suggest that it will take a long period before the Spanish economy returns to growth rates of close to 2.5%.

Since the economic turmoil of 1993, the Spanish economy has grown steadily at an average annual rate of 3.6%, with minimums of 2.4% (in 1994 and 1996) and a maximum of 5.1% (in 2000). This period of growth has been exceptionally intense and long-lasting. It is reaching its end in a sudden way given the perspectives for the next few years, which are far below the growth rates registered in the past, and in particular in the period 2004-2007.

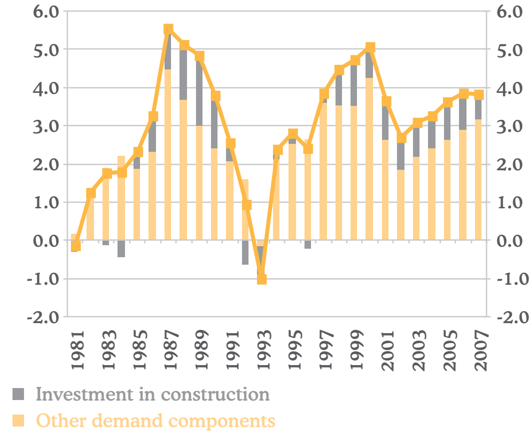
Given the strength of construction and Real Estate activities in recent years (and their contribution to growth), and given that these activities have worsened significantly their expectations, it is important to know what alternative sectors may be the basis for future Spanish economic growth. The following is a cyclical analysis to distinguish the sectors that are closest and most distant in terms of statistical correlation with construction. The results of this analysis have to be considered as preliminary, and may be checked in the future against alternatives based on production function approach.

Construction and Real Estate activity: growing importance for the Spanish economy during the expansionary phase of the cycle

Construction and Real Estate activities (the "property sector" from now on) have contributed significantly to Spanish economic growth in the last decade. Spain's Gross Added Value (GAV) measured at 2000 prices grew around 101.9 billion euros in the period from 1996 to 2001. The property sector contributed nearly 18% (19 billion euros) to this growth (see Table 4.2). In 2001-2006, the last five-year period for which complete information is available, the contribution of the property sector increased to 24.6 billion euros, compared with a total GAV growth of 99.1 billion in the period[1], *i.e.*, 25% of the total growth. Similarly, of the 2.6 million jobs[2] created from 1996 to 2001, 600,000 were in the property sector (24%). In the following five years this figure increased to 700,000, 29% of the 2.4 million new jobs. In contrast, it is calculated that 81.5% of the real GAV growth from 1996 to 2001 (83.1 billion euros) and 75.1% in 2001-2006 (74.5 billion) was contributed by non-property branches of activity[3].

[1] Between 1996 y 2001 Spain's GAV average growth rate was 3.9% on yearly basis, with a growth rate in construction of 6.5% and in the property sector of 2.2%, respectively. Between 2001 and 2006, total GAV growth was 3.2%, while construction and the property sector grew by 5.3% and 3.7% respectively.
[2] Full-time equivalent jobs.
[3] In terms of employment, the figures are 75.7% (2.0 million jobs) and 70.9% (1.7 million jobs) in 1996-2001 and 2001-2006, respectively.

Chart 4.1.
Spain. Contributions to growth (%)

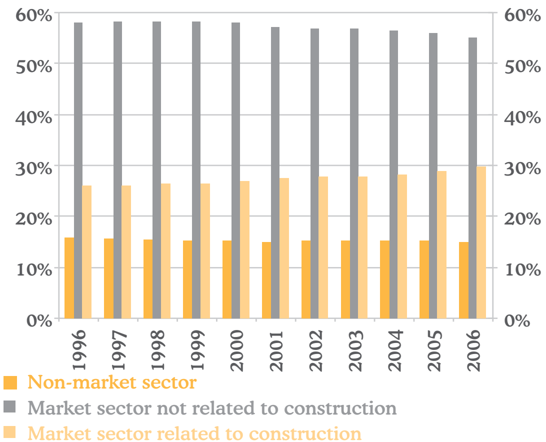


Source: INE and BBVA ERD

Chart 4.2.
Spain. Increase in Real GAV
(GAV at 2000 prices. Million euros)

