Consumption Outlook

Spain

Second Half 2012
Economic Analysis

- **The risk of a euro break-up fades.** Europe needs credible, effective and permanent political agreements.

- **The reforms announced are improving the Spanish long-term economic growth prospects,** but decisive short-term and medium-term drivers are still very weak.

- **The VAT hike and the likelihood of a deterioration in fundamentals herald a decrease in consumption expenditure in 2013,** especially in durable goods.

- **Households will continue to deleverage,** shaping the performance of consumer credit.

- **The uncertainty explains changes in consumer lending interest rates during the crisis.**

Index

Closing date: 11 December 2012

1. Summary

There have been few changes in the growth prospects of the **world economy** since the last edition of "Consumption Outlook"[1], although the measures taken by economic authorities in the course of the last six months have clarified the global panorama, thus preventing a systemic risk event. This has led to expectations of a gradual expansion in the world economy from 3.2% in 2012 to 3.5% in 2013, spurred on by the dynamism of emerging markets and dwindling aversion to risk brought about by the monetary policy measures announced by the Federal Reserve and the European Central Bank. In particular, the Fed has undertaken to keep interest rates at the current minimum levels until the end of 2015, and to usher in a new round of quantitative easing. The ECB, meanwhile, has embarked upon a secondary market programme to purchase public debt from countries requesting financial assistance through European bailout funds subject to "strict and effective conditionality".

The **Spanish economy** has moved forward in concordance with the economic measures announced in July. The process of restructuring the financial system has followed the roadmap agreed with other European partners in the Memorandum of Understanding. In terms of its budget, the Government approved the 2013-2014 biannual plan in August, and the General Government Budget for 2013 in September. It also announced a far-reaching legislative calendar to push through reforms based on the National Reform Programme, and also the European Commission's recommendations, thereby improving long-term growth prospects. However, short-term and medium-term drivers of the Spanish economy remain extremely weak, as a hint that the economy will continue to contract in the near future. Consequently, the Spanish economy looks set to remain in recession over the next several quarters, with the most likely scenario showing GDP contracting by around 1.4% throughout 2012 and also 2013.

Household **consumption**, meanwhile, fell back by 0.5% qoq in 3Q12, 50% of the preceding quarter, on the back of a lower rate of savings by consumers bringing their purchases forward before the VAT changes came into effect in September, partially offsetting the decline in disposable income and net wealth, both financial wealth and real estate wealth. Domestic **demand for durable goods** was the main reason for the easing of the slowdown in consumption in 3Q12.

In view of the likelihood of mark-ups by the increase in the general VAT rate, individuals and, to a lesser extent, businesses decided to buy **cars** in August, when otherwise these might have been bought in 4Q12. As a result, in August new car registrations showed the largest monthly increase since the end of 1994, whereas the figures dropped sharply in September. Deployment of the PIVE incentive plan mitigated the negative impact of higher VAT on car purchases in October, and provided some assistance in producing new registrations in November. On the hypothesis of a conservative forecast of the effect of the PIVE plan on demand in December, registrations will stand at 700,000 for 2012 overall; in 2013, expectations of lower relative prices of fuels and lower interest rates for new consumer credit transactions will barely offset the forecast decrease in GDP per capita and higher unemployment, and so the number of car registrations will not show any significant discrepancies against the figures for 2012.

Similarly to car purchases, the market in **two-wheeled vehicles** was affected by the VAT increase during the second half of 2012. After two years of uninterrupted decline, purchases brought forward as a result of the projected VAT hike explained the increase in motorcycle registrations in 3Q12. Negative data for September and October eventually confirmed that higher demand was merely transitory, and thus new registrations will likely come to just over 100,000 by the end of 2012. In due consideration of the economic scenario described in Section 2, any change in this trend in 2013 is forecast.

Turnover in the **furniture sector**, meanwhile, rose during the third quarter of the year following a decrease over the first six months. Two factors help explain the trajectory of turnover in the industry during 2H12. The first is, again, the increase in VAT, which pushed back to August any furniture purchases that would otherwise have been made as of September. The second

---

1: See BBVA Research (2012): Consumption Outlook. First half 2012. BBVA. Madrid. Available at:
http://www.bbvaresearch.com/KETD/fbin/mult/1205_Situacionconsumo_tcm346-330687.pdf?ts=11122012

factor was the positive performance by foreign demand, which rose above average demand for durable goods since the beginning of 2012. In view of the close relationship between spending on furniture and housing investment, the sector's prospects for the last quarter are primarily conditioned by foreseeable trends in the latter. BBVA Research forecasts indicate that housing investment in Spain will experience a transitory decrease in 4Q12 following the withdrawal in January 2013 of tax breaks on house purchases (tax incentives for purchases of main homes and a super-reduced VAT rate). This means the furniture sector could become more dynamic in the last few months of 2012, and weaken sharply as of the second quarter of 2013.

The prolonged adjustment in the real estate sector has continued to have a negative effect on purchases of **household appliances**. According to data from the National Association of Household Appliance Manufacturers (ANFEL), the number of appliances sold decreased by 11.6% and revenue by 12.5% in the first ten months of 2012, compared to the same period the previous year. As for other durable goods, the VAT hike brought about changes in the pattern of spending over time on all families of household appliances, affecting demand trends in 4Q12. Finally, after a recovery in July and August, purchases of **brown line items** fell back in September and October although the VAT mark-up on final prices was virtually zero, and this led to increased purchases of technology equipment by Spanish households.

Despite the favourable trend observed in 3Q12, demand for durable goods has shown the largest decrease during the present crisis. Tighter access to credit, higher income elasticity, its lack of liquidity and the possibility of postponement of purchases in view of the general economic uncertainty are some of the factors behind falling purchases of durable goods since 2007. Its slice of families' expenditure has decreased in favor of housing, communications, food, health and education. As Box 1 shows, although variations of the composition of the population have exerted some influence, changes to the "preferences" of Spanish households have been the main driver behind changes in **consumer habits**. Average-size households, with at least one person employed and no dependent children, with a net monthly income of between 1,000 and 3,000 euros, living in a house outside the provincial capital where the main breadwinner is an employed male between 35 and 64 years old, have been the primary parties responsible for changes in relative purchases of durable goods since 2007.

Credit has played a key role in the trajectory of purchases of durable goods. In this regard, the restructuring of Spain's financial system and low domestic demand have affected consumer financing. During the third quarter of 2102, **lending to households for consumption and other purposes** - excluding housing - continued to fall, albeit at a slower pace than observed in 1H12, bringing the outstanding balance to the levels observed at the beginning of 2004. This household deleveraging led to a drop in the ratio of consumer credit against GDP to 6.0% in September, 3pp below the European average. Although higher interest rates for consumer credit as a result of changes to financial institutions' commercial policy - brought about by greater uncertainty - have made some contribution to a reduction in credit, data from the BBVA Business Tendencies Survey show that the deterioration in consumer financing is mainly due to a general reduction in demand (see Box 2 and Section 5).

Prospects in the short and medium term point to a substantial decrease in private consumption, particularly the consumption of durable goods. The increase in indirect taxation and a worse outlook for consumption drivers herald decreases in household spending by around 2.1% in 2012 and 2.9% in 2013. The deterioration of employment in particular will trigger a fresh decline in the wage component of households' gross disposable income. Additionally, the VAT increase in September - and the fact that consumers brought forward certain purchases as a result - will continue to cause consumption to contract over the months ahead. A recovery of net financial and real estate wealth is also unlikely over the forecast period. Conversely, the reduction in the household savings rate to pre-crisis levels, the absence of inflationary pressure on demand and official interest rates at low levels will all limit the contraction of private consumption in 2013.

2. Outlook for the Spanish economy

## The measures taken by central banks have clarified the global panorama

Against a backdrop of great uncertainty worldwide, in recent months economic authorities - in particular, central banks in the Eurozone and the US - have taken some major steps within their respective areas of responsibility, preventing a systemic risk event comparable to the one occurring at the end of 2008. On the strength of lower risk aversion, the world economy is expected to show a gradual improvement of GDP growth up to 3.5% in 2013, 3pp more than the increase predicted for 2012 (see Chart 1).

Chart 1
GDP growth rate (% yoy)
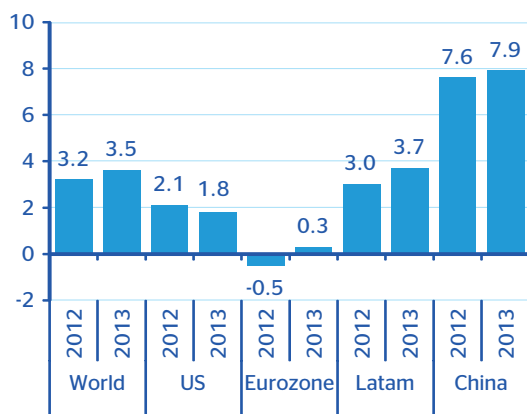
Chart 2
Financial Stress Index for Eurozone countries

Source: BBVA Research and Haver
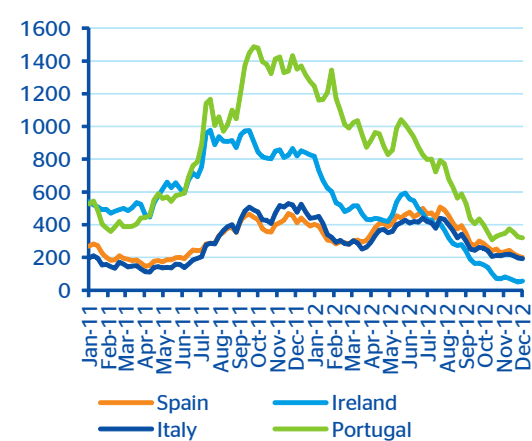
Source: BBVA Research

There are, however, three factors which may overshadow these prospects. The most disturbing factor would be a resurgence of problems within Europe if fears of a euro collapse were to return. The second is the latent threat to the United States of the so-called 'fiscal cliff' which, if no agreement is reached, is due to come into effect in January 2013 and will take the US economy into another recession. The third is an abrupt slowdown of emerging markets, particularly China and economies based on exports of commodities, demand for which is also dependent on China.

The US Federal Reserve will maintain its monetary policy as long as necessary

Within a context of growth with figures historically low and an unemployment rate still running high, the Fed rendered its monetary policy even more accommodating following a declared intention at its meeting in September to keep interest rates at their current low levels until at least mid-2015, i.e. over one more year than previously announced.[2] Additionally, in a bid to improve the prospects of the job market, the Fed also announced a new round of quantitative easing (QE3). With a view to improving households' financial conditions, this is being deployed through purchases of mortgage-based securities (MBS) instead of public debt. According to BBVA Research estimates, quantitative easing will have only a minor impact on growth in 2013, whereas itsrepercussions could be more extensive by 2014. Moreover, the potential effects of QE3 are

---

2: For more information on the subject, see our 12 September US Fed Watch at: http://www.bbvaresearch.com/KETD/fbin/mult/120913_FedWatchEEUU_169_tcm348-357366.pdf

not restricted to the US economy. As was observed in the case of previous programmes, liquidity expansion produces rapid capital inflows to emerging economies, lowering their risk premium and borrowing costs, stimulating credit availability and thus boosting their growth and inflation. The final outcome in any case will depend on the respond of national policies to incoming capital.[3]

What the Fed's monetary policy has done is take out some insurance against possible automatic fiscal adjustments. In the most likely scenario, in accordance with the latest statements by the US authorities, an agreement is in the offing to prevent implementation of the entire package of measures, although it would nonetheless seem to be inevitable that some kind of fiscal consolidation will emerge to reduce the strength of the economy.

Europe, determined to do whatever it takes

In the Eurozone, the ECB took a decisive step to curtail the sovereign debt crisis, and most especially to guarantee the monetary policy mechanism, which had been damaged by heightening financial tension and fears of the euro's reversibility. In particular, at the end of July it announced the introduction of a new debt purchase programme for the secondary market, known as Outright Monetary Transactions (OMT), whereby the ECB has undertaken to buy up unlimited amounts of short-term and medium-term public debt from countries requesting financial assistance from EU bailout funds (EFSF and ESM) subject to "strict and effective conditionality".[4]

The ECB move came after the Eurogroup summit in June, which secured agreements to bolster monetary union based on a commitment to common banking oversight and examination of plans for a fiscal union and growth incentives. Other progress was made during the first half of the year to strengthen Europe's monetary union. Firstly, the permanent fund to finance Eurozone bailouts (ESM) entered into force after Germany's Constitutional Court issued its approval for the country's participation. Secondly, the process established towards a banking union is continuing, albeit at a slower pace than expected. The deployment of full banking union is based on four concepts: joint oversight and regulation, a banking resolution body, and a common deposit guarantee fund. In view of the magnitude of the task, a long process is expected for full implementation. Europe's leaders have agreed to draw up a calendar in January 2013 to deploy an effective banking oversight facility, and they will likely reach agreements on additional details at the Eurogroup's meeting in December. Finally, many doubts have been dispelled concerning the sustainability of Greek public finances and its continued membership of the Eurozone. The Eurogroup meeting at the end of November agreed to release the next tranche of financial assistance and, more importantly, to extend the deadline for fiscal adjustment to 2016, thus covering part of the financial gap through an interest rate reduction and moratorium, and buybacks of sovereign debt on secondary markets by the Greek government.

This means the Eurozone will have a general framework to bolster governance, with a banking union, a fiscal union and a last-resort lending facility. Progress has been made on all these fronts, perhaps not sufficiently for a full turnaround of the dynamics of financial fragmentation, but there is certainly sufficient commitment to consider that the worst of the crisis may be over. In the short run, this progress has provided a basis to solve financing problems in countries such as Italy and Spain, considerably easing tensions on finance markets (see Chart 2). Simultaneously, proper implementation of plans for a banking union and further definition of the design of a fiscal union will play a major role in the Eurozone's long-term sustainability.

3: See Section 3 of Global Outlook - Fourth Quarter 2012 at: http://serviciodeestudios.bbva.com/KETD/fbin/mult/1211_Globaloutlook_tcm348-360901.pdf?ts=412013
4: For more information, see our ECB Watch Sep-12, available at: http://serviciodeestudios.bbva.com/KETD/fbin/mult/ECB_Watch_Sep12_tcm348-356910.pdf?ts=412013

We maintain our diagnosis of a weak Spanish economy in the short term

As in the Eurozone overall, progress has been made in Spain in concordance with the economic policies drawn up in July, following significant deterioration of the costs and access to borrowing during the first six months of 2012. In terms of restructuring of the financial system, the roadmap agreed with the country's EU partners in the Memorandum of Understanding has been adhered to.[5] Turning to the budget, in August the Government approved its biannual budget plan for 2013-2014 and, in September, its General Government Budget for 2013 (PGE13), which contents do not reflect an additional consolidation effort to that outlined in the set of fiscal measures approved in July.[6] Lastly, the Government announced a far-reaching legislative calendar to push through reforms based on the National Reform Programme (NRP) and on the European Commission's recommendations. This plan includes measures already approved and currently being implemented (e.g. labour market reform and deregulation of the retail industry); reforms that have been announced (e.g. education reform and measures to boost the rental sector); and others yet to be carried out (further changes to the pensions system, professional services, the single market etc.) which, as a whole, will help improve the outlook for growth in the Spanish economy.[7]

In accordance with the above, short-term drivers of the Spanish economy remain extremely weak, indicating that the economy will continue to contract in the near future. Though economic activity between July and September (-0.3% qoq) proved less positive than expectations at the end of 2Q12 - as noted in our most recent GDP estimates in real time[8] - preliminary economic indicators for the fourth quarter would seem to indicate a continuation of the downward trend during this fourth quarter (see Chart 3). Moreover, the breakdown of the quarterly national accounts data for 3Q12 confirmed that the composition of growth still featured higher external demand and a negative contribution by domestic demand (see Chart 4); we expect this trend to continue towards year-end, as the correction of internal imbalances is still ongoing and exports are showing no signs of depletion.

Chart 3
Spain: GDP growth and forecasts using the MICA-BBVA Model (% qoq)

CI at 60%
CI at 40%
CI at 20%
Point estimate
Observed (official BBVA Research forecast for 4Q12)
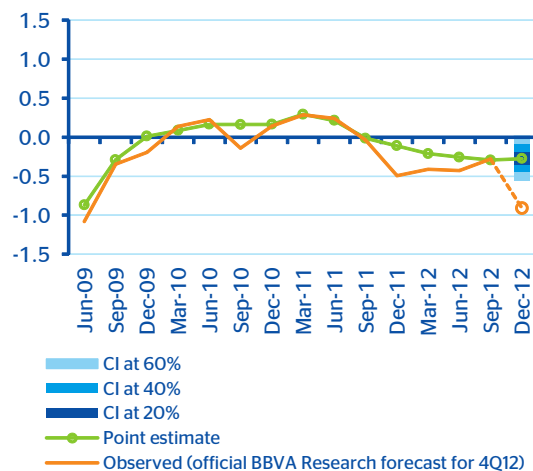
Source: BBVA Reseach based on INE

Chart 4
Spain: contributions to quarterly GDP growth (%)

Domestic demand   External demand
GDP (% qoq)
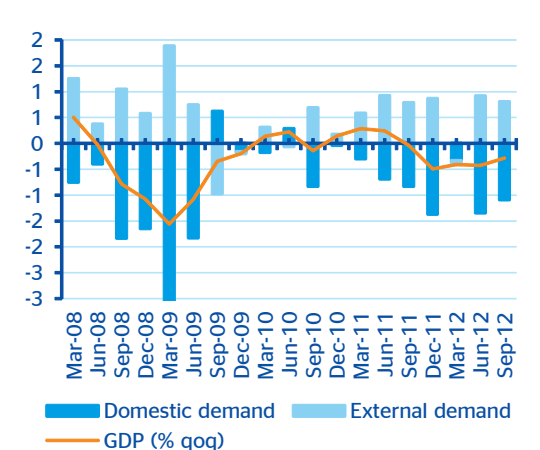
Source: BBVA Reseach based on INE

5:See Box 1 of Spain - Economic Outlook for the fourth quarter of 2012, available at: http://serviciodeestudios.bbva.com/KETD/fbin/mult/121119_Spain_Outlook_nov12_tcm348-362145.pdf?ts=412013.
6: For more information on the subject, see Section 4 of Spain - Economic Outlook for the fourth quarter of 2012
7: See Box 2 of Spain - Economic Outlook for the fourth quarter of 2012.
8: 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, available at: http://www.bbvaresearch.com/KETD/fbin/mult/WP_1021_tcm348-231736.pdf?ts=2542012

Looking forward, the Spanish economy is expected to continue in recession in the first months of 2013. Firstly, despite the measures announced by the ECB, access to external financing will likely be limited and relatively expensive for both the public and private sectors. Secondly, growth prospects for Europe as a whole remain bleak, which will mean weaker demand in the EU for goods and services produced in Spain. Finally, oil prices have once again risen due to geopolitical tensions, and this in turn is limiting the dynamism of the Spainish productive system.

