

Consumption Outlook

Spain

First Half 2011
Economic Analysis

- **Global growth slows** and risks hamper expectations.
- **The Spanish economy continues to struggle** with increasing chances of dipping back into recession.
- **Job destruction has intensified** and this coupled with the steady decline in household disposable income continues to drag down private consumption, especially durable goods.
- **The BBVA Business Trends Survey's results suggest** the retail sectors' economic situation got worse than previously expected.
- **Financial tensions persistency and demand weakness** don't anticipate an increase of consumer credit in the short term.

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Closing date: 25 November 2011

1. Summary

The outlook for the global economy has worsened over the past few months, due mainly to four factors still at play. First, lower than expected economic growth, mainly in developed economies. Second, the sovereign debt crisis in Europe, which has intensified and become more systemic. While decisions announced in last October's summit go in the right direction, key elements are still unresolved. Third, the feedback between sovereign concerns and the health of the European financial system has intensified, causing an increase in financial tensions in Europe which have reached levels in many respects higher than after the fall of Lehman Brothers in October 2008. This increases the risks of a negative impact on economic activity. Finally, higher global risk aversion has increased financial market volatility, spilling over to most assets, including emerging economies for the first time since 2009.

With financial pressure heightening and global growth slowing, Spanish GDP stalled in the third quarter of 2011, after having increased 0.4% qoq and 0.2% qoq in the first and second quarters, respectively. The progressive decline in the activity has caused job losses to mount faster. This, coupled with the steady decline in household disposable income – amid an overall decline in credit, the end of unemployment benefits and the bank deposit war – continues to drag down private consumption, which in the third quarter of the year fell 0.1% qoq.

While overall consumption has waned this year, spending on durable goods has been particularly affected given its greater sensitivity to changes in household income. Over the second half of 2010 and the first quarter of 2011, demand for cars recovered some of the fall seen in July 2010 caused by the VAT hike and the end of Plan 2000E. However, weak fundamentals and increasing uncertainty over the summer led to a new fall in sales, mainly in private demand and those segments that had most benefitted from the scrappage scheme (mid-lower range cars). Using a model¹ that jointly quantifies long-term determinants of car registrations and of the short-term imbalance correction dynamic, we see that the fall in demand for cars in the current crisis can largely be explained by deteriorating fundamentals (GDP per capita, fuel prices, consumer loan rates and, above all, unemployment rate). Plan 2000E and tax changes last July did have significant transitory effects on car registration trends between 2Q09 and 3Q10. Assuming no change in the sensitivity of car purchases to changes in fundamentals and that these perform in line with forecasts, the number of registered vehicles should increase from 2012 to the end of 2015 until reaching nearly one million. Considering that the driving population has a saturation point of about 520 cars per thousand people, and using reasonable assumptions on GDP trends, demographics and vehicle scrappage rate, potential demand looks set to stabilise at around 980,000 cars a year over the next decade. With the implementation of structural reforms to boost the potential growth of the Spanish economy and the purchasing capacity of Spanish households, and weak but sustained population growth, car registrations could be expected to grow by around 13%.

Demand performance for used cars (UC) is one of the few positive features of the Spanish automobile industry. Between January and October 2011, UC sales increased by 11.3% to over 1.3 million units. Given that new car (NC) sales fell by 19.7% over the same period, the ratio of UC over NC rose by 0.5 points to two used cars per every new car. As a result, convergence with similar countries is rising, approaching the relative UC/NC levels of Germany (2.1) and Italy (2.4).

Purchases of mopeds and motorcycles continued to fall over the first 10 months of 2011, although at a slower rate than in the second half of last year. Adjusting for seasonal and calendar effects, two-wheeled vehicle registrations fell by 10.2% yoy between January and October, but only by 1.2% compared to 2H10. Behind the fall in registrations of mopeds and motorcycles are the deterioration in their main drivers – mostly disposable income of the youth population – and an increase in risk aversion. Regulatory changes – in particular the increase in license age to 15 for mopeds and the amendment to Directive 2006/126/EC nearly four years before required by the European authorities – have also contributed to the fall in demand for motorcycles and, above all, mopeds.

¹ See Box 2 for further details.

Furniture demand has also done nothing to boost household consumption this year. Sales during the first 9 months of 2011 in the furniture industry fell by 5.2% SWDA², hurt by persistent deterioration of investment in housing. The continued downturn in residential activity has also hurt consumption of appliances, speeding up the sector restructuring that started at the beginning of the last decade. According to data from the electrical appliance manufacturer and importers' association, the number of units sold fell 12.0% yoy in the first 10 months of 2011, after falling 4.4% in 2010. Lastly, retail sales of IT equipment and consumer electronics fell further between January and September (-3.8% SWDA and -5.6% SWDA, respectively), although a general decrease in prices drove an increase in ICT equipment penetration in Spanish homes, led by the success of laptops.

As a consequence of increased financial tensions and weakness in domestic demand, the outstanding balance of Spanish household credit fell by €10.9 billion in first 9 months of 2011 (a 15.4% yoy decrease) amid a slight increase in average finance costs (1.7pp between January and September). The results of the BBVA Business Trends Survey (BTS) for the first half of 2011 confirm that the deterioration in consumer financing is explained as much by a lack of demand as by limited supply. Demand for loans fell by more than the survey predicted in December 2010, but slightly less than 2H10. At the same time, financing conditions became more stringent which, according to the BTS survey participants, led to a drop in consumer credit supply in all branches of retail activity, especially car dealerships and furniture businesses. Because of the scale of the decline of consumer credit and the slowdown in Spanish economic growth, the contribution of consumer credit to GDP in Spain has converged with EMU levels at around 7%, reversing the growth of leverage that took place during the economic boom years.

Going forward, confidence and volatility indicators in European financial markets already suggest activity in Europe will be flat in the latter part of the year, boding poorly for Spanish exports to maintain the strong growth seen until now. More important could be the effects of solvency worries regarding some European financial institutions, its impact on credit provision, and therefore, on activity. The increase in uncertainty on several fronts will condition the economic scenario in the short and medium term. On the one hand, expectations that risk premium shows a slower reduction to consistent levels with economy fundamentals could reduce growth in 2012. On the other, question marks surrounding a definitive solution to the sovereign debt crisis have already begun dampening business and household expectations. And this could ultimately hurt consumption and investment in coming quarters. Finally, regarding fulfilment of fiscal commitments, the increasing probability that budget deficit targets will be missed by Social Security and, especially, the autonomous communities suggest fiscal consolidation efforts in the second half of 2011 and throughout 2012 should be greater than estimated three months ago. As for private consumer spending, demand for durable goods will continue to be affected by consumers bringing forward purchases in 2H09 and 1H10 that would normally have taken place this year, although the effect should diminish gradually over the forecast period. In 2012, although increasing uncertainty could push up the saving rate for precautionary reasons, the outlook for household consumption is broadly the same as in the last Consumption Outlook report. The weakness of spending factors should cap the growth of expenditure, leaving it far lower than in 2010, while the benign inflation environment will keep real household disposable income from falling, and the maintenance of low official interest rates should ease the financial burden of households. As a result, household spending is expected to stagnate in 2011 and increase by around 0.3% in 2012.

2: SWDA: seasonal and working-day adjusted.

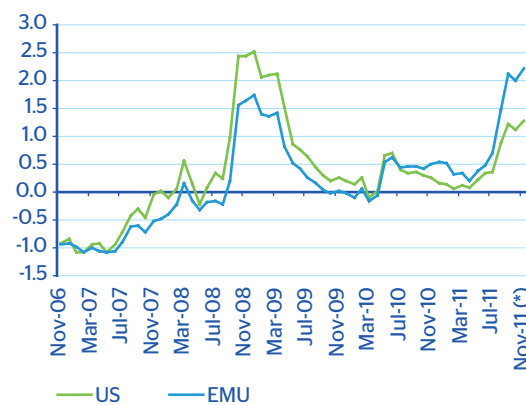
2. Growth outlook for the Spanish economy

Global growth slows with risks tilted to the downside

The outlook for the global economy has worsened over the past few months, driven mainly by four factors that are still at play. Firstly, lower than expected economic growth during the first half of the year, mainly in developed economies. Secondly, the sovereign debt crisis in Europe, which has intensified and turned more systemic. While decisions announced in the October summit go in the right direction, key elements are still unresolved, especially regarding the real firepower of the mechanisms for providing sovereign liquidity (a leveraged European Financial Stability Fund or EFSF), the restructure of Greek debt held by private investors, and a clear roadmap for improve European governance and to advance towards a fiscal union. Third, the feedback between sovereign concerns and the health of the European financial system has intensified heightening financial tensions in Europe up to levels to some extent higher that after the fall of Lehman Brothers in October 2008 (see Chart 1). This increases the risks of a negative impact on economic activity, further feeding a real-financial vicious circle. Finally, higher global risk aversion has enlarged financial market volatility significantly, spilling over to most risk assets, including emerging economies for the first time since 2009.

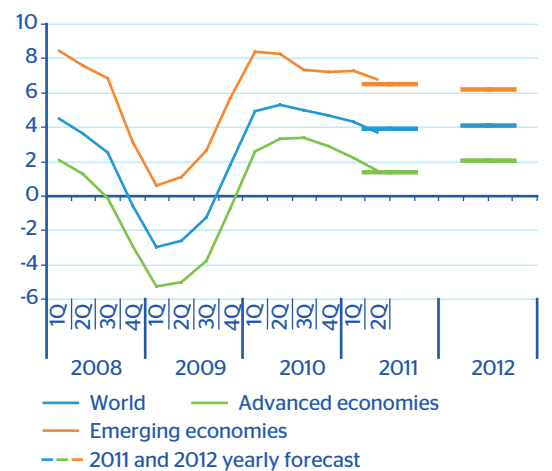
In this context, global GDP growth of 3.9% in 2011 and 4.1% in 2012, supported by solid growth in emerging economies against lacklustre performance in advanced countries (see Chart 2). These are still robust growth rates, but risks to these projections are now strongly tilted to the downside, hinging in the short term on the evolution of the sovereign-financial crisis in Europe.

Chart 1
BBVA Financial Stress Index



(*) Data as of 24 November 2011
Source: BBVA Research

Chart 2
GDP growth (%yoy)



Source: BBVA Research and IMF

Growth drivers weaken in Europe

After strong start to 2011, economic growth in the euro area slowed in the second and third quarters. Behind this trend were less buoyant global demand, the contractionary effects of fiscal consolidation in much of the area and, above all, financial stress and loss of confidence linked to the heightening of the sovereign debt crisis since the summer and the knock-on effect on the banking sector. Concerns regarding the pattern of growth are also spreading, since net exports remain the main driver despite having lost some steam. And domestic demand, poised to emerge as the main growth driver, has not rebounded as expected, in part because of the withdrawal of fiscal encouragements, but mostly because the confidence crisis has affected the consumption and investment components.

Our GDP growth forecasts for the euro area are 1.6% for 2011 and 1.0% for 2012. These will depend on whether the financial turbulences in the euro area ease considerably at the end of this year or beginning of 2012. The outcome of the European summits in October had the right ingredients to

trigger this improvement, but risks are strongly tilted to the downside due to concerns in financial markets over the details of the decisions and their implementation. In this case, the euro area as a whole could see flat GDP growth 2012 or even dip back into recession.

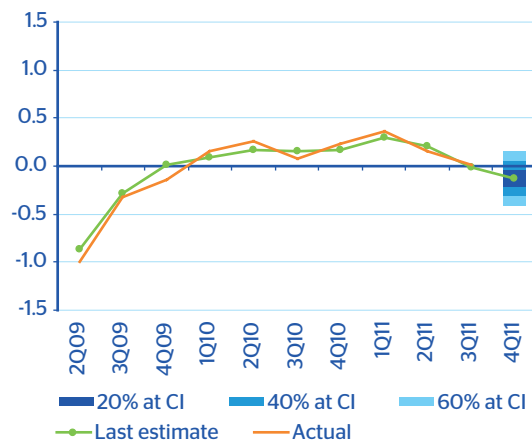
Regarding prices pressures continue to ease, although the inflation rate moved only a touch lower in the year's third quarter. This was the ECB's take; at its November meeting, the monetary authority shaved 0.25bp off its key interest rate, lowering it to 1.25%, (refinancing rate) and could cut it again to near 1% next time. Our forecasts call for a headline inflation rate below 2% in 2012, with an average inflation rate of 1.6% and an even lower core inflation rate.

In Spain, the probabilities of contraction in 4Q11 and risk scenarios for the next fiscal year are increasing

Increasing uncertainty over global world economic outlook has dampened expectations for recovery by the Spanish economy. Internally, Spain's economic imbalances continue to adjust, helped in industries sectors by the fiscal consolidation process. The incipient rebound in production up to the beginning of 1H11 was not enough to create employment. This, coupled with the steady decline in household disposable income -amid an overall decline in credit, the end of unemployment benefits and the bank deposit war- continue to drag down private consumption, which in the third quarter of the year registered a fall of 0.1% qoq. On the side of investment, the adjustment was faster because of the withdrawal of tax incentives (e.g. deduction for home purchases) and ongoing measures to reduce public administration deficits, yet exports picked up in the third quarter (+3.1% qoq), lending some support to investment in capital goods (+2.3% qoq). The resilience of external demand continued to support economic growth in 3Q11; the recently published Quarterly Spanish National Accounting (QSNA) data confirmed the forecast of stagnation between July and September, and the real time GDP growth forecasts using the MICA-BBVA model³ signal a significant increase of the probability of economic contraction in the current quarter (see Charts 3 and 4).