Source: BBVA ERD

Chart 4.3.
Spain. Contributions to GAV



Source: BBVA ERD

Table 4.1.
Cyclical position of each sector regarding the construction cycle

Acyclical sectors		Countercyclical sectors	
NACE-93	Description	NACE-93	Description
		01	Agriculture, hunting and related service activities
02	Forestry, logging and related service activities		
		B	Fishing
11	Extraction of crude petroleum and natural gas and services		
13	Mining of metal ores		
15	Food and beverages		
16	Tobacco industry		
18	Wearing Apparel, Dressing And Dying Of Fur		
		17	Textiles
19	Leather, leather and footwear		
21	Pulp, paper and paper		
22	Printing, publishing and reproduction		
		23	Coke, refined petroleum and nuclear fuel
24	Chemical industry		
30	Office, accounting and computing machinery		
		31	Manufacture of electrical machinery and materials
321	Electronic valves and tubes		
323	Radio and television receivers		
331	Manufacture of surgical equipment and instruments and orthopaedic appliances		
332	Manufacture of instruments and equipment for measuring, verifying, controlling, navigating and other purposes, except equipment for controlling industrial processes		
333	Manufacture of equipment controlling industrial processes		
334	Manufacture of optical and photographic equipment		
335	Watch making		
34	Motor vehicles, trailers and semi-trailers		
351	Building and repairing of ships and boats		
		353	Aircraft and spacecraft
37	Recycling		
40	Electricity and gas		
41	Water supply		
50	Sale, maintenance and repair of motor vehicles, motor cycles and mopeds; retail sale of fuel for motor vehicles		
51	Wholesale and commercial intermediaries, except motor vehicles and motorcycles		
52	Retail trade, except motor vehicles, motorcycles and mopeds, repair of personal and domestic goods		
H	Hotels and restaurants		
60	Other Inland transport		
		62	Other Air transport
64	Post and telecommunications		
66	Insurance and pension funding, except compulsory social security		
		67	Activities related to financial intermediation
71	Renting of machinery and equipment	72	Computer and related activities
73	Research and development		
741	Legal activities, accounting, bookkeeping, auditing, tax advice, market research and opinion polls, consultancy on business management, company management		
742	Technical architectural and engineering services and other activities related to technical consultancy		
743	Technical trials and analysis		
744	Advertising		
N	Healthcare and veterinary activities, social services		
		91	Activities in social associations
		92	Recreational, cultural and sporting activities
		93	Other service activities
P	Private households with employed persons		

Source: BBVA ERD

If we focus the analysis on the "non-property economy", it can be seen that in the last five-year period, 75% of growth (55.0 billion euros) was contributed from only five branches of activity: Financial Intermediation (22.4%), Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (12.5%), Transport and Communications (9.8%), Business Services (8.3%), and Government and Non-Market Services (22.2%). This list does not include activities in the industrial and energy or service sectors that, despite registering high growth rates, have a smaller value in terms of real GAV. This is the case of Electrical Energy, Gas and Water (with an average growth of 4.6%, production of Other Mineral Non-Metal Products (3.2%), Extraction of Other Minerals (3.4%), and Private Healthcare (5%).

It is reasonable to consider that a significant part of the growth of the branches of activity that are not strictly related to property has been boosted by the pull which construction has had on the other sectors of the economy. According to the latest Symmetrical Input-Output Table (for year 2000), 63.3% of the impact on GAV of an increase in the final demand in the construction sector corresponds to the increase induced on the other branches of activity.

Therefore, given the property adjustment affecting the Spanish economy, and given the slower domestic demand growth, only those branches of activity less related to construction and whose performance is determined more by structural factors will show a relatively favourable performance.

Non-cyclical, cyclical and countercyclical branches of activity vis-à-vis the construction sector

A beta coefficient was used to classify the position of each of 70 branches of activity analysed in terms of the construction sector cycle. Traditionally this methodology is used in financial analysis to analyse the correlation between the return of an asset or portfolio and the return of the market as a whole. Thus, the beta of a portfolio *x* quantifies the correlation between the expected return of this portfolio (Rx) and that of the market overall (Rm),

$$\beta x = \mathrm{Cov}(Rx, Rm)/\mathrm{Var}(Rm).$$

A positive βx value indicates that the return of the portfolio increases when the market does; a negative βx suggests that the return of the portfolio decrease when the market increases; while if βx is (statistically) equal to zero, the return of the portfolio is independent of market return.

The beta analysis was adapted to study the cyclical position of each sector regarding the construction cycle. To find out which branches of activity are non-cyclical, we select branches that have a beta coefficient that is statistically equal to zero. To find out which branches of activity are countercyclical, we select branches that have a beta coefficient negative and statistically significant. For that analysis we use the EU KLEMS database from 1980 to the present.[4].

