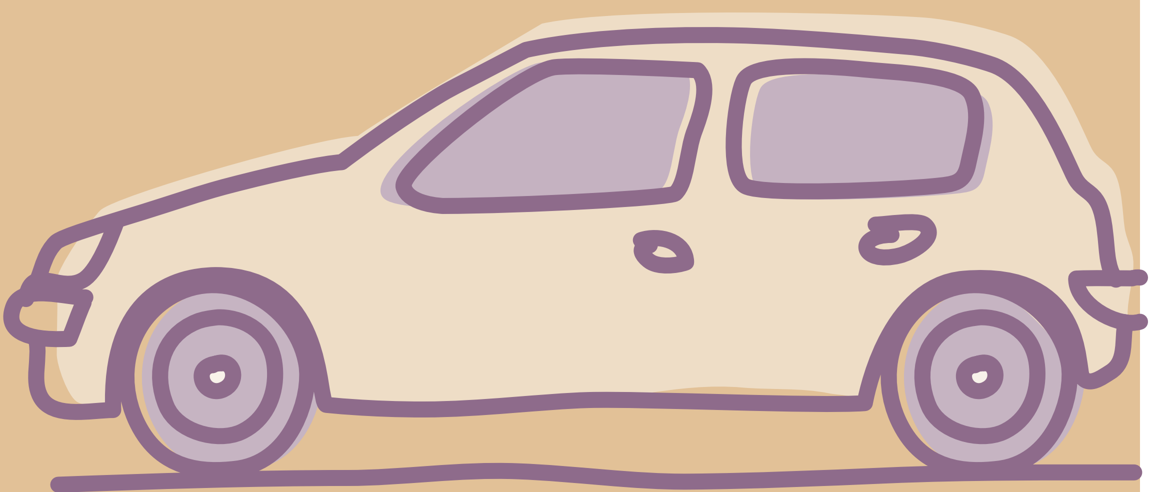
BBVA Finanzia

Consumption Watch

Economic Research Department

First half 2009



Families are increasing their savings rate, making the adjustment of expenditure last for longer ...

...., leading to a sustained loss of dynamism of the consumption of consumer durables.

Interest rate reductions are providing support ...

..., as are economic policies, which have an important part to play, particularly in sectors which have a significant influence over the economy, such as the automotive sector

Index

Closing date: May 11, 2009

1. Summary 2

2. An uncertain economic environment 4

Box 1: "The effect of changing house price on consumption" 10

Box 2: "The savings rate and households' disposable income: international comparison". 12

3. Consumer lending 15

Box 3: "Characteristics of personal loans: An analysis based on the Households´ Financial Survey 2005" 17

4. Consumer durables 19

4.1. Automotive sector 20

4.2. Major appliances: deterioration marked by the performance of the housing market 22

4.3. Furniture: loss of importance in international trade 23

4.4. IT: the difficult challenge of DTT 23

5. Adjustment in the automotive industry: current situation and future perspectives 25

This report was written by:

Ana Rubio	34 91 374 3342	arubiog@grupobbva.com
Juan Ramón García	34 91 374 3339	juanramon.gl@grupobbva.com
Marta García	34 91 374 6761	marta.garcia.tunon@grupobbva.com
Macarena Ruesta	34 91 374 3321	esperanza.ruesta@grupobbva.com
Michela Scatigna	34 91 374 0182	michela.scatigna@grupobbva.com
Diego Vázquez	34 91 374 6929	diego.vaquez@grupobbva.com
Antonio Díez de los Ríos	34 91 374 3657	antonio.diezlosrios@grupobbva.com
Virginia Pou	34 91 537 7723	virginia.pou@grupobbva.com
Jorge Rodríguez-Vález	34 91 537 4890	jorge.rv@grupobbva.com

Report advisors:

José Luis Escrivá, Mayte Ledo, Ignacio Moliner, Miguel Ángel Moreno, Ignacio Gómez-Centurión, Óscar Cremer.

1. Summary

Since the previous edition of this publication, the global economy has continued to deteriorate. We are facing a difficult start of the year, with ongoing financial tensions and an additional fall in activity. Despite state guarantees in debt markets and sustained central bank support, recent months have continued to be marked by high levels of tension on the financial markets. In addition, although some recent indicators show the economic slump is bottoming out, there is still uncertainty about how long the adverse cycle will last and how swift the recovery will be. In the U.S. the data for the first quarter of 2009 reveals a new slump in activity. In Europe, indicators continue to be negative and anticipate a fall in GDP for the first quarter of 2009 that will probably be higher than that in the last quarter of 2008. With continuing tensions on the financial markets and an unprecedented recession in the global economy, governments are increasing the number of measures proposed to tackle the crisis: public-private investment programs in financial assets, acquisition of mortgage bonds, unconventional monetary policy, significant fiscal expansion, etc. Despite the fact that these measures could have a positive impact on the economy, the chances of a recovery in 2010 are still uncertain, given the lack of precedents of measures of this magnitude. In addition, any recovery will probably occur later in Europe because of the delay in implementing these measures, both financial stability and monetary policy ones.

The current situation and perspectives of the Spanish economy are negatively influenced by three elements which have triggered an intensification of the process of adjustment has continued to intensify in the first quarter of 2009. First, the exceptional duration of the financial crisis has led to an unprecedented general weakening of global economic activity. Second, the process of deleveraging of the agents will continue in the medium term. Third, the redimensioning of the real estate sector, which is continuing with its adjustment as forecasted and has triggered a slow-down both on its activity and, in particular, on the demand for housing. However, there are three positive influences on household income and thus an aggregate demand that will shorten the economic decline: reduced inflation, lower interest rates and fiscal stimulus. On the positive side, the rate of deterioration of many indicators has slowed; the sense of freefall at the end of 2008 and the first months of 2009 has been eliminated. In any event, the speed with which the economy emerges from the crisis will depend on adopting the correct structural measures.

Although households´ consumer spending was the key element in the adjustment of the economy as a whole in 2008(initially consumer durables and then non-durables) the most recent indicators indicate that the trend of deterioration has stabilized. For example, car registrations and retail sales point in this direction, with slight improvements in their year-on-year rates. Consumer confidence also appears to be showing a slight improvement, although it continues at historically low levels. Nevertheless, a swift recovery in consumption is unlikely, because the fundamentals will continue to push households´ spending down. This is the case of households´ wealth, both in its real estate component (falling housing prices) and its financial component

(uncertainty as to the future of stock markets).Besides, in the current uncertain situation, consumption is being squeezed because households are increasing their rate of savings as a precautionary measure (it could reach more than 16% of disposable income in 2010) and because it is less easy to obtain consumer credit, which has seen its average repayment periods reduced in part due to the importance of personal credit and credit cards. However, the main factor that explains the weakness of consumption is the forecast reduction in disposable income due to the deteriorating perspectives on employment. To sum up, consumption will continue to be squeezed in 2009, but significantly less than at the end of 2008 and in the first quarter of 2009. A fall of just over 3% is expected in 2009, with a subsequent rise of a few decimal points in 2010.

The automotive industry clearly reflects the current economic situation, with households tending to postpone buying decisions. The Spanish automotive industry is facing a significant decline in activity partly due to the intense contraction of demand, both national and international. Declining activity has been accompanied by a steep drop in employment and a fall in direct foreign investment in the sector. These factors have prolonged the downtrend that started at the beginning of this decade. Both results suggest that the automotive industry is facing not only a cyclical adjustment and will produce a significant drag on the rest of the economy. In February this year the Spanish government approved the Integral Automotive Plan to address the negative consequences of the deterioration in the industry. Although the plan includes an ambitious restructuring of the industry's manufacturing sector, there are only limited measures to boost the distribution sector and stimulate demand. Temporary direct aid programs for the replacement of old vehicles with new ones would be more effective to stimulate demand and at the same time to speed up the reduction of greenhouse gas emissions.

2. An uncertain economic future

Since the beginning of the year, financial tensions have persisted and economic activity has deteriorated

Over recent months, the situation worldwide continued to be characterized by financial markets that were highly tensioned. Despite the slight correction showed by most of the indicators that measure financial market tensions, these remained at very high levels. Thus, in spite of the key role played by government credit guarantees, both banking and corporate spreads have not sufficiently dropped, being these spreads essential in setting financing conditions in the economy. On the other hand, although liquidity premiums have fallen, the interbank markets still depend to a great extent on the continued support of central banks. Sovereign spreads also remain at all-time high levels. Finally, stock market risk aversion is still around 200% higher than before the crisis, although it is significantly lower than the maximum levels registered after the Lehman Brothers bankruptcy.

The continued contraction of the global economy has been a fundamental element maintaining these high rates of risk aversion. Figures for the first quarter of 2009 once more showed a slump in activity in the U.S. (-1.6% qoq), a fall similar to that of the fourth quarter of last year. In Europe, the trend continued to be extraordinarily negative suggesting that the fall in GDP over the first quarter will probably be even higher than that observed in the fourth last year (-2%). It is however true that the general tone of the economic indicators in the first quarter and the first figures for April were, in general, less negative. This improvement suggests that the rate of fall on activity has moderated, but there will still be negative growth in the short term. Although the financial markets have reacted very positively to these signs of an upturn in the cycle, major doubts remain as to how long the crisis will last and how quickly the economy will emerge from recession.

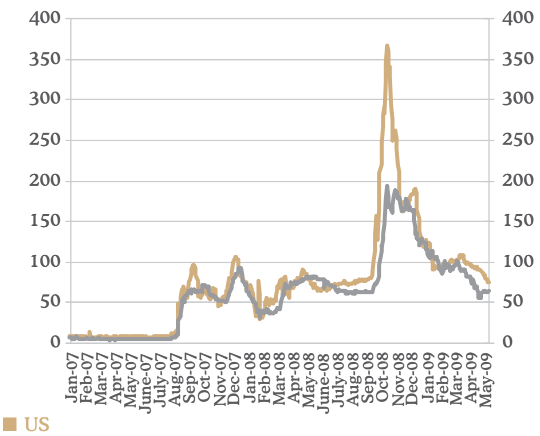
New public measures are needed to stabilize the economy

With financial tensions remaining at high levels and the global economy at an unprecedented level, governments have increased the number of measures to tackle the crisis. The U.S. continues to be taking the lead in terms of adopting new measures to combat the global financial crisis. A fundamental part of the American program is the bank stress test initiative aiming to find the system's capital needs and thus lessen uncertainty on this score. Based on this, the US authorities are ready to guarantee the system's solvency. The financial institutions will have six months to find private capital, and, if they are unable to do so, they will receive capital injections from a public fund. Another important measure will facilitate the restructuring of the banks' balance sheets in order to limit their risks and reduce their size. A public-private investment program (PPIP) has been set up to attract private investors to buy toxic assets from banks through funds in which the capital will be supplied jointly by the private and public sector, with a high level of leveraging. We value positively these measures, although their implementation is extremely complex.

Chart 2.1.
Financial Tensions Indicator

Source: BBVA ERD
The first standardized principal component of the OIS spread series, implicit stock market volatility, bank, corporate and sovereign (in the case of Europe) CDS spreads

Chart 2.2.
Interbank markets: 3-month OIS spread
(3M Libor – 3M OIS)



Source: Bloomberg

Meanwhile, the Federal Reserve has started a program to buy $1,250 billion dollars in mortgage-backed securities from the agencies Freddie Mac and Fannie Mae to reduce the cost of financing of American mortgages. Another key step was the announcement of purchases of government debt worth up to 300 billion dollars. The Federal Reserve also plans to participate actively in the Public-Private Investment Program through the Term Asset-Backed Securities Loan Facility (TALF), whose size could reach around $1,000 billion.

In Europe, the efforts towards the stabilization of financial markets have remained mainly at the national level, with very different initiatives in each country. For example, Germany and Ireland are putting the final touches to a "bad bank" which will buy banks' toxic assets. The ECB continued with its process of lowering the official interest rate, which is now at 1%. However, the ECB has continued to show reluctance to undertake an asset acquisition program as aggressive as that of the Federal Reserve. Thus it continues with its weekly liquidity auctions through the fixed-rate full-allotment system. This measure will be maintained for as long as necessary (at least until 2010), and the term of the loans has been recently extended to 12 months. Apart from this, in May it was announced that 60 billion euros of covered bonds will be purchased. The details of this plan have not been made known yet.

The adoption of these monetary policy measures is justified, as in the short term the major risk is that the persisting weak economic situation will maintain negative inflation rates for too long. In addition, although the balance sheets of the central banks are expanding rapidly (particularly in the case of the Federal Reserve), central banks should not have any difficulties in quickly draining liquidity when the time comes.

Despite the stabilization and the measures taken, recovery still remain uncertain

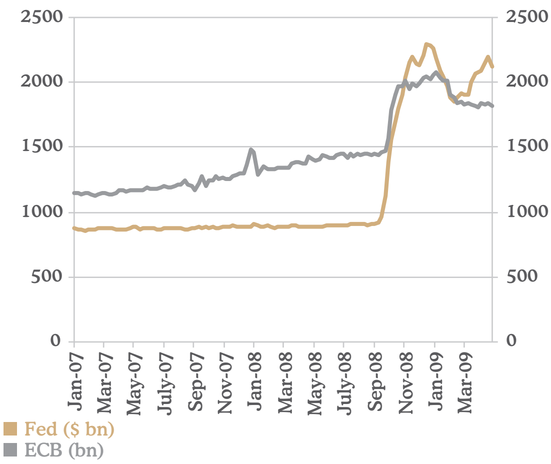
Despite the measures outlined above, which are having a favourable impact on the economy, the nature of a possible recovery in 2010 is uncertain. Hence, if the economy emerges from recession in 2010, this recovery will still be at very moderate rates and below its potential growth. In addition, any recovery will probably occur later in Europe given the tardiness in implementing both the financial stability and monetary policy measures.

These uncertainties will make government debt rates to remain low throughout 2009 and 2010, as they will oblige central banks to maintain low official rates for a protracted period. With regard to the foreign currency markets, the aggressive expansion of the Federal Reserve balance sheet could lead to depreciating pressures on the dollar over the short term. In the longer term, the lower growth expected for the Eurozone compared with the U.S. will continue to support the recovery that the dollar has registered since the summer.

Chart 2.3.
Interest rate of an average 30-year mortgage in the U.S.

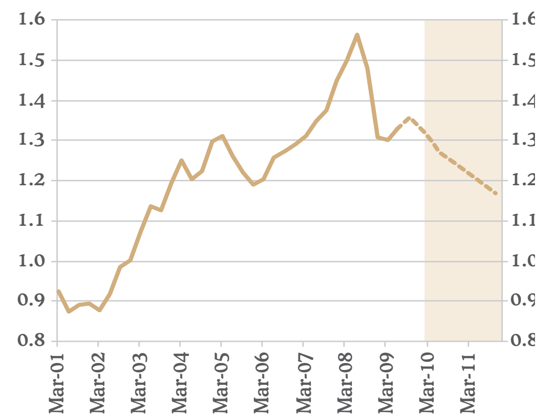
Source: Bloomberg

Chart 2.4.
Central Banks. Total assets



Source: Datastream

Chart 2.5.
Euro/dollar exchange rate

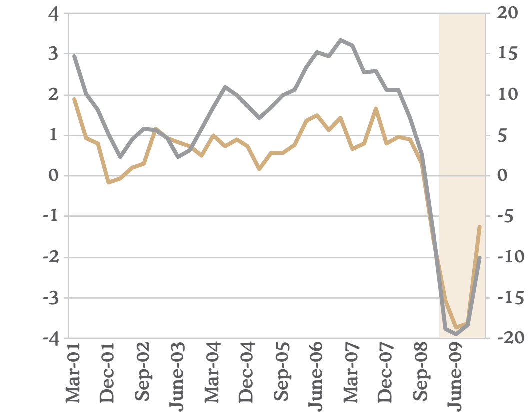


Source: BBVA ERD

Chart 2.6.

Spanish exports and growth in the EMU

(Year-on-year)



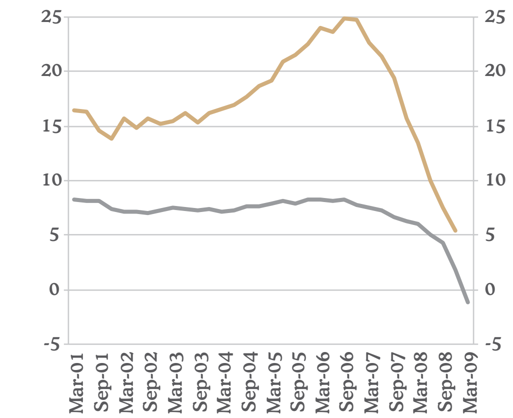
EMU GDP (Left)
Spanish exports (Right)

Source: National Institute of Statistics, Eurostat and BBVA ERD

Chart 2.7.

Spain. Credit to private sector and nominal GDP

(Year-on-year)



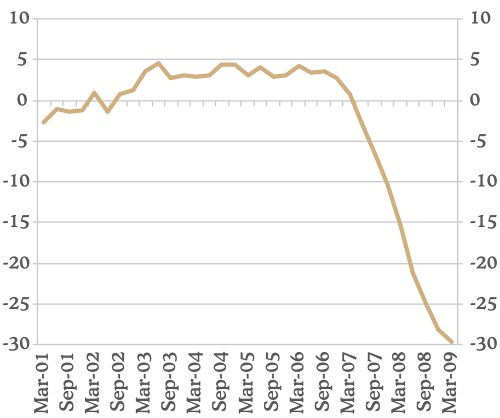
Nominal GDP
Credit

Source: National Institute of Statistics, Bank of Spain and BBVA ERD

Chart 2.8.

Spain. Synthetic indicator of housing activity

(Year-on-year)



Source: BBVA Economic Research Department

The Spanish economy is facing a deep recession

The current situation and perspectives for the Spanish economy are negatively influenced by three elements that have exacerbated the process of adjustment in the first half of 2009. First, the exceptional duration of the financial crisis has led to an unprecedented general weakening of global economic activity. This recession is deeper than any observed in recent decades and shows a high degree of synchronization between countries. What is particularly important is the impact the contraction in the world economy has had on international trade, which together with finance has become a channel for the global transmission of the crisis. In the case of the Spanish economy, what has been decisive is the slump in the GDP of the euro zone, with forecast falls of 3.3% in 2009 and 0.1% in 2010. They will condition not only the export capacity of the Spanish economy, but also capital investment.