Turning to the domestic front, the ongoing correction of accumulated imbalances will continue to affect private demand and supply. Likewise, information available at the time of going to press indicates that the contractionary tone of fiscal policy looks set to continue throughout the forecast period. Even though the structural effort to realign Spain's public finances is remarkable, and should be acknowledged by the EU authorities, uncertainty prevails as to whether the Government will be able to comply with its 2012 budget targets. This is due to doubts surrounding the adjustment of regional governments' accounts, the cyclical deterioration observed recently, pressure on borrowing costs for national debt, and adverse demographic trends.

Even so, certain factors will continue to act as a counterbalance and, while they cannot prevent a risk turnaround, they are certainly acting as mitigators. The ECB's monetary and liquidity policy will be more prone to shore up aggregate demand and financial stability, which could provide positive support over the coming months, provided that intervention by the monetary authority on secondary markets helps restore the transmission mechanisms of monetary policy. Likewise, given the sluggishness of European demand, export companies are expected to shift their production towards emerging countries.

In the light of the aforementioned factors, Spanish GDP is expected to contract by around 1.4% in 2012 and also 2013 (see Table 1). Jobs will continue to be lost in 4Q12 and FY13, causing the unemployment rate to rise to around 26% at the end of the forecast period, despite the envisaged decrease in the active population. Although the job market reform approved in February[9] will not prevent job destruction in the short term, it could help facilitate the rebalancing needed between the extensive margin (workers employed) and the intensive margin (number of hours worked and wages), reduce segmentation, and boost productivity. In this regard, our forecasts indicate that growth of apparent labour productivity will surpass 2.8% this year and 1.8% in 2013, above the average increase over the past three decades (1.2%).

Regarding the composition of growth, the factors examined in our economic scenario for 2012-2013 point to further downward pressure on domestic demand, which will be offset only partially by a substantial climb in external demand. Turning now to private consumption, the increase in indirect taxation and the worsening outlook for consumption drivers herald decreases in spending throughout the forecast period (around -2.1% in 2012 and -2.9% in 2013). The deterioration of employment will trigger a fresh decline in the wage component of households' gross disposable income. Additionally, the VAT increase in September 2012 - and the fact that consumers brought forward certain purchases as a result - will continue to cause consumption to contract over the months ahead. Additionally, net financial wealth will not recover until 2014, while real estate activity is expected to fall throughout the forecast period. Conversely, a reduction in the household savings rate to pre-crisis levels, the absence of demand-driven inflationary pressure and low official interest rates will all limit the contraction in private consumption in 2013.

9: Box 4 of Spain - Economic Outlook for the second quarter of 2012 assessed the labour market reform and put forward options for improvements, some of which - for example, a reduction in the period for negotiating new collective bargaining agreements, were subsequently included in Law 3/2012 of 6 July on urgent measures to reform the labour market (http://www.boe.es/boe/dias/2012/07/07/pdfs/BOE-A-2012-9110.pdf).

Table 1
Spain: macroeconomic forecasts

(yoy %, unless otherwise indicated)	2008	2009	2010	2011	2012 (f)	2013 (f)
National Final Consumption Expenditure (FCE)	1.0	-1.9	0.9	-0.8	-2.4	-3.9
Private FCE	-0.6	-3.8	0.7	-1.0	-2.0	-2.9
Household FCE	-0.6	-3.9	0.6	-0.81	-2.1	-2.9
Public administration FCE	5.9	3.7	1.5	-0.5	-3.6	-6.9
Gross capital formation	-4.2	-17.9	-5.5	-5.5	-9.5	-7.4
Gross fixed capital formation	-4.7	-18.0	-6.2	-5.3	-9.7	-7.5
Fixed material assets	-5.0	-18.5	-6.7	-5.8	-10.5	-8.0
Equipment, machinery and cultivated assets	-2.9	-23.9	2.6	2.3	-7.6	-3.7
Equipment and machinery	-3.2	-24.5	3.0	2.4	-7.7	-3.8
Construction	-5.8	-16.6	-9.8	-9.0	-11.8	-10.0
Housing	-9.1	-23.1	-10.1	-6.7	-6.8	-8.4
Other buildings and constructions	-1.6	-9.1	-9.6	-11.0	-16.3	-11.7
Intangible fixed assets	2.4	-7.5	3.5	3.1	2.0	-1.6
Domestic demand (*)	-0.5	-6.6	-0.6	-1.9	-4.0	-4.7
Exports	-1.0	-10.0	11.3	7.6	3.8	8.2
Imports	-5.2	-17.2	9.2	-0.9	-4.7	-1.8
Net trade balance (*)	1.4	2.9	0.3	2.3	2.6	3.3
GDP at mp	0.9	-3.7	-0.3	0.4	-1.4	-1.4
Pro-memoria:						
GDP w/o housing investment	2.3	-1.4	0.5	1.0	-1.0	-0.9
GDP w/o construction	2.8	-0.5	1.6	2.1	0.3	-0.2
Total employment (LFS)	-0.5	-6.8	-2.3	-1.9	-4.4	-3.4
Unemployment rate (% active pop.)	11.3	18.0	20.1	21.6	25.0	26.1
Total employment (FTE)	-0.2	-6.2	-2.5	-1.7	-4.2	-3.2

(*) contribution to growth
(p): forecast
Source: INE, Bank of Spain and BBVA Research forecasts

3. Durable goods

After a second quarter in 2012 characterised by a downturn in consumption expenditure by households, National Accounting data for the third quarter confirmed that the decline had eased off, as shown by preliminary demand indicators (see Box 2). Household consumption fell back by 0.5% qoq in 3Q12, 50% of the preceding quarter, on the back of a lower rate of savings by consumers bringing forward purchases before the VAT changes came into effect in September[10], partially offsetting the decline in disposable income and net wealth, both financial wealth and real estate wealth. Overall, the increase in indirect taxation and the worse outlook for private consumption drivers herald substantial decreases in private spending during the last quarter of 2012, and spending on durable goods in particular. For example, both BBVA's synthetic consumption indicator (SCI-BBVA) and our coincident consumption indicators model (MICC-BBVA) suggest that the contraction of household spending will exceed 1% qoq in 4Q12 (see Chart 5).[11]

Table 2
Spain: consumer spending indicators (SWDA data*)

% qoq	Availability of consumer goods		Car registrations		Domestic sales by large enterprises	Services sector turnover index	Retail trade	Consumption National Quarterly Accounts
	Total	Durables	Total	Private				
1T10	-2,7	-13,6	-0,4	1,3	1,0	-0,1	1,6	-0,1
2T10	3,6	13,9	0,8	3,4	2,0	1,9	-1,6	0,9
3T10	-5,6	-21,4	-31,0	-47,5	-6,3	-3,7	-1,8	-1,2
4T10	-0,9	-11,8	2,5	-0,6	0,1	1,5	-0,4	1,2
1T11	1,3	9,6	2,0	-2,3	-0,7	0,8	-2,0	-0,6
2T11	-1,2	-1,6	2,1	-1,2	0,2	-0,5	-1,3	-0,2
3T11	0,5	2,6	-6,0	-0,2	-0,4	-1,5	-1,0	-0,6
4T11	-1,4	1,7	-1,8	-5,1	-2,2	-1,2	-2,3	-1,0
1T12	-3,9	-0,6	3,6	-4,8	-0,8	-0,7	-0,8	0,5
2T12	-2,3	-17,1	-10,6	-6,8	-2,9	-3,2	-3,0	-1,0
3T12	-0,9	16,1	-8,6	14,3	1,7	0,5	-0,7	-0,5

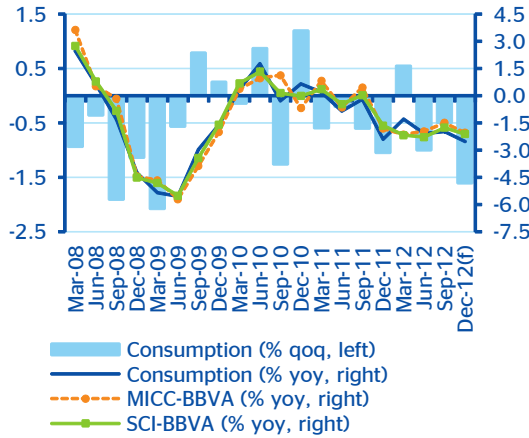* SWDA data: seasonally and calendar effect adjusted data.
Source: BBVA Research based on MINECO, ANFAC, AEAT and INE

During the second half of 2012 external demand regained the dynamism it appeared to have lost during 1Q12, thereby limiting the decrease in economic activity caused by lacklustre domestic demand. The contribution of exports to growth, however, would have been larger if external sales of durable goods had not produced a disappointing performance at the beggining of 2H12. As shown in Chart 6, exports of durable goods fell by 2.2% qoq SWDA in 3Q12 due to a weak European economy, while total exports of goods climbed by 4.1% qoq SWDA (5.2% in National Accounting terms). The indicators available for 4Q12 show no signs of any changes in the trends observed up to September.

10: On 1 September 2012 the general and reduced rates of VAT were raised from 18% and 8% to 21% and 10% respectively, and modifications were made to taxable income by application of the general rate to products hitherto taxed at the reduced rate. Full details of the measures are available at: http://www.boe.es/boe/dias/2012/07/14/pdfs/BOE-A-2012-9364.pdf
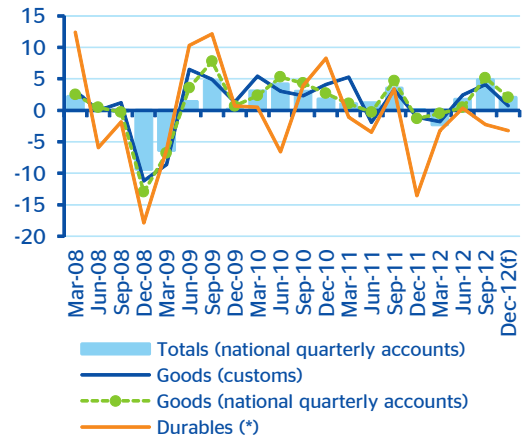11: For further details on the MICA-BBVA Model, see Box 1 in Consumption Outlook for 2H10: http://serviciodeestudios.bbva.com/KETD/fbin/mult/1103_Spainconsumptionoutlook_tcm348-252258.pdf?ts=412013

Chart 5
Spain: actual data and real-time forecast of household consumption

- Consumption (% qoq, left)
- Consumption (% yoy, right)
- MICC-BBVA (% yoy, right)
- SCI-BBVA (% yoy, right)

Source: BBVA Research based on INE

Chart 6
Spain: real exports (SWDA data,% qoq)

- Totals (national quarterly accounts)
- Goods (customs)
- Goods (national quarterly accounts)
- Durables (*)

(*) Appliances, consumer electronics, computer equipment, furniture, motorcycles and cars
Source: BBVA Research based on INE and Customs

Demand for cars

Two economic measures explain the behaviour of car registrations during the second half of 2012: September's VAT hike and the deployment of the PIVE incentive plan in October.

In view of the likelihood of mark-ups by the increase in the general VAT rate, individuals and, to a lesser extent, businesses decided to purchase cars in August, when otherwise these might have been bought in 4Q12. This led to the largest monthly increase in new registrations since the end of 1994: 20.7% SWDA. Early purchases and higher VAT brought about a drastic reduction in the number of new cars registered in September (-25.2% mom SWDA), and this, along with July's contraction, produced an 8.9% SWDA fall in sales over the quarter (see Charts 7 and 8). The introduction of the PIVE incentive plan - a 2,000 euro premium for replacing cars over twelve years old (ten years for light commercial vehicles) with a new car (or a used car less than one year old), energy-efficient with a price tag of not more than 25,000 euros excluding tax - eased the contraction effect of higher VAT on car purchases in October[12] and increased registrations in November (see Chart 3).

On the hypothesis of a conservative forecast of the effect of the PIVE plan on demand in December, registrations will stand at 700,000 for 2012 overall. In 2013, expectations of lower relative prices of fuels and lower interest rates for new consumer credit transactions will barely offset the envisaged decrease in GDP per capita and higher unemployment, and so the number of car registrations will not show any significant discrepancies against the figures for 2012.[13]

12: Although the PIVE plan came into force on 1 October, the system handling assistance was not up and running until 16 October.
13: For a detailed analysis of drivers of demand for cars, see Box 2 in Consumption Outlook for the first six months of 2011 at: http://serviciodeestudios.bbva.com/KETD/fbin/mult/1112_Spain_Consumption_Outlook_tcm348-281278.pdf?ts=412013

Chart 7
Spain: car registrations (SWDA data)
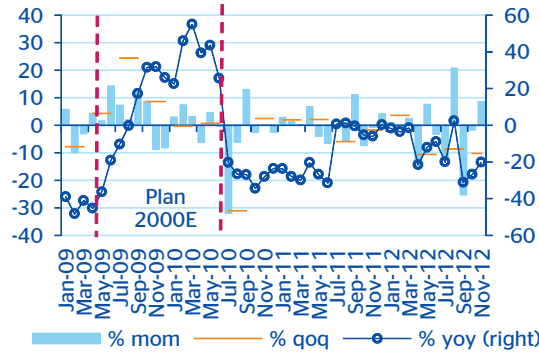
Source: BBVA Research based on ANFAC and Ganvam

Chart 8
Spain: contributions to yoy growth in car registrations (%)
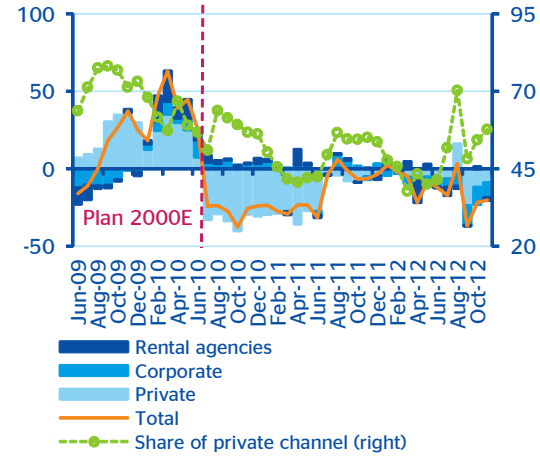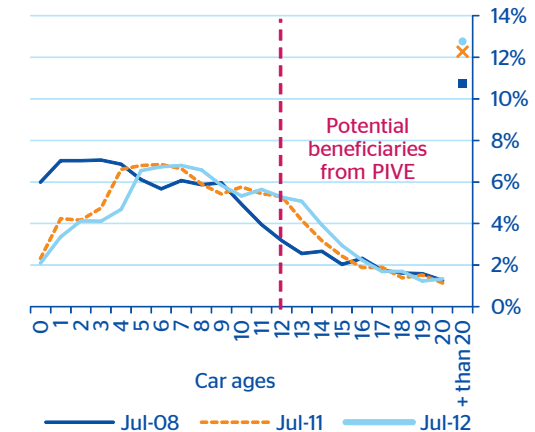

Source: BBVA Research based on ANFAC and Ganvam

Even though its repercussions on demand in the medium run will be only slight, the PIVE will certainly contribute to the rejuvenation of Spanish cars in the near future. Chart 9 shows that the age distribution of cars in Spain continued to move to the right in 2012, and thus the percentage of cars aged twelve years and over – i.e. those eligible for the PIVE plan - increased by 3.1 percentage points (pp) as of July last year to stand at 38.2% of the total (8.5 million cars).[14]

Table 3
Characteristics of the PIVE incentive plan

Beneficiaries	Individuals, self-employed, micro-enterprises, SMEs (<250 employees, turnover <50M€)
Eligible cars	NC (or UC <1 year)
	Categories: M1 (categories A and B) and N1 (<160 g of CO_2/km)
	Price: ≤25,000€ before tax (excluding fully electric cars, plug-in hybrids and extended-autonomy cars)
Scrapped cars	Age≥ 12 years (M1) and up to 10 years (N1); registered in Spain
Minimum financial assistance	1,000€ IDAE Institute + 1,000€ manufacturer or importer
Timing	01/10/12 (15/10 activation of reserves) - 31/03/13 or depletion of funds
Budget	75 million € (75,000 cars)

NC/UC: New car/Used car
Source: BBVA Research based on IDAE

Chart 9
Spain: breakdown of all cars by age (% of total)

Source: BBVA Research based on DGT

14: Consumption Outlook for the first half of 2012 shows how changes to car distribution by age over the last five years have brought the ageing of Spanish cars into line with the average elsewhere in Europe. See: http://serviciodeestudios.bbva.com/KETD/fbin/mult/1206_Consumptionoutlook_tcm348-330687.pdf?ts=412013
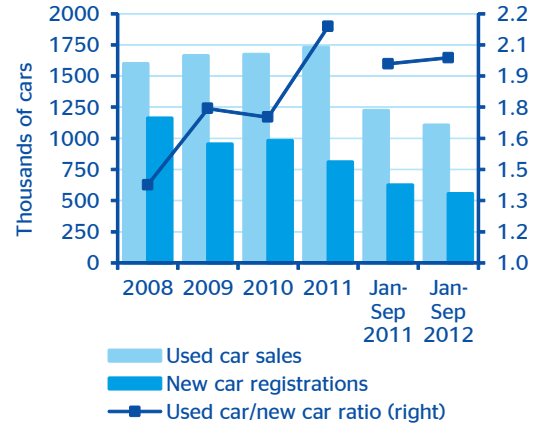
At the beginning of 3Q12, car consumer prices barely changed due to low demand. The VAT hike in September made cars relatively more expensive since most of the tax increase was passed on to end prices, as Chart 10 shows. The higher relative price of cars, however, was only transitory because the deployment of the PIVE made cars cheaper in October, and this situation is likely to continue in the months ahead, as was the case during the first half of Plan 2000E.[15]