The results suggest that the number of non-cyclical or countercyclical branches of activity regarding the construction sector is significant (47 of 70 activities analysed have this condition, see Table 4.1). Thus their weight in the GAV is over 50% of the total (55% in 2006), with the

[4] The EU KLEMS database is an European project in which fifteen research centres participate. Its main objective is to quantify the growth, productivity, job creation, capital formation and technological progress in each branch of economic activity in a harmonised form for all the EU Member States. For a detailed description, see: http://www.euklems.net.

remainder being shared between the branches considered closest to construction (30% of GAV in 2006) and the non-market activities: Government, health, social services and public education. The share of branches of activity not related to construction in the private sector GAV has fallen steadily in the last decade from 58% in 1996 to 55% at the end of the period for which data are available. Non-market activities maintain their weight at around 15% of GAV, and construction and activities linked to it increase their weight in GAV from 26% in 1996 to 30% in 2006. Finally, it appears that the sectors least related to the construction cycle register average growth in the last five years of 2.4%, under the 3.1% registered by the total GAV and the group of branches most related to construction, which posted an average annual growth of 4.5% (see Table 4.3).

Activities not related to construction are characterised by a high level of capital endowment, by addressing new demand resulting from changes in consumption and leisure patterns, and specifically, by a high degree of export dynamism

As well as being activities on which the construction sector has little drag effect (which at least in the short term, isolates them from the consequences of the property adjustment), the branches of activity included in Table 4.1 have some common characteristics.

Firstly, some of the branches are characterised by an intensive use of technology, and their activity has a demand that is relatively inelastic over the cycle. This is the case with the manufacture of electrical machinery and materials, aeronautical and aerospace construction, computer activities, R&D, and the branches of the sector of other business activities associated with consulting.

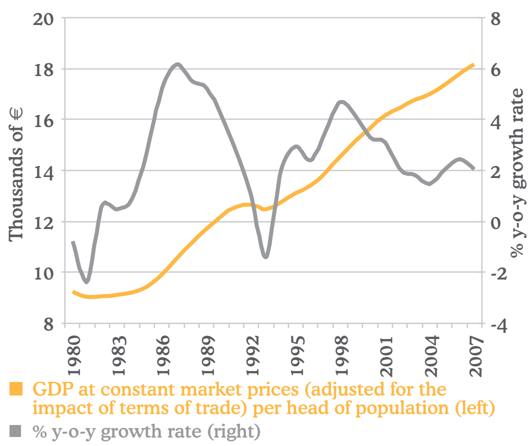
Secondly, there is a group of branches of activity that are non-cyclical vis-à-vis the construction sector, given that their performance in recent decades has been related to socio-demographic factors, or with structural changes in **people's patterns of leisure, consumption and savings**. Thus the cyclical position of healthcare, veterinarian and social service activities has been determined by the gradual growth in life expectancy among the Spanish population. Combined with reduced fertility rates, this has accelerated the ageing of the population and increased needs related to it[5]. In addition, the non-cyclical nature of activities related to association, leisure, culture, sports and personal services, commerce or tourism (hotel and catering) is associated with the sustained growth of per capita income in the population. This has increased the proportion of resources available for leisure and favoured changes in the behaviour of households in terms of their consumption and savings decisions[6] (Chart 4.4).

Thirdly, the lack of a relation between the construction cycle and other branches of activity (primary sector, leather preparation industry, manufacture of office machinery and equipment, precision, optical equipment, and manufacture of textiles) is because all these activities register constant falls in their GAV. This change in the productive structure of the Spanish economy is due to the impossibility of competing in a global environment increasingly open to foreign markets.

[5] The implementation of the Dependency Law will help this sector to grow in the future, both in its public and private aspect.

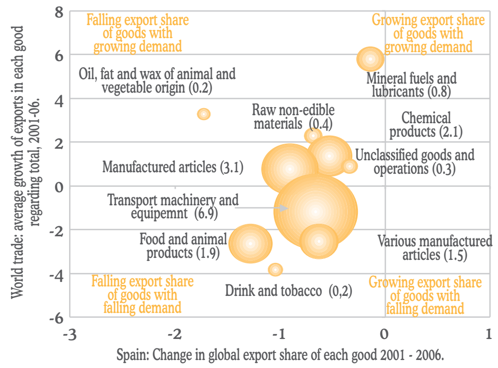
[6] In the same way, the dynamism of per capita income may be one of the main explanations of the non-relation of the following branches of activity: air transport, activities auxiliary to financial services, the food industry, paper, sale and repair of motor vehicles and the post and telecommunications sectors to the construction cycle.

Chart 4.4.
Spain. Per capita real income



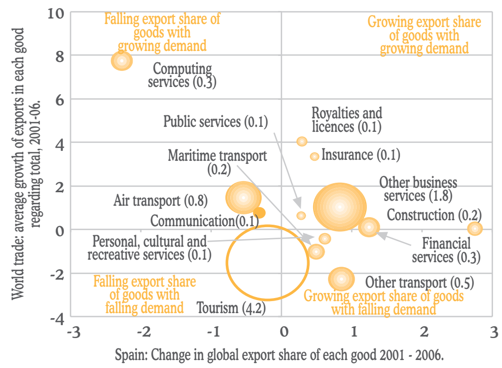
Source: BBVA ERD based on AMECO

Chart 4.5.
Spain. Goods exports evolution 2001-2006.
(bubble size: GDP weight in 2006)



Source: BBVA ERD based on Comtrade and MICT.