Second, the deleveraging process in the Spanish economy will continue in the medium term. Private agents took advantage of the period of abundant liquidity to increase their debt levels to far higher than the average of European countries. Credit in the Spanish economy continues to moderate towards more sustainable and reasonable levels, although its year-on-year increase is remains higher than the nominal GDP increase. A third important factor in addition to these two is particular to Spain (although shared with some advanced economies such as the U.S., Ireland and the U.K.): the resizing of the real estate sector. This process is continuing as forecast, with a sharp halt not only to activity, but even more so to demand for housing. At present excess homes continue to accumulate, as the scarce demand has now been combined with the entry onto the market of homes begun towards the end of the expansive phase of the cycle in 2007. Thus the excess supply of housing is expected to continue until 2010, leading to falling prices that may be more than an accumulated 25% until 2011. As a result, in the coming years the sector will have a negative contribution to GDP growth.

Three factors are restraining economic decline: reduced inflation, lower interest rates and fiscal stimulus packages

Any one of the negative elements mentioned above can of itself have a major impact on GDP growth, so the three combined have led to a severe recession. However, there are three others that will partially offset the strength of the recession and that provide a positive boost for household income and aggregate demand. The first of these is the severe reduction in inflation. In a very short period of time (less than a year) inflation as measured by the consumer price index (CPI) has dropped from over 5% to negative rates. For the first time in many years, Spain now has a lower inflation rate than the EMU. Given the nominal growth in wages, negative inflation increases the purchasing power of household disposable income and its purchasing capacity. Particularly significant is the fall in energy prices (with forecast average falls for 2009 of more than 10%) and food (which in 2009 hardly varied). The inflation rate will continue to be negative for most of 2009, reaching a minimum in July, but it will end the year at around 1% (-0.2% as an annual average). Given that the fall in inflation is largely due to the performance of its most volatile components, the risk of deflation is low, and core inflation is expected to be at an annual average of around 1% in 2009. There are no signs in the economy of reduced inflation expectations having an effect on the delayed spending decisions that are typical at times of deflation.

The second boost to household income comes from the reduction in interest rates. By the end of the year the official rates in the euro zone may be around 0.5%. Together with the gradual fall in the risk and liquidity premiums, this will lead to a reduction in market rates and the debt burden on households. Even taking into account lower income from deposits, the effect will be to free around 1.0% of household disposable income.

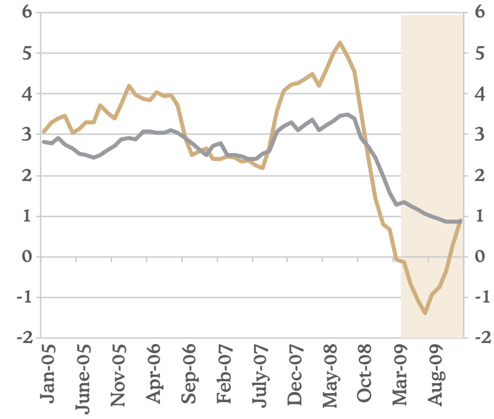
Finally, Spain has made much use of fiscal policy as a countercyclical measure, both in terms of spending and tax rebates. Among the most important of the measures is the reduction in income tax applied in 2008 and 2009, which will inject around 6 billion euros into the economy. In 2009 the suppression of Wealth Tax came into force (1.8 billion euros). In addition, the Local Investment Fund of Spanish Government is investing a total of 8 billion euros in local projects organized by municipalities. As it is estimated that around 200,000 jobs may be created from this measure, this once more represents a boost to household income. In all, according to our estimates, the fiscal policy measures adopted until now will ease the effects of the recession in 2009 by around 1.2 points of GDP.

These three boosts to income will manage to prevent household income from falling, even in the current recessive environment. However, the net result of all the factors is clearly negative. The recession in the Spanish economy, which began in the second half of 2008, will continue throughout 2009. In all, the Spanish economy will go through a steep adjustment (in line with the contraction in the EMU) and fall by an average of 3.5%. In 2010 a slow process of recovery will begin, with a practically stagnant GDP (-0.3%).

Chart 2.9.

Spain: Inflation

(Year-on-year rate)

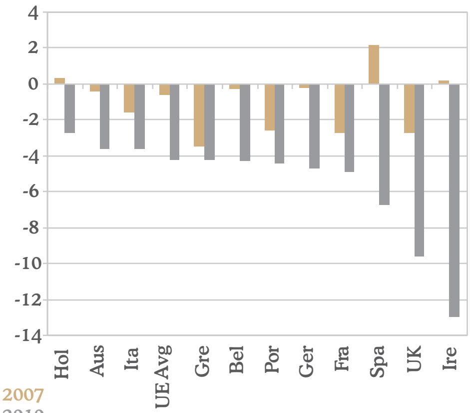


Source: INE and BBVA Economic Research Department

Chart 2.10.

Public deficit

(% GDP)



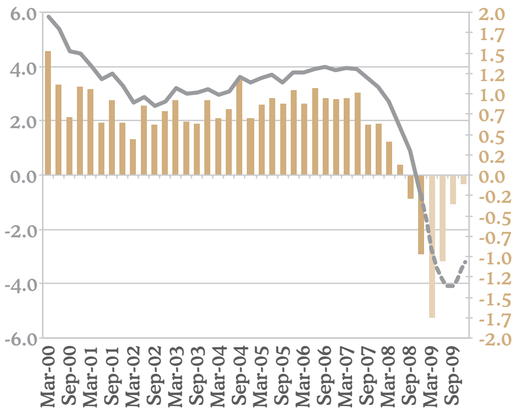
Source: BBVA Economic Research Department and European Commission

Table 2.1. Spain: Macroeconomic table

rates yoy	1Q07	2Q07	3Q07	4Q07	1Q08	2Q08	3Q08	4Q08	2006	2007	2008	2009	2010
Household consumption	3.8	4.1	3 .0	2.9	2.0	0.8	-0.2	-2.3	3.9	3.4	0.1	-3.1	0.2
Public consumption	5.3	5.0	4.8	4.4	3.7	5.0	6.1	6.3	4.6	4.9	5.3	4.2	2.5
GFCF	6.4	5.3	4.6	4.5	2.4	-0.8	-4.1	-9.3	7.1	5.3	-3.0	-16.1	-8.0
Capital goods and other products	8.7	8.1	6.5	6.7	5.5	2.4	0.3	-7.2	8.9	7.5	0.2	-22.2	-11.2
Construction	5.1	4.2	3.3	2.9	0.2	-3.1	-7.3	-10.9	5.9	3.8	-5.3	-11.3	-5.7
Housing	5.3	4.2	3.2	2.5	-1.7	-7.6	-14.8	-19.6	6.0	3.8	-10.9	-24.5	-12.7
Rest	4.9	4.1	3.3	3.4	2.2	1.8	0.9	-1.4	5.7	3.9	0.9	1.2	-0.4
Inventory change (*)	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.0	0.0	0.2	-0.08	0.0	0.0	0.0
Domestic demand (*)	**5.1**	**4.9**	**3.9**	**3.8**	**2.6**	**1.2**	**-0.2**	**-3.0**	**5.3**	**4.4**	**0.2**	**-5.8**	**-1.7**
Exports of goods and services	3.3	3.9	8.2	4.0	4.8	4.4	1.5	-7.9	6.7	4.9	0.7	-14.6	0.0
Imports of goods and services	6.1	6.2	7.6	4.9	3.6	1.8	-2.0	-13.2	10.3	6.2	-2.4	-19.0	-4.3
External balance (*)	**-1.1**	**-1.0**	**-0.3**	**-0.5**	**0.1**	**0.6**	**1.1**	**2.3**	**-1.5**	**-0.8**	**1.0**	**2.2**	**1.4**
GDP mp (% yoy)	**4.0**	**3.9**	**3.6**	**3.3**	**2.7**	**1.8**	**0.9**	**-0.7**	**3.9**	**3.7**	**1.2**	**-3.5**	**-0.3**
Memo item													
Total employment (LFS)	3.4	3.4	3.1	2.4	1.7	0.3	-0.8	-3.0	4.1	3.1	-0.5	-6.2	-2.5
Unemployment rate (% Active population)	8.5	8.0	8.0	8.6	9.6	10.4	11.3	13.9	8.5	8.3	11.3	18.2	20.4
CPI	2.4	2.4	2.4	4.0	4.4	4.6	4.9	2.5	3.5	2.8	4.1	-0.2	1.4

(*) contribution to growth
Source: National Institute of Statistics and BBVA forecasts

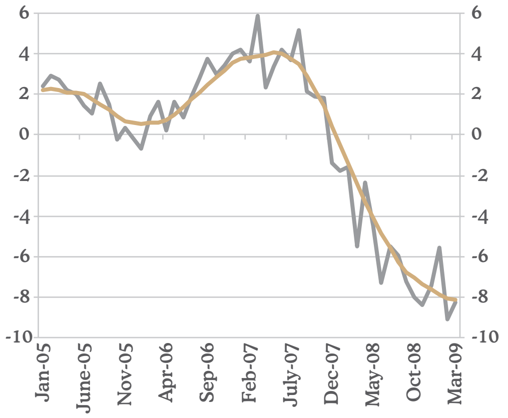
Chart 2.11.
Spain: GDP growth



■ % quarter-on-quarter (Right)
■ % year-on-year (Left)

Source: National Institute of Statistics and BBVA Economic Research Department

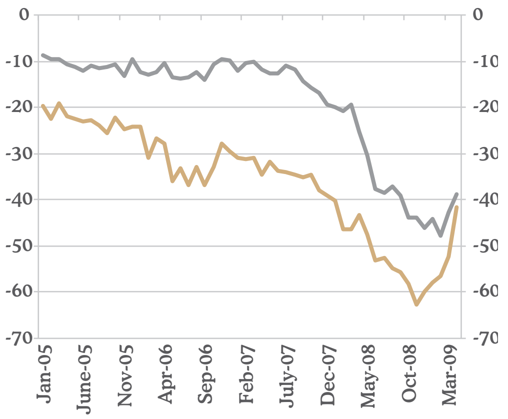
Chart 2.12.
Spain: Retail sales index
(Year-on-year rate)



■ Trend
■ Data

Source: National Institute of Statistics and BBVA Economic Research Department

Chart 2.13.
Spain: Consumer confidence
(Net responses)



■ Appropriateness of making major purchases at current time
■ Consumer confidence

Source: European Commission

The rate of deterioration of many indicators has slowed. The sense of freefall at the end of 2008 and the first months of 2009 has been overcome. The speed with which the economy emerges from the crisis will depend on adopting the correct structural measures

The most recent economic indicators suggest that the most intense part of the recovery phase may have occurred in the first quarter of 2009, and that in the remainder of the year the rate of economic decline will gradually level off, but without reaching positive GDP rates, which are not expected until 2010. In this situation, the unemployment rate will continue to increase in 2009 and, probably for part of 2010. The main partial indicators show incipient stabilization, although the growth rates suggest that the economic contraction will continue over the coming quarters. Nevertheless, it is worth pointing out that this leveling off in the economic deterioration is not noticeable in all the sectors of the economy to the same extent. The indicators on investment and the foreign sector do not show signs of stabilization and are still contracting sharply. Investment is conditioned by the capacity to obtain financing, while the figures for exports are stabilizing at increasingly steep levels of decline. The indicators for construction show that the adjustment is still in line with our scenario, although the Local Investment Plan will stimulate the non-residential construction sector for the rest of the year.

Consumption is slowing its rate of decline, although a recovery cannot be expected because of the negative perspectives in the fundamentals

It is precisely in consumption where there are some signs of the decline bottoming. Household consumer spending was the key element in the adjustment of the economy as a whole in 2008, initially in consumer durables and then in non-durables. However, in the final part of 2008 and at the start of 2009, consumption indicators appear to point to a relative stabilization, although at very low levels. Indicators such as car sales registrations and retail sales point in this direction, with slight improvements in their year-on-year rates. Consumer confidence also appears to be showing slight signs of improvement, even though it continues at historically low levels. These developments are a result of the process of disinflation (of 5.4 points since July), the reduction in interest rates (of 3.5 points in the case of 12-month Euribor since September 2008) and the tax incentives (a rebate of 400 euros per taxpayer in 2008 and 2009).

Although these factors have put a brake on falling consumption, a prompt recovery cannot be expected. This is because the fundamentals will continue to push household spending down. This will be true of household wealth, both in its real estate component (the falls in housing prices) and its financial component (uncertainty as to the future of stock markets). Moreover, although interest rates will fall (which should create an incentives for consumption), in a situation of such uncertainty this will not stimulate household spending significantly; on the contrary, households will increase their rate of savings as a precautionary measure.

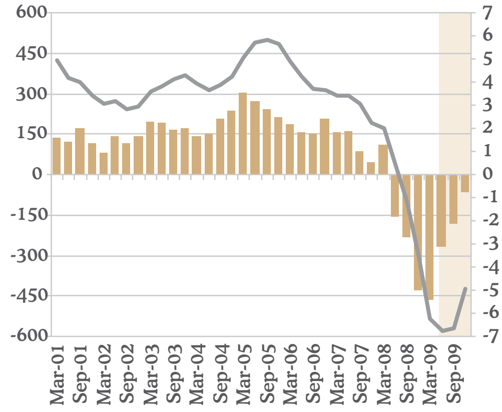
However, the main factor that explains the weakness expected from consumption is the expected reduction in disposable income due to deteriorating employment perspectives. In the first quarter of 2009 the unemployment rate reached 17.4%, after an intense period of job destruction. Although the most recent figures, which are consistent with the implementation of the projects included in the Local Investment Plan, suggest that job destruction will gradually ease off over the coming quarters, the rate of unemployment will continue to rise.

In all, consumption will continue to be squeezed in 2009, but significantly less than at the end of 2008 and in the first quarter of 2009. A fall of just over 3% is expected in 2009, with a subsequent rise of a few tenths of a percentage point in 2010. The lack of a clear direction its fundamentals, together with the overall high level of uncertainty, will also lead to a significant rise in the rate of household saving. In 2010 it could top 16% of disposable income, more than 3 points above the 2008 level.

To sum up, although the rate of decline in some economic indicators has stabilized, there is still a long way to go before the Spanish economy begins its recovery. This is why sufficiently ambitious structural measures have to be adopted to stop the destruction of jobs in the short term and to lay the foundations for economic recovery and a new cycle of sustained growth[1]. The recovery will only be robust when private demand can replace the public demand stimulus packages that are now in place or that may be implemented in the near future. To guarantee this economic recovery and high potential growth after the crisis, the Spanish economy has to adopt structural measures that can eliminate the imbalances in the labor market and improve company productivity and competitiveness. Without doubt, these structural measures would also help the adjustment of the foreign deficit and the fiscal consolidation required. These problems will have to be tackled when the recovery begins, to reduce the considerable public deficit the Spanish economy will have in 2009 and 2010.

Chart 2.14.

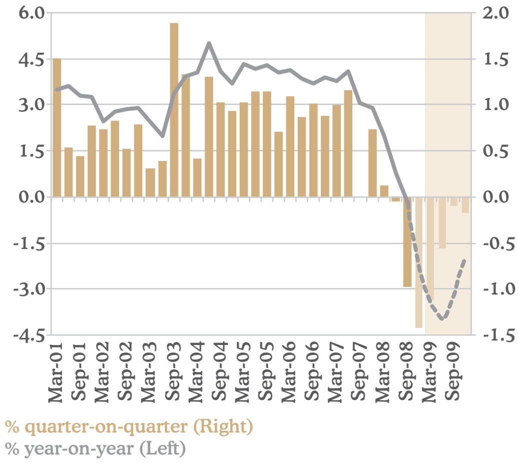
Spain: Seasonally-adjusted employment (LFS)



Source: National Institute of Statistics and BBVA Economic Research Department

Chart 2.15.

Spain: Household consumption



Source: National Institute of Statistics and BBVA Economic Research Department

[1] The March 2009 edition of SpainWatch contains three proposals for the structural reform of the Spanish labor market. See http://serviciodeestudios.bbva.com/KETD/ketd/Descargas?pais=ESPA&canal=web&tipocontenido=AFON&idioma=ESP&pdf=/fbin/mult/0903_situacionespana_tcm346-189472.pdf

Box 1. The effect of changing house prices on consumption

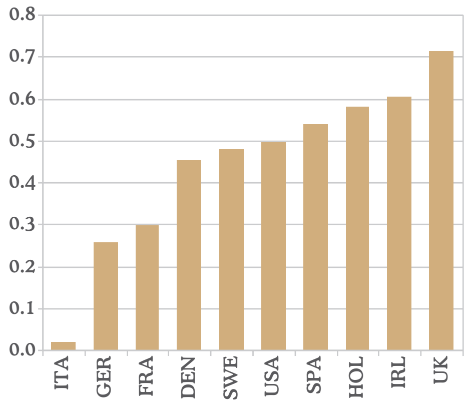
The adjustment affecting the real estate market in Spain and other European countries and the U.S. has important macroeconomic implications. An example of these effects would be the result of the reduction of residential investment of an economy, or the effect that a change in household real estate wealth may have on household consumption. This section analyses the latter effect, from three perspectives. First, the relation between the two variables will be quantified. Second, we will look at the economic literature that has estimated the elasticities of consumption changes in real estate prices. Finally, we will study the factors that may amplify in the Spanish economy that may amplify this effect, in Spain such as mortgages designed to release assets for consumption.

The increases (or falls) in the house prices affect the capacity of the home owner to take on more debt, because the home is being used as a guarantee, so the household could consume more (or less). In addition, the subjective perception of a greater value of the home may encourage households to increase consumption. However, although housing wealth increases with increases in house prices, and thus stimulates consumption, households that rent may decide to save more to prepare for buying a house in the future, and this would have a negative impact on consumption. The aggregate effect of a change in house prices is not clear, above all if it is analyzed using the changes in total house-hold wealth. In countries such as Spain, where practically 90% of households owns the home in which they live, it would be reasonable to think that the stimulation effect is the most important, and that reduction in real estate wealth would have a negative effect on consumption.

A simple analysis of the correlation between consumption and the changes in real house prices reveals that there is a close relationship between both variables in the different countries, although at different intensities. This correlation is greater in countries where there has been strong growth in house prices and real estate wealth, as is the case in Ireland, Spain and the United Kingdom (Charts 1 and 2).