Chart 10
Spain: car consumption prices (Jan-08=100)

- – – Headline CPI
- —— CPI-cars
- —●— CPI-maintenance services
- --■-- CPI- cars / Headline CPI
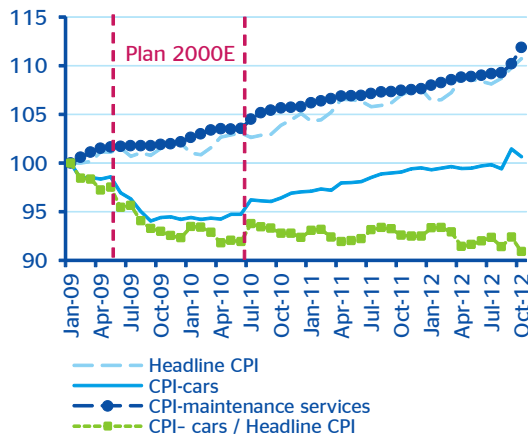
Source: BBVA Research based on INE data

Chart 11
Car sales in Spain: NC vs. UC

- Used car sales
- New car registrations
- —■— Used car/new car ratio (right)

Source: BBVA Research based on ANFAC and Ganvam data

Demand for used cars (UC) was also affected by lower incomes and household wealth, economic uncertainty and borrowing restrictions, albeit less than demand for new cars (NC). The first half of 2012 showed a 5.2% fall in UC against the same period the previous year, totalling 777.8 thousand cars. In 3Q12 the decrease gathered pace, and in the first nine months of the year the UC market lost 9.7% to stand at slightly over 1.1 million transactions (60% of which were private transactions). Since NC registrations fell by 11.0% between January and September, the UC/NC ratio stood at two used cars for every new car, 1pp more than 1H12, but also 1pp below year-end 2011.[16]

Similarly to the patterns observed during the first half of the year, external demand for cars did not succeed in offsetting faltering domestic demand, skewing exports of durable goods downwards. After a fall of 3.3pp between January and June, real car exports moved down again in 3Q12, this time by 0.50% qoq SWDA (see Chart 12).

15: Between June 2009 and February 2010 car prices fell by 2.8%, whereas the headline CPI index fell by only 0.7%.
16: For a detailed analysis of the drivers of used-car demand in Spain, see BBVA (2011): "Who buys a used car? Changes in the factors that determine vehicle choice during the crisis", Consumption Outlook 2H10, 14-21. Available at: http://serviciodeestudios.bbva.com/KETD/fbin/mult/1103_Spainconsumptionoutlook_tcm348-252258.pdf?ts=412013

Chart 12
Spain: real exports of cars (SWDA data, % qoq)
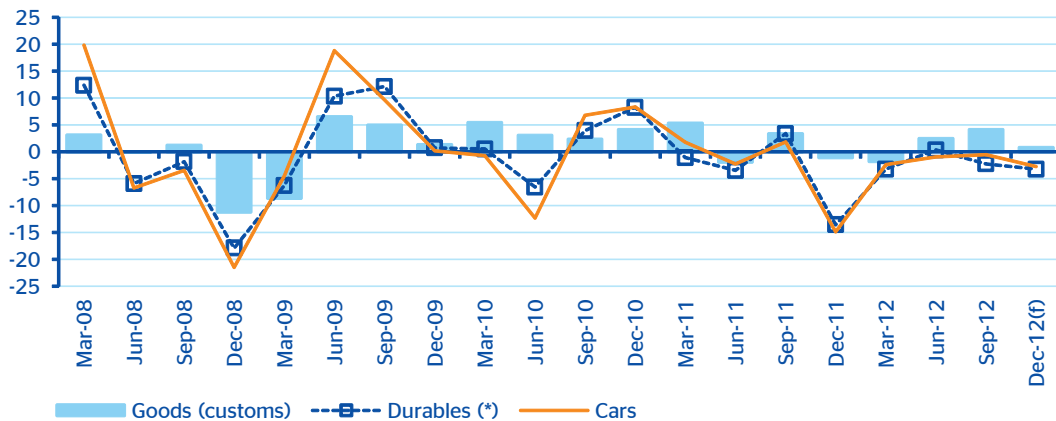
Legend: Goods (customs) — Durables (*) — Cars

(*) Appliances, consumer electronics, computer equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs
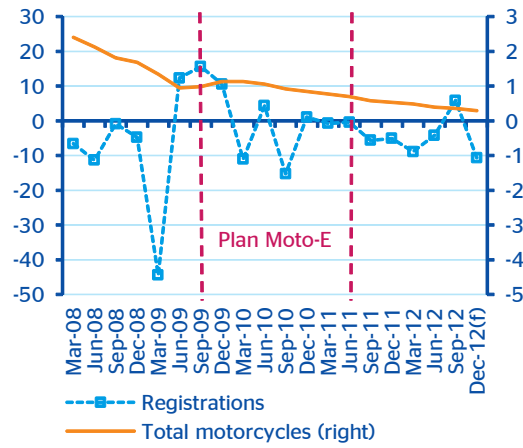
Demand for motorcycles

Just as car purchases, the market in two-wheeled vehicles was affected by the VAT change during the second half of 2012 (see Chart 13). After two years of uninterrupted decline, purchases brought forward as a result of the projected VAT hike were behind the increase in motorcycle registrations in 3Q12 (5.9% qoq SWDA). Data for September and October (-18.5% mom SWDA and -3.5% mom SWDA respectively) confirmed that higher demand was merely transitory, and thus new registrations will likely come to just over 100,000 by the end of 2012, down by approximately 17.6% against the previous year. In due consideration of the economic backdrop described in Section 2, any change in this trend in 2013 seems highly improbable.

The reasons for the decrease in registrations of two-wheeled vehicles may be found in the weakness of demand drivers for these vehicles - chiefly, the disposable income of potential buyers as a result of the worsening job market for a large number of young people - and heightening uncertainty, which is postponing purchasing decisions and leading to lower consumption of durable goods nowadays. In addition, regulatory changes since 2009 - in particular, the raising of the licence age for mopeds to 15 and the transposition of Directive 2006/126/EC nearly four years ahead of European requirements[17]– have contributed to the fall in demand for motorcycles, especially mopeds.

The VAT hike interrupted the relative inexpensiveness of two-wheeled vehicles since 2009, thus undermining domestic demand (see Chart 14). External demand, meanwhile, continued its highly volatile trajectory. As Chart 15 shows, real exports of motorcycles and mopeds rose by 22.9% qoq in 3Q12, though this favourable trend is not expected to continue into the last quarter of the year.


17: Spain was the first EU country to transpose Directive 2006/126/EC on driving licences through Royal Decree 818/2009. For more details, see: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:403:0018:0060:ES:PDF, y http://www.boe.es/boe/dias/2009/06/08/pdfs/BOE-A-2009-9481.pdf

Chart 13
**Spain: motorcycle registrations
(SWDA data,% qoq)**

Plan Moto-E

- - - Registrations
—— Total motorcycles (right)
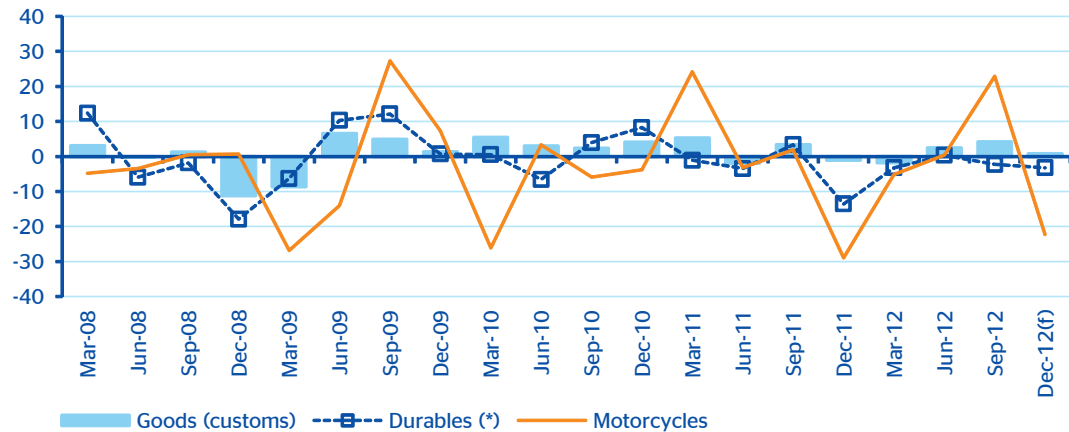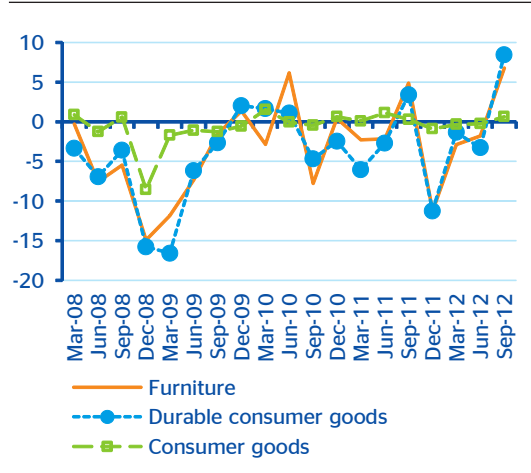
Source: BBVA Research based on Anesdor and BoS

Chart 14
**Spain: retail prices of motorcycles
and mopeds (Jan-08=100)**

Plan Moto-E

- - - Headline CPI
—— CPI – other vehicles
- - - - CPI – other vehicles / Headline CPI
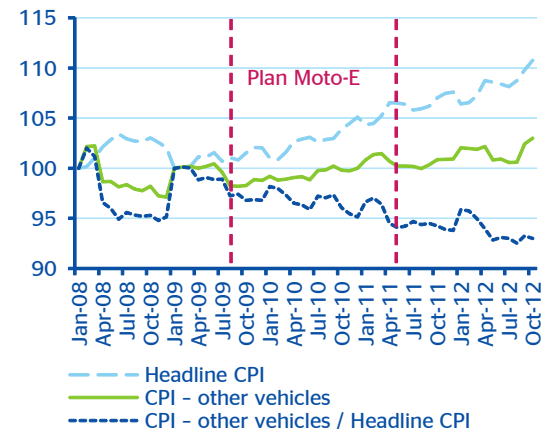
Source: BBVA Research based on INE

Chart 15
Spain: real exports of motorcycles and mopeds (SWDA data,% qoq)

Goods (customs) - -■- - Durables (*) —— Motorcycles

(*) Appliances, consumer electronics, computer equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs

Furniture

Turnover in the furniture sector increased by 6.8% qoq during the third quarter of 2012, after a fall during the first six months of the year mirroring the situation of all producers of durable goods (see Chart 16). Two factors help explain the trajectory of turnover in the industry during 2H12. The first is, once more, the increase in VAT, which pushed back to August any furniture purchases that would otherwise have been made as of September. Turnover in the sector therefore fell by 31.0% qoq in September, having climbed by 41.1% mom SWDA in August. The second factor was a positive performance in terms of external demand, which increased beyond average demand for durable goods at the beginning of the year. As Chart 17 shows, furniture exports have risen by 9.1% since March.

In view of the close relationship between demand for furniture and housing investment, the sector's prospects for the last quarter of 2012 were primarily conditioned by foreseeable trends in the latter (see Chart 18).[18] BBVA Research forecasts indicate that the continued deterioration of housing investment in Spain will experience a transitory decrease in 4Q12 following the withdrawal in January 2013 of tax breaks on house purchases, i.e. tax incentives for purchases of main homes and a super-reduced VAT rate. The furniture sector could therefore become more dynamic in the last few months of 2012 and weaken sharply as of the second quarter of 2013.

Steady furniture prices added pace to its relative inexpensiveness, thereby stimulating demand. As Chart 19 shows, the relative prices of furniture fell by 3.1% in the first eight months of 2012. Although higher VAT made furniture slightly more expensive in relation to consumer goods and services taken as a whole, the reduction in its relative price up to October was still in excess of 2.6%.

Chart 16
Spain: turnover (SWDA data, % qoq)

Source: BBVA Research based on INE

Chart 17
Spain: real exports of furniture (SWDA data, % qoq)
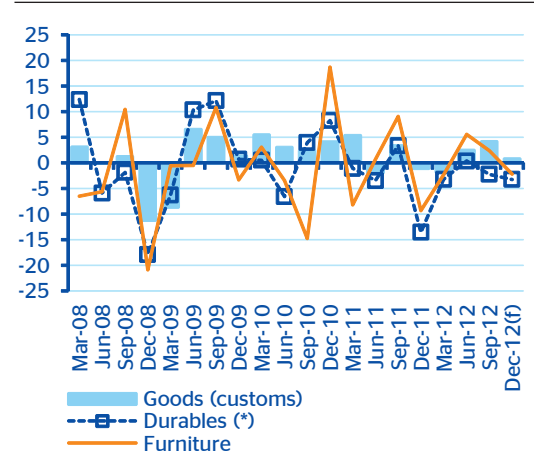
(*) Appliances, consumer electronics, computer equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs

Chart 18
Investment in housing and turnover and exports in the furniture sector (nominal data, % qoq of the trend)
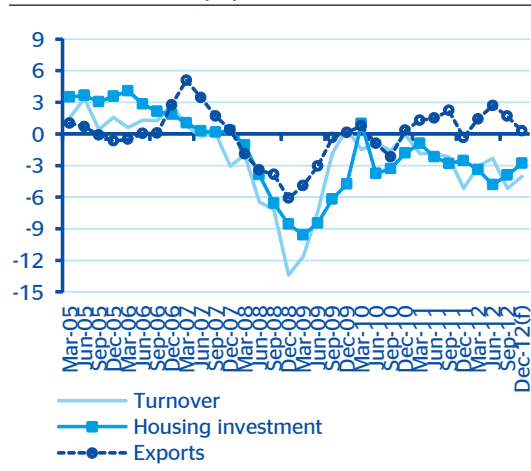
Source: BBVA Research based on INE and Customs

Chart 19
Spain: retail furniture prices (Jan-08=100)
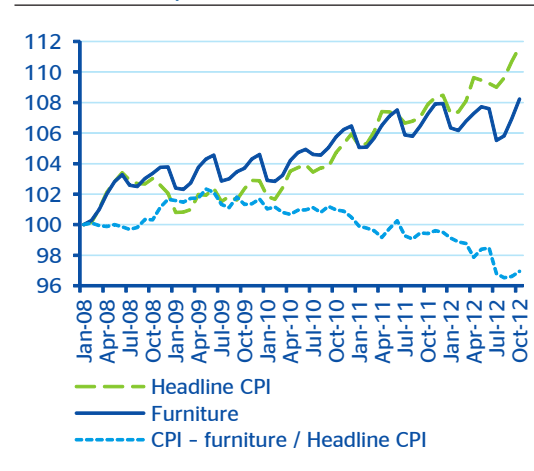
Source: BBVA Research based on INE

18: BBVA Research estimates that a 1% qoq fall in nominal furniture exports leads to - ceteris paribus - a 0.7% qoq cumulative fall in turnover in the sector. A 1% yoy reduction in nominal housing investment has a slightly smaller cumulative effect (0.6% qoq) on the furniture sector.
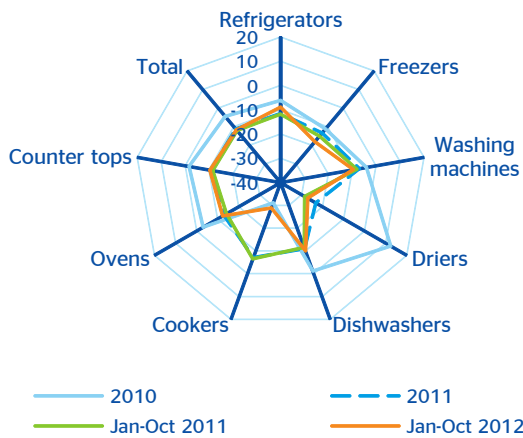
Major household appliances

The prolonged adjustment in the real estate sector has continued to have a negative effect on purchases of household appliances. According to data from the National Association of Household Appliance Manufacturers (ANFEL), the number of appliances sold decreased by 11.6%, and turnover by 12.5%, over the first ten months of 2012, both in yoy terms, compared with declines of 11.2% and 14.4% respectively in 2011. Sales for all appliance families were lower until October, though the fall in refrigerators (-9.0%), washing machines (-9.6%), dishwashers (-10.0%) and kitchen worktops (-10.4%) was lower than the average for household appliances overall (see Chart 20). As for other durable goods, the VAT hike brought about changes in the pattern of spending over time on all families of household appliances, especially ovens, counters and refrigerators, affecting demand trends in 4Q12.

Sluggish consumption of major appliances has led to a general reduction in their prices, which have barely changed since VAT was increased. As shown in Chart 21, prices of household appliances were 1.8% cheaper than other consumer products during 2H12, and would have been even cheaper if after-sales services had not become more expensive: prices for repair services increased by 2.6% in June.

In contrast to domestic demand, external demand continued to climb during the third quarter of 2012, albeit at a slacker pace than that observed during Q2. As shown in Chart 22, real exports of major household appliances increased by 4.8% qoq SWDA in 3Q12, while average exports of durable goods fell by 2.2% qoq SWDA.