Chart 4.6.
Spain. Services exports evolution 2001-2006.
(bubble size: GDP weight in 2006)

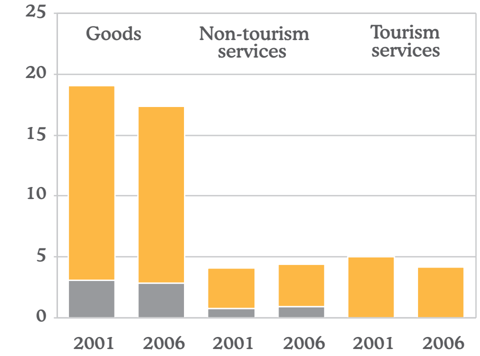


Source: BBVA ERD based on Comtrade and MICT.

Chart 4.7.

Spain. Exports and construction cycle

(weight of exports in goods and services as % of GDP)



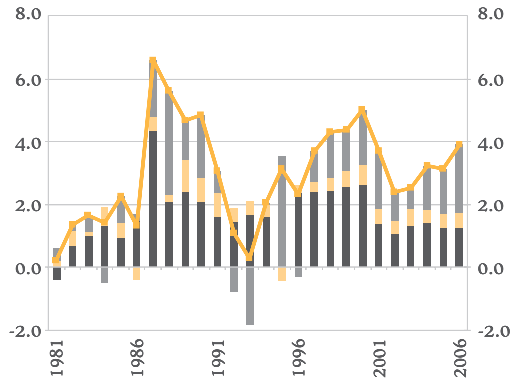
Sectors not related to construction
Construction and related sectors

Source: BBVA ERD

Chart 4.8.

Spain. Real GAV

(% y-o-y growth rates and contributions)



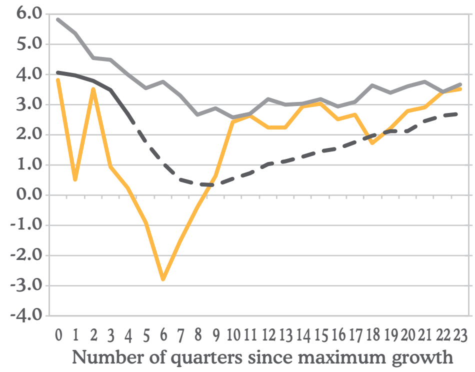
Sectors related to construction
Non-market sectors
Sectors not related to construction

Source: BBVA ERD

Chart 4.9.

Spain. Cyclical comparisons

(% y-o-y GDP growth rate)



Sep-91
Mar-00
Mar-07

Source: BBVA ERD

In fact, the ability of Spanish companies to reduce their exposure to the domestic cycle by increasing their openness to foreign markets is the fourth and most important characteristic of these branches of activity, because is non dependent of the rest of the factors pointed out. Charts 4.5 and 4.6 show exports of Spanish products (goods and services) in relation to global demand for these products. The horizontal axis shows the change in amount exported of every Spanish good and service from 2001 to 2006, while the vertical axis indicates the growth of world trade of each good and service under consideration. Crossing the two axes gives four quadrants. The upper-right includes the products that gain export share and whose global demand has grown above the average. The upper-left shows the products that have lost export share but whose global demand is increasing. The lower-right shows the products that are gaining export share but with a falling world demand. And finally, the lower-left shows those whose export share is falling together with global demand. The size of the bubble indicates the weight of the exports of each product in the GDP in 2006.

The results show that the weight of exports by branches of activity not directly related with construction in the GDP is significantly greater than those of the construction sector and linked activities[7]. Around 84% of exports were in branches of activity not related to construction, representing 14.5% of GDP in 2006, compared with 2.9% represented by foreign sales in construction and related activities. This is the case with the energy sector (electrical energy, gas and water and coke, oil refining and nuclear fuels), the food and drink industry, the chemical industry, vehicle manufacturing, the non-manufacturing textile industry, electrical machinery and material manufacturing and aeronautical and aerospace manufacturing. However, there has also been a loss of export share in all the groups of goods.

Spain's exports of non-tourism services have performed significantly better than those of goods in the last five years. Except in the case of computer services, air transport and communications, all the service activities have gained export share in world trade. In addition, when we compare the export data for non-tourism services with the branches of the service sector according to their link with the construction cycle, it can be seen that 81% of service exports have been in activities not related to the construction sector. Thus the weight in the GDP of exports in branches of activity not related to the construction sector is increasing, from 3.3% in 2001 to 3.5% in 2006.