Chart 3

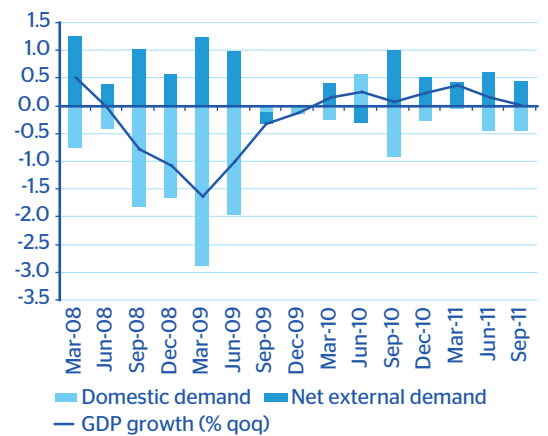
Spain: GDP growth and forecasts using MICA-BBVA model (% qoq)



Source: BBVA Research based on INE data

Chart 4

Spain: contributions to quarterly GDP growth



Source: BBVA Research based on INE data

Going forward, confidence and volatility indicators in European financial markets already suggest activity in Europe will be flat in the latter part of the year, boding poorly for Spanish exports to maintain the strong growth seen until now. More important could be how concerns regarding the solvency of some European financial institutions could hinder the provision of credit in Europe, and therefore, on activity as a whole. The increase in uncertainty on several fronts will shape the economic scenario in the short and medium term. Firstly, expectations that it will take longer for risk premiums to ease to levels more aligned with the fundamentals of the economy could delay growth until 2012.

3: For more details on the MICA-BBVA model, see Camacho, M. and R. Doménech (2010): "MICA-BBVA: A Factor Model of Economic and Financial Indicators for Short-term GDP Forecasting", BBVA WP 10/21.

Secondly, doubts that a definitive solution will be found to the sovereign debt crisis have already begun dampening business and household expectations which could ultimately hurt consumption and investment in coming quarters. Finally, regarding fulfilment of fiscal commitments, the increasing probability that budget deficit targets will be missed by Social Security and, especially, the autonomous communities, suggest fiscal consolidation efforts in the second half of 2011 and throughout 2012 should be greater than estimated three months ago. On the bright side, this increased uncertainty is prompting the ECB to adopt a slightly more accommodative monetary policy, which could be particularly good for Spanish households and businesses, but probably not enough to offset the most direct effects of the increased uncertainty on risk premiums and funding costs.

In our baseline scenario, the implications of the deterioration in the global outlook for the Spanish economy have left annual average growth at around 0.8% in 2011. As a result, qoq GDP growth could be moderate next year, leading to lower overall growth for the year than previously forecast (1.0% vs. 1.3%) (see Table 1). All things considered, unless decisive measures are adopted, both in Europe and domestically, that clear up doubts surrounding governance in Europe and Spain's ability to grow and create jobs, the probability of risk scenarios increases considerably.

Table 1

Spain: macroeconomic forecasts

(% yoy)	2008	2009	2010	2011 (f)	2012 (f)
National Final Consumption Expenditure (FCE)	1.0	-2.3	0.6	-0.3	-0.4
Households	-0.6	-4.4	0.7	0.0	0.3
Public administrations	5.9	3.8	0.2	-1.3	-2.3
GFCF	-4.2	-16.4	-6.0	-4.0	-0.2
Domestic demand (*)	-0.5	-6.5	-1.0	-1.2	-0.4
Exports	-1.0	-10.2	13.5	9.3	5.4
Imports	-5.1	-16.9	8.9	1.9	0.9
Net trade balance (*)	1.4	2.8	0.9	2.0	1.3
GDP at mp	0.9	-3.7	-0.1	0.8	1.0
Pro-memoria:					
GDP w/o housing investment	2.3	-1.5	0.8	1.2	0.9
GDP w/o construction	2.8	-0.8	2.0	2.3	1.5
Employment (LFS)	-0.5	-6.8	-2.3	-1.7	-0.8
Unemployment rate (% active pop.)	11.3	18.0	20.1	21.5	22.1
Employment (FTE)	-0.5	-6.6	-2.4	-1.7	-0.9

(*) contribution to growth

Source: BBVA Research based on INE data

Regarding the composition of growth, new factors applied in our economic scenario for 2011 and 2012 entail downward pressure on external demand and, above all, domestic. As regards private consumption, the recently published QSNA data for 3Q11- which include the usual annual revision for previously published data, as well as the change in the base year to 2008⁴ together with the partial indicators for the current quarter signals stagnation in demand in 2011, in line with the weak fundamentals, and the negative base effect from the increase in the burden on households in 2H10. In 2012, although increasing uncertainty could push up the saving rate for precautionary reasons, our baseline scenario for the outlook for household consumption does not differ significantly from 2011. Although weakness in spending factors should cap the growth of expenditure to just above the level forecast for 2011 - although below that registered in 2010 -the benign inflation environment and the maintenance of low interest rates will limit household financial burden increment.

However, unless the imbalances accumulated before and during the current economic crisis, which directly affect the performance of household consumption (e.g. financial leverage and high unemployment), are corrected completely, the greater the likelihood of risk scenarios for the Spanish economy. This entails a significant downside risk to this demand component next year.

4: The change of the accounting base -which takes 2008 as the new reference year- includes methodological and statistical changes for some components of aggregate demand, mostly related to investment. Even though household consumption has not experienced a methodological change, the revision of historical series implies 0.5pp lower growth in 2010 (-0.4pp for 2011 according to our estimations). For further details, please refer to the BBVA Research flash assessing QSNA data for 3Q11 available [here](#).

3. Consumer finance

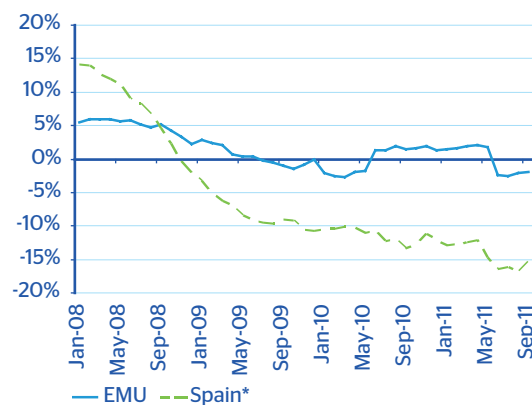
The weakness of domestic demand in Spain and the effects of increased stress in financial markets have undermined consumer finance, causing it dry up even faster. In September, the outstanding balance of consumer loans stood at €72.8 billion, 15.4% less than a year ago.

Trends in consumer credit: deleveraging continues

Consumer lending in Spain has continued to fall in 2011, extending the trend seen since the end of 2008. At the start of the year, the pace of decline was about around 13% yoy, before accelerating to 17.1% yoy in August. In September, it eased slightly to 15.4% yoy. In the euro area, consumer credit actually rose until May, before contracting again in June (see Chart 5). The performance of the consumer credit spread, together with lower Spanish economic growth, has meant consumer credit in Spain as a percentage of GDP has converged with that of the European Union as a whole, reversing the growth of the leverage ratio that took place during the economic boom years. As can be seen in Chart 6, the ratio of consumer credit to GDP in Spain has returned to the level it was at the start of the last decade (about 7%).

Chart 5

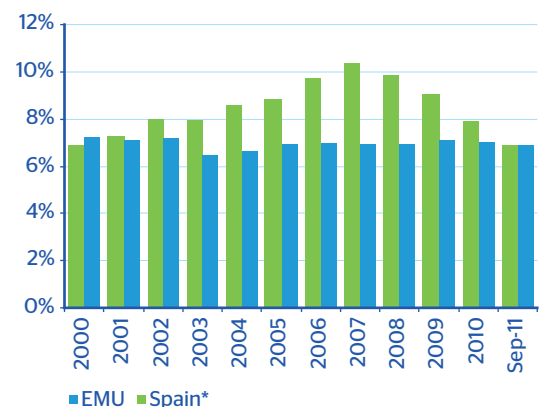
Consumer credit (% yoy)



* Consumer credit managed: including securitizations
Source: BBVA Research based on ECB, Bank of Spain and INE

Chart 6

Consumer credit as % of GDP



* Consumer credit managed: including securitizations
Source: BBVA Research based on ECB, Bank of Spain and INE

The main difference between Spain and the rest of Europe with regard transactions maturities is that there are more new short-term loans in Spain. This is explained, partially, by the importance of credit cards as a payment method. Nonetheless, Bank of Spain (BdE) data show that financing operations of less than a year are becoming increasingly less important than medium-term loans, which represented 35.2% of the total at the end of 3Q11. New transactions of more than 5 years also rose significantly, with a 28.1% share between June and September (see Chart 7).

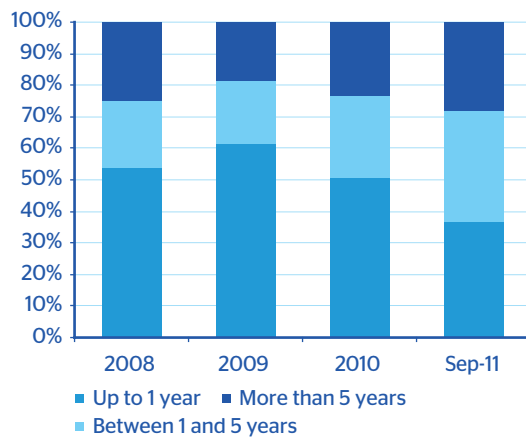
There are both supply and demand reasons that explain the contraction in Spanish consumer credit in recent years. Demand has decreased as a consequence of household deleveraging, as well as the weakness of economic activity and the slow recovery, but above all because of the lack of improvement in the labour market, which continues to deteriorate.

The worsening sovereign debt crisis, which has limited banks' access to foreign capital, is the root cause of the lack of consumer credit supply. New European and national regulatory rules, as well as the requirement for bigger capital ratios, could have a significant effect on some credit lending institutions in the medium term. Given that and the high default levels, it is normal that financial institutions are looking to reduce risk exposure, as well as their exposure to consumer credit. As consumer credit involves shorter-term transactions, deleveraging is quicker as only a portion of

maturities are renewed and defaults are quickly passed to the bad debts account. In all, the Bank Loans Survey (BLS) does not foresee a worsening of consumer credit supply in the last quarter (see Chart 8).

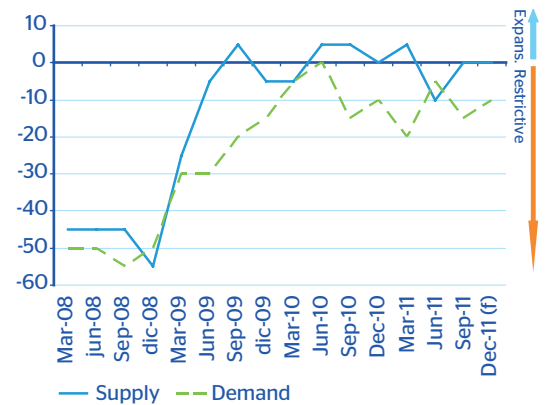
Heightened financial stress in the second half of the year has led to tougher pricing conditions in consumer finance. The weighted average interest rate rose to 8.6% in September, 0.5pp higher than the average rate in 2010, but 1.7pp higher than the interest rate in December 2010. The difference in price from the close of 2010 decreases with the length of the term of the loan. For instance, it has increased more for transactions of less than a year (1.9pp) and less for transactions of more than 5 years (0.3pp).

Chart 7
Spain: new consumer credit transactions (%)



Source: BBVA Research based on Bank of Spain

Chart 8
Spain: bank loans survey
(Consumer loans and others)



Source: BBVA Research based on Bank of Spain

Consumer loans by purpose

Given the lack of statistics on consumer credit extended by the entire financial system disaggregated, analysis must rely on data from the National Association of Financial Institutions (ASNEF), which gathers information from credit institutions (CIs). Consumer lending by CIs has stayed constant over the last six months, in contrast to what happened between September 2010 and March 2011, when it fell by about 4% yoy, and far removed from the 20% fall in 2009. Revolving of loans (44%) as well as of credit cards (the remaining 56%) remained at the fore, representing 73% of the total financed by CIs. The 1% yoy growth in revolving credit cards compensated for the 2.6% yoy fall in loans, as a result of which overall growth in loans hardly changed (-0.6% yoy).

Vehicle financing increased 10.9% yoy in September. This positive performance is explained by a base effect -the fact that the September 2010 figure was abnormally low and does not signify a real recovery in credit, which fell by 6.2% compared to June. Loans for the purchase of new cars, which represents 81% of all vehicle financing, grew 12.1% compared to September 2010, but fell 6.2% from June - 3.4% if the overall annual automobile total is taken into account - as a result of the conclusion of public subsidies for the new car purchases (Plan 2000E) and of generally weak demand. In contrast, financing of used cars grew 100%, although the average amount of each loan was not significantly different from that requested for a new vehicle (10,300 euros vs. 14,400 euros, respectively).

In short, consumer credit in 2011 has performed in line with Spain's struggling economy. The worsening of financial tensions and the weakness of domestic demand have encouraged deleveraging in the consumer market, so that the ratio of consumer credit to GDP has converged with that of the euro area. Financing for buy automobiles, which accounts for a significant percentage of the total, has fared poorly given the steady decline in demand after the end of the scrappage stimulus scheme. Looking forward, the outstanding balance of consumer credit should continue to fall throughout most of 2012, before stabilising thereafter in what should be a more favourable economic environment.