Chart 20
Spain: sales of electrical appliances per family (% yoy of the number of units)

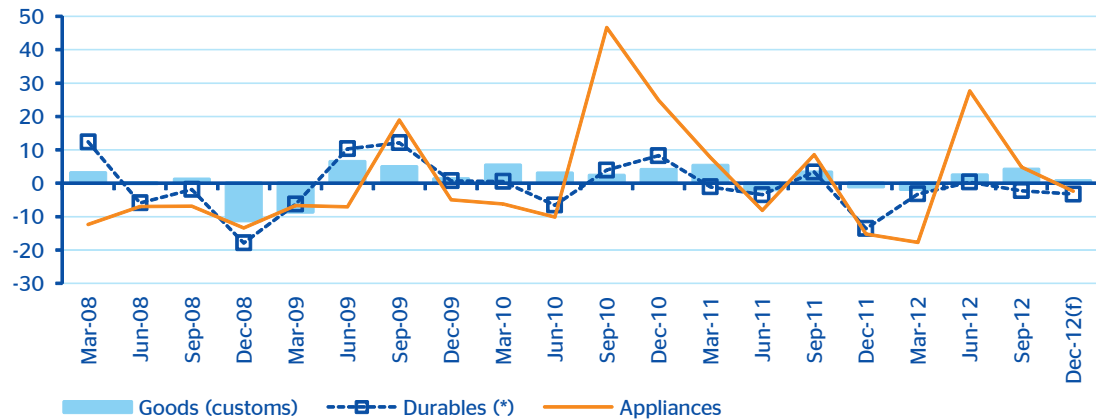Source: BBVA Research based on ANFEL

Chart 21
Spain: retail prices of household appliances (Jan-08=100)
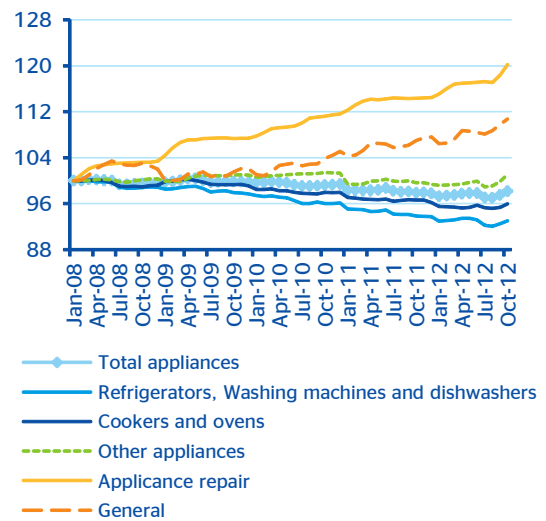
Source: BBVA Research based on INE

Chart 22
Spain: real exports of appliances (SWDA data, % qoq)

(*) Appliances, consumer electronics, computer equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs
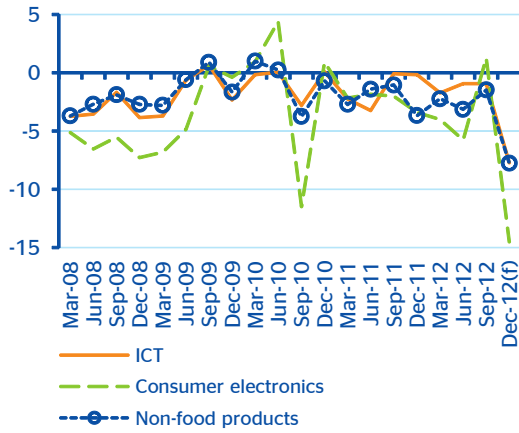
Brown line

Electronic consumer items made a temporary recovery between July and September 2012 on the back of increased demand associated with the Olympic Games in London between 27 July and 12 August, and also most particularly of early purchases motivated by the increase in VAT. Chart 23 illustrates that retail sales of consumer electronics rose by 1.6% qoq SWDA in 3Q12, after falling over three consecutive quarters. Conversely, demand for ICT equipment was unaffected and continued to fall at a similar pace to the preceding quarter (-0.9% qoq SWDA).

Prospects for the fourth quarter of the year are not good. Data for September and October confirmed that purchases of all brown line products were affected by the VAT hike, despite the fact that the mark-up on end prices was practically zero. Specifically, the overall reduction in real sales of technology items during both months was 12.2% SWDA, whereas consumer electronics fell by 23.3% SWDA. Although trends for the last two months of the year are in line with forecasts, the VAT effect on demand for brown line products is greater than that observed during 3Q10.

Sluggish consumption has contributed to a reduction in prices in a sector with lingering deflation caused by technological progress. As shown in Chart 24, prices for all consumer electronics products and ICT equipment fell in the last six months, in both nominal and real terms. The generalised price fall has led to an increase in usage of ICT equipment in Spanish homes. The National Institute of Statistics survey on ICT equipment and its usage shows that the most popular products entering Spanish households in the course of the year were computers, followed by mobile phones (see Chart 25). As observed last year, the 2012 increase was due to the rising popularity of portable computers, including tablets, now present in 54.6% of Spanish homes, an increase of 5.8pp against 2011 and of 28.0pp against 2008.
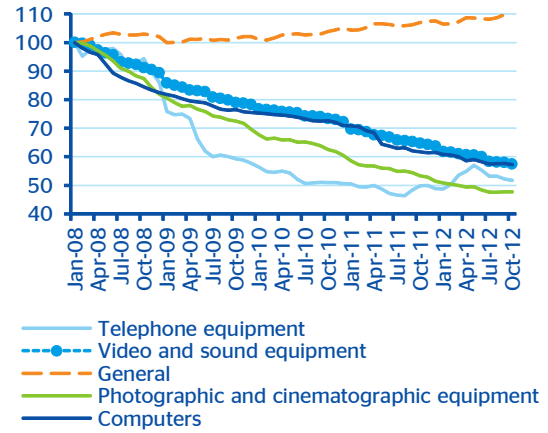
External demand for brown line items demonstrated the opposite trend to domestic demand. Real exports of both household appliances and technology equipment fell by 12.7% qoq SWDA in 3Q12, six times more than the average of durable goods overall (see Chart 26).

Chart 23
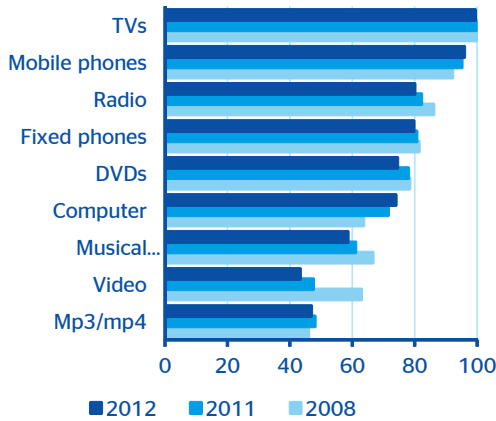**Spain: real retail sales of brown line items (SWDA data,% qoq)**

- ICT
- Consumer electronics
- Non-food products

Source: BBVA Research based on Eurostat

Chart 24
Spain: retail prices for brown line items (Jan-08=100)

- Telephone equipment
- Video and sound equipment
- General
- Photographic and cinematographic equipment
- Computers

Source: BBVA Research based on INE

Chart 25
Spain: rate of ICT penetration in Spanish households (% of households)

TVs, Mobile phones, Radio, Fixed phones, DVDs, Computer, Musical..., Video, Mp3/mp4

- 2012
- 2011
- 2008

Source: BBVA Research based on INE

Chart 26
Spain: real exports of brown line items (SWDA data,% qoq)
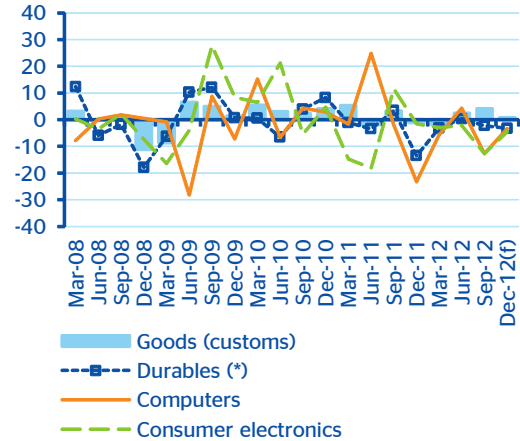
- Goods (customs)
- Durables (*)
- Computers
- Consumer electronics

(*) Appliances, consumer electronics, computer equipment, furniture, motorcycles and cars
Source: BBVA Research based on Customs

Box 1. How have Spanish household consumer habits changed during the economic crisis?

The compositional effect, or changing preferences?

Since it reached its peak in 2007, household consumer spending - measured by the Household Budget Survey (HBS)-[19] fell by 9.9% in real terms to 456.0 thousand million euros in 2011 (26,300 euros per household). When an analysis is conducted of trends in expenditure groups, behaviour patterns vary.[20] As Chart 27 shows, between 2007 and 2011 actual consumption only increased in the case of communication products (6.8%), housing and supplies (6.6%), healthcare products (3.7%) and education (0.6%). The other expenditure groups fell back, particularly transport (-29.7%), home furnishings (-22.6%), restaurants and hotels (-20.5%), alcoholic beverages and tobacco (-19.4%), clothing and footwear (-19.2%) and other goods and services (-14.2%), where purchases fell by more than average.

It has been the demand for durable goods that has fallen back most in the course of the current crisis.[21] Tighter access to credit, higher income elasticity, its lack of liquidity and the possibility of postponement of purchases in view of the general economic uncertainty are some of the factors behind falling purchases of durable goods since 2007.[22] Consumer spending has been cut back most particularly in terms of motorcycles and mopeds (-51.6%), cars (-48.4%) and major household appliances (-26.0%). Not all durables, however, have been affected by lower household demand; purchases of brown line items in particular have increased - mainly telephones (50.4%) and video and sound equipment (31.4%) - followed by small household appliances (9.2%) (see Chart 28).

Chart 27
Spain: changes in household spending between 2007 and 2011 (%)
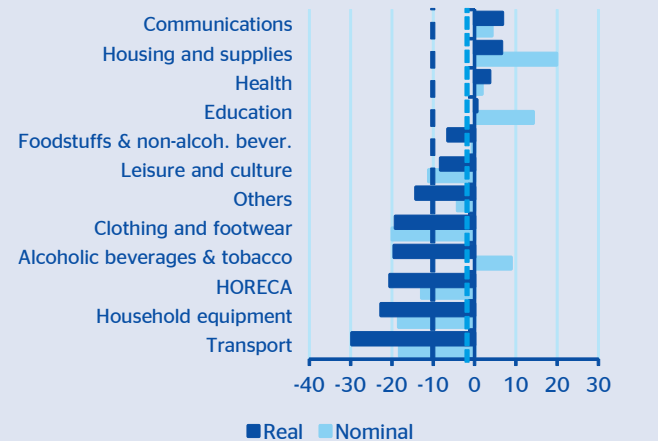
The vertical lines show nominal and real cumulative changes to average consumer spending between 2007 and 2011
Source: BBVA Research based on INE (HBS)

Chart 28
Spain: changes in household spending on durable goods between 2007 and 2011 (%)
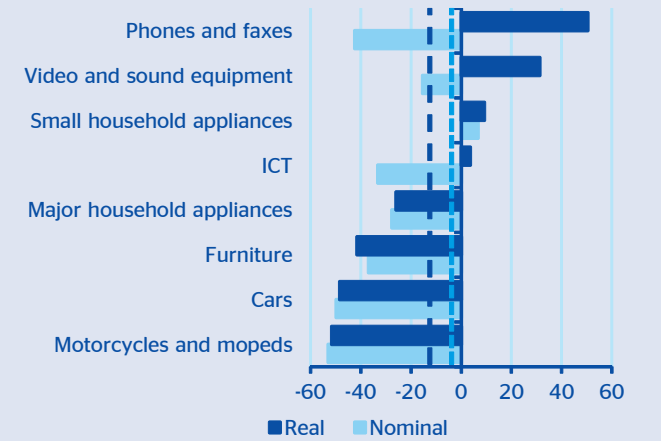
The vertical lines show nominal and real cumulative changes to average consumer spending between 2007 and 2011
Source: BBVA Research based on INE (HBS)

19: The HBS survey has been produced annually by the INE since 2006, and contains microeconomic information concerning the socio-demographic characteristics of households, and their expenditure on t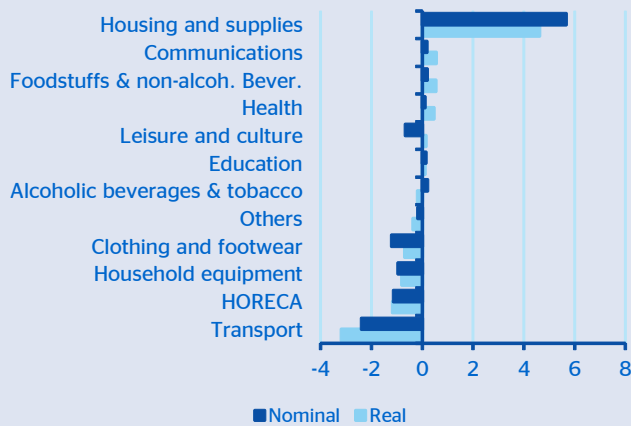he various categories of goods and services. See: http://www.ine.es/jaxi/menu.do?type=pcaxis&path=%2Ft25%2Fp458&file=ine base&L=0
20: The COICOP classification is used to gather household spending data (Classification Of Individual COnsumption by Purpose), structured into the twelve groups shown in Chart 27. A detailed description of the goods and services in each spending group is available at: http://www.ine.es/daco/daco42/daco4213/anexoecpf06.pdf
21: As in Section 3, durable goods include cars, two-wheeled vehicles, furniture, major household appliances and brown line products.
22: See Deaton and Muellbauer (1980), chapter 13, and BBVA Research (2009) for an in-depth analysis of drivers of expenditure on durable goods.

The heterogeneous evolution of spending indicates some major changes in the consumption patterns of Spanish households. As Chart 29 shows, relative consumption increased within six groups of goods and services – i.e. their share in total household spending in real terms - between 2007 and 2011, whereas relative consumption fell within the other six. The main features were increased expenditure on housing and supplies (4.6 percentage points or pp), accounting for 29.9% of actual household consumption, and less spending on transport (-3,2pp), putting its relative consumption at 11.3% (see Chart 30).

With respect to spending on durable goods, the HBS data indicate a smaller share of the household shopping basket during the present crisis. Charts 31 and 32 demonstrate that relative consumption of durable goods fell by 2.7pp in real terms between 2007 and 2011. The increase in spending on brown line products and small household appliances (0.5pp) was insufficient to offset a reduction in the relative volume of two-wheeled vehicles, larger appliances, furniture and, most especially, cars (-3.2pp).

Chart 29
Spain: changes to relative consumption in each group of products between 2007 and 2011 (pp)

Source: BBVA Research based on INE (HBS)

Chart 31
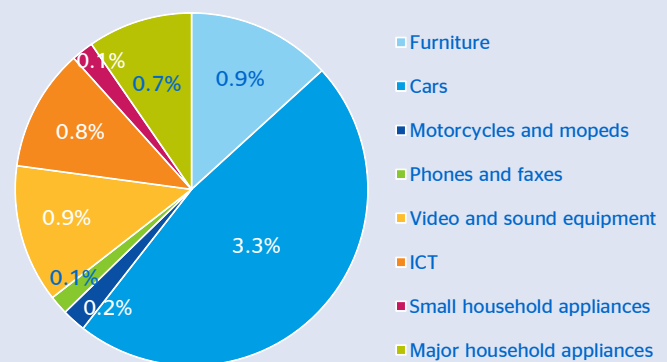**Spain: changes to relative consumption of durable goods between 2007 and 2011 (pp)**
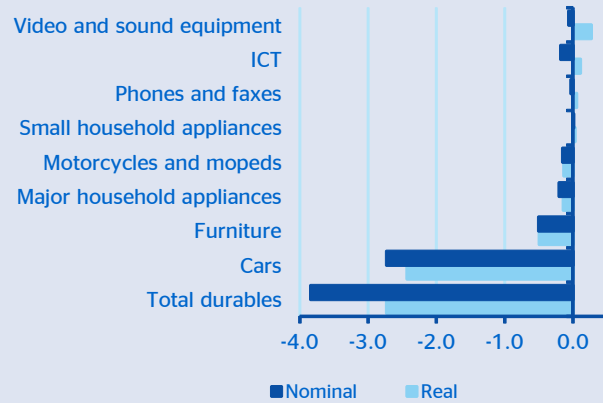
Source: BBVA Research based on INE (HBS)

Chart 30
Spain: distribution of real spending by household consumers in 2011 (%)
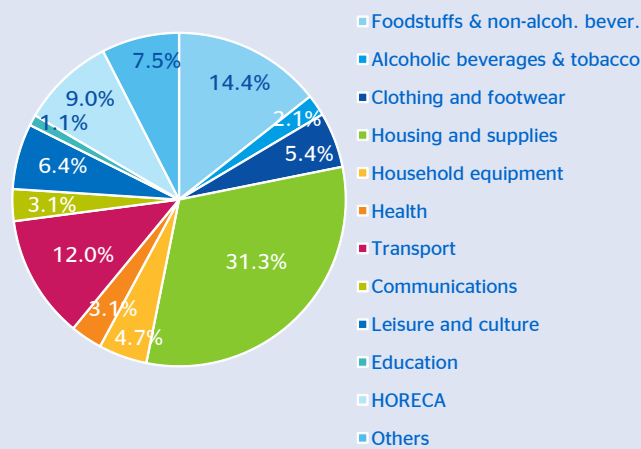
Source: BBVA Research based on INE (HBS)

Chart 32
Spain: distribution of real consumer spending on durable goods in 2011 (%)

Source: BBVA Research based on INE (HBS)

Which factors bring about changes in the real relative consumption of a type of good? There are at least three:

1. A change in expenditure by the population group traditionally consuming the product. For example, if spending by young people, who are more likely to purchase ICT equipment, accounts for a larger slice of total expenditure - either because the number of young people has increased, or because each young person's spending on ICT products has increased - the percentage of ICT within overall spending will increase regardless of any changes to consumer preferences. This is known as the **'compositional effect'**.