Mid-term perspectives of growth are linked to the property sector downward adjustment and to the more stable performance of the non-construction sectors

From an aggregate perspective, the Spanish economy can thus be divided into three major groups of activities: the market economy linked to construction, branches of activity not linked to construction, and the non-market activities, with average growth and weights as set out in Table 4.3, giving contributions as included in Chart 4.8.

An intense adjustment in construction will probably give rise to a strong moderation of its contribution to the growth of activities linked to its development. Both the non-market activities and the market activities

[7] The classification of goods and services used by the United Nations in Comtrade does not correspond to NACE, so that goods and services have been linked to branches of activity according to a similarity criterion.

not linked to construction would remain relatively isolated from this adjustment. This is what has occurred on previous periods such as 1984 or 1992-1993 when there was a fall of activity in these branches. This is the most recent period since 1999 in which the contribution to the total growth of the branches not linked to construction was to a greater extent due to the intense growth in the rest of the market economy. Thus the non-construction economy has continued to grow at average rates of nearly 2.4%.

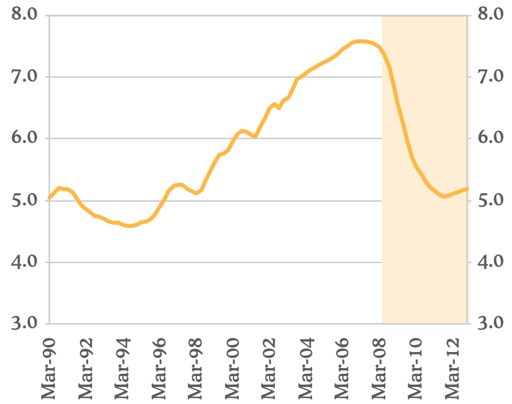
Moving beyond the scenario suggested for 2009, the subsequent recovery of the Spanish economy will be determined by the rate of recovery of the construction sector, mainly housing, and by the maintenance of growth rates for the rest of the economy.

Moving to housing, given the average duration of the cycles of falling activity (nearly four years), and assuming that the number of housing permits does not return to its previous historical average until 2012, the weight of investment in housing in the GDP could fall to figures of close to 5.0-5.5% GDP, from the 7.5% registered in 2007. Assuming that the impulse of public investment means that spending on construction outside the housing sector will continue to rise and assigning growth rates to the rest of the GDP of not more than 2.3%-2.4% (which the sectors less related to construction were growing at in recent years), it is reasonable to expect a GDP growth lower to 2.5% until 2011-2012. Chart 4.9 shows the expected GDP growth profile over the next years. Therefore, the intensity of the growth adjustment would be half-way between the slowdown of 2000-2001 and the recession of 1992-1993. However, it is a very tentative exercise given that it is based on assumptions using the average performance of the housing sector in previous cycles.

Chart 4.10.

Spain. Investment in housing as proportion of GDP

(4Q moving average)



Source: BBVA ERD

Table 4.2.

Productive structure of the Spanish economy
Millions of € / thousands of full-time-equivalent jobs