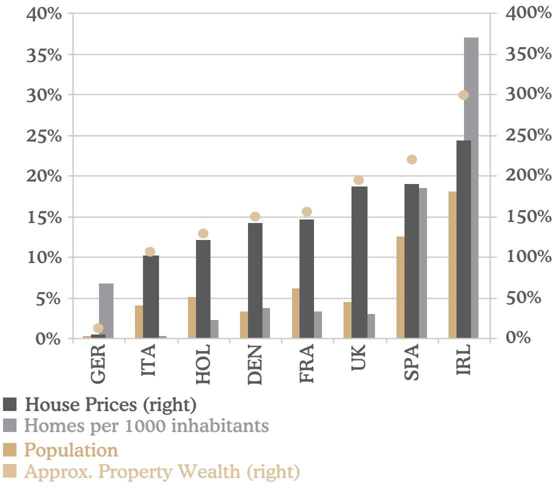
There is extensive literature on the effects of changing house prices on consumption (Table 1). Most of the work studies the phenomenon in the U.S., where abundant data are available not only at the microeconomic level (which are also available in Spain and other European countries) but also at the macroeconomic level. The countries where the impact of a change in real estate wealth on consumption is greatest are the U.S. and the United Kingdom. In Spain estimates suggest that the wealth effect on the tendency to consume will not be as great.

Chart 1:
Correlation between consumption and house prices, 1971-2008



Source: Datastream, national sources and BBVA Economic Research Department

Chart 2:
Accumulated rates of change 1997-2007



Source: Datastream and BBVA Economic Research Department

In addition, certain characteristics of mortgage markets may boost the effects that changes in real estate wealth have on consumption. One of these characteristics is represented by the *loan-to-value* (LTV) ratio between the principal and the value of the collateral. When acquiring a home, a high LTV implies a lower initial cash payment and greater leverage thus freeing more resources that may be used for consumption after the purchase, although in the long term the installment payments may be higher.

International comparison shows that these factors are fairly dissimilar across countries (Table 2). LTV varies from a minimum of 60% in Greece to a maximum of more than 110% in The Netherlands. Among other aspects, these differences reflect the profound variation in securitization markets, which have enabled a reduction in the cost of financing for banks, and the different level of effectiveness of the legal framework. For example, speedy mortgage foreclosures have a positive effect on the LTV level that banks are proposed to concede.

Other elements affecting the variations in house prices to consumption are mortgage products that enable the "extraction of real estate wealth" for consumption. This mechanism is known as *mortgage equity withdrawal* (MEW). MEW may also be defined as that part of the price increase of residential homes that is made available or liquid. At times when house prices are rising, homes that act as collateral for existing mortgages are also revalued.

There are different formulas for making real estate wealth available. One option would be to increase the amount of the mortgage, or even to take out a new mortgage to finance consumption. Another form of MEW is reverse mortgages. These give access to a monthly income in exchange for the handing over the home when the owner dies. The amount of the income depends on the revaluation of the property. Families may also move to smaller homes when their children become independent, and pocket the difference in price between the two properties. The MEW option is not common in Spain. However, its use in the U.S. and the United Kingdom is very significant and it has represented an important instrument for increasing consumption in response to increasing house prices.

To sum up, in the current economic environment where house prices are being corrected downwards, households see their real estate wealth fall and as a result moderate their consumption. The size and scope of this effect depend in part on some of the institutional characteristics of the mortgage markets. Thus it is to be expected that in Spain, as in the rest of the countries on continental Europe, the effect will be smaller than in countries such as the U.S. and the United Kingdom.

Table 2. Institutional characteristics of some mortgage markets

	LTV	MEW[1]
Belgium	80-85	N
Germany	70	Y
Ireland	91-95	Y
Greece	60	N
Spain	83	N
France	66	N
Italy	80	N
Netherlands	112	Y
Finland	70-85	Y
U.S.	80	Y
United Kingdom	75	Y

1 Y = yes; N = no.
Sources: ECB, BIS and BBVA Economic Research Department

Table 1: Estimates of the propensities to consume before changes in real estate wealth

Micro data	Wealth	U.S.	U.K.	SPA	ITA	HOL	FRA	GER
Hooper and Slok (2005)	Total	0.03-0.05						
Davis and Palumbo (2001)	Total	0.04-0.06						
Maki and Palumbo (2001)	Total	0.03-0.05						
Poterba (2000)	Financial institution	0.01-0.02						
Carrol (2004)	Real estate	0.05-0.1						
Catte et al. (2004)	Real estate	0.05-0.08	0.05-0.08	0.01-0.02	0.01-0.02	0.05-0.08		
Bover (2005)	Real estate			0.02				
Campbell and Cocco (2007)	Real estate		0.08					
Guiso, Paiella and Visco (2005)	Real estate				0.02			
Macro data		**U.S.**	**U.K.**	**SPA**	**ITA**	**HOL**	**FRA**	**GER**
Belsky, Prakken (2004)	Real estate	0.05-0.06						
Carrol, Otsuka, Slacalek (2006)	Real estate	0.06						
Barrel, Kirby (2008)	Real estate	0.03	0.02	0.02			0.002	0.01
Bassanetti and Zollino (2008)	Real estate				0.01-0.02			
Benjamin, Chinloy, Jud (2004)	Real estate	0.08-0.16						

Box 2. Household saving rate and disposable income behavior : international comparison

Over the last two decades there has been a general increase in household indebtedness, and thus a moderation in saving rates, in the vast majority of industrialized countries. The reasons for increased household indebtedness can be found both on the supply and demand side. On the supply side they include: the notable revaluation of real household wealth[1], allowing the problems of adverse selection and moral hazard that characterize the credit markets to be tackled; liberalization of the financial markets, which made it easier to access credit by increasing the level of competition between institutions; greater efficiency in risk management, which allowed an extension in the loan periods and the financing of a greater percentage of the assets acquired (*Loan-to-Value*); and the structural reduction of interest rates in numerous developed countries. The demand side can be summed up in the perception of the growth of permanent household income, which is what determines household propensity to indebtedness[2] . This perception is explained by countries' greater macroeconomic stability, which has encouraged higher growth expectations, and by reduced costs of finance.

However, the start of the international financial crisis in the second half of 2007 and its subsequent intensification has overturned the factors that increased household debt.: The virulence of the financial shock has called into question the validity of the risk valuation models, the cost of indebtedness is growing and both real wealth and permanent household income are falling. These factors have led to an intensification of the deleveraging process in the private sector, which is leading to an increase in the rate of household saving[3] .

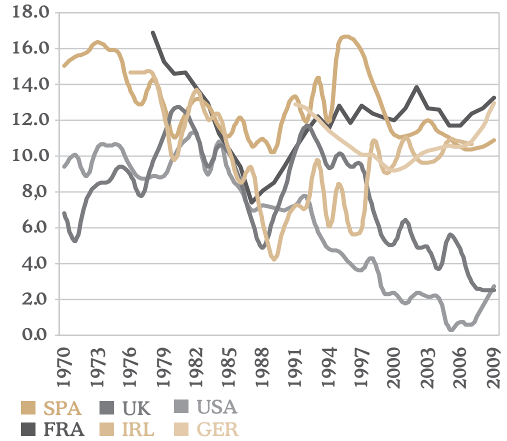
Spanish households, like those in other developed economies, began a process of deleveraging in 2008, which intensified over the following quarters. However, the relative increase of the household saving rate in Spain will be comparatively lower than in other economies such as those of Anglo-Saxon countries, where household saving rates have been traditionally lower (Chart 1). In act, if we compare the average Spanish household saving rate with that of households in highly indebted countries that are undergoing a readjustment in the real estate sector comparable to that in Spain, *i.e.* Ireland, the United Kingdom and the U.S., it can be seen that the level in Spain was significantly higher during the pre-crisis decade (1997-2007) (Chart 2).

By analyzing the household saving level during the last cycle, we can classify the four countries into two groups (Charts 3 and 4).

- The first group is made up of Spain and Ireland, with average household saving rates of more than 11% of

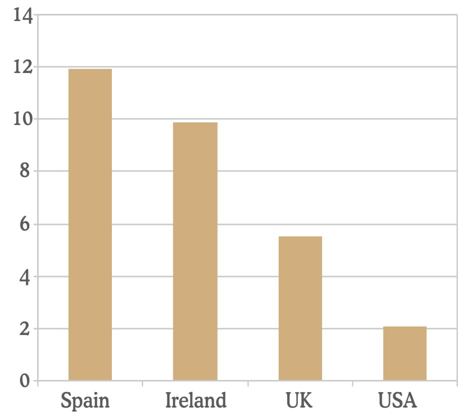
[1] See Río (2002) and the references he cites for a detailed analysis of the determinants of household indebtedness.
[2] According to the conventional model of intertemporal choice.
[3] For a detailed comparative analysis of the changes in household saving rates in Europe and the U.S., see Leetmaa, Rennie and Thiry (2009).

Chart 1.
Household saving rate
(% disposable income)



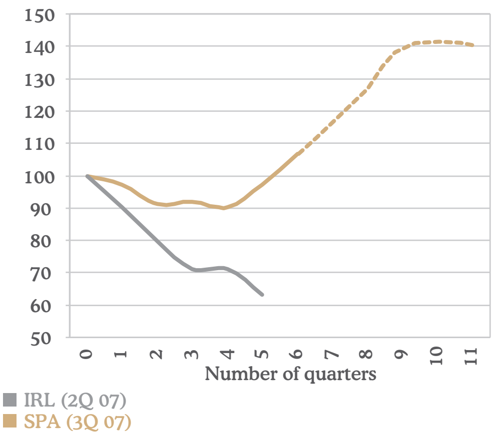
Source: Ameco and BBVA Economic Research Department

Chart 2.
Average saving rate, 1997-2007
(pre-crisis)



Source: OECD and BBVA Economic Research Department

Chart 3.
Saving rates, last cycle
(Base index 100 = GDP peak)



Source: Thomson Datastream, National Institute of Statistics and BBVA Economic Research Department disposable income. However, since the cycle peaked, the evolution has diverged: whereas in Spain the household saving rate began to grow in the second quarter of 2008, in Ireland there has still not been a positive change in it (Chart 3). Among other reasons, the cause of this difference is the countercyclical economic policy measures, in particular the tax credit of 400 euros to taxpayers and the price effect: a more intense deflation in Spain has reduced nominal consumption comparatively more than in Ireland.

- By contrast, the United Kingdom and the U.S. have household savings rates of under 5% of disposable income and show a significantly more volatile performance. Above all the U.S. with comparatively high increases in savings because it started from a level below 0.6% of disposable income in 2007 (Chart 4).

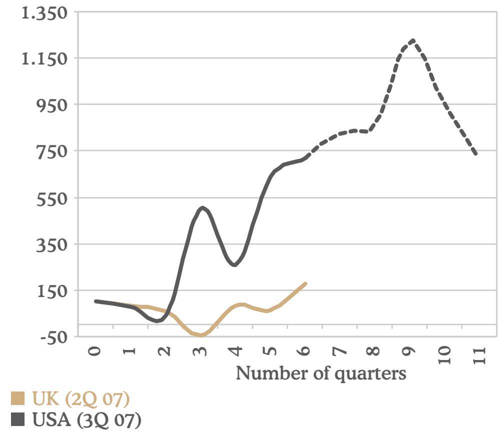
The fact that the saving rate of Spanish households is greater than in Anglo-Saxon countries is not a characteristic that sets our country apart from others: in fact it is common to most continental European countries. Although there are special reasons explaining why households are more or less disposed to save in each country, economic literature has identified a number of possible common causes:

- Despite the opposed effects of income, wealth and substitution, higher real interest rates lead to a comparatively high rate of household income[4]. For this to happen, a sufficient condition is that the real interest rate is greater than the intertemporal preference rate which the households face (Chart 5).
- An economy with a more uncertain growth will promote the increase of the transitory component of household income, which will encourage saving in detriment to consumption.
- Lower expectations of changes in the permanent household income, due above all to a lower productivity and a greater tax burden, boost saving growth (Chart 6).
- Fluctuations in house prices may affect the capacity of households to accumulate debt by using their own home as guarantee. Through this channel of transfer, a fall in the value of the home may be translated into a lower capacity for indebtedness and consumption[5].

If we compare the changes registered and forecast in the saving rate of Spanish households in the current cycle with that of previous cycles (end of the 1980s and the start of the 1990s) we can see that although the trend during the quarters immediately after the peak in the cycle was downward, the

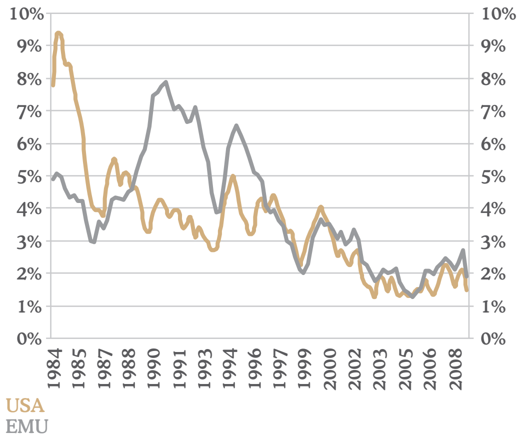
[4] *Ceteris paribus*, an increase in the real interest rate represents an increase in future consumption with respect to present consumption (substitution effect). This would provoke an increase in current saving if the income effect associated to greater capital income (derived from the increase in the real interest rate) is lower.
[5] See Box 1 on the effects on consumption of changing house prices.

Chart 4.
Saving rates, last cycle
(Base index 100 = GDP peak)



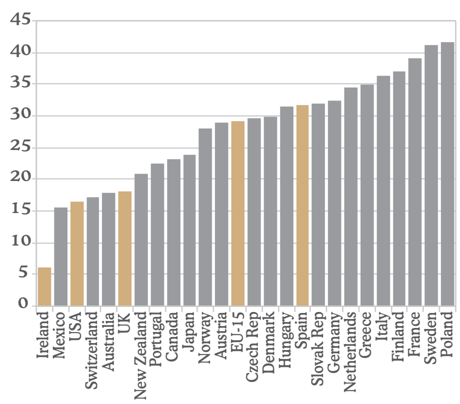
Source: Thomson Datastream and BBVA Economic Research Department

Chart 5.
Real 10-year interest rates: U.S. and EMU



Source: Bloomberg and BBVA Economic Research Department

Chart 6.
Tax burden including employee contributions
(% of average income)



Note: tax burden calculated for couple with two children
Source: OECD

reversal of this trend registered in the fourth quarter of 2008 will probably be sustained over time (Chart 7).

The forecast trend in the saving rate of Spanish households during the current cycle, which is comparatively more favorable than in previous cycles, may have a number of explanations.

First, its starting point: the household saving rate with which Spanish households began the current cycle was 11.1%, significantly lower than that with which they began previous cycles, at 15.4% in the fourth quarter of 1987 and 17.4% in the first quarter of 1990. Given that the growth in the saving rate of households in developed countries is, *ceteris paribus*, proportional to its level (as can be seen in Chart 1), the forecast increase over coming quarters will be greater than that in preceding adjustments.

Second, the severity of the current recession and its forecast duration are greater than those registered at the end of the 1980s and the start of the 1990s. This leads to a reduction in the households expectations of future income growth, which in turn is translated into a significant squeeze on their permanent income, and thus in an increase in their saving rate. The deterioration of permanent income will be aggravated by the forecast reduction of real wealth of the agents, in particular housing wealth. Thus the forecasts of the BBVA Economic Research Department indicate that the nominal price of housing will fall by 15% more through 2010 (Chart 8).

Third, the size of the public deficit could alter patterns of household consumption and saving in the light of expectations of higher taxes in the future[6]. If the foreseen increase in the public deficit is financed with debt, households may form expectations of a future growth in the tax burden, so they may opt to set aside a greater proportion of their income on savings to finance the expected increase in taxes. The forecasts of BBVA's Economic Research Department indicate that the public deficit in Spain will reach 8.2% in 2009, the highest level in the last three decades, and will remain at high levels for the following years (Chart 9).

In short, the forecast increase of the household saving rate, which will top 16% of disposable income in 2010, will accelerate the process of reducing debt started in 2008. This will allow households to contribute increasingly more to the financing of the other agents in the Spanish economy.

References:

Del Río, A. (2002), "El endeudamiento de los hogares españoles", Documento de Trabajo nº 0208, Banco de España.

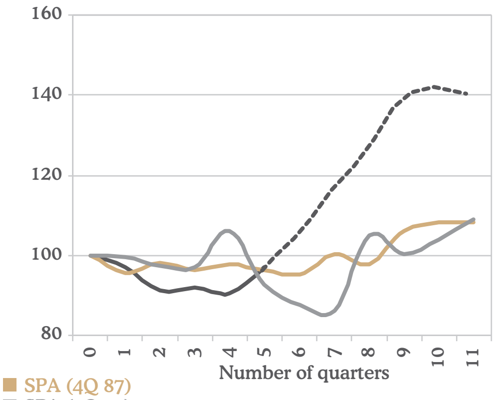
Leetmaa, P., H. Rennie y B. Thiry (2009), "Household saving rate higher in the EU than in the USA despite lower income. Household income, saving and investment, 1995-2007". *Statistics in Focus 29/2009*. Eurostat.

[6] This effect has been called the Ricardian equivalence.

Chart 7.

Spain: saving rates

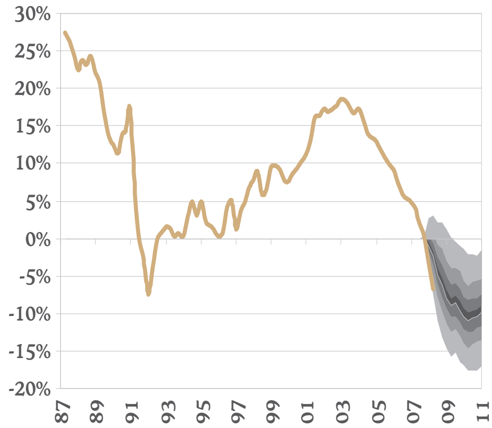
(Base index 100 = GDP peak)



Source: National Institute of Statistics and BBVA Economic Research Department

Chart 8.

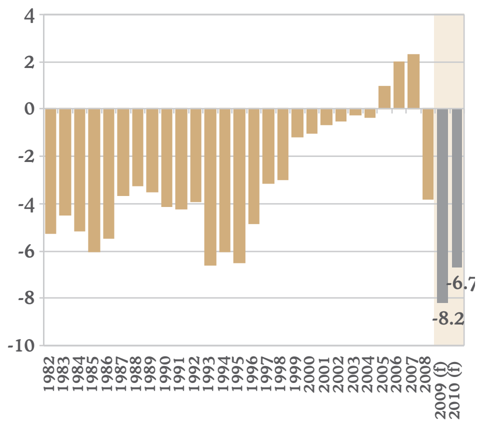
Spain: nominal house prices growth (yoy)



Source: BBVA Economic Research Department using data from the Ministry of Housing.