2. Changes in preferences. In connection with the first example, relative consumption of ICT equipment may increase because the population is increasingly likely to buy these products, but not just because the number of young ICT consumers has increased. We call this the **'preference effect'**.

3. 3. A combination of the two. The portion of ICT equipment within total consumption may change because spending by young people on ICT equipment and household preferences for this type of product undergo changes. This is known as the **'interaction effect'**.

When we turn our attention to nominal expenditure instead of real expenditure, a fourth factor helps explain changes to the relative consumption of a product: **changes in its relative price**. Again using the example above, the ICT products are more characterized by lowering prices than goods and services as a whole, and this brings about a major reduction in its contribution to nominal expenditure, as shown in Chart 31.

If we take v^j_{2007} as the nominal relative consumption of product j in 2007, the change in nominal relative consumption of j between 2007 and 2011 ($v^j_{2011} - v^j_{2007}$) may be expressed as the sum of the change to real relative consumption of j ($w^j_{2011} - w^j_{2007}$) and a relative price effect:[23]

$$(v^j_{2011} - v^j_{2007}) = (w^j_{2011} - w^j_{2007}) + \text{Relative price effect } (j) \text{ [1]}$$

= Compositional effect (j)+ Preference effect (j)+ Interaction effect (j)+ Relative price effect (j)

In order to carry out breakdown [1] it is necessary to select the variables delimiting the population groups whose consumption behaviour changes are being analysed. The variables selected are those which together provide the best explanation for relative consumption of each product:[24] typology of the household (size and composition, number of active members, dependent children and net income), the characteristics of the main breadwinner (sex, age and employment status) and the situation of the family home (housing tenure and residence in a provincial capital). The outcome of interaction among the response categories for the nine variables is 6,144 mutually exclusive household groups, the consumer habits of which are analysed (see Chart 4).[25]

23: See the Appendix for further details on the breakdown of changes to relative consumption of a product or service.
24: Box 3 in the Consumption Outlook for the second half of 2009 shows the methodology used to estimate demand equations.
25: Although interaction of the nine variables' response categories considered produces 6,144 possible types of household, there is some overlapping with no observations, either because they are not viable (for example, households with two or more active members and an equivalent size of less than 1.5) or because they are not included in the sample. It is for this reason that the number of household groups fell to 1,664 in 2007, and to 1,779 in 2011.

Table 4
Variables delimiting household groups

	Variable	Response categories	Number of groups
Household typology	Equivalent size of the household(*)	< 1.5	4
		≥ 1.5 y < 2	
		≥ 2 y < 2.5	
		≥ 2.5	
	# of active members in the household	0	4
		1	
		2	
		≥ 3	
	Dependent children (**)	No	2
		Yes	
	Net monthly household income	< 1000€	4
		≥ 1000 y < 2000	
		≥ 2000 y < 3000	
Characteristics of the main breadwinner	Sex of the main breadwinner	Female	2
		Male	
	Age of the main breadwinner	< 35 years	3
		≥ 35 y < 65	
		≥ 65	
	Employment status of the main breadwinner	Not employed	2
		Employed	
Situation of the home	Provincial capital	No	2
		Yes	
	Housing tenure	Rental or assignation	2
		Owner-occupied	
# de grupos mutuamente excluyentes (4×4×2×4×2×3×2×2×2)			6144

(*) The OECD's modified scale of household equivalence was used to calculate the equivalent size of the household. This means that the number of consumption units in a household is the weighted sum of each of its members. The weightings used are: 1 for the first adult, 0.5 for the second adult and any others, and 0.3 for children under 14 years old.
(**) Children are considered as all those under 16 years old who live in the home, and those between 16 and 25 years old who are economically non-active.
Source: BBVA Research

Charts 33 and 34 show the factors determining changes in relative consumption of each of the products considered between 2007 and 2011. Three main results are obtained from the breakdown, as follows:

1. A transformation of household preferences is the main cause of changes in the composition of shopping baskets during today's crisis. As Chart 33 demonstrates, the preference effect accounts for around two thirds of the change to real relative consumption between 2007 and 2011, with the exception of food, education and leisure and culture, where no major changes were detected in households' consumption propensity. The preference effect is even greater in the case of durable goods, as shown in Chart 34.

2. The compositional effect is negative for most product groups analysed; only housing and supplies, small household appliances and telephones show zero or negative compositional effect. This shows that real average expenditure per household has fallen in general during the current crisis, with the exception of housing and communications.

3. Durable goods show a negative price effect. Lower relative prices of durable goods assisted in reducing their portion of nominal expenditure between 2007 and 2011. Conversely, restaurant and hotel services, housing, education, transport and alcoholic beverages and tobacco became more expensive in relation to goods and services as a whole, and therefore in this case the price effect is positive (see Charts 35 and 36).

Chart 33
**Spain: breakdown of changes in relative consumption within each group of products (2007-2011, pp)**

■ Compositional effect ■ Preference effect
■ Interaction effect ■ Price effect
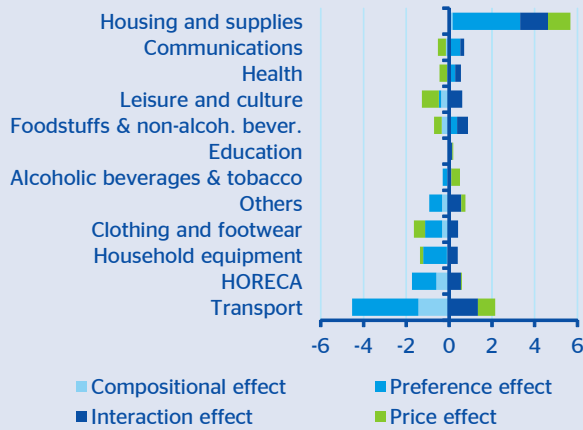
Source: BBVA Research based on INE (HBS)

Chart 34
Spain: breakdown of changes in relative consumption of durable goods (2007-2011, pp)

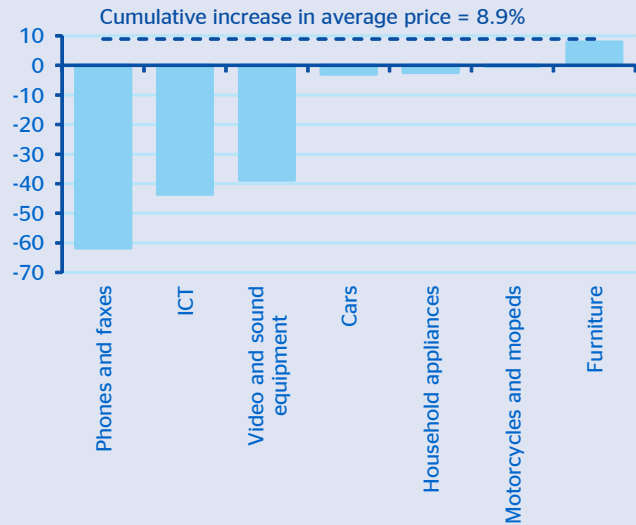■ Compositional effect ■ Preference effect
■ Interaction effect ■ Price effect
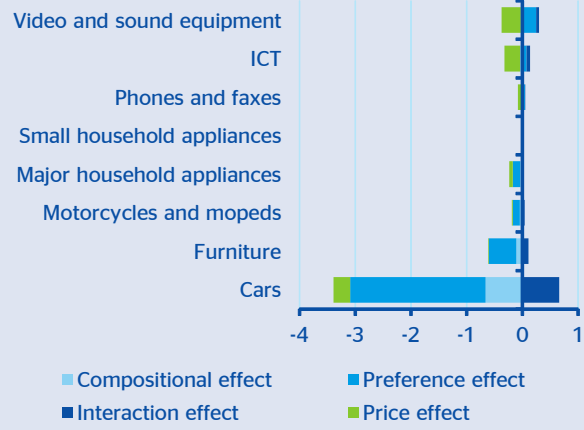
Source: BBVA Research based on INE (HBS)

Chart 35
Spain: changes to consumer prices for each group of products between 2007 and 2011 (%)
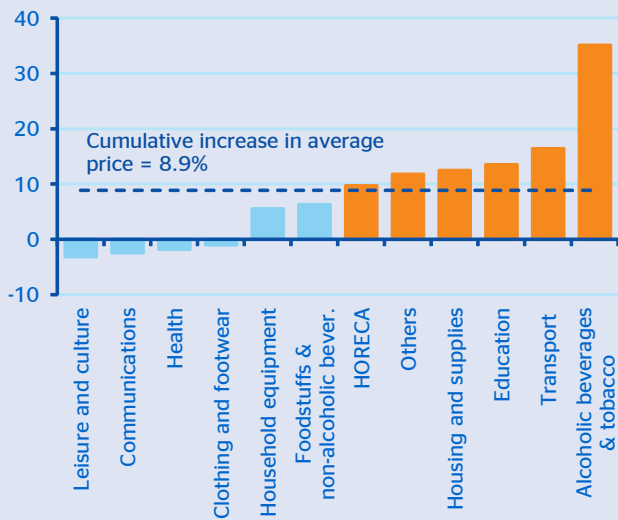
Source: BBVA Research based on INE

Chart 36
Spain: changes to consumer prices of durable goods between 2007 and 2011 (%)

Source: BBVA Research based on INE

Which households explain trends in consumption patterns for durable goods during the present crisis? Table A.1 in the Appendix provides an answer to this question.

Families with an **equivalent size** of between 1.5 and 2.5 members were those mainly responsible for changes to the relative consumption of the durable goods analysed, although spending cutbacks by larger households also played a major role in the lower percentages of major household appliances, cars and motorcycles/mopeds accounted for in total spending. On the other hand, households of a smaller equivalent size were responsible

for around 30% of the increased relative consumption of video and sound equipment and ICT.

A similar result is obtained in terms of the **number of active members in the household**. Families with one or two active members account for three quarters of the change in relative consumption of durable goods, whereas those with three or more active members played a major role in the decreasing volume of major household appliances, cars, and two-wheeled vehicles.

The role of **dependent children** in the home with respect to changing consumer habits depends on the item analysed.

Families with dependent children were the main causes of lower volumes of major household appliances and cars within total spending; conversely, childless households brought about an increase in the relative consumption of brown line products and a decrease in purchases of motorcycles and mopeds.

A clear difference may be observed in terms of **levels of household income** among durable goods where relative consumption has undergone changes. Households in the intermediate income brackets were responsible for lower relative consumption of furniture, major household appliances, cars and two-wheeled vehicles, whereas those with higher incomes determined a major portion of increased spending on small appliances and brown line products.

Households where the **main breadwinner** is **male** brought about a fall in the relative consumption of the durable goods analysed. Meanwhile, households with a **female** breadwinner, helped produce a major fraction of greater spending by families on brown line products, and approximately 60% of greater relative consumption of small household appliances.

No relevant discrepancies were observed in terms of the effect of the **age of the main breadwinner**. Families where the head of the household is between 35 and 64 years old accounted for two thirds of changes to spending on all the durable goods analysed between 2007 and 2011. By contrast, the **employment status of the main breadwinner** did make an appreciable difference. Families in which the main breadwinner was in employment were responsible for fewer purchases of furniture, major household appliance, cars and two-wheeled vehicles, whereas those in which the head of the household was unemployed accounted for some 55% of the increased relative consumption of small household appliances, video and sound equipment and ICT.

Finally, families not residing in **provincial capitals** and those **owning their homes** were chiefly responsible for a smaller portion of durable goods within the household budget, thus demonstrating the complementary relationship between house purchases and consumption of durable goods.[26] Conversely, those residing in provincial capitals and those who did not own their homes made a substantial contribution to the increase in relative consumption of brown line products.

To sum up, the consumption habits of Spanish households have undergone changes during the crisis. The share of durable goods in family budgets have fallen in favour of housing, communications, food, health and education. Although changes in the composition of the population have exerted some influence, the main driver of changes to consumer patterns has been a transformation of household preferences, and most especially in terms of durable goods. Households of average size with at least one active member, without dependent children, a net monthly income of between 1,000 and 3,000 euros, owning their homes not located in a provincial capital, where the main breadwinner is an employed male between 35 and 64 years old were chiefly responsible for changes in the relative consumption of durable goods after 2007. In spite of everything, the observation of a process of convergence towards the typical consumption patterns of a developed economy[27] would seem to herald an increase of between 4pp and 6pp of the portion of durable goods accounted for in household budgets over the next twenty years at the expense of the relative volume of consumption of restaurant and catering products, which will decrease slowly to less than 10% if the process of convergence towards worldwide consumption patterns is comprehensive.

References:

BBVA Research (2009): Consumption Outlook. Second half 2009. BBVA. Madrid. Available at:
http://www.bbvaresearch.com/KETD/fbin/mult/0912_situacionconsumoespana_tcm346-207180.pdf?ts=23112012

-(2010a): *Consumption Outlook. Second half 2010. BBVA. Madrid. Available at*:
http://serviciodeestudios.bbva.com/KETD/fbin/mult/1103_Spainconsumptionoutlook_tcm348-252258.pdf?ts=412013

-(2010b): "Convergence in consumption habits: which goods and services are more likely to experience growth in Spain in the future?", Observatorio Sectorial [Sector Watch], BBVA. Available at:
http://www.bbvaresearch.com/KETD/fbin/mult/100218_observatoriosectorialespana_tcm346-215179.pdf?ts=23112012

Deaton, A. S. y J. N. J. Muellbauer (1980): *Economics and consumer behaviour*. Cambridge University Press. Cambridge.

26: See Section 3 and the analysis conducted for the Consumption Outlook over the second half of 2009 and second half of 2010.
27: See the evidence in BBVA Research (2010b).

Appendix

Table A1.
Spain: changes to real relative consumption of durable goods between 2007 and 2011

		Furniture	Major h/ apps.	Small h/ apps.	Cars	Motorcycles and mopeds	Phones and faxes	Video and sound	ICT
Total effect	Changes to real relative consumption 2007-11 (pp)	-0.49	-0.14	0.03	-2.43	-0.13	0.05	0.27	0.11
	Equivalent size of the household(*) < 1.5	-0.02	0.00	0.00	0.01	-0.01	0.01	0.06	0.04
	≥ 1.5 y < 2	-0.19	-0.04	0.01	-0.97	-0.06	0.02	0.12	0.05
	≥ 2 y < 2.5	-0.18	-0.04	0.01	-0.79	-0.02	0.01	0.08	0.01
	≥ 2.5	-0.10	-0.06	0.00	-0.69	-0.04	0.01	0.01	-0.01
	# of active members in the household 0	-0.01	0.00	0.00	-0.02	0.00	0.00	0.09	0.02
	1	-0.13	-0.03	0.00	-0.67	-0.03	0.01	0.08	0.03
	2	-0.27	-0.08	0.01	-1.13	-0.07	0.03	0.10	0.07
	≥ 3	-0.08	-0.04	0.00	-0.62	-0.03	0.00	0.01	-0.02
	Dependent children (**) No	-0.25	-0.06	0.02	-1.04	-0.08	0.02	0.18	0.06
	Yes	-0.25	-0.08	0.01	-1.38	-0.05	0.02	0.09	0.04
	Net monthly household income < 1000€	-0.03	-0.01	0.00	-0.03	-0.01	0.01	0.05	0.02
	≥ 1000 & < 2000	-0.16	-0.05	0.01	-1.03	-0.04	0.01	0.09	0.04
	≥ 2000 & < 3000	-0.21	-0.06	0.00	-0.95	-0.07	0.01	0.05	-0.01
	≥ 3000€	-0.09	-0.02	0.01	-0.43	-0.02	0.02	0.08	0.05
	Sex of the main breadwinner Female	-0.08	-0.02	0.01	-0.22	-0.04	0.01	0.11	0.05
	Male	-0.41	-0.13	0.01	-2.21	-0.10	0.03	0.17	0.05
	Age of the main breadwinner < 35	-0.18	-0.06	0.00	-0.80	-0.05	0.01	0.02	0.00
	≥ 35 & < 65	-0.32	-0.09	0.01	-1.55	-0.08	0.03	0.15	0.08
		0.01	0.01	0.01	-0.08	0.00	0.01	0.10	0.02
	Employment status of the main breadwinner Not employed	-0.02	0.01	0.01	-0.15	-0.01	0.01	0.16	0.06
	Employed	-0.48	-0.16	0.01	-2.28	-0.12	0.03	0.12	0.04
	Provincial capital No	-0.37	-0.11	0.01	-1.72	-0.11	0.02	0.15	0.03
	Yes	-0.12	-0.03	0.01	-0.71	-0.02	0.03	0.12	0.07
	Housing tenure Rental or assignation	-0.02	-0.01	0.01	-0.38	-0.02	0.02	0.07	0.05
	Owner-occupied	-0.47	-0.13	0.02	-2.05	-0.11	0.03	0.21	0.05

Table A1.
Spain: changes to real relative consumption of durable goods between 2007 and 2011