	REAL GAV					EMPLOYMENT					REAL EXPORTS				
	1996-2001		2001-2006		Average annual change 1996-2006	1996-2001		2001-2006		Average annual change 1996-2006	1996-2001		2001-2006		Average annual change 1996-2006
	Change	Average growth rate in %	Change	Average growth rate in %		Change	Average growth rate in %	Change	Average growth rate in %		Change	Average growth rate in %	Change	Average growth rate in %	
Δ TOTAL	101,873	3.9	99,105	3.1	20,098	2,644	3.6	2,366	2.8	501	55,725	7.3	47,302	4.6	11,447
Δ Construction	13,940	6.5	15,088	5.3	2,903	589	7.6	605	5.6	119	328	11.4	457	9.6	87
Δ Property activities	4,865	2.2	9,543	3.7	1,441	52	11.2	84	0.0	14	4,421	16.6	2,761	5.9	798
TOTAL. without construction and property activities	83,068	3.8	74,474	2.9	15,754	2,003	3.1	1,677	2.3	368	50,976	7.0	44,084	4.5	10,562
Financial intermediation	5,014	4.0	16,692	9.8	2,171	3	0.2	24	1.3	3	418	5.2	370	3.7	88
Wholesale trade and commission trade, except of motor vehicles and motorcycles	10,856	3.7	9,330	2.7	2,019	408	3.5	240	1.8	65	0	0.0	0	0.0	0
Transport and communications	9,629	5.1	7,306	3.2	1,694	115	2.7	144	2.9	26	2,980	7.0	2,441	4.3	602
Business services	11,826	7.1	6,160	2.9	1,799	336	6.9	261	4.1	60	2,330	15.9	1,767	6.9	455
Public Administration and defence; compulsory social security	4,752	2.8	5,996	3.1	1,075	113	1.9	67	1.0	18	47	2.6	140	6.3	21
Non-market healthcare and social services	2,346	2.3	5,930	5.0	828	50	1.8	190	5.9	24	0	0.0	0	0.0	0
Electrical energy, gas and water	2,266	4.4	2,975	4.6	524	-8	-2.0	11	3.0	0	62	20.9	66	10.5	14
Hotels. restaurants. and tourism	4,924	2.4	4,073	1.8	900	197	4.4	225	4.1	42	10,905	7.9	3,000	1.7	1,545
Other social activities and market services	2,431	3.8	2,951	3.8	538	103	4.9	166	6.0	27	452	25.3	108	3.0	62
Private healthcare and social services	1,780	4.6	2,456	5.0	424	71	5.5	112	6.5	18	0	0.0	0	0.0	0
Non-market education	3,423	3.2	3,681	2.9	710	89	3.2	80	2.5	17	0	0.0	0	0.0	0
Other non-metallic mineral products	2,600	7.6	1,437	3.2	404	43	4.9	14	1.4	6	324	1.1	1,437	4.5	196
Paper industry; publishing and graphic arts	1,928	4.6	1,293	2.6	322	37	3.9	11	1.0	5	1,236	8.1	11	0.1	139
Metallurgy and metal products	4,252	5.9	1,442	1.6	569	105	5.5	32	1.4	14	490	1.5	2,983	7.3	386
Private education	1,124	3.6	1,084	2.9	221	45	4.0	32	2.4	8	0	0.0	0	0.0	0
Mechanical machinery and equipment	2,252	6.9	983	2.4	324	46	5.1	-1	-0.1	5	995	2.6	876	2.0	208
Private households with employed persons	819	3.0	939	3.0	176	91	5.1	204	8.4	30	0	0.0	0	0.0	0
Manufacture of transport materials	2,124	4.1	778	1.3	290	42	3.2	5	0.4	5	7,220	5.0	7,849	4.3	1,674
Food, beverages, and tobacco	1,305	2.0	758	1.0	206	5	0.3	29	1.4	3	3,123	8.2	2,338	4.5	607
Other non-market social activities and services	1,369	7.8	898	3.8	227	34	4.8	34	3.8	7	0	0.0	0	0.0	0
Various manufacturing industries	1,350	5.9	614	2.2	196	41	3.8	-15	-1.3	3	2,393	11.5	136	0.5	281
Rubber and plastics industry	1,104	5.4	305	1.2	141	24	4.5	-10	-1.7	1	1,027	5.8	826	3.7	206
Other mining and quarrying	309	6.0	223	3.4	53	4	3.6	7	4.9	1	182	7.2	42	1.3	25
Wood and cork industry	499	4.6	163	1.3	66	19	3.8	-13	-2.4	1	292	7.9	168	3.4	51
Chemical industry	1,750	3.8	125	0.2	187	20	2.7	13	1.6	3	4,053	9.1	6,369	9.2	1,158
Coke. refined petroleum and nuclear fuel	48	0.4	-106	-0.8	-6	0	-0.9	0	1.0	0	1,747	13.7	4,317	16.8	674
Fishing	-180	-2.3	-202	-2.9	-38	-5	-1.6	-12	-4.2	-2	938	17.0	432	4.6	152
Electrical. electronic and optical equipment	1,191	3.5	-222	-0.6	97	30	3.3	-18	-1.9	1	4,139	9.0	2,301	3.6	716
Extraction of energy products	-374	-8.2	-186	-5.9	-56	-12	-9.9	-7	-10.8	-2	16	111.4	18	16.2	4
Leather and footwear industry	7	0.1	-348	-4.9	-34	-7	-1.7	-15	-4.2	-2	901	7.2	323	2.0	136
Textiles	791	3.0	-1,297	-4.9	-51	25	2.0	-72	-6.1	-5	2,073	8.7	3,516	9.6	621
Agriculture. hunting and related service activities	-464	-0.4	-1,928	-1.7	-239	-64	-1.4	-61	-1.4	-13	2,632	7.7	2,251	4.8	543

Source: BBVA ERD based on INE, EU KLEMS and Finance Ministry.

Note: Sectoral deflators have been used to convert the export data into real terms.

Table 4.3.