Chart 9.

Spain: Net Borrowing/Net Lending of public administration



Source: National Institute of Statistics and BBVA Economic Research Department

3. Consumer lending

The deterioration in consumption credit in Spain is inensifying

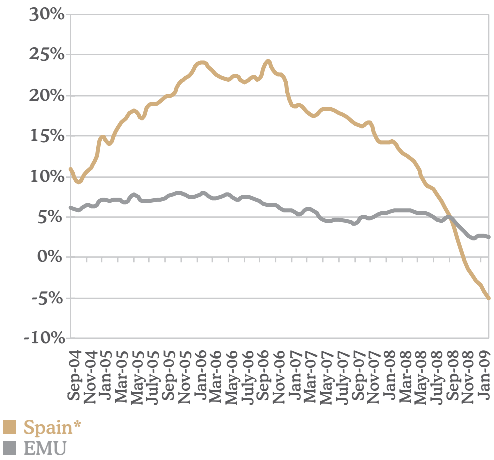
In an adverse international markets environment, consumer credit in Spain has continued on the downward path which it started out at the beginning of 2007. The latest available data shows a year-on-year growth rate of - 5.1% in February 2009, well below that in the Eurozone (Chart 3.1). The outstanding of consumer credit in Spain was 103.1 billions of euros in March 2009, 5.9% less than one year earlier, compared to 634 billions in the Eurozone, which grew at 2.5%. However at the end of 2008, consumer credit in Spain still accounted for 9.8% of GDP, whilst it only accounted for 7.0% in the Eurozone (Chart 3.2).

In addition, there was also a decrease in the new business of consumer credit, both in Spain and in the rest of the Eurozone. In our country, new business has been decreasing since the end of 2007, being the outstanding balance in the first quarter of the year 8 billions of euros, 34.2% less than the previous year. In January and February, in the Eurozone 32.8 billions of euros in new credit were granted, a change of -21.0% com-pared to 2007. While we are still waiting for figures for March 2009, everything indicates that the Eurozone is performing better than Spain. This adjustment is intensifying in both areas and this trend will continue, at least until the economic cycle recovers.

The main difference in the maturity profile for the new business in Spain and in the rest of Europe is the higher weight of short term operations in Spain. This is in part explained by the importance of personal credits and cards in a context of higher consumer uncertainty. In the Eurozone, medium-term operations, with maturity between 1 and 5 years, predominate. Whilst short-term operations account for 60% in Spain, they only account for 31% in the Eurozone. Furthermore, in Spain the importance of medium-term operations is decreasing, accounting for 21% of the total, compared to 38% in the Eurozone. Finally, new operations with maturity in excess of 5 years have decreased in Spain, from 25% in 2008 to 21% in the first quarter of 2009. Our forecasts indicate that there will be further reductions in official interest rates, which will fall to 0.75% after summer 2009. This will result in a decrease in the debt burden on families, which will add an additional 7 billions of euros next year, around 1.0% of households´ disposable income (Chart 3.3).

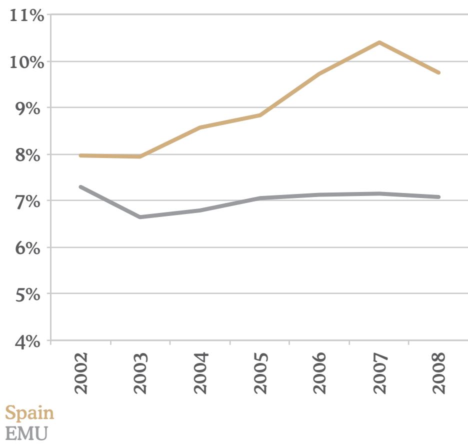
According to the latest Spanish Bank Lending Survey (EPB), the criteria for approving new credit for companies and households tightened in the first three months of 2009, although less than in the previous quarter due to public sector support for the financial sector. The slowdown in contrac-tion, of both supply and demand was more marked in Spain than in the Eurozone. The forecasts indicate that this slowdown in credit will continue during the next three months, due to expectations about economic activ-ity in general, and the solvency of those seeking credit. This is consistent with the adjustment taking place in credit, which is expected to continue over the coming quarters. In the Eurozone, both demand and supply for consumer credit contracted more rapidly (Chart 3.4).

Chart 3.1.
Consumer credit
(year-on-year growth rate)



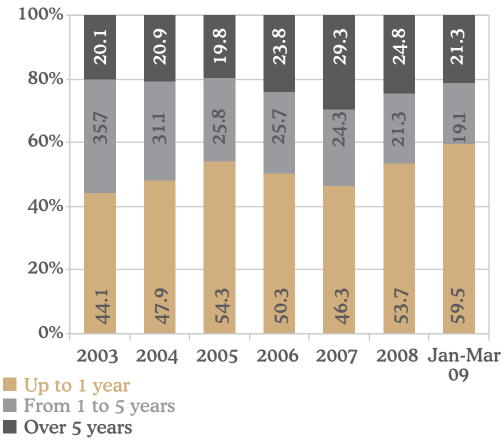
* Including securitizations
Source: BBVA Economic Research Department based on Bank of Spain and ECB

Chart 3.2.
Consumer credit
(% GDP)



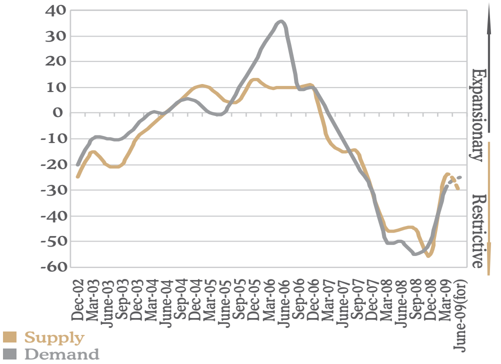
Source: ECB and Bank of Spain

Chart 3.3.
Spain. Consumer credit. New business



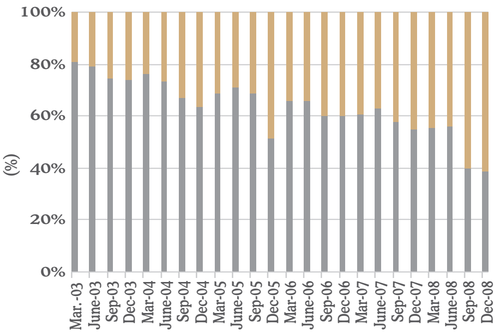
Source: Bank of Spain

Chart 3.4.
Spain. Bank Lending Survey
Consumer and other credit



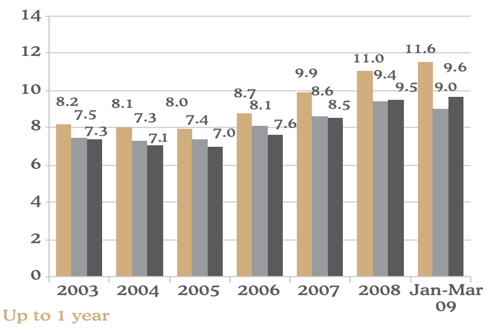
* Including securitization
Source: BBVA Economic Research Department based on Bank of Spain and ECB

Chart 3.5.
Spain. Consumer credit. New business



Source: Bank of Spain and ASNEF

Chart 3.6.
Spain. Interest rates on consumer credit. New business



Source: Bank of Spain

Revolving loans: maintaining their importance

As there are no aggregate statistics for consumer credit granted by the financial sector as a whole broken down by purpose, the breakdown analysis has to be carried out using figures from the Asociación Nacional de Entidades Financieras (Asnef – the National Association of Financial Institutions), which compiles information from financial credit institutions. In the last quarter of 2008, new consumer credit operations by financial credit institutions amounted to 5.4 billions of euros, 14% less than in the same period last year. Over the year as a whole, the volume of credit granted by financial credit institutions decreased by 4.2%. Financial credit institutions financed 3.6% of new consumer credit operations in the first quarter of the year, whilst other institutions accounted for 2.3% (Chart 3.5).

Turning to the types of credit, the largest decline was in personal loans, down 37% in the first quarter. The second largest decline is that of funding of consumer goods (-18% in the last quarter of 2008 compared to 33% in the last quarter of 2007), followed by revolving loans (-12% at the end of 2008 and -18% at the end of 2007). Finally, the lowest fall was for revolving card loans (-6% in 2008, compared to 85% in 2007). Therefore, products such as fast loans and debt consolidation, which have become considerably more expensive, no longer play such a prominent role in household fund-ing, despite the increasing financial difficulties being faced. Nevertheless, revolving loans continue to account for 70% of funding by financial credit institutions, whilst funding of consumer goods accounted for 30%.

New cars credit operations by financial credit institutions amounted to 10 billions of euros in 2008, down 29.4%. This decline is in line with the de-crease in vehicle registrations. New private cars continued to be the most important sector, accounting for 70%, even though they fell by 34%. Behind this new cars for business use and used cars for private individuals at 13% and 14% each, growth rates of - 16% and -12%, respectively. One highlight continued to be the increase in new operations for financing used company cars, which were 14% up on 2007. In the last quarter of 2008, the average value of loans for new automobiles exceeded 15,000 euros, down 0.4% on 2007. Used cars were financed with smaller loans, being 11,000 euros for private cars and 14,000 euros for company automobiles. Sales of used ex-rental and high-end cars may be behind this. Finally, the average price of commercial vehicles, including motorbikes grew by 2% in 2008 to close to 22,400 euros.

Box 3 Characteristics of personal loans: An analysis based on the 2005 EFF

Against an economic backdrop as negative as the current one in which Spanish households are highly indebted, it is appropriate to understand not just the size and type of the debts these households have, but also the nature of the loans compared to the type of household. The Financial Accounts of the Spanish economy prepared by the Bank of Spain only provide aggregate information on the amount of household debt. Nevertheless, in 2004 the Bank of Spain made available information from its Survey of Household Finances (EFF) for 2002.

The EFF is the only database which contains microeconomic information on the socio-demographic characteristics of households, such as their income, assets and debts. In 2008, the Bank of Spain published the second wave of the EFF, for 2005. We shall be using this latter survey to describe the characteristics of households with personal loans[1].

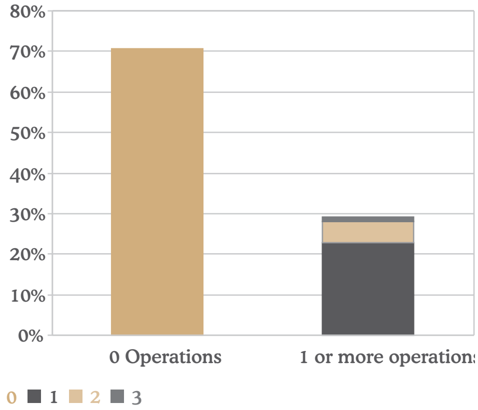
Results show that 29.4% of the households surveyed in the EFF 2005 have at least one debt other than for the real state purchases, of which 81.3% are personal loans (Chart 1).

Of the families with debts consisting of at least one personal loan, 59.9% have a man as the head of the family. By age, the percentage of homes with personal loans is distributed in an inverted-U shape, as is suggested by the life-cycle theory: it increases between 30 and 40 years old (28.6%) and decreases thereafter. By ownership of main residence, households which own their own home account for the largest proportion of holders of at least one personal loan (76.3%).(See Table 1).

When we look at the purpose of the personal loan, 52.8% of households use them to buy a car, whilst 12.5% and 9.7% use them for home alterations and furnishings respectively. The average value of personal loans in 2005 was 14,300 euros, at a fixed annual rate of slightly over 6%, with average monthly repayments of 251 euros (Table 2).

The EFF 2005 figures show that the main sources of funding for these personal loans are savings banks (43.5%) followed by banks (33.8%). However, when these figures are compared with those for 2002, we see that both these types of institutions are losing their market share to credit cooperatives and other credit institutions. This is consistent with aggregate data for the Spanish financial system, in which banks and savings banks are losing their share of the outstanding balance of consumer credit (Chart 2).

Chart 1.
Spanish households. Number of debts other than for real state purchases
(% of families surveyed)



Source: Survey of Household Finances 2005 (Bank of Spain)

Table 1. Characteristics of households with personal loans

Sex	
Male	59.9%
Female	40.1%
Age	
...-20	0.1%
20-30	10.2%
30-40	28.6%
40-50	26.9%
50-60	21.5%
60-...	12.5%
Main home	
Renting	14.7%
Owner	76.3%
Grace and favor.	8.0%
Other	1.0%
Loan purpose	
Vehicle purchase	52.8%
Home improvement	12.5%
Purchase of furnishings or equipment	9.7%
Other	25.0%

Source: Survey of Household Finances 2005 (Bank of Spain)

[1] See Bover (2004, 2008a and 2008b) for detailed analysis of the results and characteristics of the 2002 and 2005 EFFs.

The acceleration in the deleveraging process of households in 2008 due to the intensification of the deterioration in the economic situation could result in a significant change in the nature of personal loans. We will have to await publication of the next EFF to find out whether this has occurred.

References:

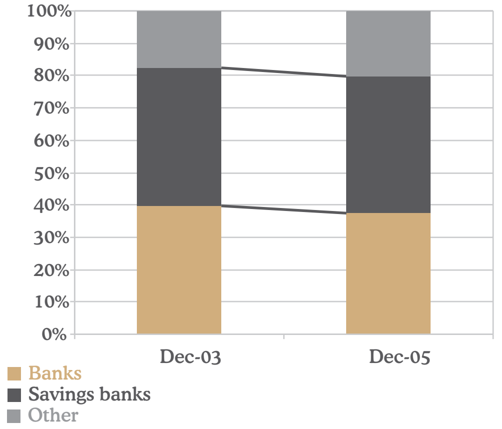
Bover, O. (2004), "La Encuesta Financiera de las Familias Españolas (EFF): Descripción y Metodología de la Encuesta de 2002", Documentos Ocasionales Nº 0409, Banco de España.

Bover, O. (2008a), "The Spanish Survey of Household Finance (EFF): Description and Methods of the 2005 Wave", Documentos Ocasionales Nº 0803.

Bover, O. (2008b), "Dinámica de la Renta y la Riqueza de las Familias Españolas: Resultados del Panel de la Encuesta Financiera de las Familias (EFF) 2002-2005", Documentos Ocasionales Nº 0810.

Chart 2.

Credit institutions % of outstanding balance of total consumer credit



Source: Bank of Spain

Table 2 Average characteristics of personal loans:

Amount:		
Initial		€14,286
Pending		€9,190
Interest rates:		
%		6.11
Type	Fixed	
Term in years:		
Initial	5.3	
Pending	3.2	
Monthly repayment		€251

Source: Survey of Household Finances 2005 (Bank of Spain)

4. Consumer durables

The decline in consumer durables continues, both in Spain and abroad

The extended of growth in consumption of consumer durables between 2004 and 2007 came to an end in 2008. During 2008 -particularly during the second half- consumption of consumer durables contracted rapidly as a result of the worsening employment levels and, as a result, household income. As well, the slowdown in the credit growth and the marked increase in precautionary savings affected consumption (Chart 4.1).

At the same time, there was also a slowdown in the growth of Spanish exports, which have averaged 4.2% this decade, slightly above the EU-15 of 4.0%. However, Spanish consumer durables exports (automobiles, furniture and electrical appliances) have performed significantly worse than the average EU-15. For example, exports of automobiles barely grew between the years of 2000 and 2008 (0.4% on average), whilst exports of furniture and electrical appliances, both fell on average by 0.7% and 2.1% per year respectively (Table 4.1).

Table 4.1: Average annual export growth 2000-2008. EU-27

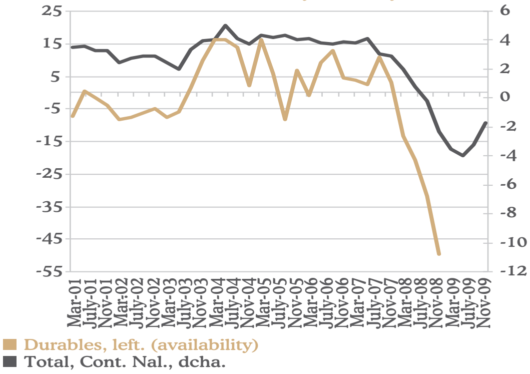
		Consumer durables		
	Totals	**Automobiles**	**Furniture**	**Electrical appliances**
EU-15	**4.0**	**2.1**	**2.1**	**1.6**
Ireland	-0.6	-33.5	-0.1	2.5
UK	-0.4	2.7	-0.7	-6.0
France	1.9	-1.2	1.2	0.0
Sweden	3.2	2.5	2.6	0.7
Greece	3.2	-0.5	7.4	2.9
Denmark	3.4	1.5	-1.2	-3.4
Italy	3.8	-1.3	0.4	-0.1
Finland	3.9	11.0	2.2	4.6
Spain	**4.2**	**0.4**	**-0.7**	**-2.1**
Portugal	4.4	-4.1	11.8	3.2
Belgium	5.2	1.3	0.3	4.0
Netherlands	5.4	-7.0	3.2	9.1
Germany	6.0	4.1	6.2	4.9
Austria	6.2	4.8	3.5	16.9
Luxembourg	7.5	3.9	-1.5	8.5
New members	**14.0**	**16.3**	**10.3**	**16.9**
Malta	-4.1	17.5	-6.2	10.8
Hungary	10.9	16.4	4.1	10.6
Estonia	11.1	72.9	12.3	26.0
Slovenia	11.3	13.8	6.3	4.9
Cyprus	11.5	99.1	-7.3	-16.5
Rumania	14.0	45.7	10.7	27.0
Bulgaria	14.1	40.8	14.1	58.0
Czech Rep	14.8	12.7	9.7	21.0
Poland	15.5	18.8	11.6	28.1
Latvia	15.8	74.9	7.6	47.1
Slovakia	17.2	16.7	12.7	11.0
Lithuania	19.0	28.8	20.7	15.5
Total EU-27	**4.7**	**3.3**	**3.7**	**3.5**

Source: BBVA Economic Research Department based on Ministry of Industry, Tourism and Commerce

This comparatively weak performance of foreign trade in consumer durables, combined with a certain shift in export focus from goods to services and the emergence of new competitors (mainly China and emerging European economies) , resulted in a significant fall in Spain's

Chart 4.1.