		Furniture	Major h/ apps.	Small h/ apps.	Cars	Motorcycles and mopeds	Phones and faxes	Video and sound	ICT
Compositional effect		**-0.11**	**-0.04**	**0.00**	**-0.66**	**-0.05**	**0.00**	**-0.03**	**-0.04**
Equivalent size of the household (*)	< 1.5	0.01	0.02	0.00	0.05	0.00	0.00	0.01	0.01
	≥ 1.5 and < 2	-0.05	0.00	0.00	-0.12	-0.01	0.00	0.00	0.00
	≥ 2 and < 2.5	-0.01	-0.01	0.00	-0.21	-0.01	0.00	-0.01	-0.01
	≥ 2.5	-0.06	-0.04	0.00	-0.37	-0.02	0.00	-0.03	-0.04
# of active members in the household	0	0.03	0.02	0.00	0.07	0.00	0.00	0.01	0.01
	1	-0.07	-0.02	0.00	-0.29	-0.01	0.00	-0.02	-0.02
	2	-0.02	-0.01	0.00	-0.12	-0.01	0.00	-0.01	0.00
	≥ 3	-0.04	-0.03	0.00	-0.32	-0.02	0.00	-0.02	-0.03
Dependent children (**)	No	-0.05	-0.01	0.00	-0.24	-0.02	0.00	0.00	-0.02
	Yes	-0.06	-0.03	0.00	-0.42	-0.03	0.00	-0.02	-0.02
Net monthly household income	< 1,000€	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
	≥ 1,000 & < 2,000	-0.04	-0.01	0.00	-0.29	-0.01	0.00	-0.01	-0.01
	≥ 1,000 & < 2,000	-0.08	-0.03	0.00	-0.42	-0.03	0.00	-0.02	-0.04
	≥ 3,000€	0.01	0.01	0.00	0.04	-0.01	0.00	0.00	0.00
Sex of the main breadwinner	Female	0.02	0.01	0.00	0.03	0.00	0.00	0.02	0.01
	Male	-0.13	-0.05	0.00	-0.69	-0.05	-0.01	-0.05	-0.04
Age of the main breadwinner	< 35	-0.12	-0.03	-0.01	-0.42	-0.03	0.00	-0.04	-0.03
	≥ 35 & < 65	-0.02	-0.02	0.00	-0.30	-0.02	0.00	-0.01	-0.01
	≥ 65	0.03	0.02	0.00	0.05	0.00	0.00	0.02	0.01
Employment status of the main breadwinner	Not employed	0.05	0.03	0.01	0.15	0.00	0.00	0.03	0.02
	Employed	-0.16	-0.07	-0.01	-0.81	-0.05	-0.01	-0.05	-0.06
Provincial capital	No	-0.07	-0.03	0.00	-0.54	-0.03	0.00	-0.02	-0.03
	Yes	-0.04	-0.01	0.00	-0.12	-0.02	0.00	-0.01	-0.01
Housing tenure	Rental or assignation	0.00	0.00	0.00	-0.09	-0.01	0.00	0.00	0.00
	Owner-occupied	-0.11	-0.04	0.00	-0.57	-0.04	-0.01	-0.02	-0.04

Continued on next page

Table A1.
Spain: changes to real relative consumption of durable goods between 2007 and 2011

		Furniture	Major h/ apps.	Small h/ apps.	Cars	Motorcycles and mopeds	Phones and faxes	Video and sound	ICT
Preference effect		-0.49	-0.14	0.03	-2.43	-0.13	0.05	0.25	0.08
Equivalent size of the household(*)	< 1.5	-0.02	-0.02	0.00	-0.06	-0.01	0.01	0.04	0.02
	≥ 1.5 and < 2	-0.20	-0.05	0.02	-1.04	-0.05	0.02	0.09	0.03
	≥ 2 and < 2.5	-0.19	-0.04	0.00	-0.81	-0.02	0.01	0.07	0.00
	≥ 2.5	-0.07	-0.03	0.01	-0.52	-0.04	0.01	0.05	0.02
# of active members in the household	0	-0.04	-0.02	0.00	-0.09	0.00	0.00	0.06	0.01
	1	-0.11	-0.03	0.01	-0.66	-0.03	0.01	0.08	0.02
	2	-0.28	-0.08	0.02	-1.18	-0.06	0.03	0.08	0.05
	≥ 3	-0.06	-0.01	0.00	-0.50	-0.03	0.01	0.03	0.00
Dependent children (**)	No	-0.27	-0.07	0.02	-1.09	-0.08	0.03	0.15	0.03
	Yes	-0.22	-0.07	0.02	-1.34	-0.05	0.02	0.10	0.05
Net monthly household income	< 1,000€	-0.03	-0.01	0.00	-0.06	-0.01	0.00	0.04	0.00
	≥ 1,000 & < 2,000	-0.15	-0.05	0.02	-0.96	-0.04	0.01	0.08	0.05
	≥ 1,000 & < 2,000	-0.17	-0.05	0.01	-0.84	-0.06	0.01	0.06	0.00
	≥ 3,000€	-0.13	-0.03	0.00	-0.57	-0.02	0.02	0.06	0.02
Sex of the main breadwinner	Female	-0.12	-0.05	0.01	-0.35	-0.04	0.01	0.05	0.01
	Male	-0.37	-0.09	0.02	-2.08	-0.09	0.04	0.20	0.06
Age of the main breadwinner	< 35	-0.13	-0.04	0.02	-0.72	-0.04	0.01	0.03	0.01
	≥ 35 & < 65	-0.33	-0.08	0.01	-1.54	-0.08	0.03	0.16	0.06
	≥ 65	-0.03	-0.01	0.00	-0.17	0.00	0.00	0.06	0.00
Employment status of the main breadwinner	Not employed	-0.08	-0.03	0.00	-0.36	-0.02	0.01	0.09	0.00
	Employed	-0.41	-0.10	0.03	-2.07	-0.10	0.04	0.16	0.07
Provincial capital	No	-0.35	-0.10	0.02	-1.69	-0.10	0.02	0.14	0.03
	Yes	-0.14	-0.04	0.01	-0.74	-0.02	0.03	0.11	0.04
Housing tenure	Rental or assignation	-0.04	-0.02	0.00	-0.44	-0.02	0.01	0.04	0.01
	Owner-occupied	-0.46	-0.12	0.03	-1.99	-0.11	0.04	0.20	0.06

(row label at left side, rotated) Preference effect

Table A1.
Spain: changes to real relative consumption of durable goods between 2007 and 2011

		Furniture	Major h/ apps.	Small h/ apps.	Cars	Motorcycles and mopeds	Phones and faxes	Video and sound	ICT
Interaction effect		**0.11**	**0.03**	**-0.01**	**0.66**	**0.04**	**0.00**	**0.05**	**0.06**
Equivalent size of the household(*)	< 1.5	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.01
	≥ 1.5 and < 2	0.05	0.01	-0.01	0.19	0.00	0.00	0.03	0.02
	≥ 2 and < 2.5	0.02	0.01	0.00	0.24	0.01	0.00	0.01	0.02
	≥ 2.5	0.03	0.01	0.00	0.20	0.02	0.00	0.00	0.01
# of active members in the household	0	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.01
	1	0.05	0.02	0.00	0.28	0.01	0.00	0.01	0.03
	2	0.03	0.01	0.00	0.18	0.01	0.00	0.03	0.02
	≥ 3	0.02	0.00	0.00	0.20	0.02	0.00	0.00	0.01
Dependent children (**)	No	0.07	0.01	0.00	0.29	0.02	0.00	0.04	0.05
	Yes	0.04	0.02	-0.01	0.37	0.02	0.00	0.02	0.02
Net monthly household income	< 1,000€	0.01	0.01	0.00	0.02	0.00	0.00	0.01	0.01
	≥ 1,000 & < 2,000	0.03	0.01	-0.01	0.23	0.02	0.00	0.02	0.01
	≥ 1,000 & < 2,000	0.04	0.02	-0.01	0.31	0.02	0.00	0.01	0.02
	≥ ,000€	0.03	0.00	0.00	0.10	0.01	0.00	0.01	0.02
Sex of the main breadwinner	Female	0.01	0.02	0.00	0.10	0.00	0.01	0.04	0.03
	Male	0.10	0.01	-0.01	0.56	0.04	0.00	0.02	0.03
Age of the main breadwinner	< 35	0.07	0.01	-0.01	0.34	0.02	0.00	0.02	0.02
	≥ 35 and < 65	0.03	0.01	0.00	0.29	0.02	0.00	0.01	0.03
	≥ 65	0.01	0.00	0.00	0.03	0.00	0.00	0.02	0.02
Employment status of the main breadwinner	Not employed	0.02	0.01	0.00	0.07	0.01	0.00	0.04	0.03
	Employed	0.09	0.02	-0.01	0.59	0.03	0.00	0.01	0.03
Provincial capital	No	0.05	0.01	-0.01	0.51	0.02	0.00	0.03	0.02
	Yes	0.06	0.02	0.01	0.15	0.02	0.00	0.02	0.04
Housing tenure	Rental or assignation	0.02	0.00	0.01	0.14	0.01	0.00	0.03	0.04
	Owner-occupied	0.09	0.03	-0.01	0.52	0.03	0.00	0.03	0.03

(*) The OECD's modified scale of household equivalence was used to calculate the equivalent size of the household. This means that the number of consumption units in a household is the weighted sum of each of its members. The weightings used are: 1 for the first adult, 0.5 for the second adult and any others, and 0.3 for children under 14 years old.
(**) Children are considered as all those under 16 years old who live in the home, and those between 16 and 25 years old who are economically non-active.
Source: BBVA Research based on INE

Breakdown of changes in household consumption patterns

Preliminary concepts

Let $k_t^{i,j}$ be the real expenditure by the population group i (i=1,...,N) on product j (j=1,...,J) over year t (t=1,...,T). We use $\omega_t^{i,j}$ to denote real relative consumption of product j by group i over t:

$$\omega_t^{i,j} = \frac{k_t^{i,j}}{\Sigma_j k_t^{i,j}}$$

Let α_t^i be the contribution of group i to total real consumption expenditure in year t:

$$\alpha_t^i = \frac{Real\ consumption\ expenditure\ of\ group\ i}{Total\ real\ consumption\ expenditure} = \frac{\Sigma_j k_t^{i,j}}{\Sigma_i \Sigma_j k_t^{i,j}}$$

Let $c_t^{i,j}$ be the nominal consumption expenditure on product j by population group i in year t. We use $v_t^{i,j}$ to denote nominal relative consumption of product j by group i over t:

$$v_t^{i,j} = \frac{c_t^{i,j}}{\Sigma_j c_t^{i,j}}$$

Given $k_t^{i,j} = \frac{c_t^{i,j}}{P_t^j}$, we therefore rewrite v_t^j:

$$v_t^{i,j} = \frac{P_t^j k_t^{i,j}}{\Sigma_j P_t^j k_t^{i,j}} = \frac{P_t^j}{\overline{P_t^i}} = \frac{k_t^{i,j}}{\Sigma_j k_t^{i,j}} = \frac{P_t^j}{\overline{P_t^i}} \omega_t^{i,j}\ , \qquad [1]$$

where $\overline{P_t^i}$ denotes the weighted average price of group i's shopping basket over year t.

Let γ_t^i lbe the contribution of group i to total nominal consumption expenditure in year t:

$$\gamma_t^i = \frac{Real\ consumption\ expenditure\ of\ group\ i}{Total\ real\ consumption\ expenditure} =$$

$$= \frac{\Sigma_j P_t^j k_t^{j,i}}{\Sigma_i \Sigma_j P_t^j k_t^{j,i}} = \frac{\overline{P_t^i}}{\overline{P_t}} \frac{\Sigma_j k_t^{j,i}}{\Sigma_i \Sigma_j k_t^{j,i}} = \frac{\overline{P_t^i}}{\overline{P_t}} \alpha_t^i \qquad [2]$$

where $\overline{P_t}$ represents the weighted average price of the total households in t.

Breakdown of real relative consumption. For any product j, the change in real relative consumption between year t+n and year t $(w_{t+n}^j - w_t^j)$ may be broken down into three factors:

$$w_{t+n}^j - w_t^j = \Sigma_i \alpha_{t+n}^i \omega_t^{j,i} - \Sigma_j \alpha_t^i \omega_t^{j,i}$$
$$= \Sigma_i (\alpha_{t+n}^i - \alpha_t^i)\omega_t^{j,i}$$
$$\text{\small Efecto composición}$$
$$+ \Sigma_i \alpha_t^i(\omega_{t+n}^{j,i} - \omega_t^{j,i})$$
$$\text{\small Efecto preferencias}$$
$$+ \Sigma_i (\alpha_{t+n}^i - \alpha_t^i)(\omega_{t+n}^{j,i} - \omega_t^{j,i})$$
$$\text{\small Interacción (residuo)}$$

Breakdown of nominal relative consumption. For any product j, the change in nominal relative consumption between year t+n and year t $(v_{t+n}^j - v_t^j)$ may be broken down into three factors:

$$v_{t+n}^j - v_t^j = \Sigma_i \gamma_{t+n}^i v_t^{j,i} - \Sigma_j \gamma_t^i v_t^{j,i}$$
$$= \Sigma_i (\gamma_{t+n}^i - \gamma_t^i)v_t^{j,i}$$
$$+ \Sigma_i \gamma_t^i(v_{t+n}^{j,i} - v_t^{j,i})$$
$$+ \Sigma_i (\gamma_{t+n}^i - \gamma_t^i)(v_{t+n}^{j,i} - v_t^{j,i})$$

Considering [1] and [2], the breakdown of nominal relative consumption of product j between year t+n and year t is equal to the breakdown of nominal relative consumption weighted by the relative price:

$$v_{t+n}^j - v_t^j = \frac{P_{t+n}^j}{\overline{P}_{t+n}}\Sigma_i \alpha_{t+n}^i \omega_{t+n}^{j,i} - \frac{P_t^j}{\overline{P}_t}\Sigma_j \alpha_t^i \omega_t^{j,i}$$
$$= \Sigma_i (\alpha_{t+n}^i - \alpha_t^i)\omega_t^{j,i}$$
$$\text{\small Composition Efect}$$
$$+ \Sigma_i \alpha_t^i(\omega_{t+n}^{j,i} - \omega_t^{j,i})$$
$$\text{\small Preference Efect}$$
$$+ \Sigma_i (\alpha_{t+n}^i - \alpha_t^i)(\omega_{t+n}^{j,i} - \omega_t^{j,i})$$
$$\text{\small Iteraction (residue)}$$
$$+ \Sigma_i \omega_{t+n}^{j,i}\left(\frac{P_{t+n}^j}{\overline{P}_{t+n}} \alpha_{t+n}^i - 1\right) - \Sigma_i \omega_t^{j,i}\left(\frac{P_t^j}{\overline{P}_t} \alpha_t^i - 1\right)$$
$$\text{\small Price Efect}$$

4. Consumer finance

Households are continuing their deleveraging, albeit at a slower pace

The economic panorama facing by Spanish households, their deleveraging process and in-depth reforms within Spanish financial system are the main guides of consumer lending trends. Since publication of Consumption Outlook for the first half of 2012,[28] consumer credit has decelerated its downturn, following a yoy decrease of 17.7% in April. In September, lending to households for consumption and other purposes - with the exception of housing - fell by 12.3% yoy, thus continuing the deleveraging initiated in the final months of 2008. Despite the moderation, the fall in consumer lending rates is more acute than in the EMU, as shown in Chart 37.

The deleveraging process brought down the ratio of consumer credit (durable and non-durable) to GDP to 6.0% in September 2012, as against a maximum of 10.4% in 2007, in proximity to aggregate EMU levels (6.3%). Additionally, households' financial burden is now running at 6% of their disposable income, chiefly due to lower principals on loans, while the burden of interest has remained fairly steady since year-end 2009. In the medium term, the financial burden of consumers lending will continue to move down to an average of around 5% of households' gross disposable income (see Chart 38).

Chart 37
Outstanding balance of consumer credit (% yoy)

Chart 38
Spain: households' financial burden on consumer credits (% of GDHI)
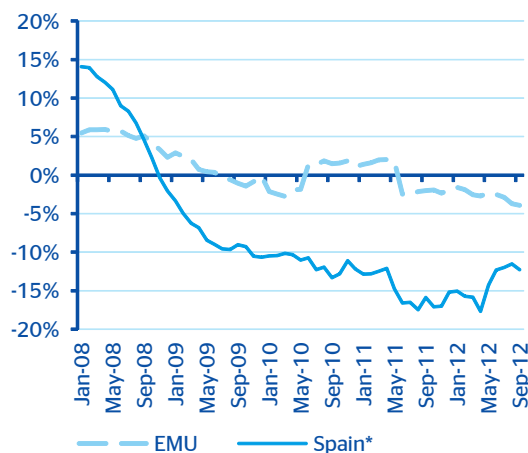
* Consumer credit handled: includes securitisations
Source: BBVA Research based on Bank of Spain and ECB
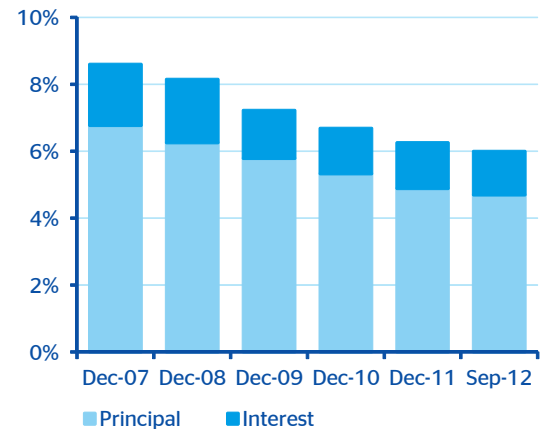
Source: BBVA Research based on Bank of Spain and INE

The decrease in lending for consumption and other purposes has been caused not only by the arrival of maturity dates, but also by a fall in new transactions - in the third quarter of 2012 these moved down by 20.1% with respect to 3Q11. By term, the largest decrease was observed in 1-5 year loans (-33.0%), followed by loans over more than 5 years (-17.2%) and loans over less than one year (-8.4%), which account for around 40% of lending transactions (see Chart 39).

In the last quarter of the year, deleveraging is expected to continue at a similar pace to that observed in recent months, since according to the Bank Lending Survey the flow of credit will remain steady, while demand will pull up its downward trajectory slightly (see Chart 40).