Productive structure of the spanish economy

Millions of €

	REAL GAV										
	1996		2001		2006		1996-2001		2001-2006		Average annual change, 1996-2006
	Level	%	Level	%	Level	%	Change	Average growth rate in %	Change	Average growth rate in %	
Total	**489,690**	**100.0**	**591,563**	**100.0**	**690,668**	**100.0**	**101,873**	**3.9**	**99,105**	**3.2**	**20,098**
Market economy	**415,377**	**84.8**	**505,360**	**85.4**	**587,959**	**85.1**	**89,983**	**4.0**	**82,600**	**3.0**	**17,258**
Construction and linked sectors	**131,229**	**26.8**	**166,772**	**28.2**	**207,382**	**30.0**	**35,543**	**4.9**	**40,610**	**4.5**	**7,615**
* Construction	37,720	7.7	51,660	8.7	66,748	9.7	13,940	6.5	15,088	5.3	2,903
* Property activities	43,167	8.8	48,032	8.1	57,575	8.3	4,865	2.2	9,543	3.7	1,441
* Other branches of activity related to construction	50,342	10.3	67,080	11.3	83,059	12.0	16,738	5.9	15,979	4.4	3,272
Branches of activity not related to construction	**284,148**	**58.0**	**338,588**	**57.2**	**380,578**	**55.1**	**54,440**	**3.6**	**41,990**	**2.4**	**9,643**
Non-market economy	**74,314**	**15.2**	**86,204**	**14.6**	**102,709**	**14.9**	**11,890**	**3.0**	**16,506**	**3.6**	**2,840**

Source: BBVA ERD based on INE and EU KLEMS.

5. Summary of forecasts

EMU (% y/y except indication)

	2003	2004	2005	2006	2007	2008	2009
GDP	**0.8**	**1.8**	**1.8**	**2.9**	**2.6**	**1.6**	**1.0**
Households consumption	1.2	1.5	1.7	1.9	1.6	0.8	1.1
Public consumption	1.7	1.4	1.5	2.0	2.3	1.3	1.5
Gross fixed capital formation	1.3	2.0	3.3	5.5	4.3	3.1	0.7
Stocks (*)	0.1	0.2	0.1	0.1	0.0	0.0	0.0
Domestic demand (*)	**0.6**	**1.6**	**1.8**	**2.7**	**2.3**	**1.4**	**1.1**
Exports	1.3	6.6	5.0	8.0	6.0	5.1	4.0
Imports	3.3	6.6	5.8	7.7	5.3	4.8	4.3
Foreign demand (*)	**0.2**	**0.3**	**0.0**	**0.2**	**0.4**	**0.2**	**-0.1**
Prices							
CPI	2.1	2.1	2.2	2.2	2.1	3.6	2.3
Core CPI	2.0	2.1	1.5	1.5	2.0	2.4	2.0
Labour market							
Employment	0.6	0.8	0.8	1.5	2.0	1.1	0.7
Unemployment rate (% labour force)	8.6	8.7	8.8	8.2	7.4	7.2	7.3
Public sector							
Surplus/Deficit (%, GDP)	-3.1	-2.9	-2.5	-1.6	-0.7	-1.0	-1.2
Forign sector							
Current account balance (% GDP)	0.5	1.2	0.3	0.0	0.2	-0.1	-0.1

* Contribution to growth

Foreign Scenario (%, y/y)

	GDP growth (%)				Inflation** (%)			
	2006	2007	2008	2009	2006	2007	2008	2009
USA	2.9	2.2	1.2	1.0	3.2	2.9	4.9	3.9
Japan	2.4	2.0	1.3	1.7	0.2	0.0	0.7	0.5
Latin America*	5.4	5.7	4.4	3.8	5.1	6.3	7.8	6.6

*Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay and Venezuela
** Latin America forecast, end of period

Financial Forecasts (end of period)

	Official interest rates (%)				10y interest rates (%)*			
	07/28/08	4Q08	2Q09	4Q09	07/28/08	4Q08	2Q09	4Q09
EMU*	4.25	4.25	3.75	3.50	4.5	4.1	4.0	4.2
USA	2.00	2.00	2.00	2.50	4.0	3.9	4.0	4.4

* 10y interest rates based on German Bund

	Exchange rate (vs euro)*				Brent crude (dollars per barrel)*			
	07/28/08	4Q08	2Q09	4Q09	07/28/08	4Q08	2Q09	4Q09
USD	1.57	1.49	1.44	1.40	124	106	92	83

* Average over period

Summary of forecasts for the Spanish economy

(% y-o-y change, unless stated otherwise)