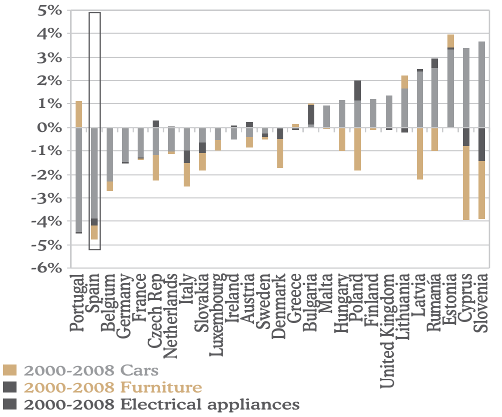
Household consumption. Total and consumer durables. (% year-on-year)



Source: INE, Ministry of the Economy and BBVA Economic Research Department

Chart 4.2.

Change in the weight of consumer durables exports. Share in the EU-27*

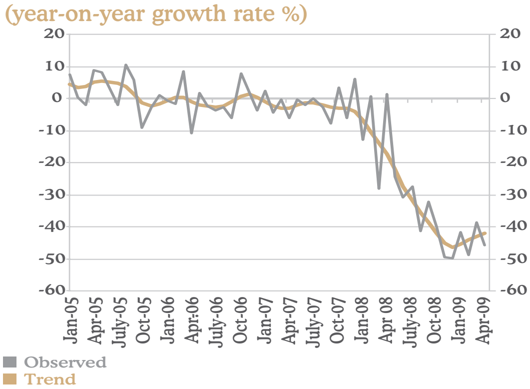


Source: BBVA Economic Research Department and Ministry of Industry, Tourism and Commerce

* Export of consumer durables from country / Export of consumer durables from EU-27

Chart 4.3.

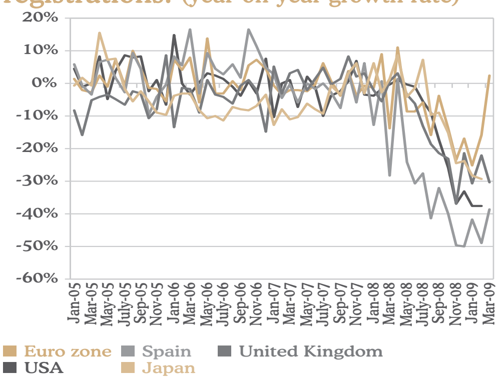
Spain. Car registrations (year-on-year growth rate %)



Source: ANFAC and BBVA Economic Research Department

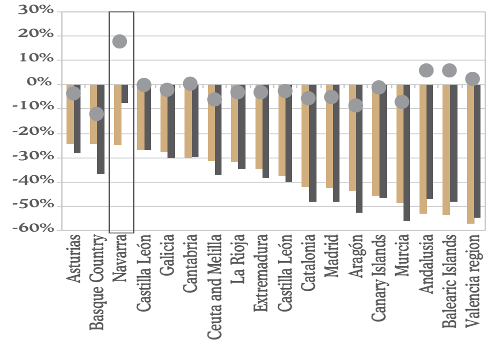
Chart 4.4.

Changes in European vehicle registrations. (year-on-year growth rate)



Source: BBVA Economic Research Department based on OECD and ACEA

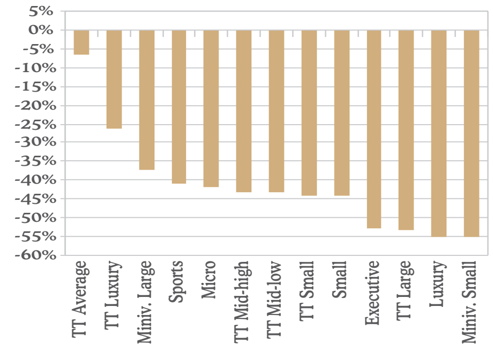
Chart 4.5.
Car registrations by Autonomous Community (year-on-year growth rate)



Accumulated Jan-April
April:
Acceleration (Jan-April)*

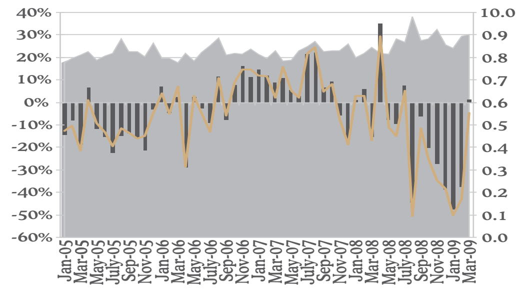
Source: ANFAC and BBVA Economic Research Department
*Acceleration= annual change April-09-accumulated annual change January-April 09

Chart 4.6.
Spain. Car registrations by segments (Accumulated year-on-year growth rate January-April 09)



Source: ANFAC

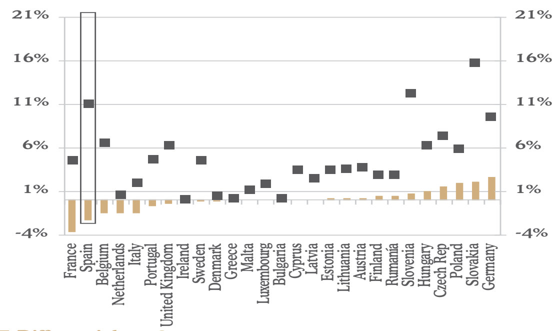
Chart 4.7.
Spain. Motor vehicle production and exports (Year-on-year growth rate of number of vehicles)



Ratio Exports/ Productionn(right)
Exports (left)
Production (left)

Source: BBVA Economic Research Department based on Bank of Spain

Chart 4.8.
Motor vehicle exports Share in the EU-27*



Differential 2008-2000
Sector weight in total exports 2008 (right)

Source: BBVA Economic Research Department and Ministry of Industry, Tourism and Commerce
* Automobile exports of country / Automobile exports EU-27

market share for exports of consumer durables, particularly compared to other EU-27 countries, as can be seen in Chart 4.2. Spain lost market share for all consumer durables, making it one of the EU-27 countries with the greatest loss in dynamism in consumer durable exports during the cur-rent decade. However, it should be stated that all countries in the EU-15, with the exception of Finland and the UK, lost market share of exports compared the new member states.

Furthermore, the intense deterioration in consumer durables sales in the second half of 2008 appears to have stabilized over recent months, as described below.

4.1. Automotive sector

Registrations: slower pace of decline

Following the intense decline in the last quarter of 2008 -46.5% year-on-year on average- the deterioration in the number of cars registered appears to have stabilized at around -45% year-on-year during the first four months of this year. While the trend seems to point to a slight recovery in 2009, we will need to see further evidence to confirm that the growth in the number of cars registered has bottomed out (Chart 4.3).

The performance of registrations in Spain contrasts with that in the rest of the Eurozone during the first quarter (Chart 4.4). The number of cars registered in the Eurozone grew by 381.9 thousand units from January to March 2009, due mainly to direct help with the purchase of new automobiles in Germany, France and Italy (see Section 5 for more details).

All of Spain's Autonomous Communities saw a decrease in the number of car registrations in the first four months of 2009 compared to the same period in 2008 (Chart 4.5), although there were some differences in performance between regions. The Autonomous Communities in the North (Asturias, the Basque Country and Navarra) saw reductions in registrations of less than 25% year-on-year between January and April this year[1], whilst in Autonomous Communities with a greater dependence on tourism (Valencia, the Balearic Islands, Andalusia, Murcia and the Canary Islands) car registrations fell by more than 45% in the first four months of 2009. These results from both the poor employment conditions and the decrease in demand for automobiles from car hire companies because of the lower demand in the tourism sector.

By segments, 4x4s, particularly mid-range 4x4s, saw the lowest fall in the number of registrations between January and April this year (-26.2% year-on-year and -6.3% year-on-year, respectively; see Graph 4.6). Small people carriers and luxury automobiles continued to be the worst affected in the first four months of 2009 (-55.1% year-on-year).

[1] The positive performance of motor vehicle registrations in Navarra in April resulting from the approval of the Navarra Auto Renewal Plan 2009 by the regional government is noteworthy. In order to benefit from this Plan, the purchaser has to hand in a used car which is over 10 years old or which has over 250,000 km on the clock. The subsidy amounts to €2,200 if the car purchased emits less than 100 g/km of CO_2, or €1,200 if it emits less than 140 g/km. The purchase price of the car may not exceed €30,000.

European plans to modernize the automotive sector stimulated Spanish car exports which, after reaching a low in January, increased in March...

Unlike car registrations, the number of cars exported increased by 1.4% in March; this was due to strong growth in Germany and France, which are traditional markets for Spanish automobiles, both of which introduced polices to encourage replacement of older vehicles in the first months of the year (Graph 4.7). However, despite the positive figures for March, exports contracted on average 27.9% year-on-year in the first quarter of 2009.

The plunge in car exports was particularly worrying for the performance of the Spanish economy in general, and for the trade balance in particular, given the relative importance of car exports for Spain. Graph 4.8 shows that car exports represented 10.9% of Spain's exports in 2008; this is significantly higher than other members of the EU-15.

..., which offset to some extent the deterioration in production

As over 80% of car production is for export[2], this slowdown in the deterioration of exports contributed to a slowdown in the rate of decrease of production, which only fell by -4.7% year-on-year in March. As a result of all these factors, the decline in production was -32.6% year-on-year in the first quarter, the largest fall in the last three decades.

The fall in demand which accelerated price reductions for automobiles, which was significantly greater than in the rest of the Eurozone

Prices responded to the intense contraction in demand by also falling. In the first quarter of 2009, car prices fell by 1.4% year-on-year on average (Chart 4.9). This decrease was lower than that in the Eurozone, as demand contracted more rapidly.

The fall in prices, together with the reduction in interest rates (registered and forecast) throughout 2009, will help to make car purchases more affordable. As a result, the EFCA (Automobile Purchase Finance Effort) has improved significantly in 2009, as can be seen in Chart 4.10: the percentage of family income spent on financing car purchases has fallen by 0.9 pp this year, to 9.7%.

Motorcycles: comparatively large deterioration in production and sales

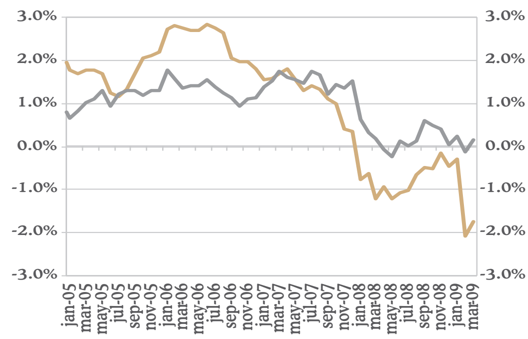
As with automobiles, the performance of motorcycle production and registration was significantly negative during the first four months of the year. Between January and April the number of motorcycles registered fell by 53.2% compared to the first four months of 2008. As with automobiles, the slowdown in motorcycle registrations eased slightly in the first four months of the current year. The contraction in production was even more pronounced, at -51.2% year-on-year on average and

[2] To be specific, 90.1% in March 2009, as shown in Graph 4.7.

Chart 4.9.

Automobile consumer prices

(year-on-year growth rate)



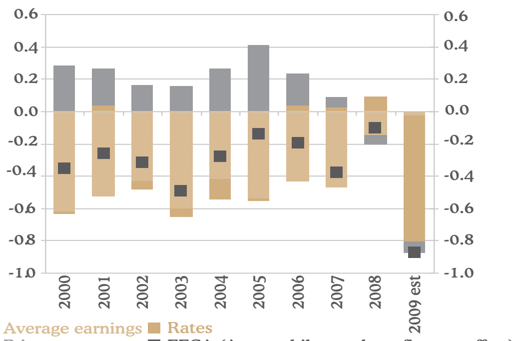
Spain
Eurozone 12

Source: Eurostat

Chart 4.10.

Spain. Contribution to changes in the EFCA

(Automobile purchase finance effort index)



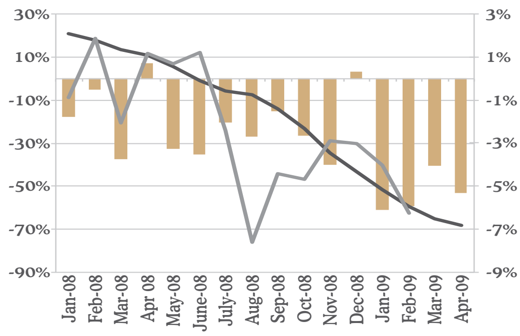
Average earnings · Rates
Price · EFCA (Automobile purchase finance effort)

Source: BBVA Economic Research Department

Chart 4.11.

Spain. Motorcycle production and registration

(year-on-year growth rate)

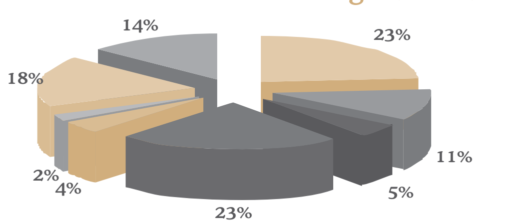


Registrations (left)
Production (left)
Average Social Security affiliation (right)

Source: Banco de España and BBVA Economic Research Department

Chart 4.12.

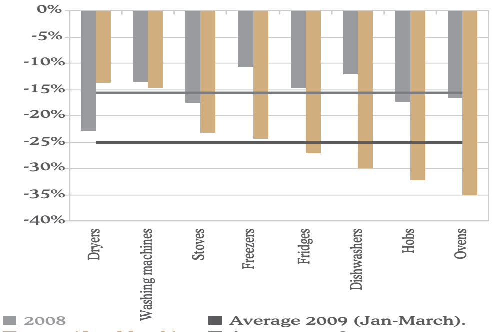
Spain. Major appliances sales: Percentage of each electrical appliance in total sector sales. Average 2000-2008



Washing machines · Dishwashers · Dryers
Fridges · Freezers · Stove/Oven
Hobs · Ovens

Source: BBVA ERD based on ANFEL

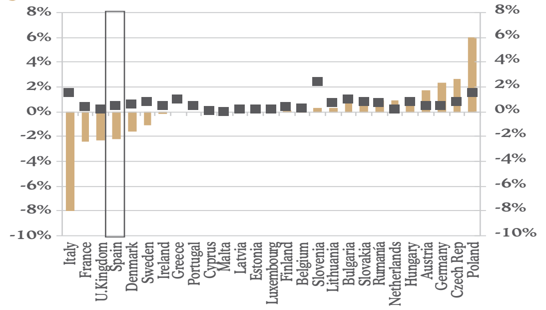
Chart 4.13.
Spain. Major appliances market
(Year-on-year growth rate of number of units)



2008 ■ Average 2009 (Jan-March).
2009 (Jan-March). ■ Average 2008

Source: BBVA ERD based on ANFEL

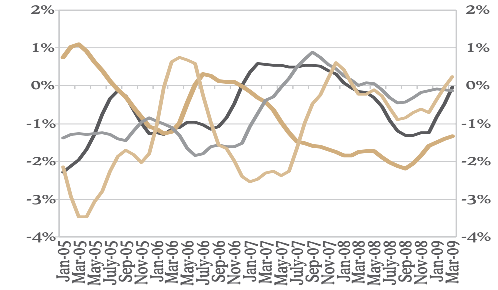
Chart 4.14.
Major appliances exports Quota in the EU-27*



Difference 2008-2000
Appliances sector weight in total exports 2008 (right)

Source: BBVA ERD and Ministry of Industry, Tourism and Commerce
* White goods exports of country / White goods exports EU-27

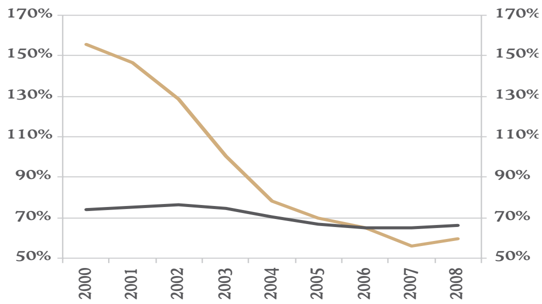
Chart 4.15.
Spain. Major appliances consumer prices
(Year-on-year growth rate. Rolling average per quarter)



Fridges, washing machines and dishwashers
Stoves and ovens
Heating and air conditioning equipment
Other electrical appliances

Source: BBVA ERD based on INE

Chart 4.16.
Spain. Coverage ratio in furniture trade
(Exports/Imports)



Coverage ratio in furniture trade
Coverage ratio for whole economy

Source: BBVA ERD and Ministry of Industry, Tourism and Commerce

-62.7% year-on-year in February. This comparatively poor performance of motorcycle production and sales may be explained by a close relationship with employment in Spain, as can be seen in Chart 4.11.

4.2. Major Appliances: deterioration marked by the performance of home sales

According to figures from ANFEL (the Asociación Nacional de Fabricantes de Electrodomésticos de Línea Blanca – the National Association of Manu-facturers of Major Appliances), the volume of sales of electrical appliances fell by 25.0% year-on-year on average between January and March 2009, com-pared to -15.7% at the end of 2008. Sales of all types of electrical appliances fell, although above average falls were recorded for fridges, dish-washers, hobs and ovens, which are the items most strongly related with purchases of new homes (Charts 4.12 and 4.13). The substantial decline in demand for housing and in consumer confidence has had a significant effect in terms of the fall in sales of electrical appliances, despite the extension of the Electrical Appliance Renewal Plan[3] in the second Energy Efficiency and Saving Plan 2008-2012.

The contraction in domestic sales was compounded by decreased ex-ports of electrical appliances, which resulted in a slight reduction in Spain's export share compared to other Member States of the EU-27, as can be seen from Chart 4.14.[4] However, unlike automobiles, electrical appliances represent only 0.5% of Spanish exports, so the deterioration in the trade balance resulting from the lack of external demand for electrical appliances will be minimal.

Given the contraction in both domestic and foreign demand, prices of electrical appliances are continuing to fall, although the rate of fall in prices has slowed compared to the second half of 2008 (Chart 4.15). Prices of fridges, dishwashers and washing machines fell by 1.4% in the first quarter of 2009, whilst stoves and ovens, and heating and air conditioning equipment prices all increased slightly between January and March this year.

As shown in the Consumption Watch magazine for the second half of 2008,[5] sales of electrical appliances are a leading indicator of economic activity. We can see how the prices of electrical appliances, in particular washing machines and fridges, since 1991 –the first year for which comparable figures for electrical appliances are available- appear to anticipate the Spanish business cycle. In other words, sales of electrical appliances began to decline one year before GDP, and, symmetrically, began to recover one year before the economy as a whole began to bounce back. However, given the adjustment in the real state market in Spain, this correlation may not be seen this time.