Box 1. The new consumer credit contract law

In June, the European directive on consumer loans was transposed into Spanish law⁵. CD directive 2008/48/EC was not born out of a reaction⁶ to excessive practices detected following the start of the crisis, as was the case in the United States and Mexico⁷ but rather has its root in a 1995 proposal to adapt European legislation to the trends in financial instruments and increase the level of consumer protection, harmonizing and giving transparency to credit agreements for consumers at a European level. Additionally, the directive respects the individual legislation of each country if their laws provide greater protection to the consumer.

The new regulation is aimed at making it easier for applicants to compare different offers from the same institution and from other institutions, and imposes some new minimum information requirements that the customer has to be provided with. The new regulation applies to all parties involved in the contracting of loans. Therefore, financial intermediaries are also subject to it.

The law establishes minimum information requirements in consumer loan advertising and in pre-contract information. Two new documents are extremely important: Pre-contractual Information (PI) and Binding Offer (BO).

- **Pre-contractual Information:** Information that ought to be given freely before any credit agreement is signed, in an official and formal format, and that contains all the European directive information: loan conditions; identity of the creditor; whether the agreement relates to a good or a service; if must be specified if the general terms of the loan are dependent on the contracting of another product and what conditions apply if the applicant does not contract the product (the taking out of a life insurance policy or payment protection scheme are standard practice).
- **Binding Offer:** in essence, it is the same document as the PI, but it requires the entity to be bound by the conditions offered for 14 calendar days.

The new regulation obliges lenders to offer consumers assistance so they can assess whether the loan conditions are in their interest and meet their needs and financial situation. Lenders also have a duty to assess the solvency of the consumer from the information the consumer has provided and from a creditworthiness data check, among other information. Financial institutions must apply the existing risk policies and include the standardised calculation of the annual percentage rate (APR).

There are some changes regarding the process for cancelling a loan. The right of withdrawal from the agreement is included, allowing consumer a period of 14 calendar days in which to withdraw from the credit agreement in writing without giving any reason, paying any interest due for the days from the beginning of the agreement until the withdrawal date. Maximum limits on charges in the event of early cancellation of a loan are incorporated: 1% in the event that the termination date for the agreement is greater than one year and 0.5% in the event that the termination date of the loan is less than a year. These limits will never exceed the interest that would have been paid if the agreement had terminated on the original date. If there is an insurance contract related to the transaction, the portion of the premium must be repaid.

Finally, the regulation partially applies to tacit overdrafts, to exceeded tacit overdrafts, to renegotiated loans due to non-payment and to loans that are greater than 75,000 euros. For instance, in these cases PI and BO documents must be made available, but the loans are not affected by the regulation requirements as regards early cancellation and withdrawal rights.

The benefits of this new law for the consumer are:

- **Increase in transparency** in all the phases of the contract process: the customer will not only receive more information by law, but this information will be standardised.
- **Increase in competition:** with price clarity, borrowers will be better able to compare offers and commissions ought to come down.
- **Right of withdrawal:** the customer has 14 days to withdraw from the agreement.
- **It makes personalised contracts possible:** customers that cannot, or do not want to, get a standard loan have the possibility to choose parts of the conditions and, as such, to receive an offer that best suits them: length of loan, irregular repayment schedule, loan grace period, etc.

The new law does not change the regulations of loan agreements linked to the supply of goods or services. Thus, a quick solution is not established if the consumer loan is linked to goods or services that are not received. The consumer can exercise his rights against both the supplier of the goods or services and the lender, when products have not been completely or partially delivered and claims have been made through a judicial or out-of-court process.

5: Law 16/2011, of 24 June, on credit agreements for consumers, available here: <http://www.boe.es/boe/dias/2011/06/25/pdfs/BOE-A-2011-10970.pdf>.

6: See Consumption Outlook second half 2005: "New Proposal of Directive on Credit Agreements for Consumers".

7: See Consumption Outlook second half 2009: "Regulatory changes and consumer protection: a comparison between Mexico, USA, and Spain".

Although credit entities and intermediaries must spend more time informing and formalising a consumer loan, the new regulation does benefit the borrower:

- The customers have a clearer knowledge of the process, and they are also informed in writing about the surcharges that they will be liable to pay in the event of late payment.
- Right of withdrawal: the transaction can be cancelled by exercising this right, but the customer can be charged for costs between the start of the loan and the cancellation date, as long as it is within 14 calendar days.

- The standardization of customer information makes product selling techniques more uniform, as a result of which domestic experience will be useful when expanding into the European market.
- In a more competitive market, misleading offers will lose market share, benefiting the rest.

In summary, the adoption of the European directive on consumer credit protection by Spain does not mean substantial changes to current regulation, but it will help the market to continue to become more efficient, transparent and safe.

4. Durable goods

After 2010 featured the effects of fiscal consolidation on the spending decisions of households, the first half of 2011 was characterized by stagnation in private consumption. Rises in nominal disposable household income, especially non-wage income, wasn't enough to offset rising prices, undermining real income and pushing down household consumer spending despite a decrease in savings rates. In 3Q11, increased uncertainty alongside a steeper drop in real wage income caused consumption to stagnate. As can be seen in Table 2, the unfavourable trend in retail sales (-1.0% qoq SWDA) and car registrations (-6.6% qoq SWDA) could not be fully compensated by the improvement in service industry activity and consumption of food products. In interannual terms, the quarterly change in consumption implied growth of about 0.4%, as did the BBVA Model of Indicators Coincident with Consumption⁸ (MICC-BBVA) (see Chart 9).

Table 2

Spain: consumer spending indicators (SWDA data)

% qoq	Availability of consumer goods (*)				Car registrations	Domestic sales by large enterprises	Service sector turnover index	Retail sales	Consumption QSNA
	Totals	Durables	Food	Other non-durables					
1T10	-2.9	-14.4	-0.3	0.0	1.6	0.9	0.4	1.7	-0.1
2T10	1.8	8.6	-1.1	2.8	0.2	2.0	2.3	-1.6	0.9
3T10	-3.9	-18.6	0.5	-2.2	-31.6	-5.0	-2.5	-1.6	-0.7
4T10	-0.8	-8.6	0.8	0.3	3.1	-0.4	-0.2	-0.9	0.7
1T11	0.4	7.6	-0.7	-0.9	3.8	-0.1	0.7	-1.6	-0.4
2T11	-1.4	-8.0	0.6	-1.7	0.4	0.0	0.0	-1.2	0.1
3T11	0.8	4.0	0.3	0.3	-6.6	0.3	0.7	-1.0	-0.1

(*) Production + imports - exports.

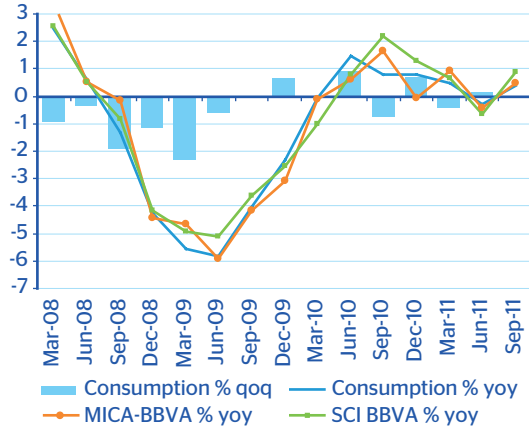
Source: BBVA Research based on MEH, ANFAC, AEAT and INE data

The positive performance of net trade has made up for sluggish domestic demand in 2011 in spite of the disappointing behaviour of durable exports. Real exports of goods and services continued to grow in the first quarter of 2011 (see Chart 10), underpinned by the resilience of the EU core economies and rising consumption in emerging countries. After a slight correction in 2Q11, external demand rebounded in 3Q11, supported –this time– by the trend in durable goods exports, which grew by 3.8% qoq SWDA in spite of the economic slowdown caused by increased risk aversion in Europe.

8: For details on the MICC-BBVA model, see Box 1 of the [Consumption Outlook for the second quarter of 2010](#).

Chart 9

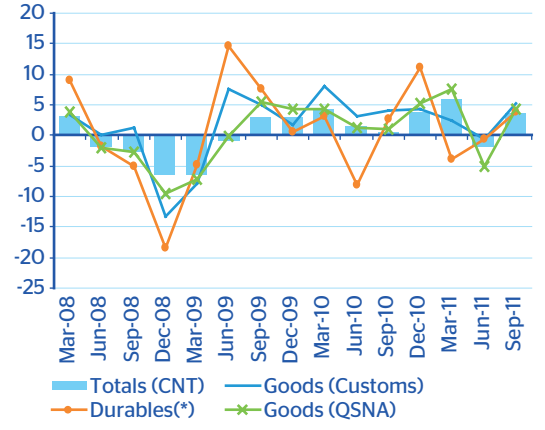
Spain: observed data and real time forecast of household consumption



Source: BBVA Research based on INE

Chart 10

Spain: real exports (SWDA data, % q/q)



(*) Electrical appliances, consumer electronics, IT equipment, furniture, motorcycles and cars
Source: BBVA Research based on INE and Customs data

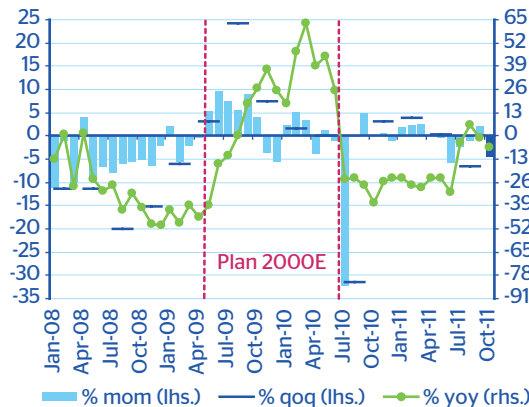
Car demand

The conclusion of Plan 2000E and the VAT hike in July of last year led to a severe correction in the number of car registrations, negatively impacting household spending growth in 3Q10. During the second half of 2010 and the first quarter of 2011, demand for cars recouped part of the fall posted in July 2010⁹, but weak fundamentals and increasing uncertainty in the summer period led to a renewed fall in purchases (-6.6% qoq in 3Q11) (see Chart 11).

Despite weak demand, retail car prices have continued to increase in line with inflation this year, and the relative drop in prices during the period of Plan 2000E has disappeared in 2011: between January and October, car prices rose by 2.1%, whereas inflation rose by 1.8% (see Chart 12).

Chart 11

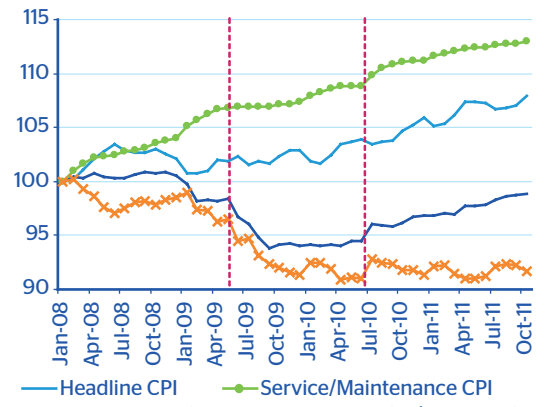
Spain: car registrations (SWDA data)



SWDA: seasonally and working day adjusted
Source: BBVA Research based on ANFAC and Ganvam

Chart 12

Spain: car prices (Jan-08=100)



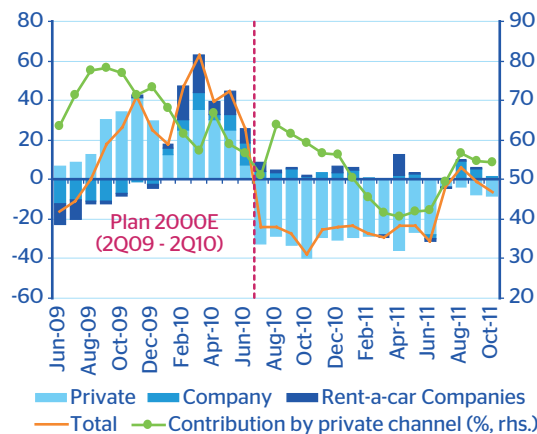
Source: BBVA Research based on INE

9: After the fall of 32.3% mom SWDA in July 10, car registrations increased 11.5% SWDA up to April 11.

The growth of the number of cars registered in 2011 has been mixed across channels. The decline in demand is mainly due to the private use channel. By contrast, the renewal of fleets by rent-a-car companies, and especially the increase in car purchases by businesses, have continued to contribute positively to growth in the number of registrations, with the professional channel now representing 53.2% of sales in 2011 (see Chart 13).

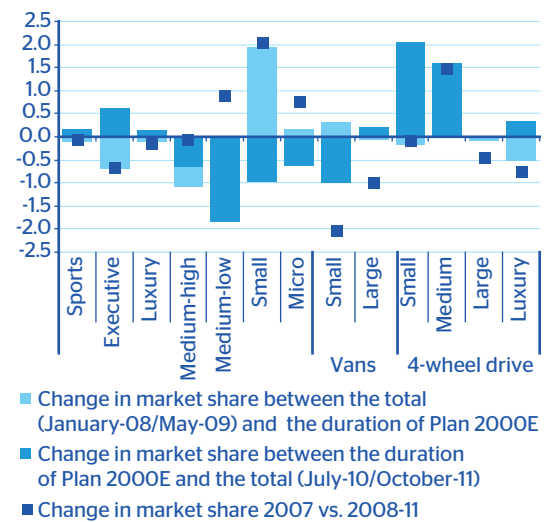
Following the conclusion of Plan 2000E, the nature of car demand has changed not only by channel, but also by segment. Chart 14 shows that the main beneficiaries of Plan 2000E¹⁰ -mid- to low-range cars - have lost market share since July 2010, except for small four-wheel drive cars. Demand for high-end cars has fallen less this year, and their market share has increased slightly. Only cars in the micro, lower and lower-mid, and average four-wheel drive segments, have seen their share of total sales increase since the crisis started.