28: See BBVA Research (2012): Consumption Outlook. First half 2012. BBVA. Madrid. Available at:
http://serviciodeestudios.bbva.com/KETD/fbin/mult/1206_Consumptionoutlook_tcm348-330687.pdf?ts=412013

Chart 39
Spain: distribution by maturities of new consumer credits (%)

- More than 5 years
- Between 1 year and 5 years
- Up to 1 year
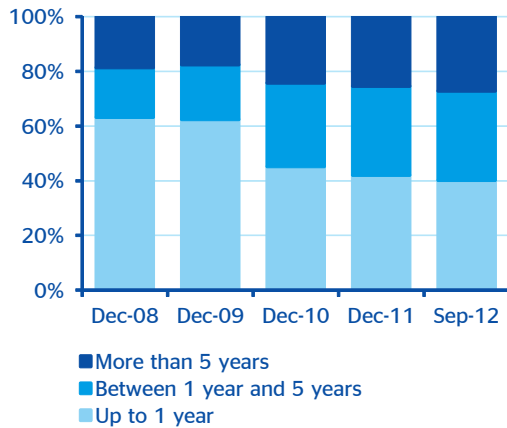
Source: BBVA Research based on Bank of Spain

Chart 40
Spain: Bank Lending Survey (consumer loans and others, balance of responses)

—— Supply   - - - Demand
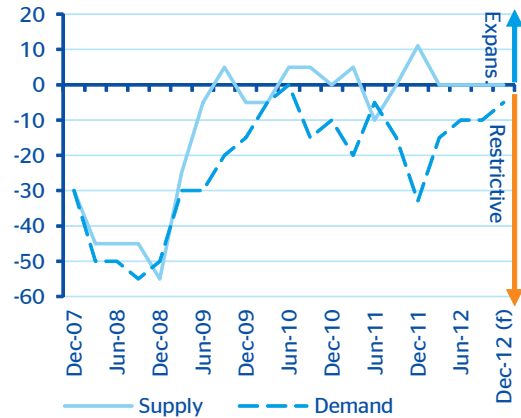
Source: BBVA Research based on Bank of Spain

Consumer loans by purpose

Given the lack of statistics on consumer loans by purpose across the board in the financial system, analysis is performed using data from the National Association of Financial Institutions (Asociación Nacional de Establecimientos Financieros de Crédito, Asnef). Asnef claims that the year-on-year fall in new consumer credit transactions during the third quarter of the year was -31.2%. All the components of this item fell, led by personal loans and revolving credit cards at -50.6% and -57.8% respectively, whereas credit for consumer goods and revolving credit decreased by 8.2% and 9.6% respectively.

Although the overall average credit remained stable at around 2,900 euros, trends in components did not follow the same pattern. Whereas the average amount of durable consumption loans and revolving credit increased by 38.7% and 61.0% respectively, personal loans and revolving credit cards showed a decrease of 12.1% and 44.9% respectively.

Meanwhile, loans for cars, fell by 12.1% in 3Q12 against the third quarter of the previous year. All instances of loans for car purchases fell, with the exception of credit for individuals to buy used cars. The introduction of the PIVE incentive plan in October will probably mitigate the fall in loans to buy new cars in 4Q12.[29] Average credit levels for car purchases decreased by 9.1% during the third quarter of 2012 to 12,000 euros, as against 13,200 euros in 3Q11. Here again, behaviour patterns differ depending on the type of vehicle. A decrease was observed in average loans for the purchase of other vehicles - motorcycles and caravans (-6.0%) and cars by individuals, both new cars (-15.0%) and used cars (-5.1%). On the other hand, average loans increased for the purchase of new cars (+17.7%) and used cars (17.0%) by companies, and also for the purchase of commercial vehicles (+55.7%).

In short, beyond the progress made in reforms of the Spanish financial system, no major changes have been observed in consumer lending since the last edition of Consumption Outlook. The decline in consumer credit is expected to continue in coming months, as part of the deleveraging process Spanish households are undergoing.

29: See Section 4 for further details concerning the PIVE incentive

Box 2. How are consumer credit interest rates set in Spain? Similarities and differences with respect to other EMU countries

A number of different concepts are involved in the establishment of interest rates for financial institutions' products: the risk-free interest rate associated with the official cost of money imposed by the monetary authorities, the institution's borrowing costs, the cost of credit risk, operational cost, commissions and margin. What is the role played by each of these factors in the establishment of interest rates for new consumer lending transactions in Spain? As shown in Chart 41, interest rates for new consumer lending transactions and other transactions are closely linked to official rates and 12-month Euribor. Discrepancies, however, between consumer credit rates and their references have widened since the Lehman Brothers crash in September 2008 (see Chart 42).

In particular, this box shows that changes to the commercial policy of credit institutions - brought on by the difficulties experienced by a portion of the financial system, the deterioration in customer credit profiles and greater risk in consumer lending portfolios - have been the reason for the higher interest rates for new consumer lending transactions in Spain since 2009. Unlike other EMU countries such as Germany, France, Italy and Finland, long-term rates have had no effect on the price of consumer credit in Spain.

Chart 41
Spain: Interest rates (%)

- - - - Official BoS rate (1998) and ECB rate
——— 12-M Mibor (1998) and 12-M Euribor
——— Consumer credit and others
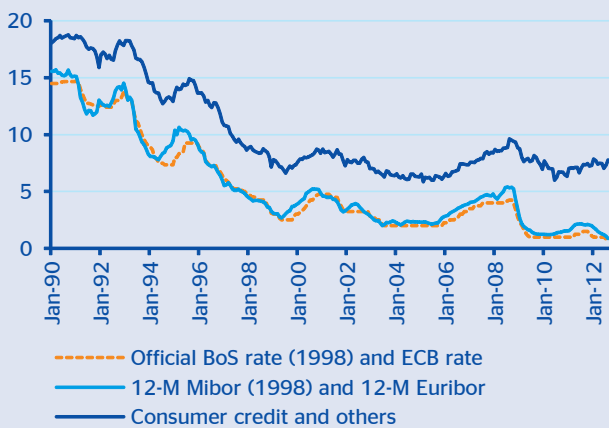
Source: BBVA Research based on Bank of Spain

Chart 42
Consumer credit interest rate in Spain. Differentials (pp)

- - - - Interest rate for consumer credits and others – official rate
——— Interest rate for consumer credits and others – 12-M Euribor
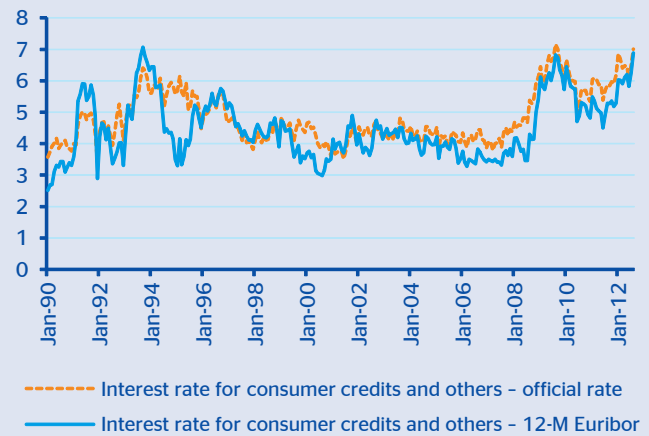
Source: BBVA Research based on Bank of Spain

A model for setting consumer credit interest rates

In order to perform an analysis of the relationship of household credit portfolio interest rates for consumption purposes (tc_c) with the ECB's official interest rate (tof) and with the reference interbank rate for most lending by Spanish credit institutions -12-month Euribor (euribor12m)-, an error correction model (ECM) is estimated using monthly data since 1994. As interbank rates react to changes in the reference rate, the spread between 12-month Euribor and the official rate (spread12m = euribor12m – tof) will be used as an explanatory variable for consumer lending interest rates:

$$tc\_c_t = constant + \beta_1\, tof_t + \beta_2\, spread12m_t \qquad [1]$$

The β_1 parameter gauges the sensitivity of tc_c to official rates, and its value is estimated as 1.00. β_2 represents the sensitivity of tc_c the marginal cost of landing, and its value is estimated as 1.55. The constant accounts for other aspects of financial institutions' commercial policy affecting tc_c. The short-term component of the equation also contains variables indicating a specific characteristic of this lending portfolio such as seasonality, the factors of which or deviations in the trend of which indicate that tc_c rates are lower in March, April, June, July and December, and higher in January, February, August, September and October (see Chart 43). A certain amount of temporary trends may be observed within the stability of the seasonal component. Changes have been observed such as, for instance, the fact that March evolved from higher consumer credit interest rates than in the 1990s to lower rates as of the noughties.

Chart 43
Spain: consumer credit interest rates and others. Seasonal factors (pp)

- Deviation with respect to monthly average
- Monthly average
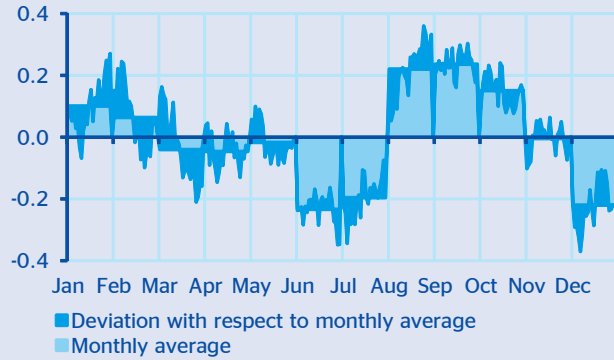
Source: BBVA Research

Lumping all aspects of the institutions' commercial policy and the costs of credit risk and operational risk in the equation's constant implies that these factors have remained stable in the long run. However, changes have been made to commercial policy since 1994, and this was particularly obvious after the onset of financial crisis in the summer of 2007. Thus an increase of around 168 basis points (bp) was observed in the commercial policy term for consumer credit rates as of the beginning of 2009 (see Chart 44)[30]. It is now estimated that consumer lending interest rates in Spain are established on the basis of official rates, plus 1.55 in view of the differential between 12-month Euribor and the official rate and 540 bp associated with commercial policy. The difficulties experienced by a certain portion of the financial system, the downgraded customer credit profile caused by the economic situation and the greater risk of consumer lending portfolios with respect to other portfolios justify these trends.

Chart 44
Spain: consumer credit interest rates and others. Contributions (%)

- Seasonality and others
- Change in commercial policy
- Commercial policy
- Spread (12-M Euribor – tof)

Source: BBVA Research

And what about the EMU countries?

It has been demonstrated that financial institutions in Spain establish their consumer lending rate on the basis of the official ECB rate and 12-month Euribor, plus a commercial policy term. Most Eurozone countries establish their consumer lending rates in a similar way, but they also utilise other references such as rates in the longer term (see Chart 45). To analyse their incidence, Eurostat data on interest rates for new consumer lending businesses have been taken for a number of EMU countries (Germany, France, Italy, Belgium, Portugal and Finland), and rates have been estimated using the structure of equation [1], with the addition of a term to cover long-term lending references by means of a differential between 10-year public debt interest rates in each country and 12-month Euribor (spr_et10).

Chart 45
EMU: consumer credit interest rates. New businesses (%)

- Germany
- Italy
- Portugal
- Spain (BoS)
- France
- Belgium
- Finland
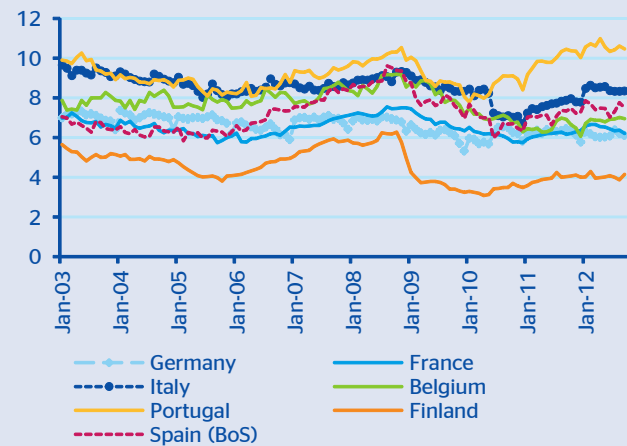
Source: BBVA Research based on Eurostat and BoS

Table 5 shows that all countries have a commercial policy term[31] which varies significantly, between Finland's 1.44pp and Portugal's 10.07pp. There is also a reference to the ECB's official rates, with multipliers varying from 1.73 for Finland, to 1.00 for Spain, and 0.52 for Italy. With the exception of Belgium and Portugal, consumer lending rates in the other countries depend on the Euribor differential, especially Germany, with a negative multiplier to act as a cushion between official rates and long-term rates. Finally, Germany, France, Italy and Finland present references to long-term rates to set their prices, in addition to official rates and the Euribor differential, ranging between 0.42pp in France to 1.14pp in Finland.

30: Estimated through an average change in the long-term equation.
31: This term included the effect of Bank of Spain Circular 1/2010 of 27 January amending Circular 4/2002 to adapt it to the modifications introduced by Regulation (EC) No 290/2009 of the European Central Bank of 31 March. According to our estimates, this effect added 1.05 percentage point to the German term, reduced the Italian term by 1.17pp, increased that of Portugal by 1.27pp, and also increased the Finnish term by 0.80pp. No effects were observed on Spanish, French or Belgian rates.

Table 5
Establishment of interest rates for new consumer credit transactions

2003-2012.	Spain (1)	Germany	France	Italy	Belgium	Portugal	Finland
Commercial policy (pp)	5.40	5.16	3.97	4.47	5.69	10.07	1.44
Tof	1.00	0.91	0.57	0.52	0.90	0.60	1.73
Spr12m	1.55	-0.67	1.73	0.89	--	--	0.71
Spr_et10	--	0.54	0.42	0.68	--	--	1.14
Seasonality	Yes	Yes	Yes	Yes	Yes	No	No

Tof= Official ECB rate; Spr12m = 12-,month Euribor - tof; Spr_et10 = 10-year public debt interest rate - 12-month Euribor
(1) Rates for consumer lending and others. 1994-2012
Source: BBVA Research

As in Spain, seasonality plays a major role in all countries analysed with the exception of Portugal and Finland. The outcome of the above is that transmission of ECB monetary policy is not homogeneous between countries, and specific national factors such as interest on public debt also exert an influence.

The worldwide financial crisis has also affected the formation of interest rates for this lending portfolio in EMU countries. A test was performed to study its effect on each economy, as follows:

1. The models were re-estimated up to August 2008, one month before the financial crisis set in following the collapse of Lehman Brothers.

2. A projection was created from August 2008 to the time of the latest data observed in September 2012, i.e. a period of 49 months.

3. The projection was compared to the value observed.

4. An assessment was performed to ascertain whether the difference lies within what is normally acceptable for this period (+/- 1.96 standard deviation).

Table 6 shows that consumer lending rates in Germany, Italy and Belgium were lower than they should have been, had they behaved in the same manner as the pre-crisis period, with 72, 73 and 55 basis points respectively. Conversely, rates in Spain, France, Portugal and Finland in September 2012 were higher than they should have been, at 198, 87, 129 and 157 basis points respectively. Both the positive and negative deviations were greater than normal for a 49-month period, with the exception of Belgium on the lower end of the 95% confidence range.

In short, monetary policy is not the only variable affecting consumer lending rates, since factors such as Euribor or trends in public debt yields may have a significant impact to make credit more expensive, or less so.

Table 6
Forecasts for consumer lending rates starting in August 2008 and projected to September 2012

September 2012	Spain (1)	Germany	France	Italy	Belgium	Portugal	Finland
Forecast %	5.52	6.83	5.35	9.12	7.50	9.18	2.57
Observed %	7.50	6.11	6.22	8.39	6.95	10.47	4.14
Difference (Observed - Forecast)	1.98	-0.72	0.87	-0.73	-0.55	1.29	1.57
(Observed-Forecast)/Standard Deviation	8.1	-3.9	4.4	-3.1	-1.9	4.4	11.4

(1) Rates for consumer lending and others. 1994-2008
Source: BBVA Research

5. Analysis of the economic situation of the retail trade based on BBVA's Business Tendency Survey. Second half 2012[32]

To round off our survey of the economic situation of Spain's retail trade sector and its interrelation with credit demand and supply, in December 2010 BBVA Research introduced its six-monthly Business Tendency Survey (BTS). The BTS survey is aimed at managers and directors of BBVA's Consumer Finance Department in Spain who sell consumer loans (brokers) in sectors distributing goods - mainly durable goods - and retail services.[33]

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 assess present and future trends in credit supply and demand in their areas of business.[34]

There follow the results of the BTS for the second half of 2012, containing the assessment of respondents of the latter half of the year and their expectations for the first six months of 2013.

BTS 2H12: reality continues to worsen expectations

Chart 46 shows that the respondents' perception of the outlook for the Spanish economy was a continuation of its downward trajectory in the second half of 2012, albeit at a slower pace than during the first six months of the year. In the second half of 2012 the spread between the percentage of respondents indicating the economy had improved and the percentage indicating that it had worsened - normally used as an indicator of the economic situation[35] - sstood at -77.8 points, up by 5.7 points on 1H12. Deployment of Outright Monetary Transactions[36] pby the ECB helped reduce financial tension and improved the expectations of analysts concerning the situation of the Spanish economy. Those participating in the BTS survey were particularly hopeful that the sluggishness of the economy would improve during the first six months of 2013: 54.9% of respondents felt the economic situation will not worsen in 1H13, as against the 21.6% who did not see any deterioration in 2H12.

32: We wish to thank the following for participating in the surveys: the managers and directors of BBVA's Consumer Finance Department, and likewise Antonio Marín for his work collating the data.
33: The activities studied are car and motorcycle sales and repairs; retail sales of ICT equipment; sales of hardware products, paints and glass; household appliances; furniture; cosmetic and hygiene products; and other products not sold in specialist establishments. Other credit activities relating to the approval of loans for institutions not involved in money trading are also included (particularly consumer loans).
34: It should be noted that questions refer to the market as a whole and not to BBVA's policy.
35: Constructing a balance of responses based on the data of opinion polls is common practice. See, for example, the synthetic indicators drawn up by the European Commission
(http://ec.europa.eu/economy_finance/db_indicators/surveys/index_en.htm) o por el Ministerio de Industria, Energía y Turismo (http://www.minetur.gob.es/es-ES/IndicadoresyEstadisticas/Industria/EncuestaCoyuntura/Paginas/EncuestaCoyuntura.aspx), entre otros.
36: For further details, see:
http://www.bde.es/f/webbde/GAP/Secciones/SalaPrensa/ComunicadosBCE/NotasInformativasBCE/12/Arc/Fic/presbce2012_99.pdf

Evaluations of the current state of the Spanish economy and its outlook vary according to the sectors of respondents. As shown in Chart 47, the balance of responses varies from one region to the next.[37] In the second half of 2012, responses to the BTS by residents of Madrid, the Southern, Northeast and Central regions pointed to a worsening of the economic situation below that indicated by the national average. By contrast, respondents from the Eastern and Northwest regions indicated that the situation had worsened more than the national average. As in previous half-years, expectations for 1H13 were better in all the autonomous communities, especially in the East, Northwest and South.

In line with the results obtained for the overall economy, the negative perception of the economic situation in all areas of activity between July and December this year was less acute than was declared during the first half of the year, although it was greater than expected six months ago. One of the main features among the areas analysed was a somewhat better perception of retail trade in major household appliances and brown line products, after a particularly poor performance during the first six months of 2012. As shown in Chart 48, the spread between the percentage of responses indicating an improvement in this sector and the percentage indicating a worsening was 29.1 points greater than the figure recorded for 1H12, and 2.8 points greater than the average for the remaining activities in 2H12. Like the Spanish economy, the situation for all sectors is expected to continue to worsen in the first half of 2013, although at a significantly slower pace than last year.

Chart 46

Perception of the state of the Spanish economy: balance of responses (<0 indicates a worsening)
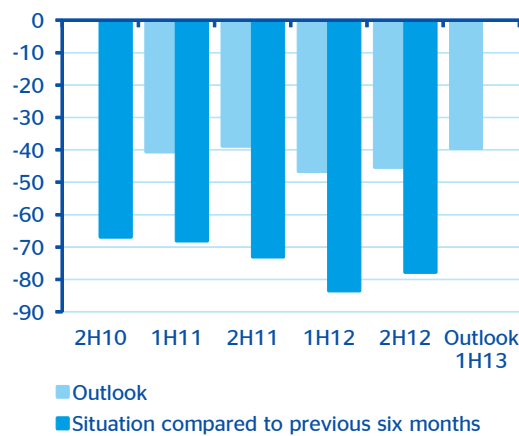
Source: BBVA Research (BTS)

Chart 47

Perception of the state of the Spanish economy in each region: balance of responses (<0 indicates a worsening)
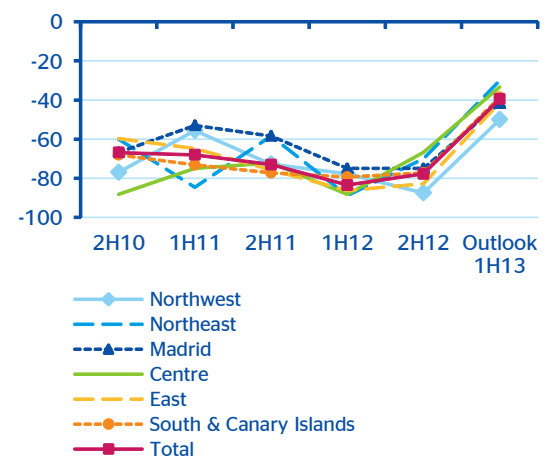
Source: BBVA Research (BTS)

37: In order to preserve the confidentiality of the participants and to avoid of representativity problems, aggregate results for seven autonomous community groups which comprise level 1 Statistical Territorial Units (STU1) are listed. These are: Northwest (Galicia, Asturias and Cantabria); Northeast (Basque Country, Navarra, Rioja and Aragón); Madrid (Community of Madrid); Central region (Castilla y León, Castilla-La Mancha and Extremadura); East (Catalonia, Valencia and the Balearic Islands); South (Andalusia, Murcia, Ceuta and Melilla); and the Canary Islands (Canary Islands).

Chart 48
Perception of the economic situation of each sector: balance of responses (<0 indicates a worsening)

- Sale, maintenance and repair of motor vehicles and motorcycles
- Retail trade in major household appliances and brown line products
- Retail furniture trade
- Other retail trade
- Simple average
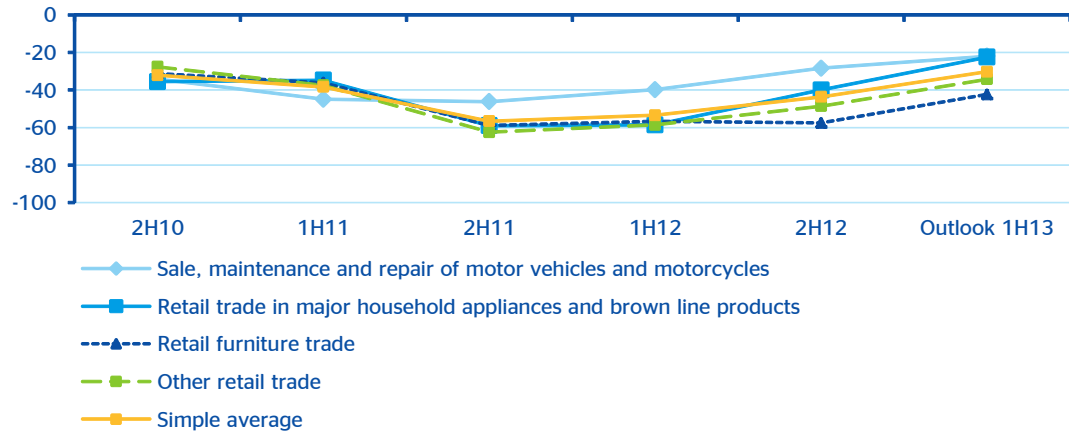
Source: BBVA Research (BTS)

Perceptions of trends in credit approvals by financial institutions reflect uncertainty concerning the economic situation observed by respondents. In this regard, the BTS respondents report that the supply of credit and particularly demand for credit in Spain fell during the second half of 2012, although not to the extent of the first half (see Charts 49 and 50). Specifically, the proportion of respondents who felt that the supply of credit decreased between July and December was 43.8%, 5.1pp less than in 1H12; likewise, 82.1% of respondents claimed that demand had fallen in 2H12, 5.0pp less than the previous six-month period. As the expectations of those taking part in the BTS survey over the last two years have not been fulfilled, it should be noted that credit supply trends for the Spanish economy have behaved in accordance with the expectations of six months ago.

The outlook for 1H13 is comparatively more favourable in terms of credit supply. Only 39.5% of managers and directors at BBVA Consumer Finance believe that supply will contract, while 59.8% consider that demand for credit will continue to decrease, although at a slower rate than during the first half of the year.

Chart 49
Perception of credit supply: balance of responses (<0 indicates a worsening)

- Outlook
- Situation compared to previous six months
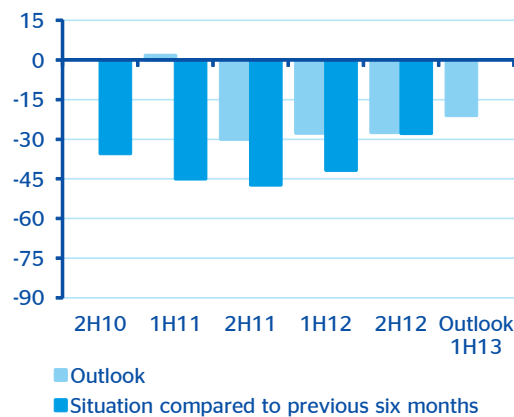
Source: BBVA Research (BTS)

Chart 50
Perception of demand for credit: balance of responses (<0 indicates a worsening)

- Outlook
- Situation compared to previous six months
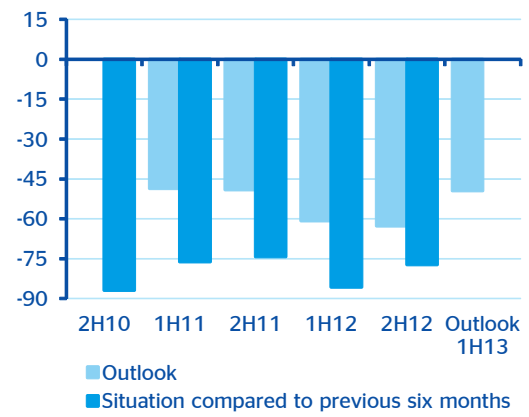
Source: BBVA Research (BTS)

The trend in credits by sectors replicates the aggregate pattern, with a slowdown in the deterioration of supply and a worsening of demand compared with 1H12, albeit with expectations unfulfilled with regard to demand. This should, however, be qualified slightly (see Charts 51 and 52). In particular:

a. Contraction of credit supply and demand in the retail furniture industry, associated with the persistence of remodelling of the real estate sector.

b. A favourable credit trend in terms of household appliance and brown line retail trade.

c. The discrepancy between falling credit supply and demand in the motor vehicles and motorcycle sector, suggesting that credit shortage is not the primary cause of fewer sales of cars over recent six-month survey periods.

The expectations of BTS respondents for 2H12 suggest that credit will continue to decrease in all the areas analysed for reasons relating to both supply and demand, albeit at a slower pace. This is again consistent with the trends forecast for economic activity in each sector.

Chart 51
Perception of credit supply in each sector: balance of responses (<0 indicates a worsening)
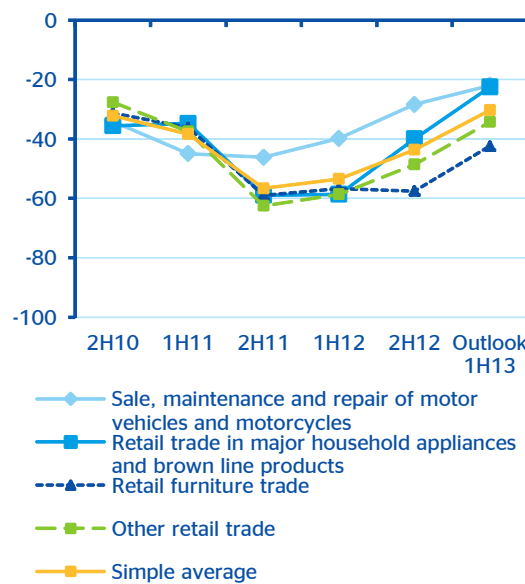
Chart 52
Perception of demand for credit in each sector: balance of responses (<0 indicates a worsening)

Legend (Chart 51):
- Sale, maintenance and repair of motor vehicles and motorcycles
- Retail trade in major household appliances and brown line products
- Retail furniture trade
- Other retail trade
- Simple average

Source: BBVA Research (BTS)

Legend (Chart 52):
- Sale, maintenance and repair of motor vehicles and motorcycles
- Retail trade in major household appliances and brown line products
- Retail furniture trade
- Other retail trade
- Simple average

Source: BBVA Research (BTS)

In summary, the BTS results suggest that the economic situation of retail trade sectors deteriorated more than expected during the second half of 2012, albeit at a slower pace than observed during the first six months of the year. Despite weak fundamentals, the improvement of lacklustre consumption had a positive impact on demand for credit, which contraction slowed up in 2H12. At the same time, respondents perceived a slight easing of financing conditions, although not enough to prevent a contraction in the supply of consumer credits across all branches of retail trade, with furniture distribution the area hardest hit. The prospects for 1H13 indicate a general slowdown in economic deterioration, bolstered by a smaller reduction in credit supply and demand, particularly in the retail major household appliance and brown line sector.

Appendix

Chart 53
BBVA Business Tendency Survey. Breakdown (%)

By STU1

- Northwest
- Northeast
- Madrid
- Centre
- East
- South
- Canary Islands

By sectors of activity

- Sale, maintenance and repair of motor vehicles and motorcycles
- Retail trade in major household appliances and brown line products
- Retail furniture trade
- Other retail trade
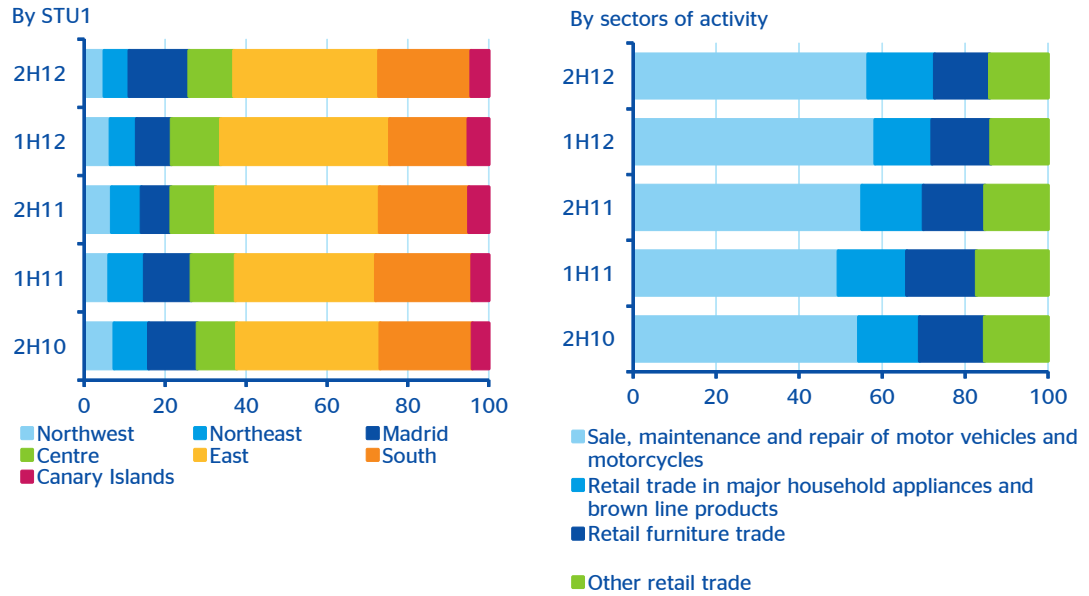
STU1: Nomenclature of the level 1 Statistical Territorial Units. Northwest: Galicia, Asturias and Cantabria; Northeast: Basque Country, Navarra, Rioja and Aragón; Community of Madrid; Central region: Castilla y León, Castilla-La Mancha and Extremadura; East: Valencia and the Balearic Islands; South: Andalusia, Murcia, Ceuta and Melilla; the Canary Islands.
Number of observations: 175 in 2H10, 147 in 1H11, 163 in 2H11, 140 in 1H12 and 162 in 2H12..
Source: BBVA Research

DISCLAIMER

This report has been produced by the Spain Unit:

Chief Econmist for Developed Economies
Rafael Doménech
+34 91 537 36 72
r.domenech@bbva.com

Spain
Miguel Cardoso
+34 91 374 39 61
miguel.cardoso@bbva.com

Anabel Arador
+ 34 93 401 40 42
ana.arador@grupobbva.com

Joseba Barandiaran
+34 94 487 67 39
joseba.barandia@bbva.com

Xavier Callol
+34 91 374 75 28
xavier.callol@bbva.com

Mónica Correa
+34 91 374 64 01
monica.correa@bbva.com

Juan Ramón García
+34 91 374 33 39
juanramon.gl@bbva.com

Ángel Gavilán
+34 91 374 52 62
angel.gavilan@bbva.com

Félix Lores
+34 91 374 01 82
felix.lores@bbva.com

Antonio Marín
+34 648 600 596
antonio.marin.campos@bbva.com

Myriam Montañez
+34 954 24 74 86
miriam.montanez@bbva.com

Mercedes Nogal
+34 91 807 51 44
mmercedes.nogal@bbva.com

Virginia Pou
+34 91 537 77 23
virginia.pou@bbva.com

Juan Ruiz
+34 646 825 405
juan.ruiz2@bbva.com

Pep Ruiz
+34 91 537 55 67
ruiz.aguirre@bbva.com

Camilo Andrés Ulloa
+34 91 537 84 73
camiloandres.ulloa@bbva.com

With the contribution of
Financial Sistems
Jose Félix Izquierdo
+34 91 3744200
jfelix.izquierd@bbva.com

Macarena Ruesta
+34 91 3743321
esperanza.ruesta@bbva.com

BBVA Research

Group Chief Economist
Jorge Sicilia

Emerging Markets:
Alicia García-Herrero
alicia.garcia-herrero@bbva.com.hk

Cross-Country Emerging Markets Analysis
Álvaro Ortiz Vidal-Abarca
alvaro.ortiz@bbva.com

Asia
Stephen Schwartz
stephen.schwartz@bbva.com.hk

Latam Coordination
Juan Ruiz
juan.ruiz@bbva.com

Argentina
Gloria Sorensen
gsorensen@bbva.com

Chile
Alejandro Puente
apuente@bbva.com

Colombia
Juana Téllez
juana.tellez@bbva.com

Peru
Hugo Perea
hperea@grupobbva.com.pe

Venezuela
Oswaldo López
oswaldo_lopez@provincial.com

Mexico
Adolfo Albo
a.albo@bbva.bancomer.com

Macroeconomic Analysis Mexico

Developed Economies:
Rafael Doménech
r.domenech@bbva.com

Spain
Miguel Cardoso
miguel.cardoso@bbva.com

Europe
Miguel Jiménez
mjimenezg@bbva.com

United States
Nathaniel Karp
nathaniel.karp@bbvacompass.com

Financial Systems & Regulation:
Santiago Fernández de Lis
sfernandezdelis@bbva.com

Financial Systems
Ana Rubio
arubiog@bbva.com

Pensions
David Tuesta
david.tuesta@bbva.com

Regulation and Public Policy
María Abascal
maria.abascal@bbva.com

Global Areas:

Economic Scenarios
Julián Cubero
juan.cubero@bbva.com

Financial Scenarios
Sonsoles Castillo
s.castillo@bbva.com

Innovation & Processes
Clara Barrabés
clara.barrabes@bbva.com

Market & Client Strategy:
Antonio Pulido
ant.pulido@grupobbva.com

Equity Global
Ana Munera
ana.munera@grupobbva.com

Global Credit
Javier Serna
Javier.Serna@bbvauk.com

Global Interest Rates, FX
and Commodities
Luis Enrique Rodríguez
luisen.rodriguez@grupobbva.com