[3] The objective of the Renew Plan is to enhance removal from households of old appliances that were manufactured when labeling was not required and to replace them with new appliances that provide maximum energy savings.
[4] As in the automotive sector, Spain is not the only country in the EU-15 that has lost market quota in favor of East European countries.
[5] See: http://serviciodeestudios.bbva.com/KETD/ketdDescargas?pais=ESPA&canal=web&tipocontenido=AFON&idioma=ESP&pdf=/fbin/mult/ESCES_0811_Situacionconsumo_12_tcm346-182317.pdf

4.3 Furniture: Declining role in international trade

Given the deterioration in its exports, Spain has seen its share of the export market for furniture decline since the start of the current decade. This, together with the sustained growth in imports from China and other emerging economies, has resulted in the coverage ratio for Spanish furniture exports, *i. e.*, the ratio of exports to imports, falling from 155.6% in 2000 to 59.6% in 2008 (Chart 4.16). The significant deterioration in demand for furniture by Spanish households resulted in an 18.2% decrease in imports last year, resulting in a marginal improvement in the coverage ratio.

As with the other consumer durables analyzed so far, Spain is losing international market share in furniture. Spain's share in world trade contracted by 1.5 pp between 2000 and 2008 compared to other countries in the EU-27. However, as with trade in electrical appliances, the trade balance has not been particularly affected as a result of the decline in furniture exports: furniture exports play a relatively small role in Spain's exports, accounting for just 1.2% in 2008.

However, unlike the motor vehicle and electrical appliances sectors, the contraction in demand for furniture has not resulted in falling prices, either at industry or consumer level (Chart 4.18). Whilst price increases slowed significantly in the last quarter of last year and the first quarter of this year, in March the CPI for furniture increased by 1.6% compared to the CPI for the same sector one year before.

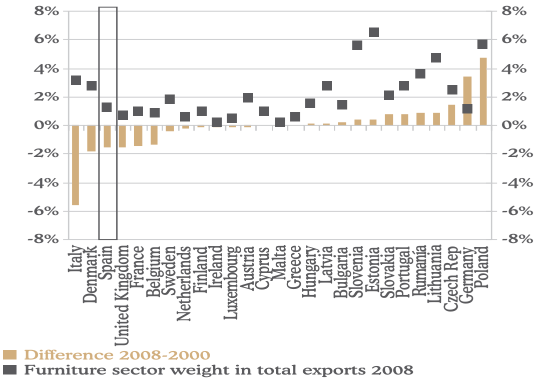
4.4 IT: the difficult challenge of DTT

The behavior of the IT equipment sector continues to be significantly influenced by falling prices. Prices are continuing to fall: between the start of 2008 and March this year, prices for audiovisual equipment fell by 14.8% year-on-year, whilst prices of IT equipment prices fell by 16.8% year-on-year (Chart 4.19).

This generalized fall in prices has resulted in an increased penetration of IT equipment in Spanish homes. According to figures from the INE (National Statistical Institute), the percentage of homes with a laptop computer has increased 1.7 times over the last two years, from 11.8% in 2006 to 20.3% in 2008-, to the detriment of PCs, where the growth rate has been significantly lower. In addition, penetration of personal music and video players increased substantially to 34.2% in 2008. The only product in this sector to experience more moderate growth was the PDA, where use is more for professional than leisure purposes (Chart 4.20).

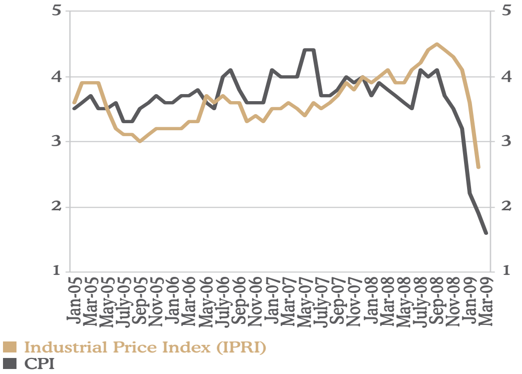
The European survey on IT equipment in the home indicates that, despite the steps taken towards the modernization of new technology equipment, Spain is still below the EU average for Internet access and satellite TV, which means that the capacity for growth in this sector has not been exhausted.

Chart 4.17.
Furniture exports.
Quota in the EU-27*



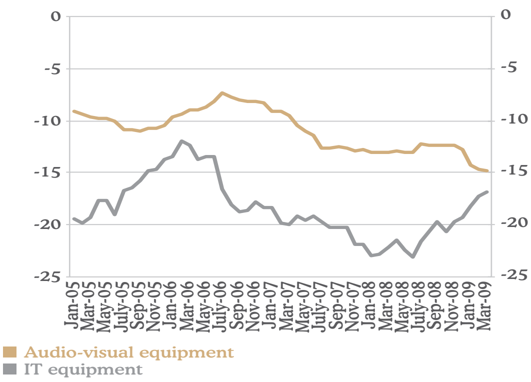
Source: BBVA ERD and Ministry of Industry, Tourism and Commerce
* Furniture exports of country / Furniture exports EU-27

Chart 4.18.
Industrial prices and furniture consumer prices
(Year-on-year growth rate in %)



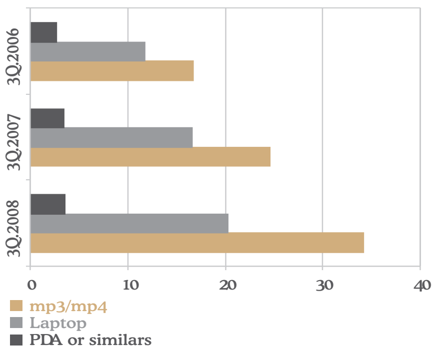
Source: BBVA ERD based on INE

Chart 4.19.
Consumer prices of image, sound and computer equipment
(Year-on-year growth rate in %)



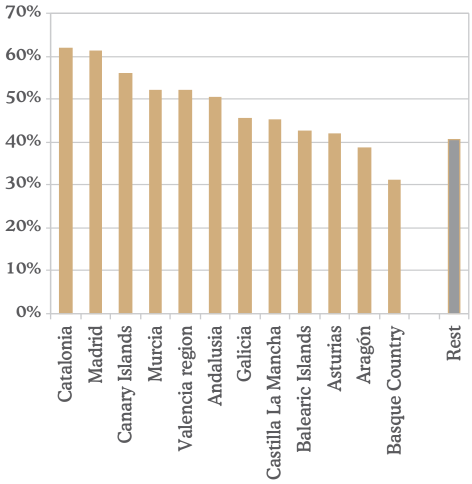
Source: BBVA ERD based on INE

Chart 4.20.
Individual appliances
(% of households)



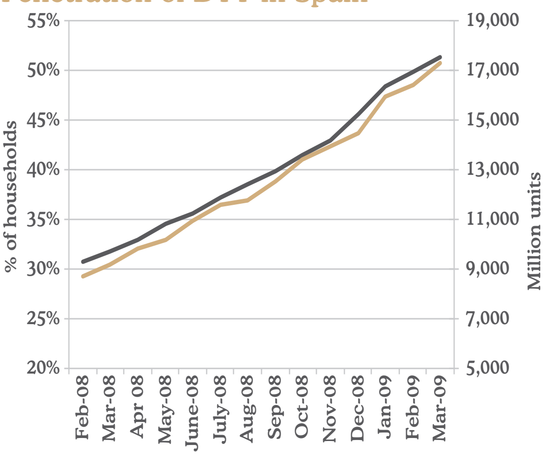
Source: BBVA ERD based on Red.es

Chart 4.21.
Penetration of DTT per Autonomous Community
(March 09)



Source: BBVA ERD based on Sofres

Chart 4.22.
Penetration of DTT in Spain



Source: BBVA ERD based on Sofres

Just one year from the analogue switch-off, there is still a long way to go

On 3 April 2010 (Stage 3), all analogue TV broadcasts will cease and be replaced exclusively by digital broadcasts[6]. But, are Spanish households equipped to receive images exclusively using digital technology?

Including sales of Digital Terrestrial Television (DTT) tuners during March 2009 –over 620,000- the total number of tuners is around 17 million, covering 50.7% of Spanish households (Chart 4.21). Of the total number of devices sold, 20% were in the first three months of 2009, and over 45% have been sold during the past year[7].

By region, Catalonia and Madrid are the Autonomous Communities with the highest percentage of DTT users at over 61%; on the other extreme, DTT penetration in the Basque Country barely exceeded 30% in the first quarter of 2009[8] (Chart 4.22).

The fact that with only one year to go, only half of Spanish homes can tune in to the new broadcasts shows that there is still a long way to go; the authorities need to make a major promotional effort to inform citizens about these technological changes and when they are going to happen, and need to implement appropriate measures to ensure that all Spanish homes will have access to this service.

[6] Phase 1 will be completed on June 30 of this year and will affect approximately 12 % of the Spanish population, while Phase 2 will end on December 31 and will affect an additional 20%.
[7] This process has been accompanied by a new increase in DTT coverage, up to 93.6%, which has fulfilled the obligations of both broadcasting companies and the Administration.
[8] Since televisions with DTT do not require an additional external receiver, the use of DTT receiver purchases as a *proxy* for the penetration of this technology can undercut the real degree of penetration.

5. Adjustment in the automotive sector: Current situation and future perspectives

The Spanish automotive sector is faced with a sharp decline in activity due to the intense drop in demand, both national and international. The deterioration of the activity has been accompanied with a comparatively high drop in employment and a decline in foreign direct investment in the sector, prolonging the downtrend that began at the beginning of the decade. Both results suggest that the automotive sector is faced by more than a cyclic adjustment and the subsequent significant drag on the rest of the economy, as we will see further along. To moderate the negative impact of the decline of the sector, the Spanish government approved the Integral Automotive Plan in February of this year. Although the plan includes an ambitious restructuring of the manufacturing branch, both the measures in place to vitalize the distribution branch and incentives for demand are limited. However, direct financial aid of a temporary nature for the renewal of old vehicles with new ones would be more effective to stimulate demand and simultaneously accelerate the reduction of greenhouse gas emissions.

The drop in demand, both domestic and foreign, is causing the most serious slowdown in automotive sector activity in the last three decades

After the recession at the beginning of the 90s, the automotive sector experienced a period of expansion, during which the trend growth of the variables that have characterized the activity slowed down moderately until the second half of 2007 (Chart 5.1). This period of expansion was principally due to the convergence of the Spanish vehicle fleet with that of the rest of European countries, whose income per capita was similar to Spain's. Thus in Spain, the number of vehicles[1] per thousand inhabitants reached 601, a figure that was only surpassed in Europe by Italy (675 vehicles per 1000 inhabitants), a country with a traditionally high number of vehicles (Chart 5.2).

The extension of the international financial crisis and the deterioration of the real economy, both as regards the Spanish economy and that of our principle export markets, has generated a severe drop in demand since the end of 2007 and, above all, in 2008. The number of registered vehicles fell by 30.8% in 2008, while vehicle exports dropped by 8.7%. This decline was higher than during the recession in 1993. Given that foreign demand has fallen less than domestic demand and that more than 85% of the vehicle production is exported (Chart 5.3), production has dropped less than registrations (12.0% in 2008). However, the information of the first quarter of 2009 indicates that the fall in demand and supply did not hit bottom in 2008.

Is the current decline in automotive sector activity in Spain more intense than it was in previous cycles? charts 4, 5 and 6 show cyclic comparisons of the evolution of vehicle production, registration and exports. The first point in each series indicates the maximum year-on-year growth rate in the corresponding cycle, while the last point indicates the minimum growth rate for each cycle. The results indicate that both the drop in vehicle production and exports are more intense and faster than those that occurred in preceding cycles. The only drop similar to the current

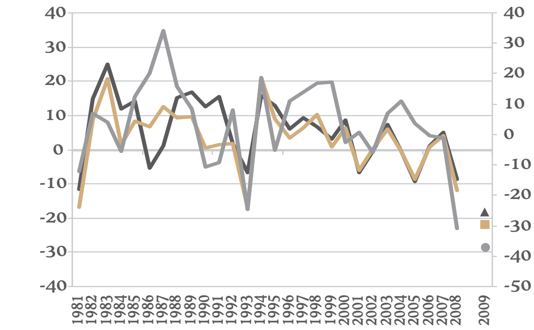
[1] Passenger cars, commercial vehicles, trucks and buses

Table 5.1. Size of the automotive sector
Gross Value Added (GVA) and employment in 2008. Motor vehicle manufacturing and sales and repair branches

GVA share	2.8%	In percentage of GDP	2.5%
Full-time equivalent employment share	3.3%		
Employment share (LFS)	3.1%		

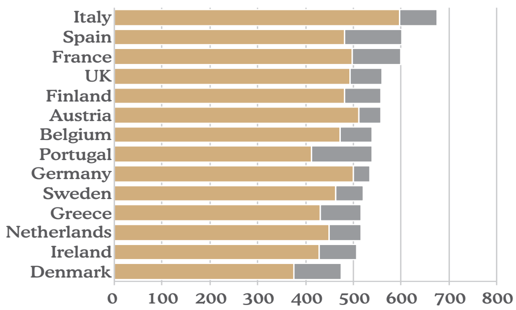
Source: BBVA ERD

Chart 5.1.
Automotive sector. Activity indicators(1). Production, exports and registrations
(% a/a)



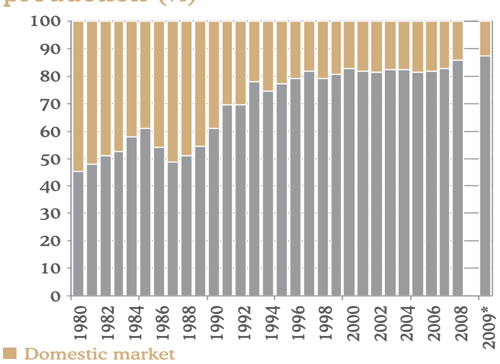
Production
Exports
Registrations
(1) Passenger cars commercial vehicles, trucks and bases
(*) Accumulated Jan-March 2009
Source: Bank of Spain and BBVA ERD

Chart 5.2.
Vehicle fleet density
(Number of vehicles per 1000 inhabitants)



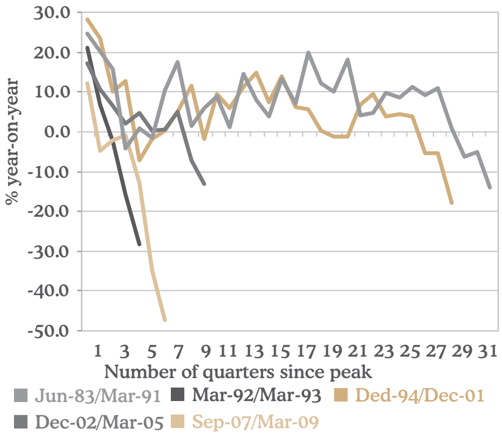
Passenger cars
Commercial vehicles
Source: ANFAC, Eurostat and BBVA ERD

Table 5.3.
Automotive sector. Destination of vehicle production (%)



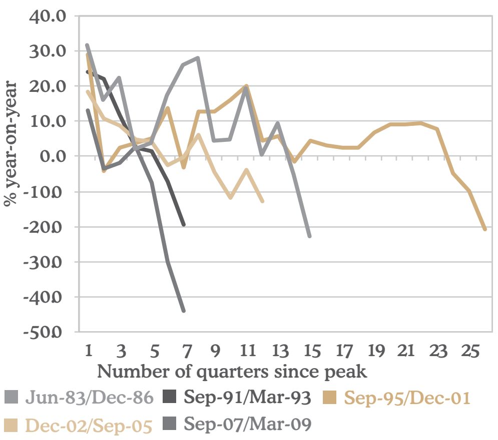
Domestic market
Exports
(*) Accumulated Jan-March 2009
Source: Bank of Spain and BBVA ERD

Chart 5.4.
Production of motor vehicles
Cyclic comparisons (% y-o-y)



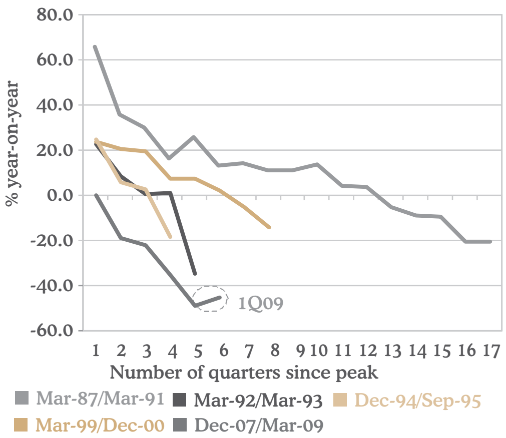
Source: Bank of Spain and BBVA ERD

Chart 5.5.
Exports of motor vehicles
Cyclic comparisons (% y-o-y)



Source: Bank of Spain and BBVA ERD

Chart 5.6.
Registrations of new motor vehicles
Cyclic comparisons (% y-o-y)



Source: Bank of Spain and BBVA ERD

one affecting the sector occurred in the 90s[2]. Likewise, the current decrease in vehicle registrations is the largest in the last three decades. However, contrary to previous cycles, this cycle was preceded by weak registration grow since the beginning of 2004,[3] which indicates that the general slowdown of the economy has intensified the adjustment phase that domestic demand was already undergoing (See Chart 5.6).

The drop in vehicle demand is causing significant job destruction in the sector, but less than occurred during the recession at the beginning of the 90s

The overall deterioration of the economy and, especially, in vehicle manufacturing and sales has a negative effect on the evolution of the labour market. Thus, the Labour Force Survey (LFS) indicates that the slowdown in job creation that started in the third quarter of 2007 became job losses in the second half of 2008 and accelerated between January and March of this year (Chart 5.7). The number of persons employed fell by 506.6 thousand[4] in the first quarter of 2009, 150 thousand more than in the last quarter of 2008.In 2009, BBVA ERD forecast indicate that the average number of jobs destroyed will overcome 1.3 millions (-6,2 % y-o-y).

Likewise, employment in the automotive sector has also been affected by the lack of activity. Thus, job losses in the sector began in the third quarter of 2008 (17.2 thousand less jobs in seasonal adjusted terms) exceeding the 23.5 thousand jobs lost in the fourth quarter. Between January and March, job losses slowed down in the manufacturing branch due, among other things, to a change in employment legislation that eased employment measures through temporary employment regulation files[5]. On the contrary, the fall in the number of jobs in the sales and repair branch increased in the first quarter of the year as much as -27.9% quarter-on-quarter. Therefore, the vehicle distribution branch and not the production branch is currently undergoing most of the job elimination in the automotive sector (Chart 5.8).