Chart 13
Spain: contributions to the yoy growth rate of car registrations (%)



Source: BBVA Research based on ANFAC

Chart 14
Spain: change in market share per segment (SWDA data, pp)



Source: BBVA Research based on ANFAC and Garvam

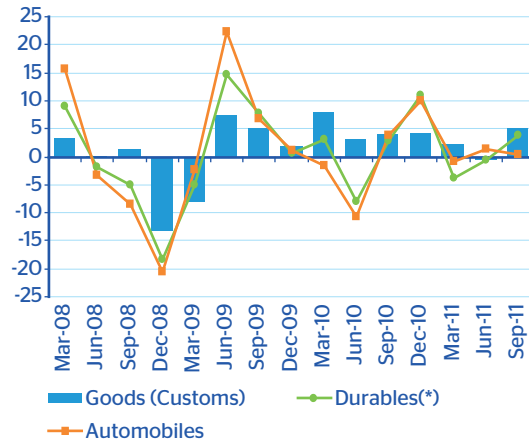
Unlike in 2H10, foreign demand for cars has not offset weak domestic demand, even though its performance has been more favourable than that of the set of durable goods analysed. As shown in Chart 15, real exports of cars remained practically stagnant during the nine first months 2011.

Demand for used cars (UC) is one of the few positives for the Spanish car market. Between January and October 2011, used car sales increased 11.3%, to above 1.3 million units, more than half of which were between private individuals (57.6%). Given that new car (NC) registrations fell by 19.7% over the same period, the UC/NC ratio rose 0.5 points to reach two used cars for each new car (see Chart 16). As such, convergence with similar countries is quickening, bringing Spain close to the relative UC/NC levels of Germany (2.1) and Italy (2.4)¹¹.

10: Under Plan 2000E, the subsidy was only available for vehicles emitting less than 120 grammes of CO2 per kilometre travelled, or 149 g/km in the case of innovative vehicles or diesels. The detailed requirements to apply for the Plan 2000E subsidy can be consulted [here](#).

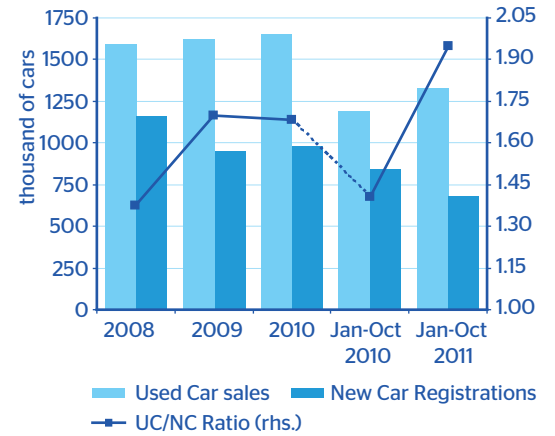
11: A detailed analysis of the factors that explain the demand for UC in Spain is given in BBVA (2011): "Who buys UC? Factors determining the choice of vehicle during the crisis", *Consumption Outlook Second half 2010*, 14-21

Chart 15
Spain: real goods exports (SWDA data, % qoq)



(*) Electrical appliances, consumer electronics, IT equipment, furniture, motorcycles and cars.
Source: BBVA Research based on Customs data

Chart 16
Car sales: NC vs. UC



Source: BBVA Research based on Ganvam and Faconauto

Demand for mopeds and motorcycles

Purchases of mopeds and motorcycles have continued decreasing over the first ten months of 2011, although at a slower pace than in the second half of last year. Once adjusted for seasonally and the working day effect, the number of two-wheel vehicles registered between January and October fell by 10.2% yoy, but by only 1.5% in comparison with 2H10 (see Chart 17).

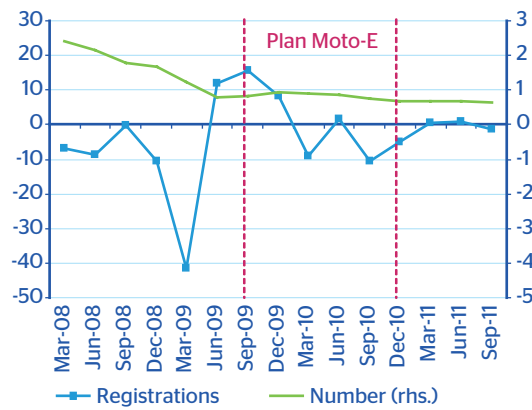
The conclusion of the Moto-E Plan in December 2010 does not explain lower domestic demand for mopeds and motorcycles this year since it did not affect consumption behaviour throughout the period it was in effect: the impossibility of benefiting from the programme to buy a more powerful motorcycle, the minimal difference between the value of the subsidy and the residual value of the scrapped vehicle, and the small number of autonomous communities that implemented the plan (Andalusia, Asturias and Catalonia) were the main reasons for its scant success¹². As such, one has to look at the weakness in the determining factors to find the causes of the decrease in two-wheel vehicle registrations – mainly the disposable income of potential buyers in the face of a worsening job market for young people – and in the increased uncertainty, which delays purchase decisions and causes the consumption of durable goods to decline. In addition, regulatory changes – in particular the increase in the license age to 15 for mopeds and the change in the 2006/126/EC Directive nearly four years before required by the European authorities¹³ has contributed to the fall in demand for motorcycles and, above all, mopeds.

In the face of persistent falling domestic demand for two wheel vehicles – which caused relative prices to fall 0.9% between January and October (see Chart 18) – foreign demand held up well in the first and third quarters of 2011. Chart 19 shows that real exports of mopeds and motorcycles grew 32.7% SWDA between January and September this year (17.9% in comparison with the same period of 2010), significantly more than the foreign sales of the set of durable goods reviewed.

12: The requirements to apply for the Moto-E Plan subsidy can be consulted [here](#).

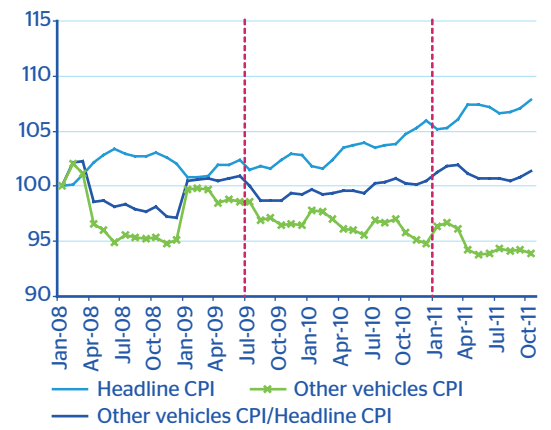
13: Spain was the first country in the EU to transpose [Directive 2006/126/EC](#) on drivers' licences in Spanish law through the enactment in 2009 of [Royal Decree 818/2009](#).

Chart 17
Spain: registrations of mopeds and motorcycles (SWDA data,% q/q)



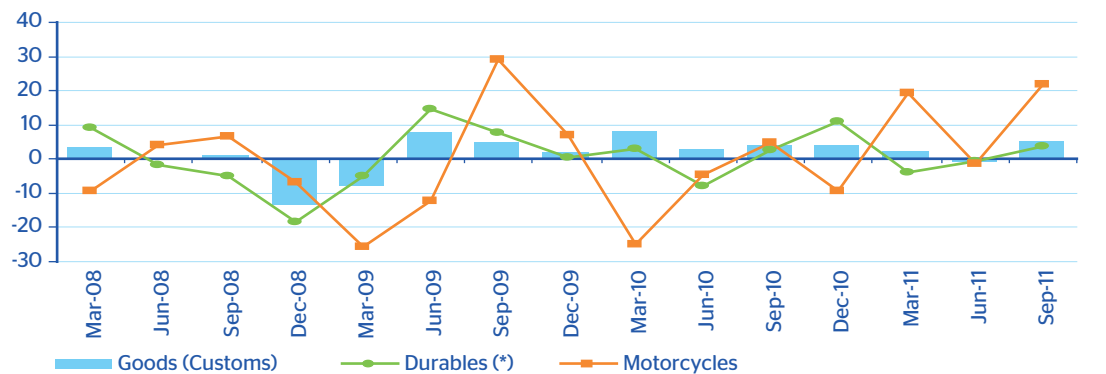
Source: BBVA Research based on Anesdor and Bank of Spain

Chart 18
Spain: consumer prices of mopeds and motorcycles (Jan-08=100)



Source: BBVA Research based on INE

Chart 19
Spain: real exports of mopeds and motorcycles (SWDA data,% q/q)



(*) Electrical appliances, consumer electronics, IT equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs data

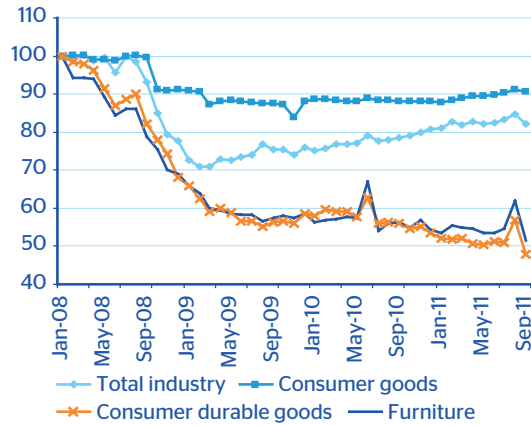
Furniture

During the first nine months of 2011, furniture sector turnover fell by 5.2% SWDA, slightly more than between January and September 2010 (-4.0% SWDA) but half as much as the decline of the whole durable goods producing sector (-10.5% SWDA) (see Chart 20). Two contributing factors help explain the sector performance. The first is healthy foreign demand (see Chart 21), that, after a negative first quarter, grew above average between March and September (15.5% SWDA). The second is the continued deterioration in the real state sector after a 2010 characterised by the increase in VAT in July and the ending of the deduction for the purchase of a primary residence in December. Between January and September 2011, investment in housing fell 2.2% SWDA and has now fallen by 49.6% since the beginning of 2007.

As shown in Chart 22, furniture sector turnover trends are closely tied to exports and housing demand. BBVA Research estimates indicate that – ceteris paribus – a 1% yoy fall in nominal exports leads to a 0.3% accumulated fall in turnover. A 1% yoy reduction in nominal investment in housing has the twice effect on furniture sector sales (0.6%).

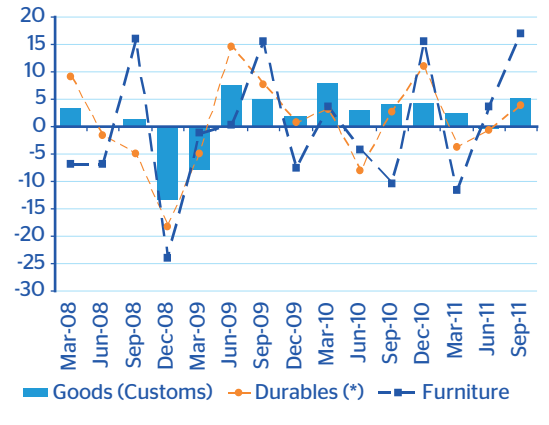
Despite lower demand, furniture prices have continued rising in 2011 (+0.7% between January and October). However, since inflation grew 1.8% over the same period, relative prices fell by 1.1%, as shown in Chart 23.

Chart 20
Spain: turnover (SWDA data, Jan-08=100)



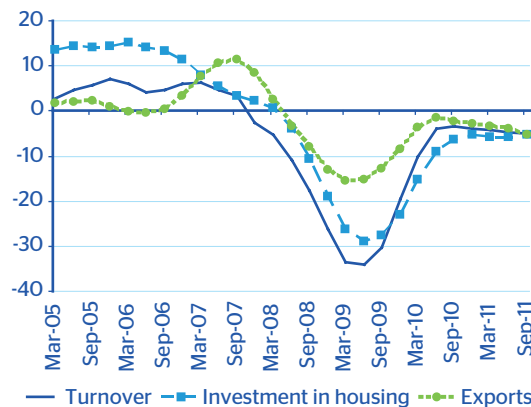
Source: BBVA Research based on INE

Chart 21
Spain: real exports of furniture (SWDA data, % qoq)



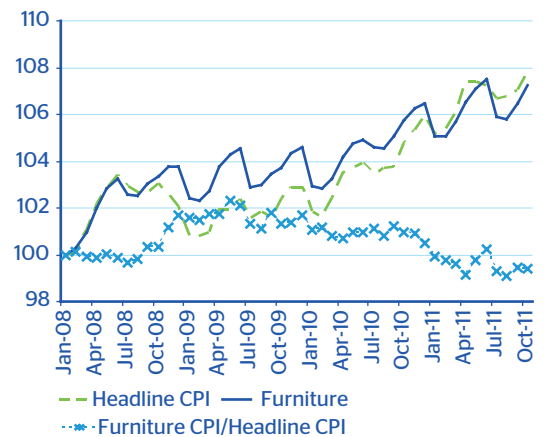
(*) Electrical appliances, consumer electronics, IT equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs data

Chart 22
Investment in housing, turnover and exports in the furniture sector (nominal data,% yoy of the trend)



Source: BBVA Research based on INE and Customs data

Chart 23
Spain: furniture consumer prices (Jan-08=100)



Source: BBVA Research based on INE data

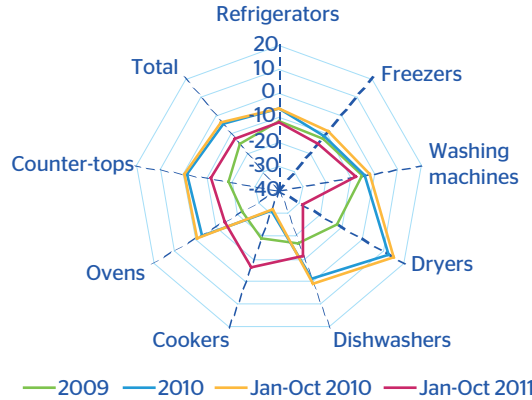
Major Household Appliances

The extension of the real estate sector adjustment has also had a negative impact on demand for household appliances. According to data from the electrical appliance manufacturer and importers' (ANFEL), yoy sales fell 12.0% in the ten first months of 2011 after declining 4.4% in 2010. All electrical appliance product families saw a decline in sales to October, but the above-average falls were seen in sales of ovens (-14.2%), freezers (-15.0%) and dryers (-28.6%) (see Chart 24). The fall in turnover in 2011 was greater than the number of units sold (15.4%) and almost quadruple the fall in 2010 (-4.1%).

The reduction in major household appliance consumption is evidenced by a general fall in prices. Chart 25 shows that the CPI for electrical appliances fell 1.5% between January and October this year (-3.2% in real terms) and would have fallen even more but for an increase in after customer service prices: repair service prices rose 2.5% in the first ten months of the year.

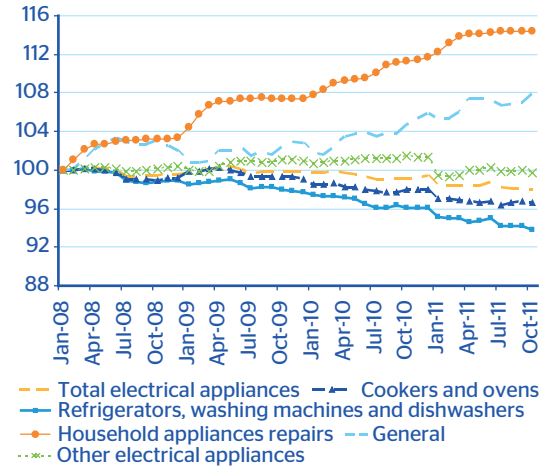
As with the other durable goods products examined, foreign demand for appliances outstripped domestic demand in 2011. Despite the fall in 2H11 real exports of major household appliances rose 6.3% SWDA in the first nine months of the year.

Chart 24
Spain: sales of electrical appliances
per family (% yoy of the number of units)



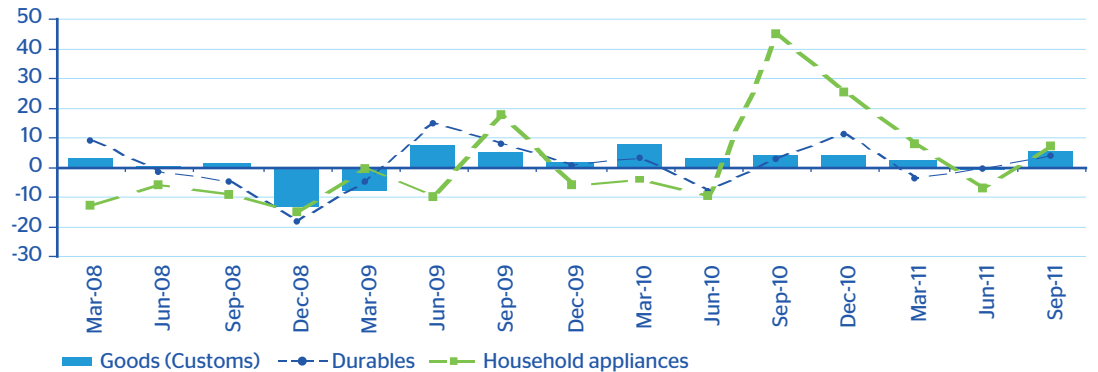
Source: BBVA Research based on ANFEL

Chart 25
Spain:
electrical appliance consumer prices (Jan-08=100)



Source: BBVA Research based on INE

Chart 26
Spain: real electrical appliance exports (SWDA data, % qoq)



(*) Electrical appliances, consumer electronics, IT equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs data

Brown line

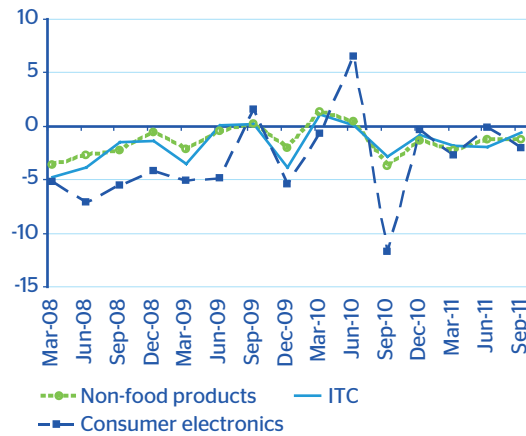
When seasonal factors are excluded, domestic demand for ICT equipment and consumer electronics has been weak in 2011. Chart 27 shows that retail sales of technology equipment fell 3.8% SWDA between January and September, whilst consumer electronics sales fell 5.6% SWDA, in line with non-food products. Lethargic demand has contributed to price containment in a sector characterized by persistent deflation. As shown in Chart 28 prices of all consumer electronics products and ICT equipment fell during 2011, both in nominal and, especially, in real terms.

The generalised price fall has led to an increase in ICT equipment penetration in Spanish homes. The Spanish National Institute of Statistics (INE) survey on ITC equipment and use indicates that DTT receivers were the most widely bought product last year, followed by computers and mobile phones (see Chart 29). Note that, in spite of strong growth over the last decade, computer penetration in households remains at relatively low levels¹⁴; the increase seen in 2011 is explained by the surge in laptops - 48.8% of households now have them (6.3pp more than in 2010) - and, to a smaller degree, by the success of tablets, PDAs and similar products whose market penetration rate rose by 0.2pp to 6.2% in 2011.

14: The percentage of households with a computer in the EU reached 76% in 2010 compared to 69% in Spain.

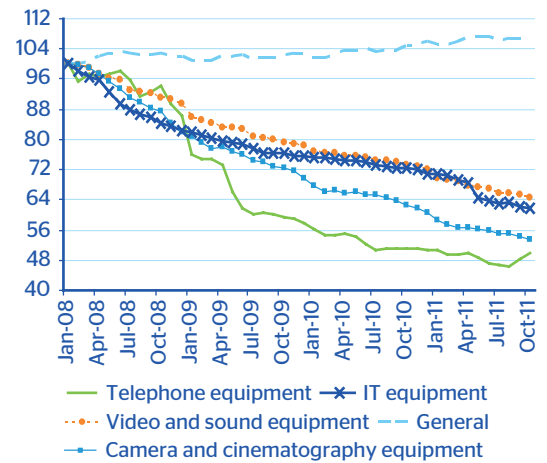
Unlike domestic demand, foreign demand varies by product type. Exports of consumer electronics fell 37.4% SWDA between January and September, due, among other reasons, to the base effect caused by the intense growth in 2010 (42.4%). By contrast, foreign sales of IT equipment have risen 11.4% SWDA this year due to the strong performance in 2H11.

Chart 27
Spain: real retail sales of brown line products (SWDA data,% qoq)



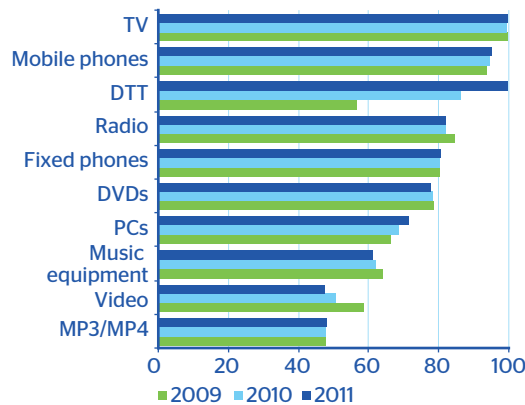
Fuente: BBVA Research based on Eurostat

Chart 28
Spain: consumer prices of brown line items (Jan-08=100)



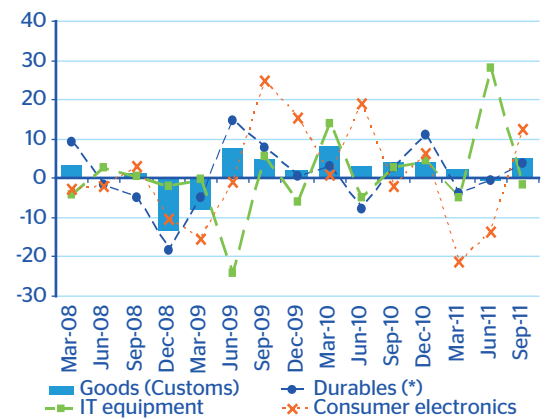
Source: BBVA Research based on INE data

Chart 29
Spain: ICT penetration rate in households (% of households)



Source: BBVA Research based on INE data

Chart 30
Spain: real exports of brown line products (SWDA data,% qoq)



(*) Electrical appliances, consumer electronics, IT equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs data

The persistent deterioration in demand for major household appliances and brown line products has led to a restructuring of the sector and heightened price competition. As shown in Table 3, numerous companies in the distribution of electrical appliances, ICT equipment and consumer electronics have undertaken cost structure remodelling processes, reducing their workforce (through layoffs) and closing or merging operations. Despite the mergers and acquisitions of the last decade and the current vertical integration process, the horizontal distribution sector continues to be significantly fragmented. Given the fall in demand and increasing financing difficulties, in order to survive over the medium term companies must search for synergies in the sector and internationalise.

Table 3

Restructuring processes in household appliance and brown line sectors (2009-2011)

Company	Type of company*	Type of restructuring
PC City	D	(-) Store closure and workforce reduction
Urende	D	(-) Store closure
PC City	D	(-) Store closure and workforce reduction
Darty	D	(-) Store closure and workforce reduction
Miró	D	(-) Workforce reduction
Urende	D	(-) Voluntary bankruptcy
Unecsa	D	(-) Bankruptcy
Urende	D	(-) Temporary workforce reduction
Media Markt	D	(+) Store opening
Ecomputer	D	(+) Store opening
Fnac	D	(+) Store opening
Worten	D	(+) Store opening (+ partial takeover of PC City)
Infinity System	M, D	(-) Temporary workforce reduction
Sanyo	M	(-) Plant closure
Electronic Devices Manufacturer	M	(-) Unwinding
Engel Axil	M	(-) Voluntary bankruptcy
BSH	M	(-) Workforce reduction
Daewoo	M	(-) Workforce reduction following extinction of company
Sharp	M	(-) Temporary workforce reduction

* D: distributing company; M: manufacturing company

Source: BBVA Research based on Alimarket and European Monitoring Centre on Change

Box 2. Current situation and outlook for car demand in Spain¹⁵

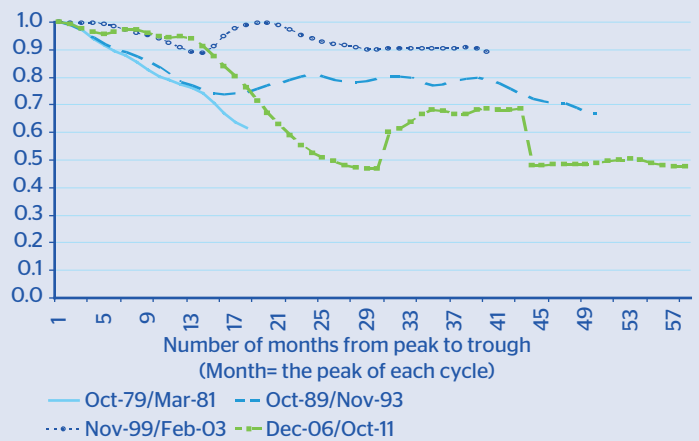
Since the beginning of 2007 there has been an unprecedented drop in car demand, which was only briefly reversed by the rise in registrations during the Plan 2000E programme¹⁶ (between June 09 and June 10). As shown in Chart 31, the magnitude (-52.5%) and duration (almost 5 years) of the current fall surpass those seen in previous downturns.

What factors explain the trend in car registrations and which have most contributed to the fall in the current crisis? Three basic macroeconomic factors determine car demand in Spain: GDP per capita, the relative price of fuel and the household borrowing capacity, which depends on the unemployment rate and consumer-loan interest¹⁷. Chart 32 shows that all three factors have been detrimental during the current crisis:

- Even though demographic growth slowed since 2007, the Spanish population continued increasing (by more than 800,000 people since that time), which led to a 6.3% fall in accumulated GDP per capita in 2008 and 2009, outpacing the fall in GDP (-4.8%).
- Apart from the last quarter of 2008 and the first quarter of 2009, when petrol prices plummeted¹⁸ fuel prices have risen more quickly than have prices of other goods and consumer services, which has led to a dramatic drop in demand for cars.
- The deterioration in employment and the increase in interest rates on loans contributed to a fall in consumer credit in 2H08. Since then, the contraction in demand for credit and the absence of inflationary pressures have led to a reduction in rates for new loans. Consequently, only lower employment can explain the reduction in consumer credit in 2009-2011.

Chart 31

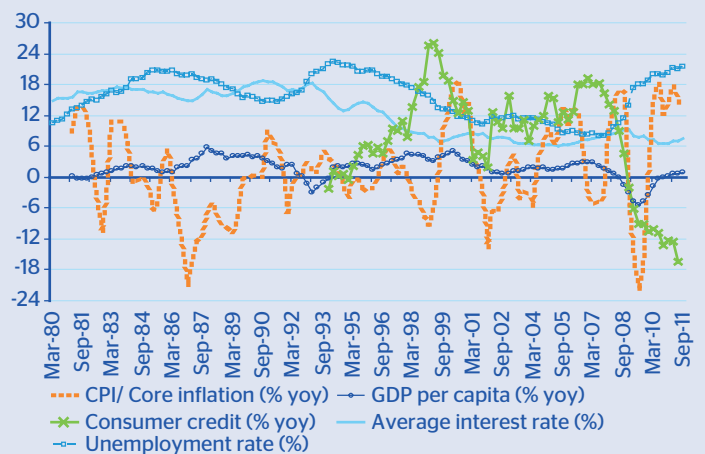
Spain: deterioration in registrations of cars during the last four downturns (Trend Component; 1 = peak of every cycle)



Source: BBVA Research and Bank of Spain

Chart 32

Spain: forecasts for car registration drivers (quarterly averages)



Source: BBVA Research based on MEH, INE and Bank of Spain

¹⁵: We are grateful to Rodrigo Falbo and José Félix Izquierdo for their comments and suggestions.

¹⁶: The purpose of the scheme was to boost demand for new and second-hand (up to five years old) low-polluting cars. The 2,000 euro incentive, which was jointly funded by the Ministry of Industry, Trade and Tourism (MICYT), the autonomous regions and car manufacturers/importers, entailed scrapping cars which were 10 years old or more (12 if they were second hand) or which had a minimum mileage of 250,000 Km.

¹⁷: Our estimates indicate that the unemployment rate and the interest rate for new consumer loan transactions are the cause of the 90.5% variability in consumer loans over the past decade (95.5% since the euro was adopted).

¹⁸: The price of a barrel of Brent fell 55.6% between 3Q08 and 1Q09 to 33.9 euros.

In the short term, demand for cars could differ from the trend indicated by its basic drivers. For example, the deviation from the basic fundamentals vs. equilibrium levels, scrappage aid, the introduction of fiscal changes or seasonal variability, among other factors, cause the number of car registrations to temporarily deviate from the long-term pattern.

To determine the contribution of each variable to the demand for cars, we have devised a model¹⁹ that jointly quantifies the long-term car registration drivers and the short-term imbalance correction trend. Chart 33 compares the real trend with the model's estimates, together with long-term equilibrium, since the beginning of 2007. We can see that demand grew above the basic fundamentals during the first half of 2008; thereafter, and particularly during the first half of 2009, car registrations decreased more than was justified by the erosion of long-term drivers. This trend was inverted following the introduction of Plan 2000E which triggered a temporary increase in demand through 2Q10. As this growth in car registrations was not accompanied by improved fundamentals, the end of Plan 2000E and the VAT increase in July of last year caused car purchases to plummet. Even though the VAT increase is permanent, the number of registered cars quickly returned to its long-term equilibrium level. The results of our estimates show that the difference in car registrations vs. the long-term equilibrium level corrected by 42.5% in the quarter (see Table A.1)²⁰.

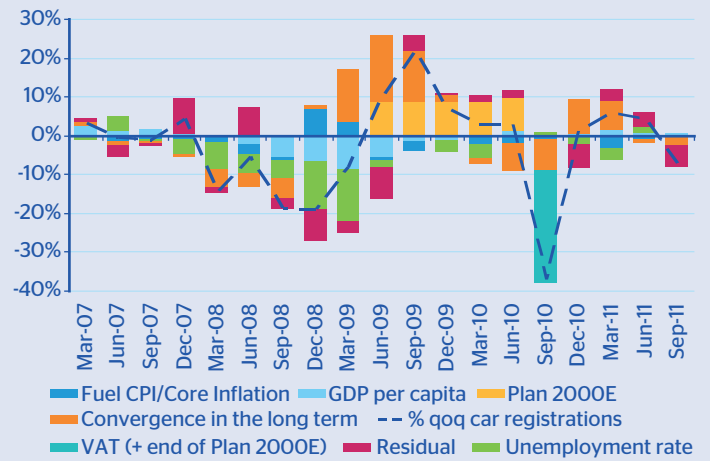
What has each variable contributed to the demand for cars during the current crisis? Chart 34 shows that higher unemployment was the main cause for the decline in car registrations in 2008 and early 2009, in terms of both elasticity of demand (a 1% increase in the unemployment rate caused quarterly growth in the number of registered cars to contract by 0.6%) and the scale of unemployment. (The unemployment rate doubled between 4Q07 and 1Q09). Between 2Q09 and 2Q10, 95.7% of the accumulated growth in demand was due to Plan 2000E. This was 8.3 pp higher than the average quarterly increase in car registrations while the Plan was in effect. The remaining growth was due to convergence towards equilibrium, favoured by the decrease in nominal interest rates for consumer loans. The end of Plan 2000E and the VAT rise caused an unprecedented fall in demand in 3Q10, comparable only with the effect of the introduction of VAT in January 1986²¹ (see Table A.1). In 2011, higher fuel prices and unemployment had an adverse effect on car registrations: the slight increase in GDP per capita and the rebound in demand in 1Q11, which had fallen in 2H10 due to an overreaction by the market, were the only factors that kept car sales up.

Chart 33
Spain: car registrations (quarterly averages)



Source: BBVA Research

Chart 34
Spain:
contribution to quarterly growth from car registrations. SWDA data



Source: BBVA Research

19: See Appendix for more details.

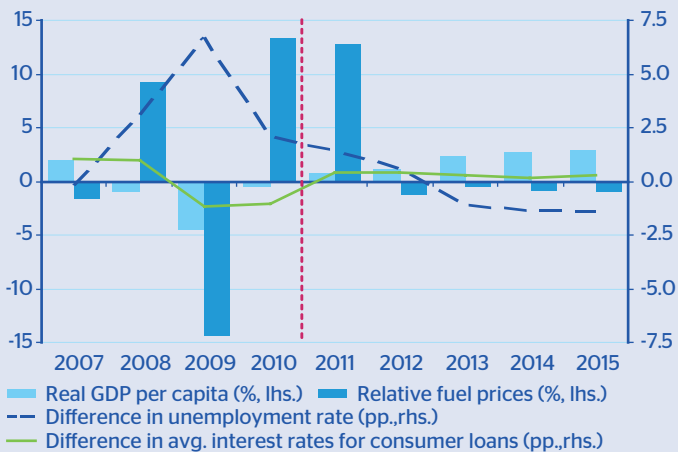
20: The speed of convergence towards the long-term equilibrium level is higher than the OECD's estimates (2010) for Japan (19%), UK (21%), USA (23%), Germany (33%) and Italy (36%), but lower in the case of France (47%) and Canada (47%). See OECD (2010): 'The Automobile Industry in and Beyond the Crisis', OECD Economic Outlook, vol. 2009 (2), pp 87-117 OECD Publishing.

21: Our model shows that quarterly growth in car registrations fell 28.3% following the introduction of VAT in 1Q86. In 1Q92, after VAT was raised to 28% (+5 pp), demand rose by 13.6%. In 1Q93, the elimination of the higher rate was offset by the introduction of a car registration tax, which triggered a quarterly fall of around 14% in the number of cars registered, similar to the decline seen when the general VAT rate was raised to 16% in 1Q95 (+1 pp). Finally, it is estimated that vehicle sales fell off by 29.1% during 3Q10 following the conclusion of Plan 2000E and the increase in the general VAT rate to 18% in July 2010.

The estimation of car registration drivers help us draw up short- and medium-term forecasts conditional on the expected evolution of each of them. Chart 35 summarises the expected evolution to 2015 for each driver in our baseline scenario:

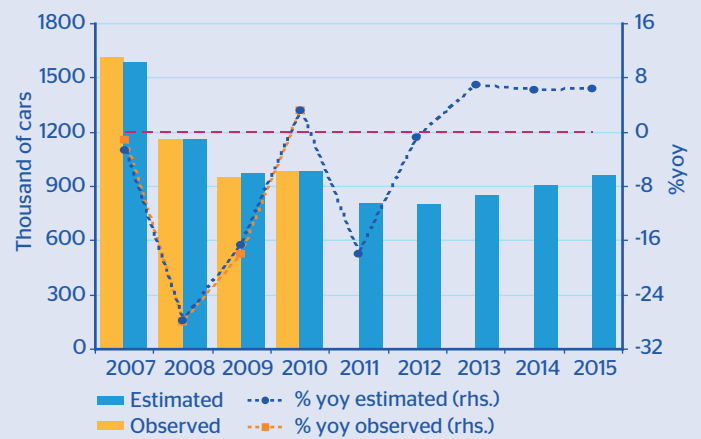
- After decreasing in 2010, GDP per capita is expected to increase gradually before reaching 2.9% in 2015, due to both moderate overall growth in GDP and a decline in the population in line with recent short-term demographical forecasts issued by the INE²².
- The insipid economic recovery would bring about a slow decline in the unemployment rate, which is expected, nonetheless, to stand at above 17% at the end of 2015.
- Lethargic aggregate demand can be expected to keep a lid on fuel prices. After rising sharply in 2011, these are unlikely to vary greatly in the future.
- The lack of inflationary pressure should help keep official rates low. This, combined with weak demand for consumer loans, should translate into slight increases in interest rates on loans even though wider spreads have been forecast on the back of higher wholesale finance costs.

Chart 35
Forecasts for car registration drivers



Source: BBVA Research, INE, MEH and Bank of Spain

Chart 36
Spain: Car registrations (total annual and % yoy)



Source: BBVA Research and ANFAC

If sensitivity of demand for passenger vehicles in the face of changes to the drivers does not vary and these behave in line with forecasts for the next five years, the number of registered vehicles will increase slightly from 2012 to nearly one million units by the end of 2015. Chart 36 shows that registrations will fall by around 18% in 2011, will stall in 2012 and will grow above 6% on average between 2013 and 2015.

Do one million cars represent long-term potential demand? The answer to this question depends on whether Spain's driving population has a ceiling, i.e. if there is a saturation point for passenger vehicle consumption after which the growth in total stock of cars converges with population growth. As BBVA showed (2010)²³, the saturation point for demand is around 520 vehicles for every 1,000 inhabitants, which means potential growth of 11% in the driving population. This is up from 472 vehicles at present (see Chart 37).

Once we know the driving population threshold, potential demand for passenger vehicles depends on population trends and on the number of vehicles withdrawn from circulation:

$$Stock\ of\ cars_t = Population_t * T_t = Stock\ of\ cars_{t-1} + Car\ registrations_t - b_t * Number\ of\ cars_{t-1}$$

where T_t denotes the driving population per capita in the year t and b_t is the percentage of the number of cars in $t-1$ withdrawn from circulation in t . Convergence of T_t to the saturation point depends, in turn, on per capital GDP²⁴.

22: The INE forecasts that the Spanish population will decline by an average of 40,000 people until 2015. For more information see: <http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft20%2Fp269&file=inebase&L=0>
 23: See BBVA (2010): "Economic growth and demand for cars in Spain: is there a saturation point?", Consumption Outlook for first half of 2010, pp 22-34.
 24: The equation for the convergence of T_t to the saturation point can be found in Table A.2 of the Appendix.

Therefore:

$$Car\ registrations_t = Population_t * T_t - (1 - b_t) * Population_{t-1} * T_{t-1}$$

Table 4 describes the baseline scenario and the extreme scenarios of the variables that explain potential demand for passenger vehicles and the speed of convergence of the driving population towards its saturation point between 2016 and 2049:

- In the baseline scenario, potential growth of the Spanish economy would converge at 2% which, combined with stagnation of the population, would mean an increase in GDP per capita on the same scale. Given the estimated driving population threshold, forecast GDP per capita growth would imply that 90% of the gap between the number of passenger vehicles per inhabitant and saturation point will have narrowed in 2029. Finally, the number of cars withdrawn from circulation would be at its average of the past two decades (4% of the total)²⁵.
- In the unfavourable scenario, potential GDP growth would slow to 1%. As the population is due to fall by 900,000 between 2015 and 2049, GDP per capita would increase annually by an average of 1.2%. Consequently, the speed of convergence of the number of vehicles towards its saturation point would decrease (90% of the adjustment would not be completed until 2038). Against this backdrop, the slowdown in GDP growth per inhabitant would bring about an extension in the useful life of cars,

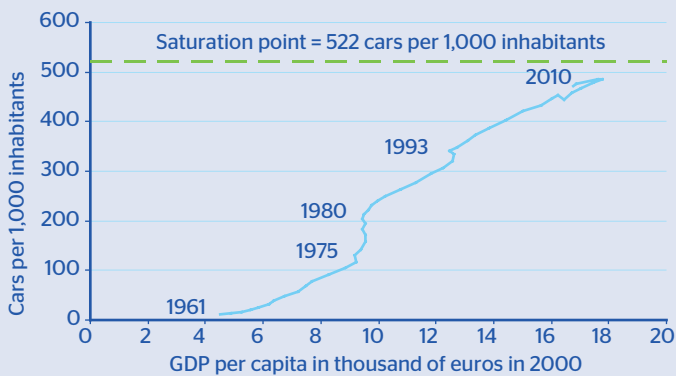
reducing the number withdrawn from circulation to 3.5% of the total, a similar figure to that seen during the crisis of the first half of the 1990s.

- In the favourable scenario, the implementation of ambitious structural reforms would raise potential growth of the Spanish economy to 3%. The population is expected to increase by one million people between 2015 and 2049, equivalent to an annual average increase of 0.1%. GDP per capita would grow at an average rate of 2.9% therefore the saturation point of the number of cars per 1,000 inhabitants would be reached slightly before (in 2026, 90% of the gap would have been closed) and the vehicle scrappage rate would increase to 4.5% of the total, the average seen during the last expansion phase between 2000 and 2007.

Chart 38 illustrates potential demand for cars in each of the three scenarios between 2015 and 2049²⁶. In the baseline scenario, the number of registered cars would stabilise at around 980,000 after the forecast spike in the second half of this decade. Therefore, potential demand would be slightly above the level seen between 1988 and 1993. Potential demand would fall to 825,000 in the unfavourable scenario due to worsening economic activity, demographics and, particularly, the vehicle scrappage rate. In the favourable scenario however, vehicle registrations would surpass the 11 million mark, driven by sustained GDP per capita growth and the rise in the propensity to scrap cars.

Chart 37

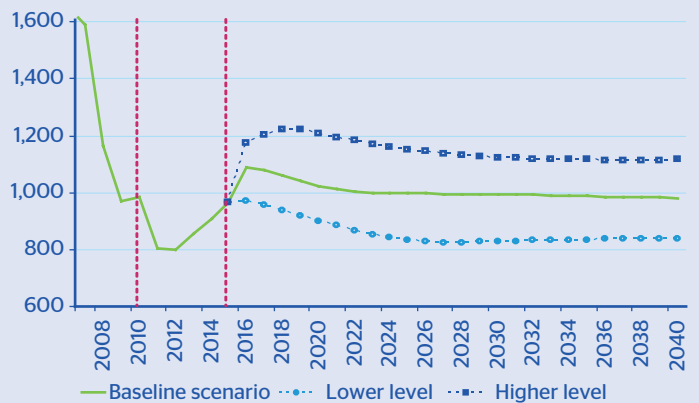
Spain: number of cars vs. GDP pc (1961-2010)



Source: BBVA Research based on INE, Bank of Spain, DGT and European Commission

Chart 38

Spain: car registration scenarios (Thousand of units)



Source: BBVA Research

25: Note that the scrappage rate is a variable which is not particularly volatile despite the different stimulus plans for demand rolled out over the past 20 years: between 1990 and 2010, its standard deviation was 0.6, lower than the yoy growth in car registrations (13.0) and yoy GDP growth (2.1).

26: Although Chart 38 shows the results of the baseline scenario and the two extreme scenarios, the combination of the assumptions which characterise each of them gives rise to 25 possible scenarios for demand for cars.

Table 4
Long-term scenarios of the drivers behind potential demand for cars. 2015-2050

	Unfavourable scenario	Baseline scenario	Favourable scenario
Potential GDP growth	1%	2%	3%
	1) ST projections by the INE up to 2020; 2) Convergence of LT forecasts by the INE up to 2040; 3) LT forecasts thereafter	1) ST projections by the INE up to 2020; 2) Convergence of LT forecasts by the INE up to 2030; 3) LT forecasts thereafter	1) ST projections by the INE up to 2014; 2) Convergence of LT forecasts by the INE up to 2020; 3) Slowdown in demographic growth to 0.1% in 2030; growth of 0.1% thereafter
Demographics			
	2015: 45.9 million	2015: 45.9 million	2015: 45.9 million
	2026: 44.8 million	2026: 45.3 million	2026: 45.6 million
	2049: 45.0 million	2049: 45.8 million	2049: 46.9 million
Scrappage rate (% of the total)	Average: 1993-1995: 3.5%	Average: 1990-2010: 4.0%	Average: 2000-2007: 4.5%

Source: BBVA Research

In short, the deterioration of the drivers - mainly, unemployment - explains the fall in the demand for cars during the current crisis, although Plan 2000E and the increase in VAT in Jul-10 did have significant transitory effects on car registrations between the second quarter of 2009 and the third quarter of 2010. If sensitivity to the purchase of cars in the face of changes to the drivers does not vary and these behave in line with forecasts, the number of registered vehicles will increase from 2012 to nearly one million units by the end of 2015. This figure represents the potential demand for cars over the long term in Spain: considering that the

driving population has a saturation point of about 520 cars per thousand inhabitants, and using reasonable assumptions on GDP trends, demographics and the vehicle scrappage rate, potential demand will stabilise at around 980,000 cars a year from the next decade. Taking everything into account, the implementation of structural reforms that will boost Spanish economic growth potential and the purchasing capacity of Spanish households, together with weak but sustainable population growth, car registrations will increase by 13% over the long term²⁷.

27: Technological advances and changes in householders' preferences other than those which are contemplated in this article could also shape demand for cars in the long run.

Appendix

Table A.1

Estimate of drivers behind demand for cars in Spain: error-correction model (*). Quarterly data (1Q80 - 2Q11)

	Coefficients	Standard error	t	p-value	[CI 95%]		Standardised coef.
	coefficient						
Long term							
NL(real GDP per capita)	0.608	0.133	4.580	0.000	0.345	0.871	0.305
NL (fuel price index/Consumer price index for services and non-energy processed goods)	-1.177	0.076	-15.510	0.000	-1.327	-1.027	-0.492
NL (unemployment rate)	-0.460	0.043	-10.650	0.000	-0.546	-0.375	-0.339
NL (nominal average rate)	-0.225	0.062	-3.610	0.000	-0.349	-0.102	-0.226
Constant	17.685	0.591	29.920	0.000	16.515	18.856	-
Short term							
MCE (t-1)	-0.425	0.057	-7.450	0.000	-0.538	-0.312	-0.328
DNL (GDP per capita)	4.729	1.525	3.100	0.002	1.706	7.752	0.189
DNL (fuel price index/Consumer price index for services and non-energy processed goods)	-0.403	0.168	-2.410	0.018	-0.735	-0.071	-0.106
DNL (unemployment rate)	-0.614	0.189	-3.240	0.002	-0.989	-0.239	-0.206
<i>Dichotomous variables:</i>							
RENOVE1 (Jun-94-Jun-95)	0.106	0.045	2.350	0.021	0.016	0.195	0.092
Plan 2000E (May-09/Jun-10)	Plan 2000E (May 09-Jun-10)	0.031	2.780	0.006	0.025	0.147	0.116
VAT1 (1Q86)	-0.283	0.067	-4.250	0.000	-0.415	-0.151	-0.175
VAT2 (1Q92)	0.136	0.064	2.120	0.037	0.009	0.263	0.084
Car registration tax (1Q93)	-0.138	0.067	-2.050	0.042	-0.271	-0.005	-0.085
VAT3 (1Q95)	-0.141	0.064	-2.200	0.030	-0.269	-0.014	-0.087
VAT4 (3Q10)	-0.291	0.066	-4.420	0.000	-0.421	-0.160	-0.180
No. observations (1Q80-2Q11)		125					
F (15, 110)		36.930		Prob > F		0.000	
R2		0.834		Adjusted R2		0.812	
ECM root		0.063					
Durbin-Watson from the ec. of co-integration (5, 126)		1.256					
ADF on the residues of the ec. of co-integration		-6.104		Approx MacKinnon P-value		0.000	
Durbin-Watson of the model (15, 125)		2.018					
Durbin autocorrelation test of order p:							
p=1	F(1, 109)	0.051		Prob > F		0.821	
p=2	F(2, 108)	0.307		Prob > F		0.737	
p=3	F(3, 107)	1.882		Prob > F		0.137	
p=4	F(4, 106)	1.845		Prob > F		0.126	
ARCH LM test							
p=1	chi2(1)	0.012		Prob > chi2		0.914	
p=2	chi2(2)	0.910		Prob > chi2		0.634	
p=3	chi2(3)	1.000		Prob > chi2		0.801	
p=4	chi2(4)	3.102		Prob > chi2		0.541	

* Notes:
 - Car registration figures come from the Directorate General of Transport (DGT); GDP and unemployment figures from the INE; population figures from the Ministry of Economy and Finance (REMS model) and INE (estimates for the current population) and price figures (fuel price index and consumer price index for services and non-energy processed goods) from the Ministry of Economy and Finance.
 - The weighted average rate of new consumer loan transactions, compiled since 2003 by the Bank of Spain, has been linked to the weighted average rate of personal loans up until then.
 - The contrasts in the integration order of each of the variables in the model are available.
 - Both the long-term (T2, T3) and short-term (T1, T2, T3, T4) equations include quarterly dichotomous variables.
 - DNL(X) denotes the first difference in the Neperian logarithm of variable X, and MCE, the error correction mechanism.
 Source: BBVA Research

Table A.2

Estimate of the saturation point of the number of cars per capita in Spain (1961-2010)

The equation describing the long-term relationship between the number of cars per capita (T) and the GDP per inhabitant is expressed as follows:

$$T^* = \beta_0 e^{-e^{(\beta_1 e^{(PIBpc_t; \beta_2)}})}, [1]$$

where β_0 denotes the saturation point and β_1 and β_2 define the degree of curvature of the function. The modelisation of the convergence in the long term is carried out through the following adjustment mechanism:

$$T_t = T_{t-1} + \theta (T^* - T_{t-1}), [2]$$

where θ represents the speed of the adjustment towards the saturation point. Replacing [1] by [2] and reordering it we get:

$$T_t = \theta \beta_0 e^{-e^{(\beta_1 e^{(PIBpc_t; \beta_2)}})} + (1 - \theta) T_{t-1}, [3]$$

The results of the estimate of the equation [3] for squared non-linear minimums for Spain are the following:

Results of the estimate

	Coefficients	Standard error	t	p-value	[CI 95%]	
theta	0.532	0.265	2.010	0.051	-0.002	1.065
b0	522.273	12.149	42.990	0.000	497.803	546.743
b1	0.304	0.017	17.930	0.000	0.270	0.339
b2	9.402	0.121	77.430	0.000	9.157	9.646
Number of observations =49 (1961 -2010)						
R2	0.997					
Adjusted R2	0.997					
Root of the ECM	16.828					

Source: BBVA Research

See BBVA (2010) and the references mentioned therein for more details about the saturation point estimate for demand for cars in Spain.

5. Analysis of the economic situation of the retail trade based on BBVA's Business Trends Survey. Second round²⁸

In order to round out our study on the economic situation of the retail trade sector in Spain and its interrelation with the supply and demand for credit, BBVA Research introduced its quarterly Business Trends Survey (BTS) in December 2010 with semester periodicity. The BTS is aimed at managers and directors of BBVA's Consumer Finance Department in Spain who sell consumer loans (brokers) in the sectors distributing goods -mainly durable goods- and retail services. The activities studied are car and motorcycle sales and repairs (groups 451, 452, 453 and 454 of the National Classification of Economic Activities 2009 - NCEA 2009); retail sales of ICT equipment (group 474); sales of hardware articles, paints and glass (classes 4752 and 4753); household appliances (class 4754); furniture (class 4774); cosmetic and hygiene products (class 4775) and other products which are not sold in specialist establishments (group 479). Other credit activities relating to granting loans to institutions not involved in money trading are also included (particularly consumer loans) (class 6492).

The BTS survey is divided into three sections. The first contains information on the location of those interviewed (autonomous community, province and sectors of collaborating companies); in the second section participants are asked about their assessment of the economic situation - current and forecast - for the sectors in which they operate and the economy as a whole. In the third section, those interviewed evaluate the present and future trends for the supply and demand for credit in their area of business²⁹. As we can see from Table A.3 of the Appendix, the composition of the sample based on both NUTS1³⁰ and the sector of activity, barely changed in 1H11 compared to the first round of the BTS. We would note that the relative importance of the car sales sector decreased to 39.3% vs. 43.6% in 2H10.

Results of the BTS for the first half of 2011

Chart 39 shows that even though those interviewed in 1H11 shared a similar view of the Spanish economy to those interviewed in 2H10, the trend has been significantly worse than what was forecast at the end of the previous year. Thus, the percentage of managers and directors who consider that the economy has worsened during 1H11 is 69.4% vs. the 45.7% in 2H10 who expected the situation to deteriorate over the next six months. The outlook for 2H11 has improved marginally with 50.3% of those taking part in the BTS believing that the economic situation will not change, while 44.8% believe it will worsen³¹.

The perception of the current state of the Spanish economy and the outlook vary according to the sector of the person interviewed. As we can see from Chart 40, the difference between the percentage of responses which indicate an improvement in the economy and the percentage which suggests a worsening - usually used as an indicator of the economic situation³²- varies between regions. If we compare the results of the BTS for 1H11 with the forecasts issued in 2H10, we can see that the economy has deteriorated more than estimated in our previous BTS in the Northwest, Madrid, the South and, especially, the East and Northeast; in the Central region, the deterioration was in line with the expectations of those interviewed, while in the Canary Islands it was lower³³.

28: We are grateful to the following people for participating in the surveys: the managers and directors of BBVA's Consumer Finance department, as well as the collaboration of Antonio Marín and Pep Ruiz.

29: The questions refer to the market as a whole and not BBVA's policy.

30: In order to preserve the confidentiality of the participants and to avoid problems of representativeness, aggregate results for the seven autonomous community groups which comprise level 1 Statistical Territorial Units (NUTS1) are listed. These are: Northwest (Galicia, Asturias and Cantabria); Northeast (Basque Country, Navarra, Rioja and Aragon); Madrid (Community of Madrid); Central region (Castile-León, Castile-La Mancha and Extremadura); East (Catalonia, Valencia and Balearic Islands); South (Andalusia, Murcia, Ceuta and Melilla) and Canary Islands (Canary Islands).

31: Please note that the BTS for 1H11 was carried out during the second fortnight of July and the first of August.

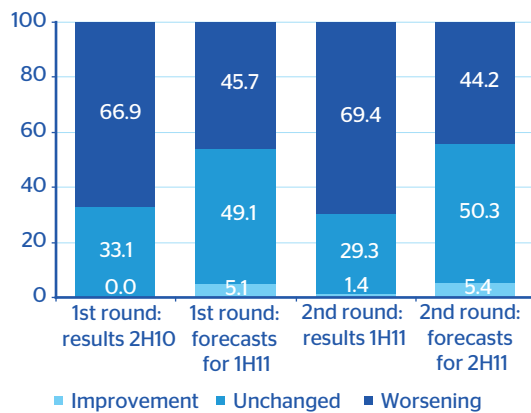
32: Constructing a balance of responses based on the data of opinion polls is common practice. For example, see the synthetic indicators drawn up by the [European Commission](#), the [MITyC \(Ministry of Industry, Tourism and Trade\)](#) and the [Official Credit Institute \(Instituto de Crédito Oficial\)](#), among others.

33: The divergence between the current and the forecast situation could be due to the baseline level in each territorial unit: those regions where the perception of the situation was worse in 2H10 suffered a more disappointing trend in 1H11.

As with the economy for Spain as a whole, a slowing decline in 2H11 is expected particularly in the Canary Islands and the Northwest region.

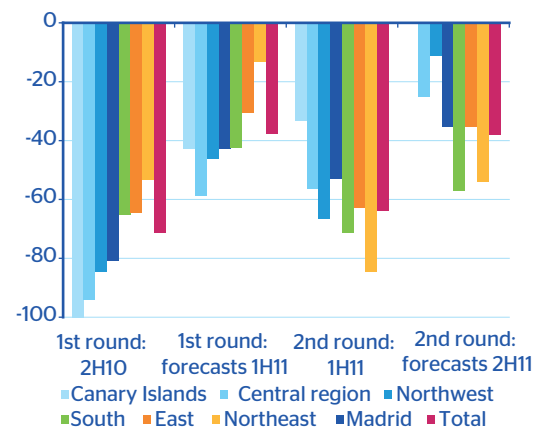
Meanwhile, the diversity of the outlook by sector is less than for the regions (see Chart 41). Opinions on the economic situation for all activities worsened in 1H11 more than was forecast in 2H10. We would note the deterioration in the perception of the current state of the car sector sales (including motorcycles), in which the balance of responses between what was forecast at the end of 2010 and what has been observed to June this year, shrank 32.2 points to -70.1. As by regions, the situation for all the sectors is expected to continue to worsen in 2H11, although at a lesser rate than what we saw last year.

Chart 39
Perception of the Spanish economy situation (%)



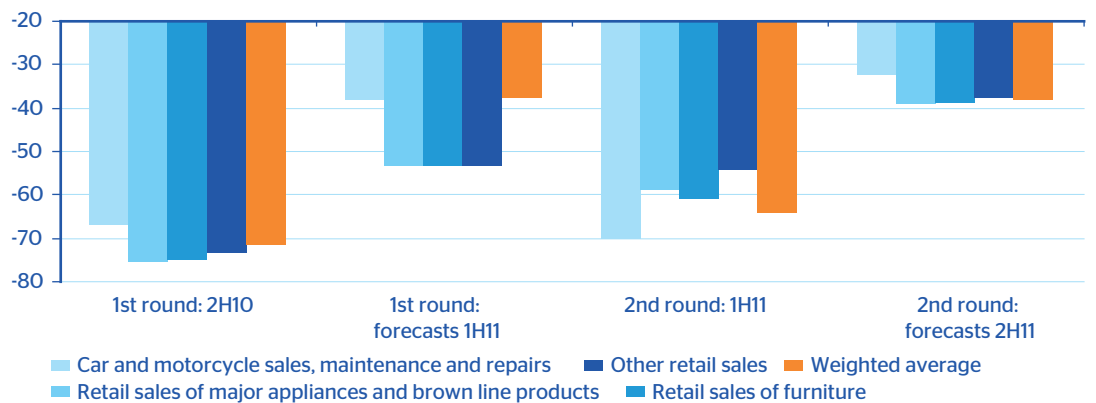
Source: BBVA Research (BTS)

Chart 40
Perception of the economic situation in each region: balance of responses (<0 indicates a worsening)



Source: BBVA Research (BTS)

Chart 41
Perception of the economic situation of each sector: balance of responses (<0 indicates a worsening)



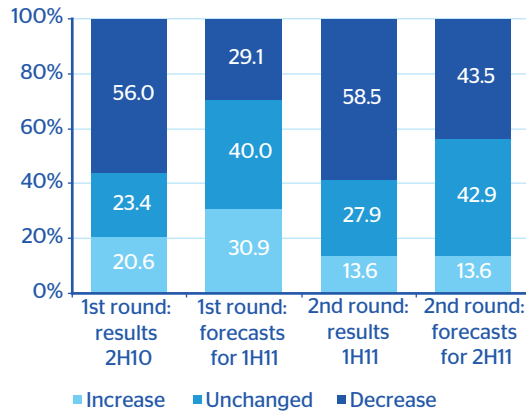
Source: BBVA Research (BTS)

Credit trends are a reflection of the worsening of the economy situation perceived by interviewed, both in terms of lower supply and increasing weakness of demand. Chart 42 shows that credit supply in 1H11 performed worse than expected: 58.2% of participants in the BTS believe that supply contracted between January and June. This is only 2.5 percentage points higher than the figure announced in December for second half of 2010 but double the figure forecast for 1H11. Demand for credit was also worse than forecast by participants in December 2010 although this deterioration slowed with regard to the figure announced in 2H10: 89.2% of participants in the first round of the BTS stated that the demand for credit had decreased in 2H10; in 1H11 this figure had fallen to 81.0% (see Chart 43).

The outlook for 2H11 are comparatively more favourable in terms of supply with “only” 43.5% of managers and directors at BBVA Consumer Finance believing that supply will contract, while more than half - 56.5% - consider that demand for credit will continue decreasing, although at a lower rate than during the first half of the year.

Chart 42

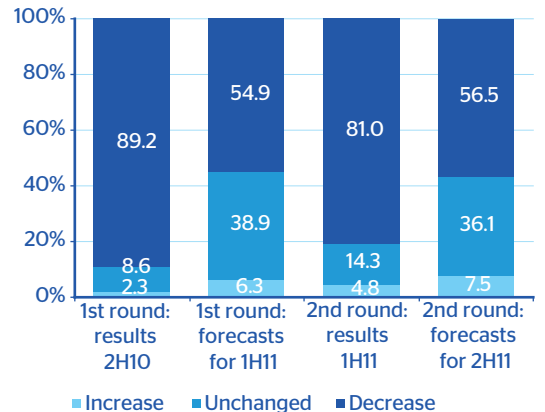
Perception of credit supply (%)



Source: BBVA Research (BTS)

Chart 43

Perception of demand for credit (%)



Source: BBVA Research (BTS)

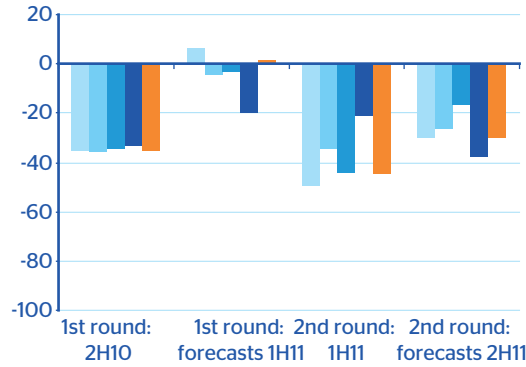
The trend in credits by sector replicates the aggregate pattern- lower supply and a slowdown in the deterioration of demand compared to what we saw in 2H10, with expectations not being met in either case- but there are certain differences (see Charts 44 and 45). Particularly, highlight the significant contraction in the supply and demand for credit in the car and motorcycle distribution sector compared to the surveys from December 2010, which showed a worsening of the economic situation in the sector.

Participants in the BTS believe that the retail furniture business suffered the second largest decline in credit supply in 1H11 while the easing in the decline in demand was lower than expected in 2H10. The perception of credit trends for household appliance and brown goods sales was similar to that declare by interviewees that intermediate in the furniture sales sector. Finally, the other retail business sector was the only one in which the credit supply during 1H11 performed in line with forecasts although demand worsened more than expected.

The forecasts for 2H11 suggest that credit will continue decreasing in all the activities studied, due to both supply and demand reasons albeit at a lower rate, which -again- is consistent with forecast trends for economic activity in each sector.

Chart 44

Perception of credit supply by sector: balance of responses (<0 indicates a worsening)

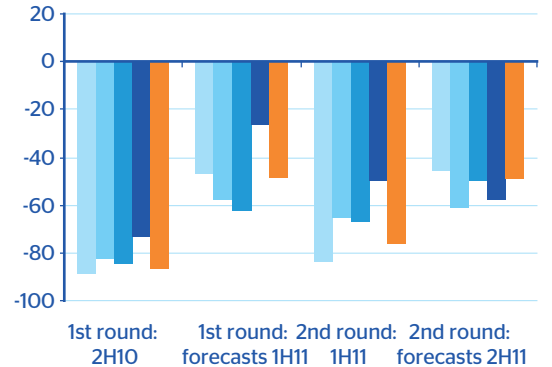


- Car and motorcycle sales, maintenance and repairs
- Retail sales of major appliances and brown line products
- Retail sales of furniture
- Other retail sales
- Weighted average

Source: BBVA Research (BTS)

Chart 45

Perception of demand for credit by sector: balance of responses (<0 indicates a worsening)



- Car and motorcycle sales, maintenance and repairs
- Retail sales of major appliances and brown line products
- Retail sales of furniture
- Other retail sales
- Weighted average

Source: BBVA Research (BTS)

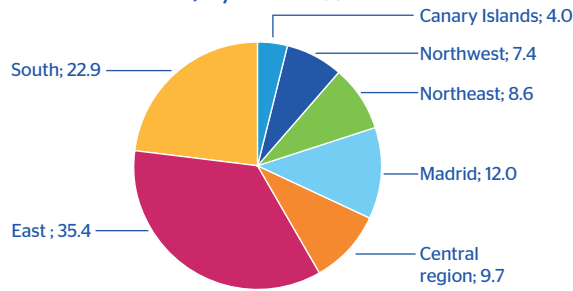
In sum, the results of the BBVA BTS for the first half of 2011 suggest that the economic situation in the different retail sectors worsened between January and June more than what had been expected six months ago, particularly in the car and motorcycle sector. Slack consumption and weak basic fundamentals have affected demand for credit, which decreased more than those interviewed in December 2010 had forecast but slightly less than during 2H10. At the same time, the harsher financing conditions affected the contraction of consumer credits in all branches of retail activity, although the areas most affected were vehicle distribution and furniture. The outlook for 2H11 points to a generalised slowdown in the deterioration of economic activity, based on a smaller decline in the supply and demand for credit. Undoubtedly, the worsening of financial tensions since August will put these forecasts to the test.

Appendix

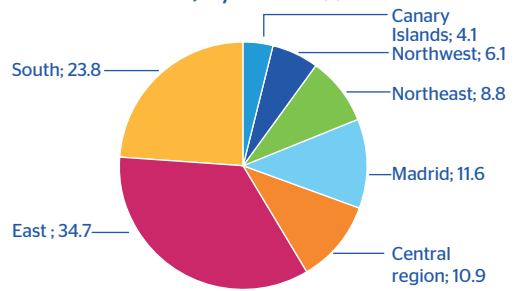
Table A.3

BBVA Business Trends Survey breakdown. Sample composition

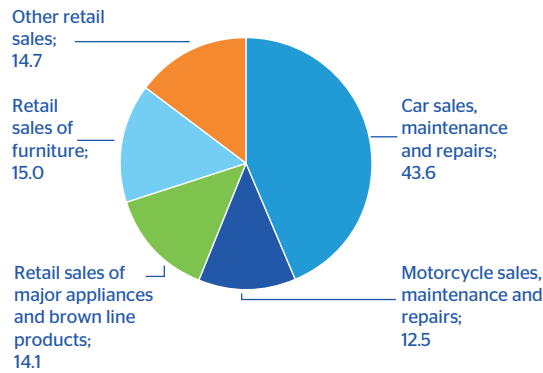
1st round: 2H10, by NUTS1 (1)



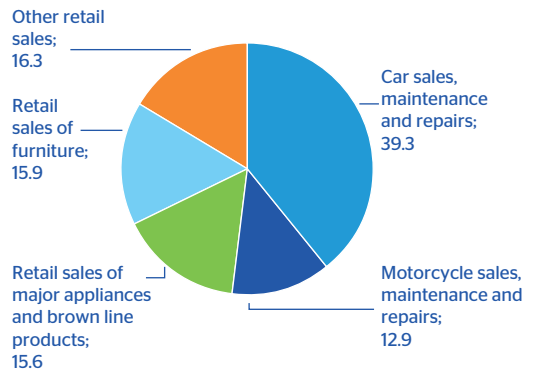
2nd round: 1H11, by NUTS1 (1)



1st round: 2H10, by sector



2nd round: 1H11, by sector



(1) NUTS1: Nomenclature of the level 1 Statistical Territorial Units. Northwest: Galicia, Asturias and Cantabria; Northeast: Basque Country, Navarre, Rioja and Aragon; Madrid; Central region: Castile and León, Castile-La Mancha and Extremadura; East: Catalonia, Valencia and Balearic Islands; South: Andalusia, Murcia, Ceuta and Melilla; Canary Islands.

First round: 175 observations; second round: 147 observations.

Source: BBVA Research

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