	2001	2002	2003	2004	2005	2006	2007	2008	2009
GDP at 2000 prices	**3.6**	**2.7**	**3.1**	**3.3**	**3.6**	**3.9**	**3.8**	**1.5**	**0.5**
Private consumption	3.4	2.8	2.9	4.2	4.2	3.7	3.1	1.0	0.5
Public consumption	3.9	4.5	4.8	6.3	5.5	4.8	5.2	5.4	5.2
Gross fixed capital formation	4.8	3.4	5.9	5.1	6.9	6.8	5.9	-0.9	-5.7
Capital goods	-0.3	-2.9	4.1	5.1	9.2	10.4	11.6	-1.0	-10.2
Construction	7.6	6.3	6.2	5.4	6.1	6.0	4.0	-2.2	-5.6
Residential	7.5	7.0	9.3	5.9	5.9	6.4	3.1	-7.4	-16.5
Other	7.7	5.6	3.5	5.0	6.3	5.5	5.1	2.5	3.3
Other products	5.8	5.0	7.2	3.8	6.4	4.6	4.2	3.8	2.0
Change in inventories (*)	-0.1	0.0	-0.1	0.0	-0.1	0.1	0.0	0.0	0.0
Domestic demand (*)	**3.9**	**3.3**	**3.9**	**4.9**	**5.3**	**5.1**	**4.6**	**1.4**	**-0.3**
Exports (goods and services)	4.2	2.0	3.7	4.2	2.6	5.1	5.3	2.2	0.3
Imports (goods and services)	4.5	3.7	6.2	9.6	7.7	8.3	6.6	1.4	-1.8
Net external balance (*)	**-0.2**	**-0.6**	**-0.8**	**-1.7**	**-1.6**	**-1.2**	**-0.7**	**0.1**	**0.8**
GDP at market prices	8.0	7.1	7.4	7.4	8.0	8.0	7.0	4.8	3.7
EUR mn	680,678	729,206	782,929	841,042	908,450	980,954	1,049,913	1,100,196	1,140,779
Prices and costs									
GDP deflator	4.2	4.3	4.1	4.0	4.2	4.0	3.1	3.2	3.2
Household consumption deflator	3.4	2.8	3.1	3.6	3.4	3.4	2.8	4.1	2.8
CPI	3.5	3.5	2.9	3.0	3.4	3.5	2.8	4.4	2.8
Inflation gap with EMU (p.p.)	1.2	1.3	0.9	0.9	1.2	1.3	0.6	0.8	0.5
Remuneration per employee	3.6	3.3	3.6	3.0	2.8	3.0	3.6	4.2	4.0
Unit labour cost (ULC)	3.2	2.9	2.9	2.4	2.5	2.8	2.7	2.7	2.2
Labour market									
Active population (LFS)	0.3	4.1	4.0	3.3	3.5	3.3	2.8	2.9	2.2
Employment (LFS)	4.1	3.0	4.0	3.9	5.6	4.1	3.1	0.1	-1.4
Change in thousands of persons	640	484	666	675	1002	774	608	27	-275
Employment (national accounts, FTE)	3.2	2.3	2.4	2.7	3.2	3.2	3.0	0.1	-1.3
Unemployment rate	10.6	11.5	11.5	11.0	9.2	8.5	8.3	10.7	13.8
Productivity	0.4	0.4	0.7	0.6	0.4	0.7	0.9	1.5	1.8
Public sector									
National debt (% GDP)	55.5	52.5	48.7	46.2	43.0	39.7	36.2	34.6	34.4
Public sector surplus/deficit (% GDP)	-0.7	-0.5	-0.2	-0.4	1.0	1.8	2.2	-0.1	-1.1
External sector									
Balance of trade (% GDP)	-6.3	-5.8	-5.9	-7.2	-8.6	-9.1	-9.4	-9.7	-9.3
Current account balance (% GDP)	-3.9	-3.3	-3.5	-5.3	-7.4	-8.9	-10.1	-10.6	-10.2
Households									
Real disposable income	3.4	3.5	3.6	3.6	4.2	3.2	3.2	1.2	0.9
Nominal disposable income	6.8	6.3	6.7	7.2	7.6	6.6	5.9	5.3	3.7
Savings rate (% nominal income)	11.1	11.4	12.0	11.3	11.0	10.5	10.3	10.7	11.0

Source: official statistics and BBVA Economic Research Department

(*) Contribution to GDP growth

For more information please contact:

Servicios Generales Difusión BBVA Gran Vía 1 planta 2 48001 Bilbao P 34 944 876 231 F 34 944 876 417 www.bbva.es

Economic Research Department:

Chief Economist:
José Luis Escrivá

Unit Heads:
Europe and Financial Scenarios: Mayte Ledo
Spain: Julián Cubero
Sectorial Analysis: Ana Rubio
Europe: Miguel Jiménez
Financial Scenarios: Daniel Navia

Quantitative Analysis: Giovanni Di Placido
Quantitative Research and Development: Rodolfo Méndez

Latam and Emerging Markets: Alicia García-Herrero
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