When we compare the current rhythm of job losses in the automotive sector with the job losses of previous periods of adjustment, we can appreciate the intensity of the slowdown. Chart 5.9 shows the evolution of the year-on-year growth rate for employment in the automotive sector during the last three cycles: Between the third quarter of 1992 and the third quarter of 1993, between the second quarter of 2000 and the third of 2005 and between the first quarter of 2008 to the current quarter. The results indicate that although the magnitude of the slowdown in the activity has not precedent, job loss in the sector is lower than the recession at the beginning of the 90s. This is due to the better employment figures in the sales branch and, especially, in the motor vehicles repair branch. In addition, if we compare Chart 5.9 with Charts 5.4, 5.5 and 5.6, we see that: Employment reacts late – between 1 and 3 quarters – to activity reduction, and ii) that jobs continue to be lost after the activity has recovered.

[2] The devaluation of the peseta in 1992 and 1993 contributed to the recovery of the Spanish economy and stimulated foreign demand, resulting in a significant expansion of the activity of the automotive sector in 1994.
[3] Given the intense growth of the fleet during the two preceding decades.
[4] Seasonally adjusted data (SA).
[5] Real Decreto- Ley 2/2009, March 6, on urgent measures to maintain and promote employment and protection of unemployed persons gives incentives for entrepreneurs going through difficulties to implement temporary employment regulations instead of contract terminations. This is done by a subsidy of 50% of the business tax for common contingencies that correspond to each worker affected by the temporary ERF.

Given the intensity of the activity and employment corrections in the automotive sector, we can consider that the downtrend is the prelude to a structural reduction in production capacity or can simply be explained by the cyclic adjustment of the demand. To answer this question we will analyze the evolution of the Employment Regulation Files (ERFs) and Foreign Direct Investment (FDI) in the sector in Spain.

The automotive sector slowdown generated three times as many workers affected by ERFs in 2008; in 2009 the situation has become even worse

An ERF does not necessarily imply that the workers affected lose their jobs. On the contrary, this measure generally seeks exactly the opposite, to prevent closing down the company and the subsequent loss of jobs. In fact, the reasons for requesting an ERF can be, as well as contract termination[7], the temporary interruption of labour relation or simply a reduction in working hours to adjust the production to the evolution in the demand.

The information for files authorized by the competent employment authority indicate that the number of ERFs in the automotive sector tripled in 2008 when compared to 2007, with a total of 310, 71.6% of which took place in the motor vehicles manufacturing branch. These figures appear to be worse for the first months of 2009: between January and March only, the number of ERFs rose to 291 (222 in the motor vehicles manufacturing branch (Chart 5.10).

Likewise, the number of workers affected by ERFs in 2008 in the sector increased to 40.7 thousand (9.7 of every 10 in the vehicle manufacturing branch), 3.6 times the figure for 2007. In 2009, there has been an important increase in the average size of authorized ERFs (Chart 5.11). The number of workers affected between January and March exceeded the total for 2008. Therefore, as in the previous cycle (2001) the loss of employment in the sector due to the lack of economic dynamism is accompanied by a significant increase in the average size of ERFs.

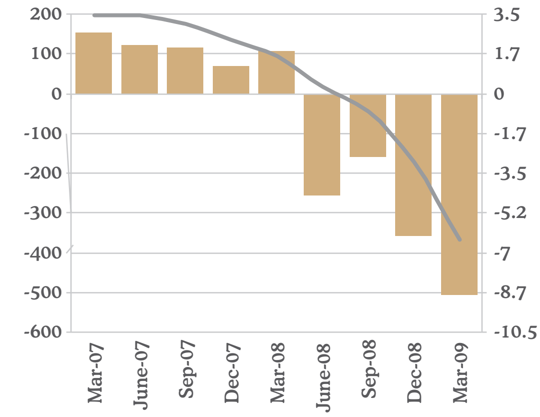
However, the ratio of contract termination files on the total of authorized ERFs fell in both 2008 and at the beginning of 2009, which suggests that the companies in the sector consider that the deterioration in demand is – at least until now - cyclical, whereby they adjust their activity and their level of employment temporarily with the expectation that vehicle consumption will resume.

The gross productive FDI data in the Spanish automotive sector indicated that the downtrend that began at the beginning of this decade continued in 2008

Although the reduction in contract termination ERFs in the automotive sector suggests that the companies consider that the loss of dynamism in the sector is due to cyclical factors, the continued reduction of investment flow to the sector and the exit of capital – whether towards other economic activities or other countries – could be a sign that this adjustment has a structural component. Since most of the capital in the

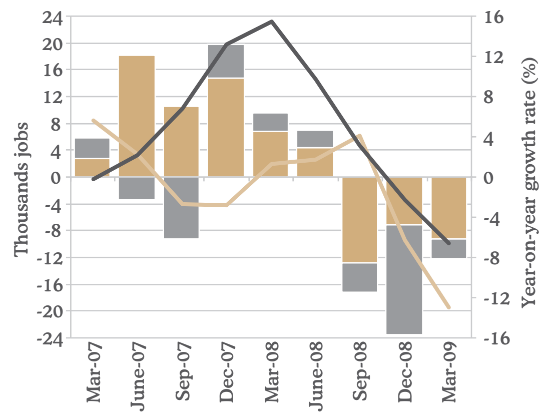
[7] Note that early retirements are considered as contract terminations from a statistical point of view.

Chart 5.7.
Spain. Job creation
(Total economy. Seasonally adjusted data)



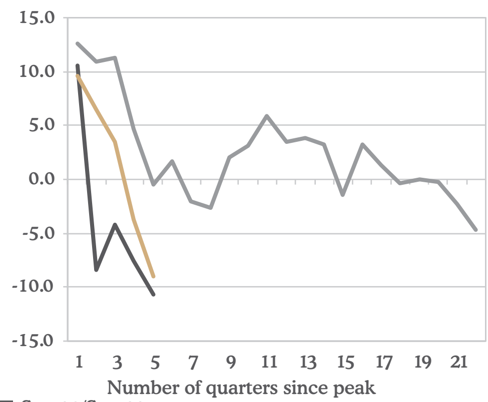
Quarterly change in thousands jobs, SA data (left)
% year-on-year (right)
Source: INE (EPA) and BBVA ERD

Chart 5.8.
Spain. Job creation in the motor vehicle manufacturing and sales and repair branches (CVE data)



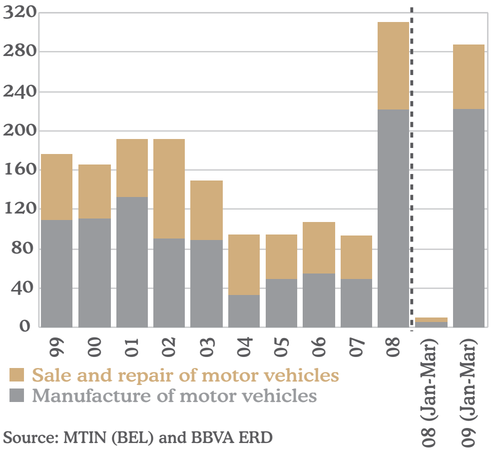
Manufacture of motor vehicles (left)
Sale and repair of motor vehicles (left)
Sale and repair of motor vehicles (% y-o-y, right)
Manufacture of motor vehicles (% y-o-y. right)
Source: INE (LFS) and BBVA ERD
(Note: NACE-2009; data reconstructed until Dec-07)

Chart 5.9.
Employment in the motor vehicle manufacturing and sales and repair branches. Cyclic comparisons (% y-o-y)



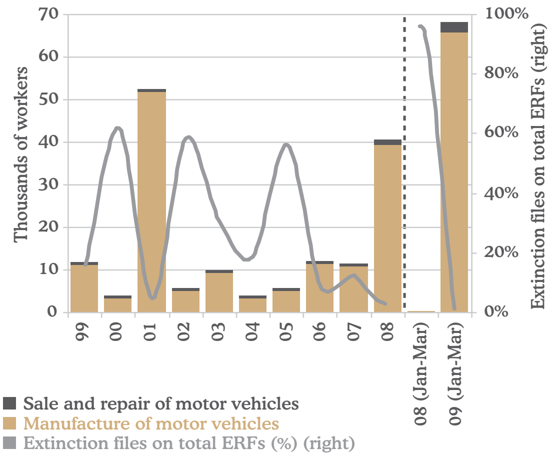
Sep-92/Sep-93
Jun-00/Mar-05
Mar.-08/...
Source: INE (LFS) and BBVA ERD
(Note: NACE-2009; data reconstructed until Dec-07)

Chart 5.10.
Spain. Number of ERFs in the motor vehicle manufacturing and sales and repair branches



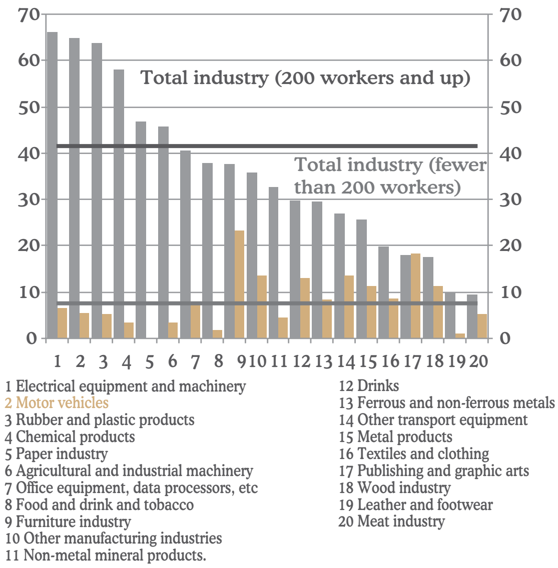
Source: MTIN (BEL) and BBVA ERD

Chart 5.11.
Spain. ERFs in the motor vehicle manufacturing and sales and repair branches. Workers affected



Source: MTIN (BEL) and BBVA ERD

Chart 5.12.
Percentage of companies with majority participation of foreign capital
(Average 1993-2005)



Source: BBVA ERD based on the ESEE (SEPI Foundation)

vehicle manufacturing sector is foreign (Chart 5.12) the analysis is focused on the evolution of DFI flows towards the sector as a whole.

Just as productive capital inflow from abroad is due to attractive localization features offered by a particular geographical area for production (lower unitary labor costs and taxes, political stability and low labor conflict, comparative advantages in infrastructure, human capital and innovation, etc.[8]), the capital outflow[9] can be a consequence not only of the loss of the country's relative attraction, but also because the expectations that motivated the initial investment have not been satisfied and in search of greater efficiency of the corporation, especially in an adverse economic situation such as the current one.

The information for gross productive FDI[10] in the Spanish automotive sector, in general, and in the motor vehicle manufacturing branch[11], in particular, indicate that the downtrend that began at the beginning of this decade continued during 2008. Specifically, gross production FDI in the motor vehicle manufacturing branch fell by 55.3% in 2008.

The downtrend in FDI in the automotive sector kept its percentage of the total FDI in Spain at 0.3% in 2008, the lowest level since standard sector data are available (Chart 5.13). These results show that the consequences of the economic slowdown on the sector are relatively greater than those that affect other economic activities, more, if we consider that the participation of total FDI in the GDP, decreased marginally in 2008 (Chart 5.14).

…which suggests that the automotive sector is faced with an adjustment that is not only cyclical but also has a certain structural component…

In sum, the Spanish automotive sector is faced with a significant decline in production due to lower demand, both national and international. The deterioration of the activity has been accompanied by a significant drop in employment that is more profound than in other industrial sectors and less FDI in the sector. Domestic and international vehicle demand is adapting to the new financial environment, characterized by an increase in risk premiums that may stabilize at levels slightly higher than in previous decades and lower leverage of domestic economies. All this suggests that the automotive sector is faced with an adjustment that is not only cyclical but also has a specific structural nature.

… with a significant drag on the rest of the economy

Until now, this analysis has focused on quantifying the decrease in activity and employment in the automotive sector. However, the loss of dynamism in the sector is not only important because of the direct effects on production and employment, but also due to the implications (indirect) on the activity and employment of the rest of the productive branches in the economy.

[8] See Fernández-Otheo (2000) and the references mentioned for a review of the factors that determine FDI.
[9] Although there is no universal definition for offshoring of the FDI, Muñoz (2002) defines it as the "[…] process by which a company with foreign capital located in a country makes the decision to abandon its activity partially or completely to place it in another country, for whatever reason". As we are interested in knowing the possible reduction in FDI in the automotive sector – regardless of whether it implies partial or complete transfer of production to another geographical area – we will use the term disinvestment instead of offshoring.
[10] Gross productive FDI does not include FSHC (Foreign Security Holding Companies) type operations since the purpose of these is to improve fiscal conditions within the same company group, and the investment does not have direct economic effects.
[11] A detailed analysis of the evolution of FDI can be found in Fundación Caja Navarra (2005).

The strategic importance of an economic activity, that is, its capacity to boost the production of other branches of activity can be quantified by *Input-Output* tables (IOT) that reflect the economic structure of a country, identify the interrelation between sectors and measure the repercussion caused by changes in production of a specific sector on the rest o activities and agents[12].

The recent publication of the internal symmetrical IOT by the INE (National Statistics Institute) allows the study of the strategic importance of the automotive sector at this time (20005) and the comparison with its importance at the beginning of the decade[13]. Thus, Table 5.2 indicates that both motor vehicle manufacturing and sales and repair have increased their capacity to drag[14] the rest of the economy. All in all, the drag capacity of the distribution branch is somewhat greater than that of the production branch: while a reduction of one million euros in final demand in motor vehicle sales and repair would cause a drop in final production in the economy of 1.9 million euros, the same drop in demand for the manufacturing branch would cause a loss in overall production of 1.8 million euros.

Both motor vehicle manufacturing and sales and repair are now less sensitive to a reduction in final demand of the rest of the economy

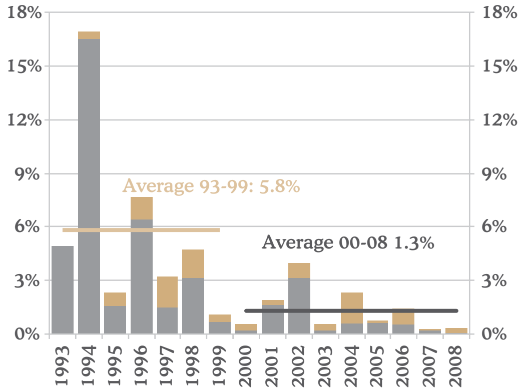
When there is an expansive cycle, for an economic sector to be considered key to the economic structure of a country it is not only necessary for it to have a significant drag capacity on the rest of the economy, but it must also undergo a comparatively high boost when the final demand of the economy grows. However, in a recession such as this one – featuring scarce demand – the sectors that are more sensitive to changes in the demand of the economy are those that are affected the most.

In the case of the automotive sector, distribution surpasses production insofar as the degree of response to changes in the final demand of the economy is concerned. A reduction of 1 million euros in final demand in the other economic activities would cause a drop in motor vehicle sales and repair production of 2.0 million euros, while it would cause a loss of 1.7 million euros in the manufacturing branch. Although the sensitivity of both activities to changes in demand is comparatively high, it should be noted that this was even truer at the beginning of the decade, as shown in Table 5.3.

When both effects are present simultaneously, we can see that the sales and repair branch is key to the Spanish economy, more so because it is capable of boosting the production of the remaining sectors than due to the increase versus an increase in final demand of the economy, without undergoing significant changes as regards the situation in 2000. On the other hand, vehicle manufacturing continues to be an activity that does not affect and is not affected as significantly by the economy as a whole[15]. (Chart 5.15).

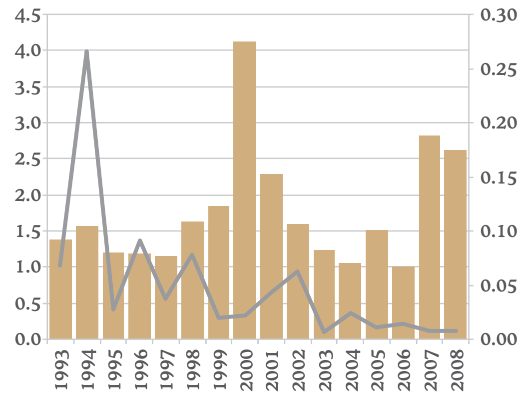
[12] See BBVA ERD (2007) for a detailed analysis of the Input-Output method used.
[13] Symmetric IOTs for 2000 and 2005 can be downloaded from the INE web page: http://www.ine.es/daco/daco42/cne00/cneio2000.htm
[14] The drag capacity of the demand of a sector is the sum of the direct effect on production of the sector and the effect induced on the activity of the remaining sectors.
[15] The classification of an activity as key, driving, strategic or independent is made by using the Rassmusen indexes, which measure the capacity of each sector to spread or absorb the production activity. A higher (lower) value indicates that the capacity for spreading/absorbing the production activity is higher (lower) than the average for the economy.

Chart 5.13.
Spain. FDI in the motor vehicle manufacturing and sales and repair branches on the total FDI



Source: DataInvex and BBVA ERD

Chart 5.14.
Spain. Gross FDI on GDP (%)



Source: DataInvex and BBVA ERD

Table 5.2. Drag effects of the demand of each sector on overall economy production. Demand multipliers (*)

	Domestic IOT	2005	2000	2000 Ranking
1	Recycling	2,638	2,687	1
2	Meat industry	2,462	2,415	3
3	Dairy industry	2,422	2,427	2
4	Non-market public streamlining	2,392	2,412	4
5	Construction	2,353	2,088	8
6	Other food industries	2.316	2,236	5
7	Drink manufacturing	2,309	2,153	6
8	Oil and natural gas drilling	2,300	1,930	16
9	Metal works	2,147	2,024	10
10	Manufacture of other mineral products	2,145	2,138	7
11	Metal mineral mining	2,144	1,970	12
12	Leather and shoe industry	2,029	2,084	9
13	Clothing and fur industry	2,013	1,930	17
14	Activities associated with transportation	1,997	1,964	13
15	Sale and repair of motor vehicles	1,929	1,879	22
42	Manufacture of motor vehicles	1,755	1,659	48

Source: BBVA ERD based on INE
(*) Effect of the increase of 1 million € in the final demand of each branch of activity on the production of the overall economy.

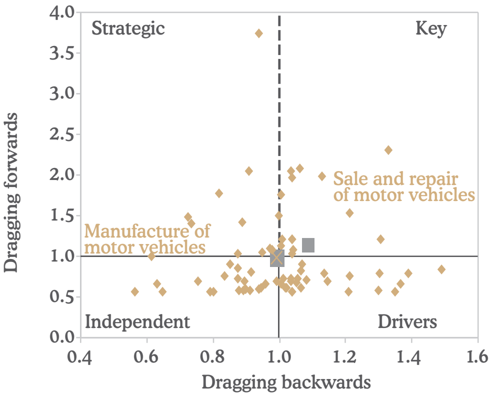
Table 5.3. Drag effects of the demand of the overall economy on the production of each sector.

Expansion demand multipliers (*)

Domestic IOT	2005	2000	2000 Ranking
1 Other entrepreneurial activities	6,637	6,218	1
2 Construction	4,087	3,094	9
3 Manufacture of metal products	3,682	3,532	3
4 Land transportation and pipeline transportation	3,624	3,536	2
5 Wholesale trade and intermediaries	3,621	3,151	7
6 Activities associated with transportation	3,513	3,458	4
7 Production and distribution of electrical energy	3,475	3,141	8
8 Real estate	3,155	2,662	12
9 Mail and telecommunications	3,111	2,929	10
10 Metal works	2,708	2,689	11
11 Agriculture, livestock and hunting	2,660	3,217	5
12 Coal, refining and nuclear fuel	2,629	2,511	13
13 Chemical industry	2,519	3,175	6
14 Financial intermediation	2,476	2,503	14
15 Publishing and graphic arts	2,155	2,221	18
19 Sale and repair of motor vehicles	2,005	1,998	20
28 Manufacture of motor vehicles	1,744	1,732	25

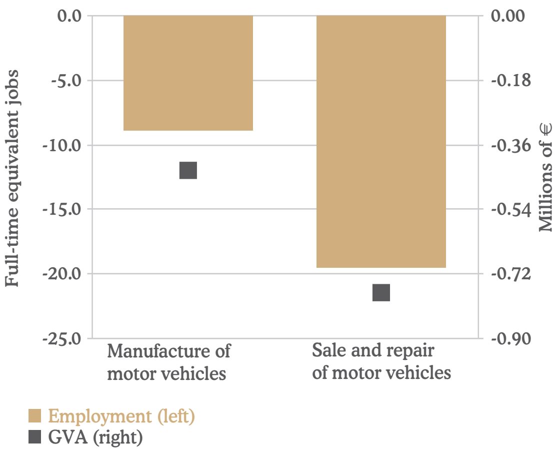
Source: BBVA ERD based on INE
(*) Effect of the increase of 1 million € in the final demand of the overall economy on each branch of activity

Chart 5.15.
Classification of branches of activity according to their drag capacity
Rassmunsen indexes. Domestic IOT 2005



Source: BBVA ERD based on INE

Chart 5.16.
Effects of a decrease in 1 million € in the final demand of each branch on the overall GVA and employment



Source: BBVA ERD based on INE (Domestic IOT 2005)

A reduction of 30.5% in final demand of the automotive sector in 2009 would cause a drop in GVA and employment in the overall economy of 1.2% and 1.4%, respectively.

In the event of the expected decline in final demand of the automotive sector, what would be the effect on the GVA and employment of the Spanish economy?

Chart 5.16 indicates that a reduction in 1 million euros in final demand of each of the branches of the activity would result in:

– A drop in GVA of the economy of 1.2 million euros, 0.8 in the vehicles sales and repair branch and 0.4 million in the manufacturing branch.

– A reduction in full-time equivalent jobs of 28.4, 19.5 in the sales and repair branch and 8.9 in the manufacturing branch.

Therefore, supposing that the changes to the productive structure of the economy do not take place and that technical progress is homogenously distributed between the various activities, the IOT can be used to simulate the effect of a decline in final demand of the automotive sector on the Spanish economy in 2009. As such, a expected drop of 30.5% of demand in the sector[16] would cause a fall in the GVA and FTE employment of the overall economy of 1.2% and 1.4%, respectively. This represents a fifth of total job loss expected for 2009 and a third of the expected decline in the GVA of the overall economy. Given the drag effect of the sector mentioned above, 68.6% of the estimated decline, both for GVA and the equivalent employment would be concentrated in the sector itself, while the remaining 31.4% would be due to the induced decline in the rest of the branches.

Faced with the serious situation of the automotive sector, governments have been quick to respond…

Given the severe decline that the automotive sector is undergoing worldwide and considering the drag effect on the activity and employment for the rest of the economy, governments have been quick to respond: most of the countries that produce motor vehicles have implemented rescue plans for the sector. Although the size and diversity of the measures that have been put forward vary greatly from one country to another[17], they can be classified in three types, according to their objective:

a) To sustain production and employment (short and medium term measures).

b) To promote competition (medium and long term measures).

c) To promote demand (short term measures).

In the first case, they measures are primarily fiscal. These seek either savings in current production costs (lower activity and/or employment fiscal burden), or a reduction in future production costs (subsidies for new vehicle production and/or maintaining employment). The second group of measures seeks to promote new production, management

[16] The expected fall in financial demand of the automotive sector is weighted average of the estimated variations of motor vehicle exports (-31,6 %) and domestic demand (-26,9 %)
[17] For a detailed list of rescue plans for the automotive sector in Europe, see ACEA (2009).

and logistic processes that are more efficient. This is done by establishing fiscal benefits and/or direct R+D+i aid for more energy efficient vehicle production and finances the specific training of employees in the sector, etc. Lastly, the measures to promote demand can be classified in three groups: subsidies for the purchase of new vehicles (decreasing in proportion to the CO2 emissions of the vehicle purchased) in exchange for scrapping older vehicles, a reduction in sales-purchase and circulation taxes and a reduction in the financial costs involved in the purchase of a vehicle in installments.

…, specifically, the Spanish government approved the Integral Automotive Plan in February of this year…

Faced with the decline of the economic situation of the sector in Spain, the government passed the Integral Automotive Plan (IAP) in the Cabinet meeting on February 13 of this year[18] . In sum, the IAP includes a series of measures that seek to:

i. Promote improvements in the efficiency of the motor vehicle manufacturing sector.

ii. Reduce Spain's energy dependence and the emission of contamination gases by redirecting production towards vehicles that are eco-efficient and to boost new electrical propulsion technologies.

iii. To promote internationalization and diversification of the markets, competition and R+D+i.

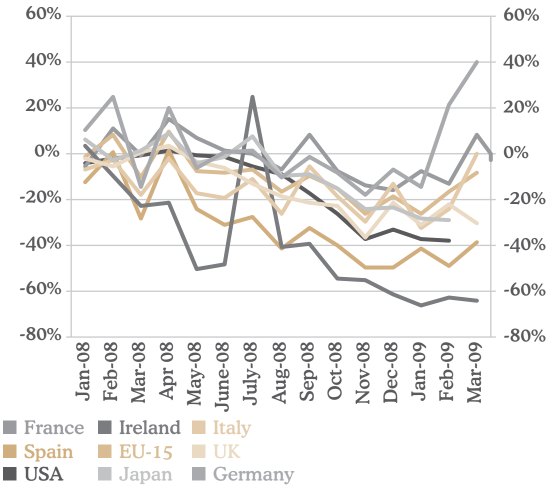
iv. To stimulate demand by facilitating financing, through the ICO, for the purchase of new (or used) vehicles that replace cars that are 15 years old are more. This measure has been named the Innovative/ Ecological Vehicle Plan (VIVE).

…although the plan includes an ambitious restructuring of the manufacturing branch, both the measures in place to vitalize the distribution branch and incentives for demand are limited.

Therefore, the IAP is an ambitious plan[19] for medium and long term restructuring and modernization of the motor vehicle manufacturing branch, but with a limited effect on the distribution branch and limited in its effects to motivate the demand for new vehicles.

As part of the decline experienced by the sector is due to a significant lack of demand caused by an unfavorable situation and to a significant slowdown in consumer credit growth during the last three months (See Graph 3.1 on the evolution of consumer credit), the short term effects of the IAP on the sector and especially of the VIVE Plan on demand will be limited: probably, only a small percentage of vehicles purchased and financed by the VIVE Plan (50.8 thousand to April 2009, 70 thousand expected by the Ministry of Industry, Tourism and Commerce to January 2010) will constitute an additional demand originating from the stimulus measures.

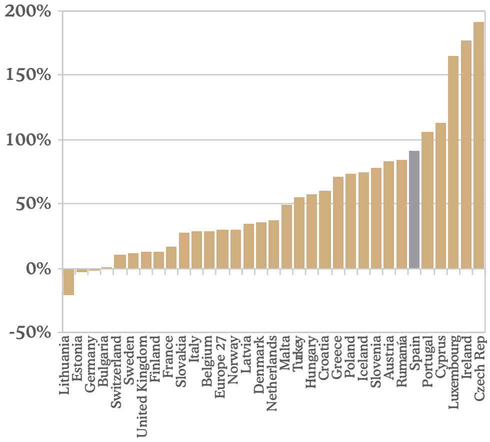
Chart 5.17.
Passenger car registrations
(Year-on-year growth rate)



Source: BBVA ERD based on OECD and ACEA

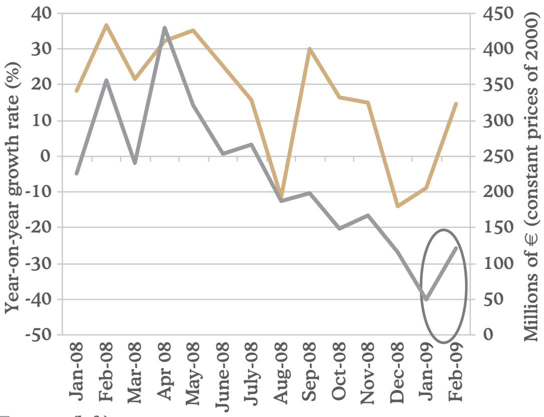
[18] See: http://www.mityc.es/industria/es-ES/Servicios/planintegralautomocion/Paginas/planintegralautomocion.aspx
[19] Estimated cost exceeds 4 billion euros, 0.5% of the GDP for 2008.

Chart 5.18.
Greenhouse gas emissions caused by road transportation (average growth rate, 1990-2006)



Source: BBVA ERD based on EEA Report No 3/2009

Chart 5.19.
Spanish vehicle exports to Germany
(Constants prices of 2000)



■ % yoy (left)
■ Millions of € (constant prices of 2000, right)

Source: ERD based on DataComex and MEH

Measures that consist in direct financial aid of a temporary nature for the renewal of old vehicles with new ones would be more effective to stimulate demand and simultaneously accelerate the reduction of contaminating gases.

In order to promote consumption in general and motor vehicle demand in particular, and to accelerate the reduction of greenhouse gas emission[20], it would be advisable to establish direct financial aid for the purchase of vehicles (new or used) that meet the following requirements:

a) A limited time period.

b) Amounts that were inversely proportional to CO_2 emissions of the vehicle purchased.

c) Subject to scrapping vehicles that are 10 or more years old (31.5% of the total).

d) Neutral as regards the budget or, at least, that the ensuing budget deficit does not exceed a pre-established threshold.

Measures such as this one have been implemented successfully in numerous EU-27 countries since the second quarter of 2008 and throughout the current year (See Table 5.4), as indicated by the change in trend of car registrations in recent months in countries like Germany or France (Chart 5.17). In fact, given the openness to foreign markets of the Spanish automotive sector, the European plans to promote demand, particularly in Germany, are having a positive effect on exports of cars manufactured in Spain. This is seen in Chart 5.19, that indicates that car exports to Germany continue to fall in year-on-year terms but increased by 57.2% between January and February, higher than growth resulting from seasonal.

[20] Necessary given the intense growth experienced in the last two decades, as indicated in Chart 5.18.

Table 5.4. Measures to promote motor vehicle demand in several neighboring countries (*)

Country	Duration	Budget	% GDP 2008	Main features
Spain	Until 07-31-2010	1.2 billion €	0.11%	• Financing by the ICO at 5 years for up to 10,000 euros at 0% interest. The interest rate for the remainder of the amount financed will be at maximum of 2.5% (fixed rate) for amounts not in excess of 30,000 €. • For the purchase of new or used automobiles (up to 5 years old) when purchased to replace one that is more than 10 years old or has more than 250,000 km. • The new vehicle must fulfill one of the following conditions: emit less than 120 grams of CO_2 per km, or 140 grams of CO_2 if the car has ESP and a safety belt warning in the front seats. The plan also applies to N1 vehicles (goods transportation vehicles under 3.5 tons) with emissions under 160g/km.
Germany	Until 12-31-2009	5 billion €	0.05%	• 2.5 billion€ of direct subsidies for the purchase of a new vehicle. • Applies to those who have had an automobile more than 9 years old for more than one Year. • Motor vehicle tax will be a linear fee of two euros for every gram of CO_2 emitted per kilometer.
France	Until 12-31-2009	5-6 billion €	0.033%-0.039%	• Bonus of 1,000€ for the purchase of cars that emit less than 160 grams of CO_2.
Italy	Until 12-31-2009	300 million €	0.02%	• 1,500€ of direct aid to purchase a new vehicle. • Applies to those who have an automobile registered before 2000 and purchase one that is category Euro 4 or Euro 5. • 2,500€ savings on a purchase of light commercial vehicles. The amount is reduced to 500 euros for those that purchase a new automobile but do not turn in their old vehicle. • The subsidy will be 500€ for those that decide to purchase a motorcycle of up to 400 cubic centimeters and turn in a Euro 0 or Euro 1 category motorcycle.
United Kingdom	From 2011	282 million €	0.05%	• Between 2,260€ and 5,650€ for the purchase of an electric automobile.
Austria	Until 12-31-2009			• 1,500 € as an incentive (the buyer must pay 50 %). • The replaced car must be at least 13 years old. • The new car must be at least category EURO 4. • Tax cuts equivalent to 0.4 p.p of the deficit.
Netherlands	In the next 10 years End of 2010	65 million €	0.011%	• Direct subsidy of between 750 and 1,000 € for the purchase of a new car. • Elimination of the registration tax, except for motorbikes. • Aditional reduction of 50% in the motor vehicle tax for efficient vehicles (the first 50% discount was introduced in April 2008). • Reintroduction of a fiscal plan for drivers of diesel vehicles that emit less than 5 mg/km, with a fiscal discount of 600 € in 2009 and 300 € in 2010.
Portugal	During 2008 and 2009			•Subsidies of between 1,000 and 1,250 € to replace automobiles more than 10 years old for new ones that emit less than 0.005g/km.
Slovakia		33 million €	0.049%	• Direct incentives of 1,000 €, plus another 500 € if the dealer deems it necessary.
Rumania				• 1,000€ of subsidy to purchase a car, on the condition that another is turned in that is more than 10 years old.
Greece				• Subsidy of between 400 and 800 € for scrapping the old car and a minimum of 1,500 € for purchasing a new vehicle.

Source: BBVA ERD, Ministry of Industry, Tourism and Commerce and ACEA

(*) Measures adopted by regional governments in each country are not considered. Specifically, the Plan Renove Auto Navarra 2009 approved by the Government of Navarra. In order to benefit from this Plan, the purchaser has to hand in a used car which is over 10 years old or which has over 250,000 km on the clock. The subsidy amounts 2,200 € if the emissions of the purchased vehicle are under 100 g/km of CO_2, while those with emissions that do not exceed 140 g/km of CO_2 will benefit from a subsidy of 1,200 €. The maximum price of the vehicle can not exceed 30,000 €.

References

ACEA (2009): *European Union Economic Report March 2009*. European Automobile Manufacturers Association. Bruselas.

http://www.acea.be/images/uploads/files/20090309_ER_0902_2009_I_Q1-4_public_web.pdf

ANFAC (2008): *Memoria 2007.* Instituto de Estudios de Automoción SL. Madrid.

EEA (2009): *Transport at a crossroads. TERM 2008: indicators tracking transport and environment in the European Union.* Report No 3/2009. European Enviroment Agency. Copenhague.

Fernández-Otheo, C. M. (2000): "Concentración y especialización regional de la inversión directa extranjera en España", *Economía Industrial*, 335/336, 67-82.

Fundación Caja Navarra (2005): *Automoción: un sector en revolución… Claves para el análisis [I]*. Biblioteca Viálogos.Can. Viálogos consultoría corporativa y Grupo AFI. Grupo Caja Navarra.

Muñoz, M. (2002): Deslocalización sectorial de la inversión extranjera directa en España. *Boletín Económico de Información Comercial Española*, 2744, 19-30.

SEE BBVA (2007): "Un análisis de la relación de la construcción con otras ramas de actiidad", *Situación Inmobiliaria*, junio 2007.

BBVA Finanzia

Online:

http://serviciodeestudios.bbva.com

For more information:

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

Economic Research Department:

Chief Economist:
José Luis Escrivá

Unit Heads:
Spain and Europe: Rafael Doménech - r.domenech@grupobbva.com
Spain: Miguel Cardoso - miguel.cardoso@grupobbva.com
Europe: Miguel Jiménez - mjimenezg@grupobbva.com

US and Mexico: Jorge Sicilia - j.sicilia@bbva.bancomer.com
US: Nathaniel Karp - nathaniel.karp@compassbank.com
Mexico: Adolfo Albo - a.albo@bbva.bancomer.com
Macroeconomic Analysis Mexico: Julián Cubero - juan.cubero@bbva.bancomer.com

Economic and Financial Scenarios: Mayte Ledo - teresa.ledo@grupobbva.com
Sectorial Analysis: Ana Rubio - arubiog@grupobbva.com
Financial Scenarios: Daniel Navia - daniel.navia@grupobbva.com
Quantitative Analysis: Giovanni di Placido - giovanni.diplacido@grupobbva.com
Global Trends: David Tuesta - david.tuesta@grupobbva.com

Emerging Markets: Alicia García-Herrero - alicia.garcia-herrero@bbva.com.hk
Cross Country Analysis: Sonsoles Castillo - s.castillo@grupobbva.com
South America: Joaquín Vial - jvial@bbva.cl
Argentina and Uruguay: Gloria Sorensen - gsorensen@bancofrances.com.ar
Chile:
Colombia: Juana Téllez - juana.tellez@bbva.com.co
Peru: Hugo Perea - hperea@grupobbva.com.pe
Venezuela: Oswaldo López - oswaldo_lopez@provincial.com
Asia:
China: Li-Gang Liu - lliu@bbva.com.hk
Non-China Asia: Ya Lan Liu - yalan@bbva.com.hk

Other publications: