

Economic Outlook

Spain

Fourth Quarter 2013
Economic Analysis

- **Global growth will accelerate in 2014**, although downward risks remain.
- **In Spain, the economy comes out of recession, and a scenario of moderate recovery is confirmed.** Growth will be supported by export growth, import substitution, lower financial tensions and a less contractionary fiscal policy.
- **The necessary deleveraging process is consistent** with an improvement of credit flows in 2014.
- **Ambitious reforms are key** for a strong recovery.

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Closing date: November 4, 2013

1. Editorial

Projected growth for the global economy has been revised down by 0.2 pp to 2.9% in 2013 and 3.6% in 2014. The revision for 2013 is due to both the worse figures recorded in the U.S. and the slowdown in some of the countries in emerging Asia. The latter have been affected by the financial turbulence arising from the Federal Reserve's announcement of an imminent tapering of its quantitative easing program. Despite the lower growth now expected for 2014, forecasts for the year continue to be higher than for 2013, with recovery underway in nearly all geographical areas. Particularly worth noting is the expected improvement in the Eurozone after two years of recession, and the significant acceleration in Latin America after the slump in 2013.

In Spain, incipient economic growth has been confirmed, albeit at insufficient rates to avoid job losses. In line with what it was forecasted three months ago, GDP rose by 0.1% in the third quarter of the year. This moderate growth was due to the consolidation of the trends already seen in the first half of 2013. First, uncertainty declined, as reflected in the higher-than-expected drop in financial tensions. Second, exports remained strong despite the slowdown that followed the boost recorded in the second quarter of the year. Third, dynamism in the foreign sector already had a knock-on effect on domestic demand, particularly on investment in machinery and equipment, which again posted solid growth during the 3Q13. Finally, although the fiscal consolidation process is ongoing, its pace has diminished if compared to last year's, after the easing of the adjustment path approved by the European Commission.

Towards the future, the economic scenario remains unchanged. GDP is forecast to end 2013 with an average decline of -1.3%. In 2014 a growth rate of 0.9% is expected. Although the GDP estimate for 2013 shows a marginal improvement with respect to the forecasts made 3 months ago (-1.4%), this was due to the revision of the historical series by INE (National Institute of Statistics). Looking ahead, a slow recovery is still expected, with a gradual improvement of the Spanish economy. In fact, available indicators as of the closing date of this report suggest a growth rate of 0.3% for the fourth quarter of the year.

The Spanish economy is reproducing most of the patterns seen in previous recoveries (see Box 1). **First, Spanish exports have shown significant strength** as a result of the internal devaluation process, the diversification of destinations and competitive factors not linked to prices. Together with this process, Spain's main trading partner is recovering: the Eurozone. All these point towards solid export growth for both 2013 and 2014. Furthermore, there is also a process of import substitution currently underway (see Box 2) that, if sustained, would ensure both the foreign demand's positive contribution to growth and the continuation of the deleveraging process with the rest of the world. **Second, financing conditions on capital markets have improved** more than it was expected six months ago. Although financial fragmentation in Europe continues to limit the transmission of this type of monetary boost, as it begins to be seen as permanent, expenditure decisions by households and corporates should gather pace. **Third, the increase in productivity and wage moderation** in the Spanish economy have improved corporate profitability and corporate savings **increasing, thus, gross operating surplus**. In fact, much of the current increase in investment in machinery and equipment is the result of a combination of higher exports, lower uncertainty, and the improvement in the financial position of companies. **All these factors have often preceded former economic recoveries in Spain.** **Finally, the fiscal consolidation process will continue to ease.** Specifically, after having to apply measures accounting for around 6.5% of GDP between 2011 and 2013 to reduce the deficit to 6.8% of GDP, public administrations will only have to implement measures accounting for 1.0% of GDP in 2014 to reach the year-end target. Moreover, the new Supplier Payment Plan will act as an injection of liquidity that will limit the negative impact of the inevitable acceleration in fiscal consolidation during the second half of 2013. **All in all, thus, the negative contribution of domestic demand to growth will decline considerably in 2014.**

Looking ahead, the recovery runs the risk of being slow. **First, because this time there will be no boost from growth in the real estate sector.** Both the effect of the slump in residential construction on household wealth and its direct impact on jobs have left a hole that other sectors will need to fill in, preferably those that export. **Second, the recovery** has to take place in a context of reduction in the stock of household and corporate debt, which is not at odds with a sustained recovery in the flow of new credit operations. **Obstacles to economic recovery are the fragmentation of the European financial system** (which limits the decline of financing costs) **and the restructuring of part of the Spanish financial system** (which might have reduced the ability of some banks to provide credit and generated distortions from asymmetric information when customers switch their financial provider). Regarding fragmentation, it is essential that progress within a strict agenda towards a banking union continues to be made. As for the restructuring process, it has been positively assessed by the pertaining international institutions, so it should lead to both greater certainty about the system's solvency as a whole and to a more favourable position vis-à-vis the rest of Europe. To assess the degree of success of these policies in reactivating the flow of credit towards households and corporates their deleveraging process must be considered. It would, therefore, be a mistake to only use the stock of credit as an indicator of the availability of credit, since this factor is distorted by repayments. As this report shows (see Box 3), **the evolution of new credit flows needs to be taken into account** instead. According to empirical evidence, **these flows are the ones that precede economic recovery**, while recovery in the credit stock lags behind. Indeed, these flows are expected to be close to a change of trend, being likely to start increasing as early as the first half of next year.

Third, expected economic growth should not dampen the reform drive. The government has taken major steps towards the medium-term sustainability of public finances by submitting to Parliament the draft bill reforming the calculation of pension increases (see Box 4). It has also passed the Entrepreneur Law, which includes measures that should reduce the cost of setting up and starting a business, improve their liquidity, promote entrepreneurship and improve their financing. Nonetheless, the main problem for the Spanish economy is still its labor market dualism. In the current circumstances, and as shown by the employment figures for the second and third quarters of the year, the recovery is likely to bring with it higher levels of temporary employment. Reducing labor market segmentation, improving taxation, reducing energy costs and promoting competition in sectors that limit the competitiveness of the Spanish productive sector are priorities that should be tackled with the greatest effort possible. **The deeper these reforms, the faster the recovery, the higher the potential growth and the lower the unemployment rate.**

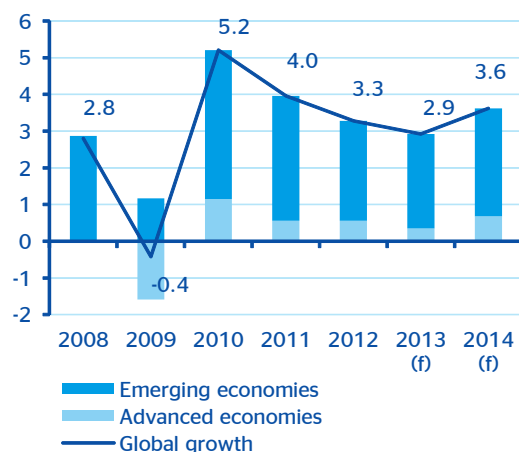
2. A slow global recovery with bearish risks

The economic cycle is improving, above all in advanced economies, although it is still far from a strong recovery

Two general features have characterized the last quarter for the global economic scenario. First, the confidence indicators of businesses and the volatility of the financial markets have continued to reflect the low probability of tail risk events, those that could be disruptive for the global situation. Thus, **economic recovery improves and there is less risk of it derailing. However, some events have contributed to a scenario of, at the end, a feeble global recovery within a one or two-year horizon.** They are events with a current impact (the partial closure of the US government) but also with a future one (the tightening of financial conditions due to expected end of the exceptional support of monetary policy).

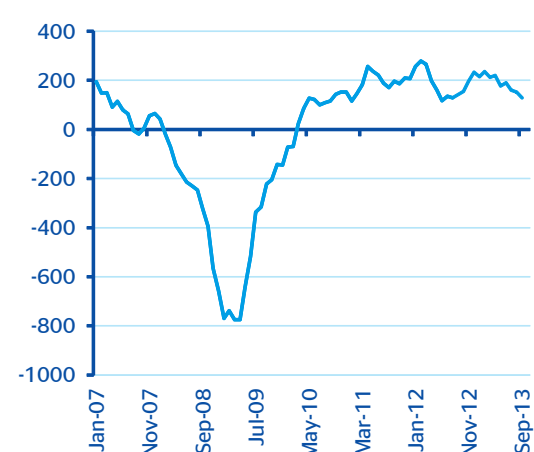
Overall, we have revised down by 0.2 pp the expected growth for the global economy in 2013 to 2.9% and in 2014 to 3.6%. The revision of 2013 growth is due to the worse figures recorded in the U.S. and the slowdown in some of the countries in developing Asia, which are also affected by financial turbulence in the wake of markets expectation of an imminent tapering of QE following FED's last May announcement. Growth in 2014 has also been revised down to 3.6%. The emerging markets are behind this downward revision, (except for China, where we stick to our forecasts), although they will continue to be the biggest contributors to global growth (see Chart 1). The higher rate of global growth in 2014 is backed by an acceleration of the economy in all geographical areas, except for Asia, where growth is expected to remain at the same levels. Particularly worth noting is the improvement expected in the Eurozone after two years of recession, and the significant acceleration in Latin America after the blip in 2013 (see tables in the Section 6 for more details).

Chart 1
Global growth (%)



(f): forecast
Source: BBVA Research and IMF

Chart 2
U.S.: Private non-agricultural employment growth (monthly changes in thousands, 3-month moving average)



Source: BBVA Research and BLS

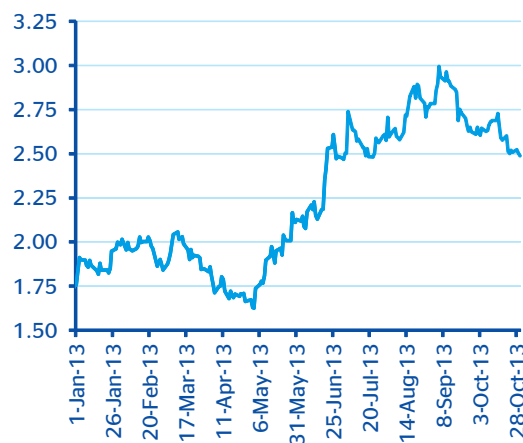
The tension in the financial markets caused by the announcement of the Fed's tapering eases, providing a boost not only in the U.S.

The Fed caused surprise when in September it decided not to start the process of tapering in its quantitative easing (QE) program. By delaying the start, it underpinned the nature of the program as data-dependent. It appears that the data have not been as expected since **the time in May 2013 when the Fed began to outline its exit plans**. The growth acceleration is still expected in the second half of the year, but Household's consumption is weaker than expected, while the real-estate market, which had been gaining strength, has suffered from the initial reaction to tapering. At the same time, the labor market continues to be weak (see Chart 2), and there is uncertainty inherent to the prolonged negotiations on the budget and the public debt ceiling, which have to be repeated in a few weeks. **The lack of long-term solutions and the repetition of a brinkmanship strategy in fiscal negotiation increase the probability of a slowdown in decisions on expenditure and investment, as well as the direct impact of the partial closure of government activity.**

The clarifications on the process of tapering, which the Fed's members are preparing in the light of the unexpected reaction of the market to their first announcement and its delay until (possibly) the start of 2014, have reduced the risks of a derailment in the recovery. **The initial market response to the tapering announcement tightened financial conditions in advanced economies to over-restrictive level for their cyclical moment**, as well as putting a sudden brake on finance in some emerging markets, particularly those with the weakest fundamentals and that are at the same time financially most integrated.

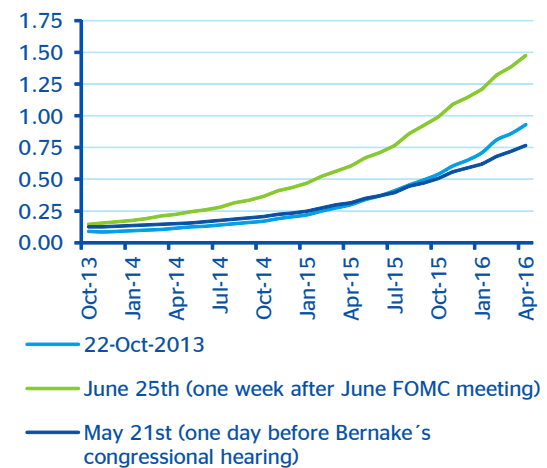
However, **much of the rise in long-term interest rates recorded since May** has been reversed (Chart 3). The markets do not now anticipate rises in Fed Funds rates until 2015, in line with what was discounted by the market immediately before Bernanke suggested that he would initiate the tapering process (Chart 4).

Chart 3
U.S.: yield on 10-year government debt



Source: BBVA Research

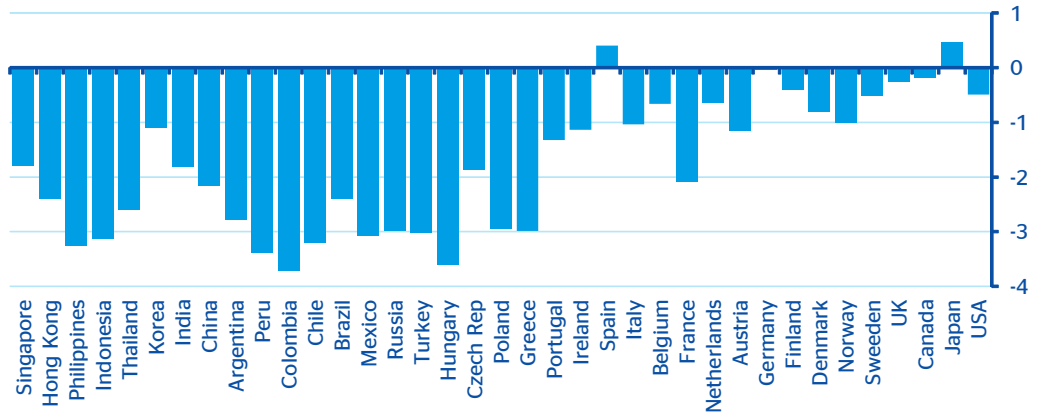
Chart 4
U.S.: implied Fed fund rates



Source: BBVA Research

In addition, **volatility and financial tensions have eased at a global level, particularly regarding emerging markets** in Asia and Latin America, which are also affected by major capital flight. The first signs that the Fed could be considering putting an end to its monetary expansion program (with all the reservations and steadiness adopted) led to a major depreciation of the currencies of emerging markets, as well as major capital flight (Chart 5). These financial tensions coincided with doubts about the performance of these economies during a slowdown that was becoming more marked.

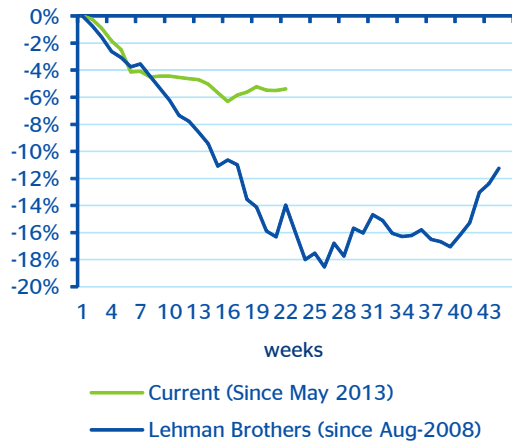
Chart 5
Flows to emerging economies (% over total portfolio assets, June 2013)



Source: BBVA Research and EPFR

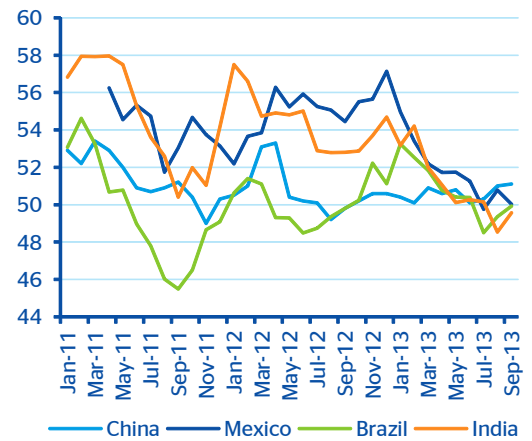
The severity of capital flight and the depreciation of currencies following expectations of an imminent tapering raised fears of a “sudden stop” of emerging markets funding and then a steep fall in economic activity. However, the sell-off process has gradually been losing intensity, and as can be seen in Chart 6, we are far from the level of severity of capital outflows observed after the collapse of Lehman Brothers. At the same time, emerging markets show some indications of a recovery in confidence, after the check in the middle of the year (see Chart 7).

Chart 6
Portfolio flows to emerging markets (% assets under management, compared with pre-crisis levels)



Source: BBVA Research and EPFR

Chart 7
Emerging markets: manufacturing PMI



Source: BBVA Research and Haver

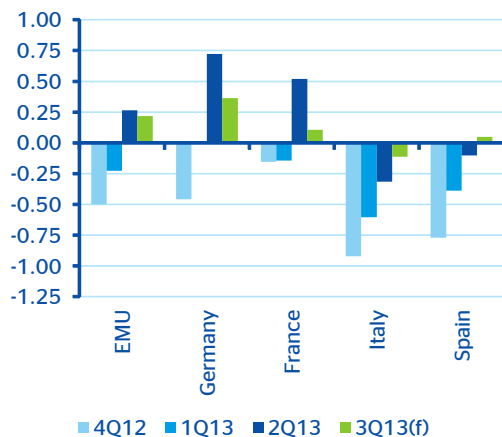
In any event, tapering will end up arriving, and changing the global scenario of liquidity injections that favored indiscriminate flows to emerging markets. The impact of tapering, once it is effectively underway, will probably be a greater discrimination in flows toward emerging markets according to the fundamentals of each of them (current-account deficit, foreign-currency debt levels, greater or lesser maturity of short-term debt, etc.). In any event, the extra time allows a reduction in the risk of a sudden fall in economic activity, at least in the short term.

The perception on Europe improves and the most extreme risks are dissipated. The reforms geared toward better governance continue and growth returns

In Europe the forecasts have been confirmed and the economic situation has continued to improve, to the point that the Eurozone emerged from the recession with growth of 0.3% in the second quarter of 2013, after 6 quarters of recession. Recent economic data suggest that the trend will have been maintained in the third quarter, when the Eurozone would have once more recorded a few tenths of a percentage point of growth. The reading of the data is positive in two respects. First, as the **recent upturn is based not only on foreign demand, but also on an improvement in domestic demand**. Second, the improvement in activity is not only boosted by countries within the center of Europe (with Germany recording strong growth, but also France surprising recently), but the **improvement also extends to the periphery** (with Spain and Portugal emerging from recession, and Italy reducing its level of decline) (see Chart 8), contributing (together with the progress made to improve governance and the reforms) to eliminate the systemic risks characterizing previous quarters. The recovery of activity has been helped by a reduction in financial tensions in the area (see Chart 9) and by a relaxation (de facto) of the more short-term targets of fiscal consolidation, implicitly tolerated by the European authorities.

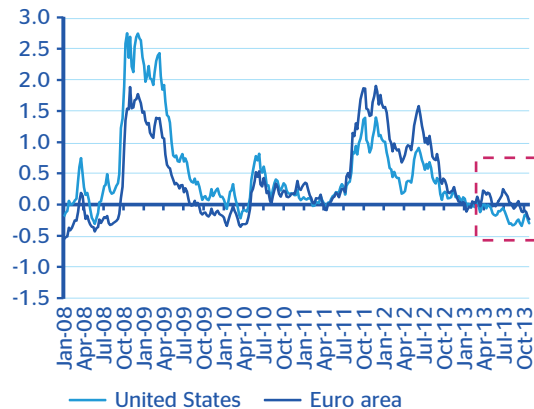
GDP growth in this part of the year formed part of our scenario, and there has been no additional elements to make us change our expectations of a weak recovery. In 2013 Europe's GDP will fall by 0.4% and grow by 1.1% in 2014. The weak recovery is consistent with the deleveraging process underway in the private sector in some economies in the area and the financial fragmentation that is still in place, which affects the capacity of bank credit supply. Monetary policy will continue to be loose, offsetting in part the continued negative effect on growth of fiscal policy. Additionally, **far from inflationary pressures, the ECB has shown itself prepared to act if necessary**, either with a new round of long-term liquidity for the banks, or even with another cut in rates (which cannot be ruled out). At the same time, **the next few months will be decisive in progress toward banking union, with the entry into operation of a single supervisor, the ECB, and the definition of the mechanisms for bank resolution, the model for implementing which is still under discussion**.

Chart 8
Europe: GDP growth (q/q %)



(f): forecast
Source: BBVA Research and Haver

Chart 9
BBVA Research Financial Stress Indicator



Source: BBVA Research

Risks in the forecast: downward biased but with less probability and lower impact

The risks to the moderate recovery scenario with a growing contribution from advanced economies and a sustained contribution from emerging markets have been reduced. This does not take away the fact that the balance of risks continues to be downward. It is worth pointing out first due to its character the possibility of a “disorderly exit” from the Fed’s QE, which could generate an excessive increase in interest rates (in the U.S. and in other countries), not as a result of improved growth prospects or higher inflation, but due to uncertainty regarding the rate of exit planned by the Fed. **Financial conditions that are too tight for the rest of the world could terminate a global recovery if it is not especially dynamic, as it is particularly in the Eurozone.** In addition, it is also worth noting as a risk the resolution of the fiscal questions in the U.S., the budget and the debt ceiling, which have now been postponed until the first quarter of 2014. The negotiations that the parties have to carry out until then are a potential source of uncertainty and may lead to an additional drag if the fiscal drain increases.

Second, it is worth identifying as a risk factor the **adjustment in growth in China and in other emerging markets.** This could be the result of idiosyncratic factors, but also of dilemmas to which domestic policies have to address in a more acute global financial environment. Although as has been seen recently, the differences between economies are relevant, and an interruption in the recovery underway is not to be expected unless there are financial scenarios that are as adverse as those registered between the end of 2008 and 2009.

Lastly, **the resurgence of the euro crisis is a globally relevant risk.** The authorities have to support the positive perception of the markets with decisive progress to strengthen monetary union, in particular banking union. In all, there are a number of elements that could lead the better perception to change. Some peripheral countries are in a situation of lack of political consensus that could check the necessary reforms. Negotiations on the programs of Portugal and Greece may be the source of uncertainty. In addition, shortly work will begin on the review of the bank balance sheets and the test stress to risk scenarios, needed for the implementation of a single banking supervisor, the ECB. Finally, as has been shown by past experience, disagreements on the definition of policies that strengthen the euro area, in this case bank resolution mechanisms may produce tensions and volatility in the financial markets.

3. Prospects for economic growth in Spain: the end of the recession

During the last three months, **the Spanish economy has continued to benefit from the results of the economic policy decisions** introduced since the beginning of 2012¹. In particular, **financial tensions are currently much lower**, despite the appearance of new risks that threatened to reverse the scenario of higher stability. Among the latter, uncertainty regarding the future of fiscal and monetary policies in the United States; political instability in certain European countries; the slowdown in activity in some emerging economies or the change in investment flows following the rise of interest rates in developed economies (see Section 2 of this report) can be highlighted. The reduced volatility, thus, helped to normalize capital inflows to Spain, to a general rise in stock prices and to a fall in risk premiums. The latter took place at a pace faster than expected. Likewise, prospects of a moderate recovery in Europe ensure that risk-free interest rates will remain low for a long period. In any event, **the process of fragmentation in the European financial system** is still creating obstacles for the transmission of monetary policy. This increases the costs of **financing for companies and households** in countries such as Spain.

Regarding the real economy, **activity in Spain's main trading partners has sent mixed signals in recent months**. On the one hand, the European economy continued improving, in line with forecasts, after returning to positive growth rates in 2Q13. On the other, growth in the U.S. and in some emerging markets has been lower than expected three months ago. **Thus the global economic scenario continues to be characterized by estimates of low growth in 2013 (compared with the average growth rates during the last three years), although economic activity is expected to gain momentum in 2014**. In any event, the greater contribution from developed economies to expected growth during 2014 (specifically, as a result of the better prospects for Europe) should favour the Spanish export sector in particular.

On the domestic side, **recent growth figures** have been **in line with BBVA Research's forecast**. **After falling 0.1%** in the second quarter of the year, **the Spanish economy entered the expansive phase of the cycle in the third**, leaving behind the period of most intense job destruction. This growth would be the result of **both the stimulus brought by exports** to private domestic demand (mainly to productive investment) and the **slowdown of the fiscal consolidation process**. The breakdown of the Quarterly National Accounts for 2Q13, which included an upward revision of growth for 1T13² revealed not only an exceptional upturn in Spanish exports, but also a lower weakness of domestic demand (both public and private).

To sum up, **the Spanish economy is expected to continue growing for the rest of the year**, although in the most likely scenario, it will do so **at a rate that will be insufficient to prevent a GDP decline of around -1.3% in the year**. Looking ahead, various factors continue to account for the consolidation of the recovery in **2014, when economic growth is forecast to reach 0.9%**. Regarding the global outlook, the worldwide economy is expected to accelerate its rate of expansion, which in the case of the Eurozone will imply a positive growth of around 1.1% after two years of recession. At the domestic level, a looser fiscal policy is expected with respect to 2013, and especially with respect to 2012. Likewise, the progress made on some internal adjustment processes will result, in practice, in stagnation of both domestic demand and employment.

1: Of note are the ECB's Outright Monetary Transactions (OMT) program; the agreement for financial aid drawn up by Europe and Spain to strengthen the solvency of the Spanish financial system; the package of fiscal measures announced by the Spanish government to align the path of adjusting the public budget with the targets agreed with the European Union; and finally, the most recent actions by the ECB to guarantee financial stability and underpin economic recovery.

2: Complying with the timetable for revisions of Spain's National Accounts (CNE), the details of the CNTR of 2Q13 published by the INE included a revision of the historical series for the period 2009-2012. For more details of these revisions see our Economic Watch for September 2013, available at: http://www.bbvaesearch.com/KETD/fbin/mult/130919_Observatorio_Economico_Espana_tcm346-402090.pdf?ts=28102013

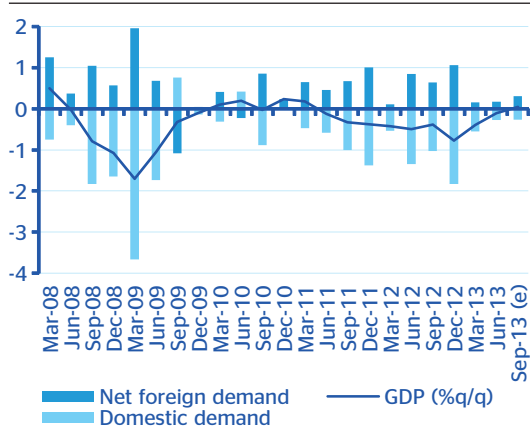
In any event, it is worth highlighting that **this scenario still bears some risks**. The relaxation of financial tensions and the urgent reversal of financial fragmentation in Europe depend on structural reforms and adjustments of the public accounts, both in Spain and Europe. It is **essential to comply with budget commitments, and, overall, to take more decisive steps towards a banking union**. Likewise, risks from abroad from countries outside the Eurozone could also affect the recovery of the Spanish economy. Regarding emerging markets, there are **doubts about the slowdown of Chinese growth** and, in particular, on whether its domestic demand will be able to take over as the driving force of the economy. In the case of non-European developed economies, most of the **uncertainty lies in both the future US fiscal policy and in the withdrawal of monetary stimulus in the U.S.**

The Spanish economy entered the expansionary phase of the cycle in 3Q13

While awaiting the release of more detailed results, the flash estimate of GDP published by the National Statistical Institute (INE) indicates that **the Spanish economy grew by 0.1% q/q in 3Q13**. If confirmed, **economic growth** would have been in line with BBVA Research's expectations **at the start of the quarter (between 0.0% and 0.1% q/q)**. This would imply the end of the recession after nine consecutive quarters of negative growth rates. Regarding the composition of growth, partial economic indicators point to a contraction in domestic demand similar to the one observed at the end of the first half of the year (with a contribution to the fall in GDP of -0.3 pp). In any event, the contraction was significantly smaller than the one recorded during the second phase of the recession (-0.9 pp on average). Thus, economic activity would have once more been supported by a positive net foreign demand, which despite the rebalancing of exports following the sharp increase in 2Q13, contributed 0.4 pp to quarterly growth (see Chart 10)

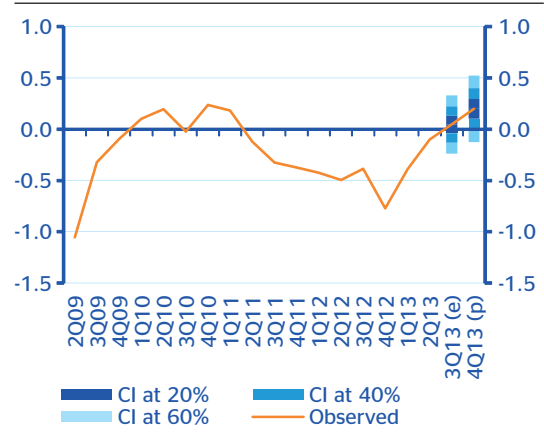
Regarding the fourth quarter of 2013, the information available at the close of this report suggests that positive growth will continue, even though it will still be anemic when compared with previous expansionary phases (MICA-BBVA: around 0.3% q/q) (see Chart 11)³.

Chart 10
Spain: contribution to quarterly GDP growth



(e): estimate
Source: BBVA Research based on INE

Chart 11
Spain: observed GDP growth and forecasts using the MICA-BBVA model (% q/q)



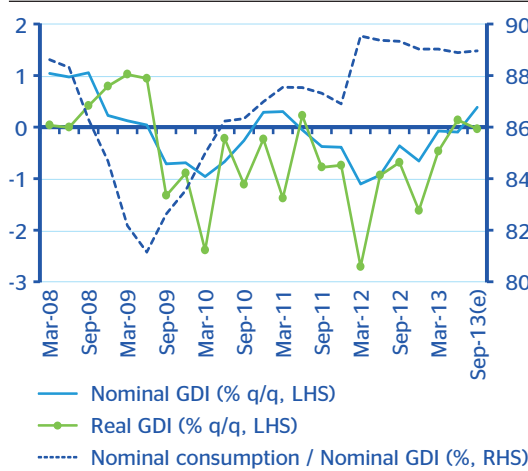
(e): estimate; (f) forecast.
Current forecast: 4th November 2013.
Source: BBVA Research based on INE

3: For more details on the MICA-BBVA model, see Camacho, M. and R. Doménech (2010): "MICA-BBVA: A Factor Model of Economic and Financial Indicators for Short-term GDP Forecasting", BBVA WP 10/21, available at: http://www.bbva.com/KETD/fbin/mult/WP_1021_tcm348-231736.pdf?ts=2542012

Private domestic demand begins to pick up

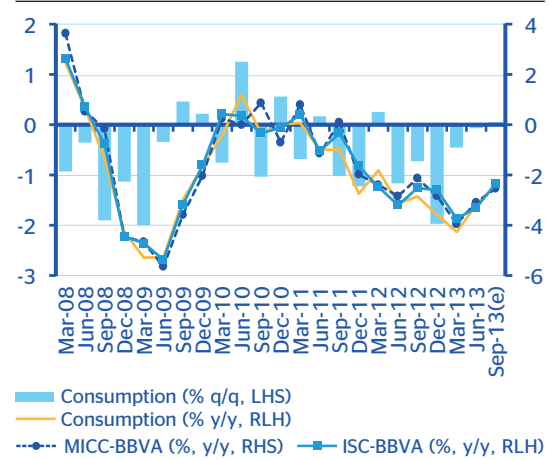
Partial indicators of demand (mainly those related to durable goods⁴ and services) suggest that **household consumption expenditure remained more or less stable during the third quarter of 2013**. Higher household disposable income, improved net financial wealth⁵ and the extension of the Efficient Vehicle Incentive Program (PIVE-3)⁶ offset the deterioration of home equity, contributing to sustain private consumption between July and September (see Chart 12). Thus, both the BBVA synthetic indicator of consumption (ISC-BBVA) and the BBVA model of coincident consumption indicators (MICC-BBVA) point to a marginal growth of **household expenditure in 2Q13 (+0.1% q/q; -2.4% y/y) after having declined 0.1 pp in the previous quarter (-3.2% y/y)** (see Chart 13).

Chart 12
Spain: Household GDI and propensity to consume (seasonally adjusted data)



(e): estimate
Source: BBVA Research, based on INE data

Chart 13
Spain: observed data and real-time forecasts of household consumption



(e): estimate
Source: BBVA Research, based on INE data

Data for the second quarter confirm the change of trend in private productive investment that started in the first quarter of the year. Once more, the buoyancy of foreign demand contributed to the growth of this investment heading, which is also becoming less affected by the deterioration of domestic demand. In fact, during the third quarter there was a significant increase in the confidence levels of producers of equipment, which was reflected in both an increase in the new orders and in a recovery of industrial vehicle sales. These factors would justify a **further increase in investment in machinery and equipment for the 3Q13**, which -as shown by the synthetic investment indicator (ISI-BBVA)- could be **around 2.3% q/q (0.9% y/y)** (see Chart 14).

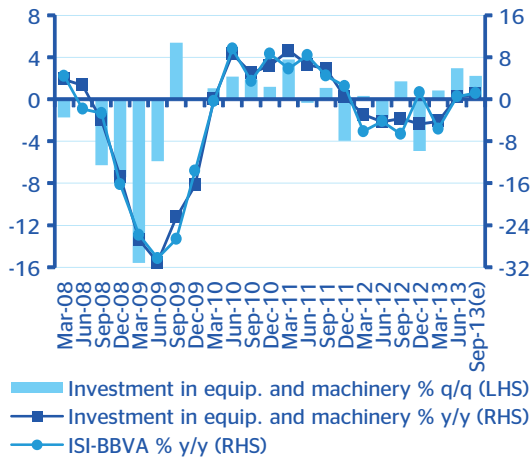
The indicators related to the real-estate sector point to a continued adjustment of investment in residential property during 3Q13. New housing construction is still falling, though at more moderate levels, resulting in a reduction in the number of houses that are being built. Cement consumption continues to decline, and the sector's confidence shows no signs of being reversing its trend. Data for July and August indicate that, unless there are upward surprises in September, home sales in 3Q13 fell. Thus, the synthetic indicator of investment in housing construction (ISCV-BBVA) points to **another deterioration in this demand item for 3Q13, which this time would be around -2.5% q/q (-9.3% y/y)** (see Chart 15).

4: See Section 3 of the Consumption Outlook publication for a detailed analysis of consumption expenditure by type of good or service. <http://www.bbva.com/bbvaresearch.com/KETD/ketd/esp/nav/geograficas/espana/historico/publicaciones/situacionregsect/consumo/index.jsp>

5: Real net growth in financial wealth registered in 2Q13 (1.4% q/q) is estimated to have contributed 0.1 pp to consumption growth in 3Q13, and will do so by nearly 0.3 pp in the next four quarters.

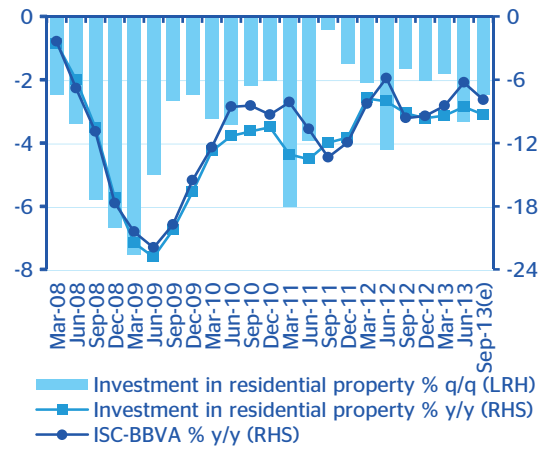
6: The PIVE 3 plan aims to replace cars more than 10 years old and light commercial vehicles of more than 7 years with more energy-efficient models. It has a budget of 70 million euros, and was extended into the second two weeks of October, when the funds were used up. On October 25 the government approved its renewal with a similar budget.

Chart 14
Spain: observed data and real-time forecasts of investment in equipment and machinery



(e): estimate.
Source: BBVA Research based on INE

Chart 15
Spain: observed data and real-time forecasts of investment in residential property



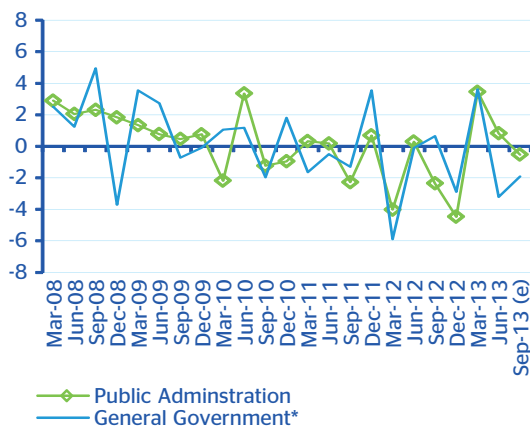
(e): estimate.
Source: BBVA Research based on INE

Public consumption returns to a path of moderate adjustment

Data for the second quarter of 2013 confirmed that public demand contracted less during this period, as a result of the concentration of the adjustment measures at the end of 2012. In this context, the available information on budget execution suggests that, in real terms, **public demand drained GDP growth throughout 3Q13 once again**. Although the latest data continue to show that much of the consolidation effort is still focused on reducing investment, it is also clear that final public consumption in nominal terms moderated its growth (see Chart 16). Likewise, public employment would have fallen, although at a slower pace than at the start of the year (see Chart 17).

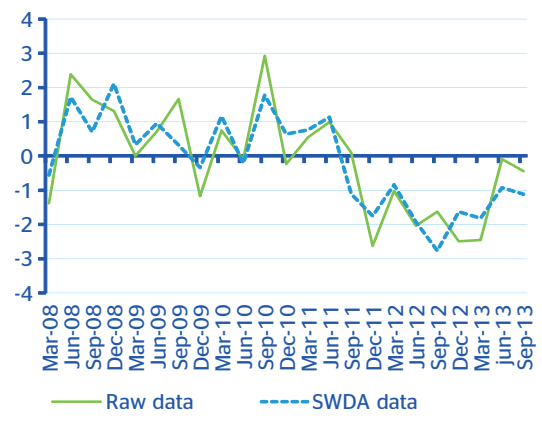
These data suggest that **public consumption fell again in the third quarter of the year**, but at a much smaller rate than in the second half of 2012. **Investment in non-housing construction would have declined at a similar rate than in previous quarters**.

Chart 16
Spain: nominal public consumption (% q/q, seasonally adjusted data)



e): estimate
(*): excluding fixed-capital consumption
Source: BBVA Research based on MINHAP

Chart 17
Spain: public-sector employees (% q/q)



Source: BBVA Research based on INE (LFS)

Trade flows are being corrected down after the upturn observed at the close of the first half of 2013

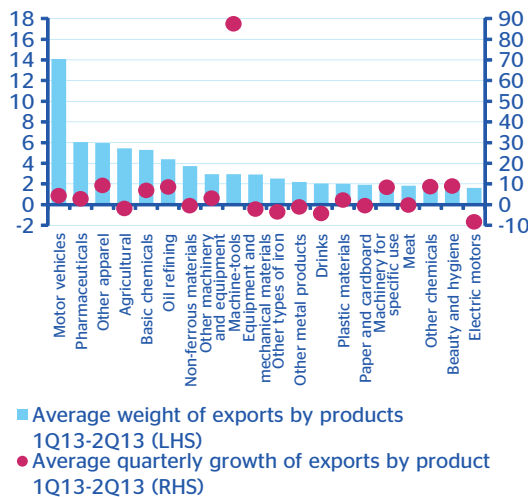
2Q13 showed the first signs of expansion in the EMU area, particularly in Germany and France. This situation gave rise to a **high growth rate in Spanish goods exports (+6.9% q/q)**, especially of exports of products related to machinery and equipment goods (see Chart 18)⁷. **There was also a recovery in the exports of services (+4.0% q/q)** following two quarters in the red. Overall, these figures implied a growth in total exports of 6.0% q/q.

For the third quarter, the slowdown in the emerging markets, combined with the base effect resulting from the upturn in 2Q13, have increased the probability of a downward correction in sales of goods and services to the rest of the world. In particular, real exports from the trade balance fell significantly on average in July and August, while the sales abroad of goods and services by large companies moderated their year-on-year growth rates. Offsetting this effect, net orders of industrial exports suggest that the level of activity at the close of the quarter continued to be healthy. To sum up, **the qoq growth of exports of goods and non-tourism services might be around -0.9% (+ 3.8% y/y) and 1.5% (-1.6% y/y)**, respectively.

Likewise, the indicators related to foreign tourist demand adjusted in 3Q13, although not strong enough to close the quarter in the red. **Renewed growth in Europe, combined with political tension in the industry's competitors of the eastern Mediterranean, continued to increase foreign tourist inflows to Spain.** September closed the quarter with a new record of entries by foreign visitors (22.7 million visitors, a 3.9% higher than in 2012). As a result, **consumption by non-residents in Spain increased 0.7% q/q following the 4.2% increase in 2Q13** (see Chart 19).

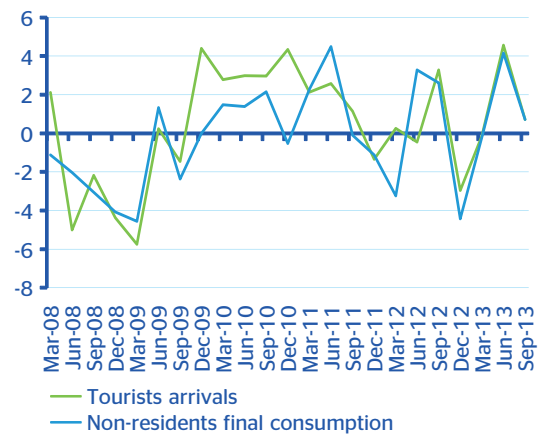
Thus, figures available at the closing date of this report point to a slowdown in the export of services and a **contraction in the export of goods, leading to a reduction of 0.3% q/q (2.3% y/y) in total exports during 3Q13.**

Chart 18
Spain: products with the highest weight in export volumes



Note: CNPAE classification.
Source: BBVA Research based on AEAT

Chart 19
Spain: indicators of exports of touristic services (% q/q, seasonally adjusted)



Source: BBVA Research based on INE and Frontur

The high growth of exports and a smaller deterioration of domestic demand encouraged growth in total imports in 2Q13 (+5.9% q/q). However, the expected slowdown in exports **in the third quarter would lead to a -1.3% q/q (-2.7% y/y) fall in imports, driven by goods (-1.6% q/q and -3.2% y/y)**. Thus the partial economic indicators point again to a **positive contribution of net foreign demand to growth in 3Q13, although with a less virtuous composition than in previous quarters.** The positive evolution of the variables related to the foreign sector helped to consolidate the current account surplus, which would be present for the second quarter in a row.

7: Of a total 67 products, the 20 with the highest weight accounted for 73% of the real exports of goods in the first half of the year.

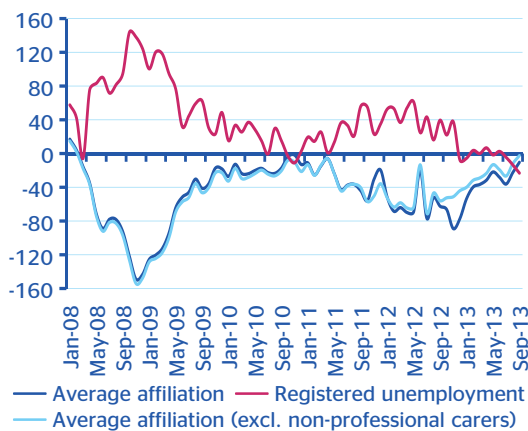
The labor market: unemployment falls but jobs are still not being created

Figures for the third quarter show that the labor market is slowly approaching to a turning point. The average number of Social Security affiliates fell by 0.3% q/q SA between July and September (-0.5% q/q including the loss of non-professional care-givers⁸), 0.1 pp down on the figure for 2Q13. Seasonally adjusted registered unemployment fell by 0.4% q/q after 25 consecutive months of increases, which combined with the fall in registered unemployed not obliged to sign on (DENOS)⁹ suggests another contraction of the active population (see Chart 20).

In general terms, the Labor Force Survey (EPA) for the 3Q13 has confirmed the trend suggested by the figures of registered Social Security affiliates and registered unemployment. The seasonal increase in the working population (+39,400 people, -44,300 people SA) was accompanied by a further fall in the active population (-33,300, - 51,900 SA). The latter led to a reduction in the unemployment rate of 0.3 pp to 26.0% (26.4% SA). The increases in the number of employees in the private sector (35,700) and the increase of self-employed people (16,300) offset the destruction of jobs in the public sector (-12,600). While permanent jobs fell by 146,300, temporary jobs increased by 169,500. As a result, the rate of temporary employment increased by 1.2 pp to 24.3% (23.6% SA) (see Chart 21).

Chart 20

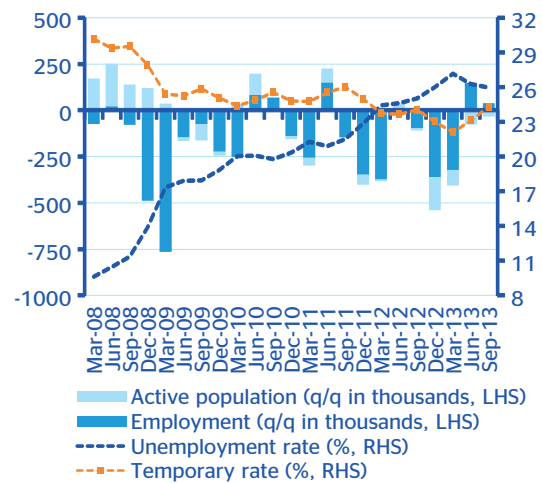
Spain: average number of Social Security affiliates and registered unemployment (monthly change in thousands, seasonally adjusted figures)



Source: BBVA Research based on Ministry of Employment and SS

Chart 21

Spain: labor market indicators



Source: BBVA Research based on INE data

8: The Royal Decree-Law 20/2012, of July 13, on measures to guarantee budget stability and promote competitiveness modified the special agreements in the Social Security System for non-professionals care-givers for people in a situation of dependency. Specifically, those subscribing to the collective agreement, which is voluntary, are obliged to pay Social Security contributions from August 31 (85% until December 31st and 100% from then on). This has led to a loss of more than 150,000 affiliates since November last year.

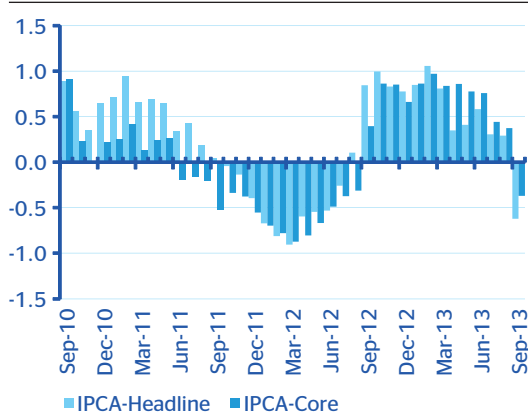
9: In addition to the registered as unemployed, the DENOS figure includes other groups (people looking for temporary work, for jobs of under 20 hours, students, people looking for pre-employment services, and subsidized temporary agricultural workers) that may be classified as unemployed in the Labor Force Survey.

Consumer prices moderate more than expected and help to contain wage growth

In the third quarter of the year **headline inflation fell to 0.3% y/y and core inflation to 0.8%**¹⁰. This was mainly the result of the end of the base effects generated in mid-2012 arising from the increase in indirect taxes, regulated prices and energy costs. There has also been a downward correction in food prices, which in the case of fresh foods, amounted to -4.0% m/m at the end of the quarter.

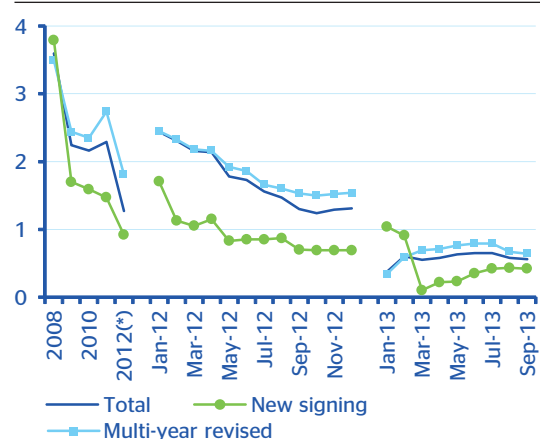
All in all, the Harmonized Consumer Price Index (HCPI) suggests that in 3Q13 **the inflation differential with the Eurozone would have been once more favourable to Spain**: in terms of headline inflation it would have fallen to -0.6 pp in September, and in terms of the core component to -0.4 pp, compared with a historical average of +0.8 pp in both cases (see Chart 22). Thus, the 3Q13 figures confirmed that the unfavourable differential for Spain recorded last year would not result in a direct loss of export competitiveness, given that it was largely caused by tax distortions. **Both the slowdown in inflation and the weakness of the labor market have contributed to moderate wage demands in the third quarter**¹¹. The average wage rise negotiated in collective agreements was around 0.6% y/y between July and September, in line with the figure established as a maximum for the whole of 2013 in the II Agreement for Employment and Collective Bargaining (see Chart 23).

Chart 22
Spain-Eurozone: inflation differential (pp of year-on-year rate)



Source: BBVA Research, based on INE and Eurostat data

Chart 23
Spain: average negotiated wage rises in collective agreements (% y/y)



The annual data include collective agreements registered after December of each year and incorporate the revision under the wage guarantee clause

(*) provisional data

Source: BBVA Research, based on INE data

The 2013-2014 scenario: a return to sustained but moderate growth

As pointed out in the introduction to this section, the evolution of the Spanish economic fundamentals have allowed its **return to the expansionary phase of the cycle in 3Q13**. They also suggest that **expansion will continue over the next few quarters**. However, the rate of growth will still be **insufficient to prevent GDP from falling in 2013 at around -1.3%**, 0.1 pp less than expected three months ago. **In 2014 the economy will grow by 0.9%** (See Table 1), given the improvement expected in the international situation, the looser fiscal policy and progress

10: The flash CPI indicator suggests inflation declined in October -0.1% y/y as a consequence of both the base effect introduced by the increase of university fees and energy prices a year ago and the slowdown of fresh food prices. See: http://www.bbva.com/KETD/fbin/mult/131030_IPCA_oct13_e_tcm346-407420.pdf?ts=31102013

11: Box 2 of Spain Economic Outlook for the second quarter of 2013 shows how wage moderation last year contributed to lessen the fall in employment. See: http://www.bbva.com/KETD/fbin/mult/1305_Situacionspana_tcm346-385826.pdf?ts=1972013

made in some of the internal adjustment processes. Although these figures do not represent any significant changes from the forecasts made in August, it is worth noting that they do include a slight downward revision of net foreign demand (due to lower anticipated global growth), and an increase in domestic demand (as its components have shown less weakness in 2013). All these confirm our assessment of the underlying performance of the Spanish economy: the recession bottomed out in 2013, paving the way for a classic pattern of recovery in 2014 (see Box 1).

Heterogeneity in regional growth forecasts will remain, with exposure to foreign demand, the rate of correction of structural imbalances and the budget adjustments being the elements that account for the differences between the autonomous regions (see Section 5).

In any event, **the recovery forecast in this scenario continues to depend on a number of factors. First, on the process of structural reforms and fiscal adjustment**, both in Europe and Spain. Second, **on the rate of expansion of emerging markets**, which have steadily increased their importance in the Spanish export markets. Finally, on the reduction of uncertainty regarding the future of fiscal policy in the United States in the long term, as well as the road map to be adopted there for the withdrawal of the extraordinary monetary stimulus.

Table 1
Spain: macroeconomic forecasts

(yoy %, unless otherwise indicated)	1T12	2T12	3T12	4T12	1T13	2T13	3T13 (e)	2012	2013 (f)	2014 (f)
National Final Consumption Expenditure (FCE)	-2.6	-3.4	-3.3	-3.9	-4.0	-3.0	-1.8	-3.3	-2.3	-0.3
Private FCE	-1.8	-3.1	-2.8	-3.5	-4.2	-3.1	-2.4	-2.8	-2.6	0.1
Household FCE	-1.8	-3.1	-2.8	-3.6	-4.3	-3.2	-2.4	-2.8	-2.6	0.1
Public Administration FCE	-4.9	-4.4	-4.9	-5.0	-3.3	-2.4	-0.2	-4.8	-1.7	-1.6
Gross capital formation	-6.2	-6.8	-7.2	-7.3	-7.2	-6.3	-7.1	-6.9	-6.3	0.6
Gross fixed capital formation	-6.0	-6.9	-7.5	-7.7	-7.5	-6.4	-7.2	-7.0	-6.4	0.7
Fixed material assets	-6.8	-7.6	-8.6	-8.3	-8.2	-6.7	-7.3	-7.8	-6.9	0.4
Equipment, machinery and cultivated assets	-2.9	-4.3	-3.8	-4.8	-4.1	0.4	0.7	-3.9	1.0	6.5
Equipment and machinery	-2.9	-4.3	-3.7	-4.7	-4.2	0.4	0.9	-3.9	1.1	6.5
Construction	-8.6	-9.3	-10.9	-10.0	-10.2	-10.5	-11.6	-9.7	-11.0	-3.2
Housing	-7.8	-8.1	-9.2	-9.7	-9.4	-8.6	-9.3	-8.7	-9.0	-0.7
Other buildings and constructions	-9.4	-10.3	-12.4	-10.4	-10.9	-12.0	-13.5	-10.6	-12.6	-5.3
Change in inventories (*)	-0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Domestic demand (*)	-3.4	-4.2	-4.2	-4.7	-4.6	-3.6	-2.9	-4.1	-3.1	-0.1
Exports	0.1	0.5	3.3	4.4	3.6	9.2	2.3	2.1	4.6	6.3
Imports	-6.9	-7.7	-4.6	-3.5	-4.8	3.1	-2.7	-5.7	-1.0	3.4
Net trade balance (*)	2.2	2.6	2.5	2.6	2.6	2.0	1.7	2.5	1.8	1.1
Real GDP at mp	-1.2	-1.6	-1.7	-2.1	-2.0	-1.6	-1.2	-1.6	-1.3	0.9
Nominal GDP at mp	-1.3	-1.7	-1.5	-2.1	-1.1	-1.0	-0.4	-1.7	-0.4	1.8
Pro-memoria										
GDP w/o housing investment	-0.8	-1.2	-1.2	-1.6	-1.6	-1.3	-0.8	-1.2	-0.9	1.0
GDP w/o construction	-0.1	-0.5	-0.3	-0.9	-0.9	-0.5	0.1	-0.4	0.0	1.4
Employment (LFS)	-4.0	-4.8	-4.6	-4.8	-4.6	-3.6	-2.9	-4.5	-3.1	0.0
Unemployment rate (% active pop.)	24.4	24.6	25.0	26.0	27.2	26.3	26.0	25.0	26.3	25.6
Employment (FTE)	-4.3	-5.1	-4.7	-5.0	-4.5	-3.8	-3.3	-4.8	-3.3	-0.1
CPI (period average)	2.0	2.0	2.8	3.1	2.6	1.7	1.2	2.4	1.5	1.1

(*) Contribution to growth. (e): estimate; (p): forecast.
Source: BBVA Research based on INE

Foreign demand will continue to drive growth, while domestic demand will no longer have a negative contribution

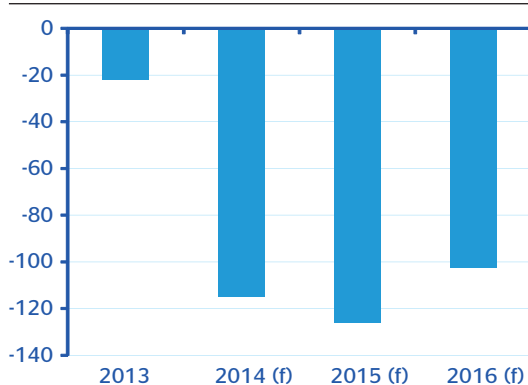
Regarding the domestic context, **fiscal consolidation is expected to continue to drain growth in 2013, and to a lesser extent in 2014**. Despite the fact that there is still a notable structural adjustment of public finances underway, the impact of the cyclical position on the revenues and expenditure of the public administrations and the still high cost of debt financing imply that the fiscal effort to be undertaken continues to be significant (see Section 4). Thus, in the light of both

the budget execution observed in the first nine months of the year and the measures planned by the Government in the draft of the national budget for 2014¹², **real public consumption is expected to fall 1.7% in 2013 and 1.6% in 2014**. Therefore, much of the consolidation effort will continue to be focused on investment cuts, which will give rise to a **fall in investment in non-housing construction of around -12.6% in 2013 and -5.3% in 2014**.

Part of the improved performance of domestic demand in the first half of the year was due to lower than expected reduction in public expenditure. Thus, if the Government maintains its intention of reducing the public deficit to levels of around 6.5% of GDP, it will have to accelerate its adjustment in the second part of the year. In any event, the **negative impact of this reduction in expenditure could be offset by two factors**. First, in the last six months the interest rates paid on Spanish sovereign debt have improved more than expected. In particular, 10-year interest rates are expected to be on average more than 100 bps below the figure expected 6 months ago (see Chart 24). Although the positive impact would be limited by financial fragmentation, the increased investment flows resulting from this reduction and the higher levels of certainty could have a significant positive effect on economic activity. Second, the Government has implemented a new Supplier Payment Plan, which will imply an injection of liquidity equivalent to almost 1% of GDP. This could have a positive impact on the prospects for growth over the next 12 months of 0.2 or 0.3 points of GDP (see Chart 25)¹³.

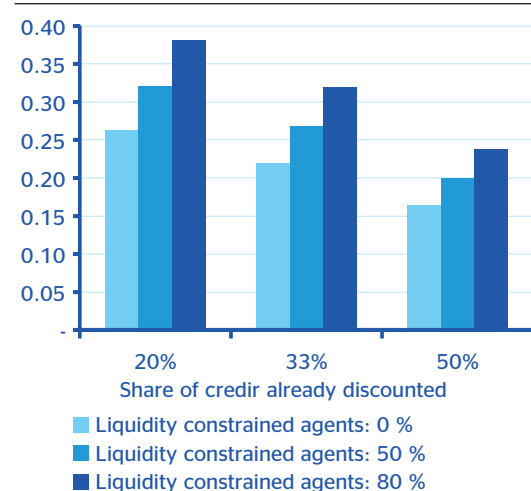
Despite the progress made in the second half of the year, **private consumption will fall by around 2.6% in 2013** due to both the contractive effects of the increased indirect taxation last year and to the deterioration of household disposable income. **In 2014, consumption expenditure will increase by around 0.1%** due to an improvement in its fundamentals. Thus, the change in the labor market cycle will imply that the negative effects of the destruction of jobs on the wage component of gross disposable income will disappear next year. At the same time, the negative impact of the higher VAT on consumption growth will no longer have an effect. In addition, the expected increase in net financial wealth, the maintenance of the household saving rate at historically low levels¹⁴, the lack of inflationary pressures on demand and the expectation that official interest rates will remain unchanged, will all help to ease the expected contraction in private consumption.

Chart 24
Spain: 10-year bond yield (difference with respect to forecast 6 months ago, in pp)



(f): forecast.
Source: BBVA Research

Chart 25
Spain: impact of the Supplier Payment Plan on GDP (pp)



Source: BBVA Research

12: Submitted to Parliament on September 30, 2013. Available at: <http://www.sepg.pap.minhap.gob.es/sitios/sepg/es-ES/Presupuestos/ProyectoPGE/Paginas/ProyectoPGE2014.aspx>

13: The impact the new plan for payments to suppliers will have on the economy will depend on how likely that the beneficiaries of the program will be to spend. As a result, the results have been simulated for the Spanish economy through the REMS model, taking into account different assumptions on the percentage of i) debts with the public administrations that have already been discounted; and ii) agents restricted by liquidity (and thus prepared to spend immediately any liquidity injection). For more details on the model, see Bosca, José E., Rafael Doménech, Javier Ferri and Juan Varela, The Spanish Economy: A General Equilibrium Perspective, Palgrave Macmillan, 2011.

14: See Box 2 of the Consumption Outlook corresponding to the first half of 2013 for a detailed analysis of the determinants of the household saving rate in Spain over the last four decades.

Although the cost of finance has remained high, the figures at the closing date of this report suggest that in fact **2013 has been a year of transition for investment in machinery and equipment**. In fact, domestic demand was less weak and exports were stronger. Above all, the evidence of the recent revision of the CNTR raises the **forecast for this demand item for 2013 as a whole to 1.1% y/y**. This change in the trend will be consolidated next year thanks to the good performance of exports and the recovery in domestic demand, which will return to the path of growth after a number of years of decline. Thus **investment in machinery and equipment is expected to grow by 6.5% y/y in 2014**.

Prospects are less positive with respect to investment in residential property. **The process of adjustment in construction activity that begun six years ago continues, although at a slower pace** than in the recent past and with variation from the geographical point of view. While there are regions where permits for new construction are still falling significantly, in others there are signs of a change in the trend. This is the case in Valencia, Murcia and the Canary Islands, where despite a major problem of a surplus of unsold housing, there are incipient signs of recovery in construction activity. There could be two factors behind this change in trend: first, a faster adjustment of supply¹⁵ and second, growth of demand for housing by foreign citizens (in the regions of Valencia and Murcia in 2Q13 purchases by foreigners grew by 35% y/y and 50% y/y respectively). However, in other regions there continues to be a major adjustment of supply. Sales ended the year with a fall of around 20% y/y due to the weakness of domestic demand. As a result, **2013 is expected to close with another contraction of investment in residential property of around 9.0% y/y**.

Next year could see the end of the adjustment in the construction sector, although it will remain weak and its recovery will be slow. It is therefore expected that **in 2014 residential investment will remain practically flat in year-on-year terms**.

With respect to the prospects for exports, the **emergence of the Eurozone from recession will offset the slowdown in some emerging markets. This will lead to an increase in exports of 5.4% on average in the two-year period 2013-2014**, in line with forecasts made three months ago. A risk should be added to this scenario: the appreciation (still moderate) that has been observed in the euro exchange rate against the dollar (and in general the euro against currencies of other developed and emerging economies). BBVA Research expects that this appreciation in the euro will be temporary, as it appears to be linked to factors that should disappear at the start of next year with the resolution of uncertainties in economic policy, mainly in the U.S. The temporary nature of this appreciation of the euro and the limited impact it has had in the past on exports¹⁶ suggest that their growth will continue. However, if the appreciation of the euro became consolidated, it could affect the competitiveness of companies and the process of import substitution that is taking place (see Box 2).

The improved domestic situation and good export performance will lay the foundations for a take-off in imports, which will increase on average in the 2013-2014 period by 1.2% y/y. Thus **net foreign demand will continue to support growth and its composition will give rise to surpluses in the current account balance in the forecast horizon**.

The adjustment of the labor market has bottomed out. Employment will grow in the second half of 2014

If the dynamics of the labor market remain as observed through the third quarter, **2013 will close with a fall in employment of 3.1%** compared with a fall of 4.5% in 2012. Thus **the rate of unemployment will increase by 1.3 pp to 26.3%** despite the estimated fall in the active population. The recovery of growth in 2014, the increased elasticity of employment to GDP (see Chart 26) and the improved efficiency of the labor market due to the labor reform¹⁷ will lead to

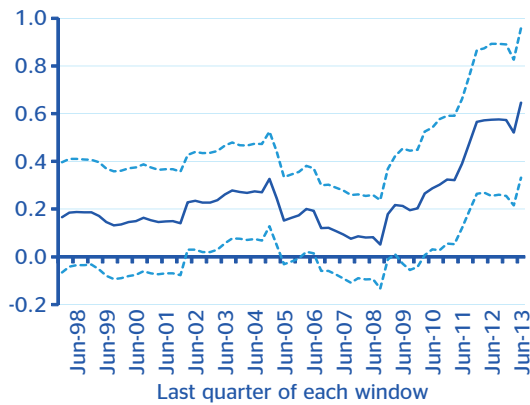
15: After hitting a high in 2005, the permits took only three years to fall by more than 90%.

16: See Box 4 in Spain Economic Outlook for the fourth quarter of 2012. http://www.bbvaesearch.com/KETD/fbin/mult/1211_Situacionespana_tcm346-360814.pdf?ts=28102013

17: Box 4 of Spain Economic Outlook for the second quarter of 2012 assesses the labor market reform approved in 2012.

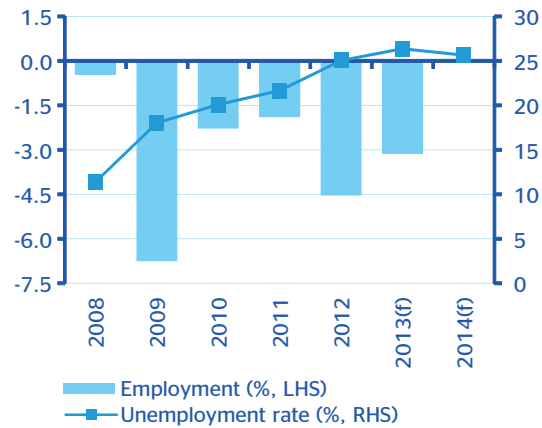
a rise in employment in the private sector during the second half of the year¹⁸. As a result, the Spanish economy will not destroy jobs in 2014, and this will help reduce the unemployment rate (see Chart 27).

Chart 26
Spain: elasticity of LFS employment to GDP (%)



Note: VAR in reduced form in the first differences. 72-quarter moving window.
Source: BBVA Research

Chart 27
Spain: employment and unemployment rate (annual averages in %)



(f) forecast.
Source: BBVA Research, based on INE data

Inflation expectations remain anchored under 2.0%

No longer affected by the base effect of tax changes, increased regulatory prices and the upturn in energy prices in the second half of 2012, inflation is expected to continue at reduced levels, at least for the rest of 2013 and the first half of 2014. Thus, while there is still significant uncertainty regarding imported inflation (commodity prices), there are no signs of inflationary pressure on demand. As a result, average inflation for this year is expected to be around 1.5% in 2013 and 1.1% in 2014, which will help narrow and close the average inflation differential with the Eurozone as a whole and make it favorable for Spain in 2014 (-0.3 pp).

18: The labor reform makes easier the necessary rebalance between the adjustment in the extensive (employment) and intensive (working hours and remuneration) margin and helps increase productivity. These consequences, combined with a change in the productive model in the Spanish economy, should make possible more job creation and a bigger reduction in the unemployment rate for each point of GDP. For more details, see: Andrés, J., J. E. Boscá, R. Doménech and J. Ferri: "Job Creation in Spain: Productivity Growth, Labour Market Reforms or both", BBVA Working Paper 10/13, Madrid. Available at: http://www.bbva.com/KETD/fbin/mult/WP_1013_tcm348-221513.pdf?ts=15112011

Box 1. Stylized facts of the Spanish economic cycle

This box contains a summary of the results obtained from the analysis of the stylized facts of the Spanish economic cycle since 1980. In line with theory, the results indicate that there are macroeconomic indicators which effectively anticipate turning points in GDP: for example, exports, the gross operating surplus of companies, and investment in machinery and equipment. Likewise, economic recoveries in the US or in the United Kingdom appear to be more important in predicting a change of trend than the GDP of the EMU. Contrary to this, there are also indicators whose highest correlation with GDP is reached with a certain lag. One example is the stock of credit, especially that of companies. On the other hand, there is no evidence of public consumption being a leading indicator of Spanish economic recoveries. In any event, public consumption appears to be strongly pro-cyclical, so there is no sign of a stabilizing pattern of spending policies in the Spanish economy. These characteristics of the economic cycle are consistent with previous studies and, in general, with what could be found in models used in economic literature. Regarding the current recession, several of these indicators show that the economy would be about to generate growth. However, those indicators affected by the imbalances which built up in the pre-crisis period might show a different pattern from that observed in the past, which might make this recovery an atypical one, probably slower than usual.

Literature Review

Kydland and Prescott (1982) and Backus, Kehoe and Kydland (1992), respectively, document the characteristics of the economic cycle in the US and in developed and open economies, in order to compare their results with those derived from deterministic and stochastic dynamic general equilibrium models. One of the most important findings in their results is the contemporary nature of private consumption, non-residential investment, imports and employment, and the fact that residential investment moves ahead of the economic cycle. Exports, meanwhile, would arrive after a GDP recovery, while public consumption does not have a significant correlation with it.

The Spanish case is analysed using quarterly data from 1973 to 1993¹⁹. In Ortega (1998). Some differences are found with respect to the US case. First, even if Ortega

(1998) does not provide a breakdown including residential investment, its investment indicators are contemporaneous to GDP. Second, the greatest correlation of spending in public consumption with the cycle comes with a one year lag, suggesting a certain degree of pro-cyclicality in fiscal policy. Lastly, exports show a low degree of correlation with GDP and, when there is a correlation, it is of opposite sign to the one expected (negative) and comes with a lag.

In addition to the aggregate demand indicators that are traditionally included in real economic cycle studies, this box focuses on two factors that appear to be particularly important for the current economic recovery in Spain. On the one hand, the relationship of activity with savings and company's profitability, proxied by the gross operating surplus (GOS). On the other, the role played by bank lending in creating or consolidating the changes of trend in economic activity. As far as the first point is concerned, Santaaulàlia-Llopis and Ríos Rull (2010) document that in the US the participation of labour income in GDP is countercyclical, making GOS procyclical. Furthermore, Woodford (2001) demonstrates that this participation is a better measure of demand pressure, suggesting that central banks should react to it with changes in interest rates in order to soften the cycle. If the reaction rule of monetary policy responded to this indicator, the gross operating surplus would move ahead of the economic cycle, especially in situations where most of the recession or the expansion period can be accounted for by demand factors.

Finally, the correlation between the stock of credit and the economic cycle has been analysed in Kollintzas et al. (1994) and Male (2012)²⁰. In both cases, bank lending is observed to be pro-cyclical, albeit its highest correlation occurs with a lag with respect to the start of the cycle. This pattern would be consistent with an interaction between lending and production like the one proposed in Kiyotaki and Moore (1997). Exogenous shocks that increase (decrease) output, and, thus, have a positive (negative) impact on the value of the collateral, would have a positive (negative), persistent impact on the level of debt. What is more, would there be a sufficient number of individuals for which the credit restriction applied, there would be a lag in the impact on credit as credit would only flow once the conditions concerning collateral assets had improved.

19: In order to compare the cyclical characteristics of the Spanish economy in its high and medium frequency components for the 1951-2010 period, refer also to Correa-López and de Blas (2012).

20: For an analysis of the business cycle synchronization of banking credit, credit flows are more important than the stock, as indicated in Doménech (2013) and Biggs, Mayer and Pick (2009). For Spain, data of gross credit flows are only available from 2003 onwards. The lack of information on gross flows for a large sample of countries means that international comparisons usually have to be performed using the growth in the stock of credit.

Table 2
Spain: real facts - sample: whole cycle (1981 - 2012)

Variable X	Relative volatility	Cross correlation of annual GDP with						
		X(t-4)	X(t-3)	X(t-2)	X(t-1)	X(t)	X(t+1)	X(t+2)
Final consumption expenditure (F.C.E.)	1.2							
F.C.E. Household and NPISHs	1.3				0.70	0.94	0.79	
F.C.E. Households	1.3			0.32	0.70	0.94	0.78	
F.C.E. General government	1.4					0.51	0.72	0.81
Gross capital formation	4.1			0.49	0.82	0.95	0.64	
Gross fixed capital formation (G.F.C.F.)	3.9			0.50	0.83	0.95	0.66	
Equipment and cultivated assets	4.4			0.55	0.77	0.80	0.37	
Equipment and machinery	5.1			0.55	0.76	0.78	0.35	
Construction	8.4			0.37	0.75	0.94	0.77	
Housing	4.1			0.62	0.86	0.88	0.59	
Other constructions	4.3				0.57	0.85	0.80	
Domestic Demand	1.8			0.35	0.74	0.96	0.76	
Exports of goods and services	2.2	0.45	0.30					
Exports of goods	2.4	0.28						
Exports of services	2.5	0.48	0.49	0.38				
Imports of goods and services	3.7			0.41	0.73	0.84	0.49	
Imports of goods	4.0			0.43	0.72	0.81	0.42	
Imports of services	3.3				0.63	0.84	0.71	
GDP	1.0			0.38	0.77	1.00	0.76	
Pro-memoria								
Unemployment rate (% Active pop.)	7.4			-0.49	-0.82	-0.90	-0.55	
Total employment (F.T.E)	7.4	-0.37		0.35	0.74	0.98	0.79	0.45
Labour productivity	0.6				-0.62	-0.83	-0.75	-0.53
Gross operating surplus	1.1		0.47	0.60	0.69	0.64	0.27	
Credit (Total)	3.9				0.40	0.69	0.81	0.71
Credit (ORS)	3.8				0.38	0.69	0.81	0.73
Households	3.5				0.58	0.75	0.68	0.50
Housing	3.1				0.44	0.60	0.59	0.50
Others	4.5				0.61	0.81	0.75	0.53
Consumption	4.9				0.56	0.79	0.74	0.51
Enterprises	4.7					0.55	0.71	0.68
Construction and real state	7.9				0.30	0.56	0.69	0.69
Others	3.2					0.50	0.69	0.64

Cyclical component detrended using a Hodrick-Prescott filter with lamda=100.
Source: BBVA Research

Results: characteristics of the Spanish economic cycle

The present analysis uses annual data from 1980 to 2012. Hence, it includes 20 years more than Ortega (1998) at the end of the sample, but excludes the cycles of the 1970s²¹. Table 3 shows, both the standard deviation of the different components of aggregate demand compared with that of GDP and their correlation with GDP in t , $t-1$ and $t+1$. Several results are observed. First, **as far as the volatility of the series is concerned, it is important to note the high degree of variability in employment**, a characteristic of the Spanish labor market that is in line with its inefficient adjustment mechanisms. **Likewise, private consumption turns to be more volatile than GDP**, which is not common in economies such as the Spanish one, that have a relatively well-developed financial system or a public social security system. These features, in theory, help to smooth the pattern of household spending over the life-time. The rest of the variables show volatilities in line with the results of Kydland and Prescott (1982) for the US, and of Ortega (1998) for Spain.

Regarding the correlations with GDP, the anticipation of exports is noteworthy. As it can be observed in Table 2, the highest correlation of this variable with GDP is reached four years before the start of a recovery or recession. Comparing exports of goods and services, the latter shows a higher correlation with GDP. **Another variable that precedes the cycle, albeit at a lower extend than exports, is gross operating surplus**, which reaches its highest correlation with GDP one year before the recovery. This result is in line with the description given in Woodford (2001).

Although residential investment and expenditure on machinery and equipment reach the highest correlation with GDP at the same time, the difference between the coefficient in t and in $t-1$ is not statistically significant, which would suggest **some degree of anticipation of these indicators to the change of cycle**. Most of the other variables show their highest correlation with GDP contemporaneously, including imports, which in Ortega (1998) moved ahead of the cycle.

Certain exceptions to the above-mentioned facts are apparent in the case of the credit stock. In particular, **aggregate lending reaches its highest correlation with the cycle one year after the change of trend has started**. In spite of this, however, not all components of the credit stock behave in the same manner: lending to households matches GDP, while business lending usually occurs with a lag.

In short, **changes of cycle in period t seem to adjust to the following pattern:**

1. Before year $t-1$, exports change.
2. In year $t-1$, changes in gross operating surplus, residential investment and machinery and equipment investment occur.
3. In year t , the majority of the remaining economic aggregates and certain types of credit change.
4. In year $t+1$, total credit changes, especially corporate credit.

In another exercise, we only consider correlations in recovery periods. As Table 3 shows, most of the characteristics already outlined apply, albeit with some exceptions. In particular, the **correlation of residential investment and investment in machinery and equipment with GDP are higher one year before the start of a positive GDP growth cycle**, which indicates an asymmetry in the pattern of real aggregate figures depending on whether an expansive or recessive cycle is ahead. In any event, these types of investment move ahead of the recovery in GDP. Likewise, and consistent with Ortega (1998), imports do anticipate the change of trend in the economy. Productivity also precedes the increase in GDP, which is as well in line with the increase in gross operating surplus.

21: In line with standard methodology, the trend has been extracted from the series of the National Accounts published by the National Statistical Institute (INE) using the Hodrick-Prescott filter with a value of $\lambda=100$ and deviations have been used with regard to that trend. Likewise, forecasts by BBVA Research have been used for 2013 - 2020 in order to reduce the end-of-sample bias implicit in the Hodrick-Prescott filter.

Table 3
Spain: real facts - sample: recoveries (1981 - 2012)

Variable X	Relative volatility	Cross correlation of annual GDP with						
		X(t-4)	X(t-3)	X(t-2)	X(t-1)	X(t)	X(t+1)	X(t-2)
Final consumption expenditure (F.C.E.)	1.8							
F.C.E. Household and NPISHs	1.7				0.51	0.73	0.37	
F.C.E. Households	1.7				0.52	0.74	0.37	
F.C.E. General government	2.7					0.37		
Gross capital formation	4.9			0.32	0.71	0.58		
Gross fixed capital formation (G.F.C.F.)	4.9			0.34	0.67	0.60		
Equipment and cultivated assets	8.8			0.55	0.78	0.51		
Equipment and machinery	10.1			0.55	0.73	0.51		
Construction	25.8				0.37	0.47		
Housing	4.1			0.64	0.58	0.29		
Other constructions	5.0					0.36		
Domestic Demand	2.2				0.54	0.70		
Exports of goods and services	3.7	0.65	0.51					
Exports of goods	5.1	0.63	0.41					
Exports of services	5.4	0.55	0.55		0.45	0.42		
Imports of goods and services	6.8				0.52	0.41		
Imports of goods	7.5				0.47	0.32		
Imports of services	6.6				0.56	0.69	0.38	
GDP	1.0				0.64	1.00	0.55	
Pro-memoria								
Unemployment rate (% Active pop.)	7.9			-0.31	-0.60	-0.66		
Total employment (F.T.E)	7.9			0.32	0.67	0.85	0.37	
Labour productivity	1.3				-0.57	-0.56		
Gross operating surplus	1.1		0.47	0.60	0.69	0.64	0.27	
Credit (Total)	6.8				0.45	0.76	0.84	0.49
Credir (ORS)	6.7				0.41	0.74	0.85	0.50
Households	5.0				0.40	0.63	0.66	0.51
Housing	4.3	0.43				0.32	0.42	0.48
Others	8.1				0.51	0.73	0.65	0.50
Consumption	7.0				0.50	0.74	0.53	0.43
Enterprises	8.0				0.32	0.55	0.68	0.53
Construction and real state	14.6						0.51	0.59
Others	6.6				0.46	0.70	0.61	0.38

Cyclical component detrended using a Hodrick-Prescott filter with lamda=100.
Source: BBVA Research

Results: the Spanish cycle compared with the cycle of developed countries

Table 4 displays the results of comparing the economic cycle in Spain with both the cycle observed in seven developed countries and with the aggregate figure for the EMU. Despite their lower weight in Spanish exports, **changes in the economic situation of countries outside the EMU occur earlier than the turning point in the Spanish economy.** In particular, both the GDP of the US

and the UK reach their highest correlation with Spain's GDP one year ahead of the recovery/recession in Spain. The above would be consistent with the existence of different transfer mechanisms from those that characterise the real economy, for example, through capital financial markets or with the greater centralization and response to the monetary and fiscal policy cycle that is observed in these countries compared with the EMU.

Table 4
Spain: real facts - sample: whole cycle (1981 - 2012)

Country X's GDP	X(t-2)	X(t-1)	X(t)	X(t+1)
United States	0.67	0.65	0.49	
Japan		0.44	0.55	0.32
United Kingdom		0.80	0.67	
Germany			0.51	0.39
France		0.68	0.86	0.57
Italy		0.73	0.88	0.50
Portugal		0.44	0.71	0.61
EMU12		0.61	0.88	0.62
EU15		0.72	0.90	0.55

Cyclical component detrended using a Hodrick-Prescott filter with lamda=100.
Source: BBVA Research

Conclusions

In this analysis, the characteristics of the Spanish cycle have been studied in accordance with the methodology commonly used in economic literature. The results confirm that the changes of the cycle in Spain appear to occur in a specific order. In particular, **the recovery begins with a change of trend in exports. One year before the turning point of the economy, productivity grows and wage restraint reduce unit labor costs increasing the gross operating surplus.** This improvement in the companies' financial position leads to an **increase in residential investment and expenditure** on machinery and equipment, insofar as there is certainty about demand prospects and certain capacity restrictions are expected to operate in the mid term. From that point, **most of the remaining variables show a pattern in line with GDP. However, lending lags the cycle, particularly corporate lending.** The latter might be due to the existence of cycle acceleration mechanisms that have a high persistence. **Furthermore, it is observed that both the changes of trend in activity in the US and in the United Kingdom anticipate the turning points of the Spanish economy,** a pattern which is not observed with the GDP for the EMU overall.

Although this growth pattern appears to be currently reflected in the Spanish economy, it is important to note that reasonable doubts might arise about the response capacity shown by certain variables during the present recovery. In particular, **the imbalances that remain in the real estate sector and the need to reduce the level of debt of the private sector might delay the contribution these figures make to recovery.**

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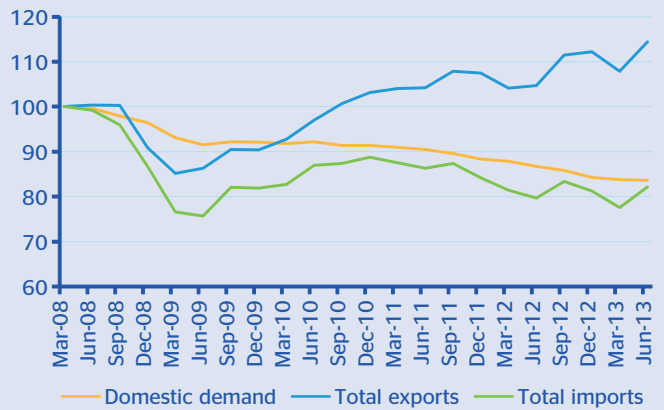
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Box 2. The substitution of imports for domestic output during the crisis: preliminary evidence

This box explores the factors that underlie the high contraction of imports in Spain during the crisis and, more in particular, it analyzes whether this contraction is due to the substitution of imports for domestic output. Since the outbreak of the economic crisis in 2008, imports in Spain have declined at an average year-on-year rate of -3.4%. In 2Q13, imports were 17.9 pp below its pre-crisis level (see Chart 28). From the point of view of demand, the contraction in imports could be accounted for by both the decline in the different components of final demand that, with the exception of exports, have not managed to recover their pre-crisis activity levels, and the substitution of imports for goods and services produced in Spain. **This substitution effect**, combined with the exporting dynamism of the Spanish economy, **would be strengthening the reallocation of resources towards a new production model** capable of generating sustained current-account surpluses.²²

In order to assess the relevance of the substitution effect, an import demand equation is estimated for the period 1986-2013. Given the energy dependence of the Spanish economy and, therefore, its limited margin of response in the face of variations in energy prices, the estimation is limited to the imports of non-energy goods and services. In this context, **the substitution of imports can be caused by three factors: gains in price-competitiveness of domestic goods and services compared to imported ones, an increased sensitivity of domestic demand to the relative price of imports, and a reduction in the economy's marginal propensity to import.** The evolution of these three factors, combined with the income effect generated by the performance of final demand, are the components needed to explain the variation in imports within the period considered in the present analysis.

Chart 28
Spain: domestic demand, exports and imports, 1Q08-2Q13 (1Q08=100)



Source: BBVA Research based on INE

Estimation methodology

The non-energy import demand function estimated in this study is based on a cointegration analysis. Generally speaking, this approach is based on the simultaneous modeling of both the equilibrium relationship between the variable of interest and its fundamentals (long-term) and a mechanism that corrects for the (short-term) deviations from the mentioned equilibrium, as shown below:

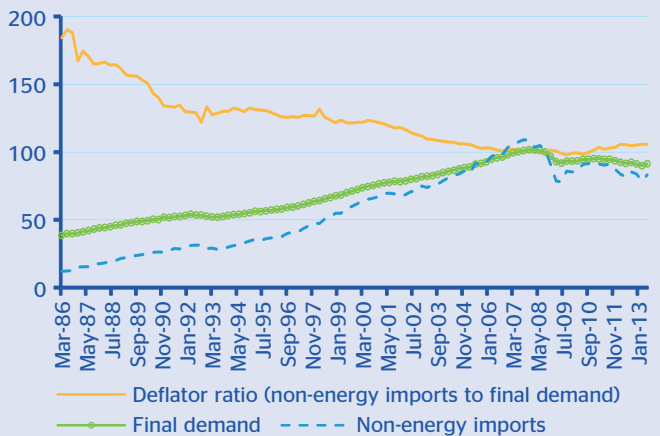
$$m_t = \alpha df_t + \beta pr_t + \epsilon_t$$

$$\Delta m_t = a \Delta df_t + b \Delta pr_t + \varphi \epsilon_{t-1} + v_t$$

where, m_t , df_t y pr_t denote, respectively, the logarithms of non-energy imports, final demand, and the price of non-energy imports relative to the deflator of final demand (see Chart 29). The marginal propensity to import and the elasticity of substitution of imports are given by the parameters α and β in the long term and, a y b in the short term. The term ϵ_t represents the observed deviation with respect to the equilibrium, which is corrected in $1/\varphi$ periods. Finally, v_t represents the innovation in the stochastic process of imports, which is independently and identically distributed, with zero average and constant variance.

22: For more information on the recent trend and the outlook for the current account balance in Spain, please refer to the Economic Watch issue "An analysis of the evolution and determinants of the current account balance in Spain" available at: http://www.bbva.com/RESEARCH/publications/observatorio_cuenta_corriente_espaa_a_esp_tcm346-407130.pdf?ts=31102013

Chart 29
Spain: non-energy imports, final demand and the relative price of non-energy imports, 1Q86-2Q13 (2008=100)



Source: BBVA Research based on INE and AEAT

The analysis differs in two aspects from the empirical studies that have addressed this same issue for the Spanish economy²³. First, the time window is extended. In particular, the behavior of the demand for non-energy imports is analysed from the signing of the Treaty of Accession of Spain to the European Economic Community (in the first quarter of 1986) until the second quarter of 2013, when the Spanish economy was about to enter a new expansionary phase of the economic cycle. Second, it explores the existence of regime changes in the demand for imports, with respect to both its long-term equilibrium and its short-term error correction mechanism. In the case of the Spanish economy, this approach is justified given its growing openness to international trade and the institutional changes implemented in the recent decades (for example, joining the Economic and Monetary Union).

The specification of the cointegration model including regime changes is given by:

$$m_t = \alpha_r df_t + \beta_r pr_t + \varepsilon_t, \forall t \in r$$

$$\Delta m_t = a_r \Delta df_t + b_r \Delta pr_t + \varphi_r \varepsilon_{t-1} + v_t, \forall t \in r$$

where the subindices $r=1, \dots, R$ represent the different regimes of the demand for non-energy imports. This extension, in addition to reducing the probability of erroneously rejecting the existence of a cointegration

relationship²⁴, makes it possible to break down the change between regimes of the variable of interest into the four factors mentioned in the introduction. Specifically, the variation in long-term imports from the start of a regime to its end can be expressed as the sum of the following components:

- Income effect: $\alpha_r \frac{\partial df_t}{\partial r}$
- Substitution effect effect:
 - through changes in price-competitiveness: $\beta_r \frac{\partial pr_t}{\partial r}$
 - through changes in the marginal propensity to import: $df_t \frac{\partial \alpha_r}{\partial r}$
 - through changes in the elasticity of substitution: $pr_t \frac{\partial \beta_r}{\partial r}$

Results

The hypothesis tests performed reveal the existence of three changes of regime in the long-term demand for non-energy imports (see Appendix 1):

- in the first quarter of 1990,
- in the second quarter of 1998, and
- in the third quarter of 2008

However, the parameters of the short-term equation seem to be stable, i.e. no changes of regime are detected in the error correction mechanism.

Table 5 shows three different estimations for the import demand equation. Column (1) displays the results of the cointegration equation when the existence of regime changes is not taken into account; estimations in columns (2) and (3) include regime changes. The specification in column (3), which corrects for the outliers detected in the sample, is the preferred one. As it can be observed, all the results show a greater responsiveness of imports to final demand (marginal propensity to import) than to relative prices (elasticity of substitution), both in the short and the long term, in line with the results found in previous literature. Likewise, the error correction mechanism shows an adjustment speed in line with evidence²⁵.

23: See, for example, Buisán and Gordo (1994), Mauleón and Sastre (1994), García and Gordo (1998), and García et al. (2009). For an analysis focused on the import content of the different industries in Spain, see Cabrero Bravo and Tiana Álvarez (2012).

24: See Gregory, Nason and Watt (1996) and Gregory and Hansen (1996).

25: In the period 1980-2006, García et al. (2009) estimate a speed of adjustment for the imports of goods of -0.44 and for the imports of services of -0.18.

In addition, the results in column (3) reveal a pattern of behavior in all regime changes: **increases (decreases) in the marginal propensity to import are accompanied by increases (reductions) in the elasticity of substitution of imports.** Although the most pronounced change in these

elasticities takes place in the third quarter of 1998 –two quarters before the euro replaced the ECU–, **an increase in the sensitivity of imports to both final demand and relative prices has been observed during the recent crisis.**

Table 5
Spain: estimates of the non-energy import demand function, 1986-2013

	(1)	(2)	(3)
Long-term equation			
Marginal propensity to import	1.691 (0.040)***		
Regime I: 1Q86-3Q90		1.986 (0.057)***	1.986 (0.057)***
Regime II: 4Q90-2Q98		2.316 (0.031)***	2.316 (0.031)***
Regime III: 3Q98-3Q08		1.419 (0.029)***	1.419 (0.029)***
Regime IV: 4Q08-2Q13		1.420 (0.186)***	1.527 (0.155)***
Replacement elasticity	-0.676 (0.035)***		
Regime I: 1Q86-3Q90		-0.903 (0.042)***	-0.903 (0.042)***
Regime II: 4Q90-2Q98		-1.189 (0.026)***	-1.189 (0.026)***
Regime III: 3Q98-3Q08		-0.409 (0.028)***	-0.409 (0.028)***
Regime IV: 4Q08-2Q13		-0.430 (0.179)**	-0.532 (0.150)***
Transitory change in 1Q09 (Correction for outliers)			-0.126 (0.017)***
Short-term equation			
Constant	-0.005 (0.004)	-0.003 (0.003)	-0.003 (0.003)
Marginal propensity to import	2.595 (0.432)***	2.376 (0.207)***	2.364 (0.208)***
Elasticity of substitution	-0.400 (0.256)	-0.371 (0.161)**	-0.415 (0.161)**
Error correction mechanism	-0.125 (0.028)***	-0.343 (0.083)***	-0.368 (0.092)***
Sample period	1T86-2T13	1T86-2T13	1T86-2T13
Maximum likelihood estimator	248.817	249.911	250.362
Joint-significance statistic F	55.206	57.035	57.801
Durbin-Watson statistic	2.3860	2.050	2.050
Residual typical deviation	0.066	0.065	0.065

Notes: Standard errors in brackets.

***, **, * denote that the statistics are significant at the 1%, 5% and 10% level, respectively.

Source: BBVA Research

Finally, Table 6 shows the breakdown of the change in imports between regimes. As it can be seen, in all the subperiods, **more than 50% of the variation in imports is explained by the behavior of final demand**; although the contribution of the income effect reaches its record low in the crisis period, explaining 58% of the decline in imports²⁶. **The analysis also reveals a relevant substitution effect driven by price-competitiveness losses in all the regimes except for the one corresponding to the last**

crisis, when there were price-competitiveness gains in domestic products for the first time in two decades. **The substitution effect caused by the price-competitiveness gains during the crisis was clearly reinforced by a demand for imports that was more elastic to the relative price.** Meanwhile, the crisis gave rise to an increase in the marginal propensity to import. Overall, **the substitution effect explains 42% of the decline in imports from 2008 to 2012.**

Table 6

Spain: breakdown of the variation in non-energy imports into their long-term determining factors (pp of the average quarterly growth rate)

Regime	Imports: Observed variation (1)	Imports: Adjusted variation (LT) (2) =(3)+(4)	Variation of final demand final (3)	Components:			
				Income effect	Substitution effect		
				Total (4) = (5)+(6)+(7)	Relative price variation (competitiveness) (5)	Change in themarginal propensity to import (6)	Change in the elasticity of substitution (7)
I: 1Q86 -3Q90	4,31	4,30	2,95	1,35	1,35	0,00	0,00
II: 3Q90-2Q98	2,12	2,01	1,98	0,03	0,43	4,16	-4,56
III: 3Q98-3Q08	1,68	1,74	1,46	0,28	0,24	-9,15	9,19
IV: 4Q08-2Q13	-1,02	-1,27	-0,73	-0,53	-0,18	2,61	-2,96

Notes: LT: long term.

The results shown correspond to the specification that corrects atypical data. The results for the specification that does not include them are qualitatively similar and are available to the reader on request.

Source: BBVA Research

Factors underlying the regime changes in the demand for imports

The above section showed the existence of several cointegration regimes in the Spanish non-energy import demand function. Among other results, it has been shown how the last regime change started with the recession period, when the import substitution process started to be more intense. **As for the determining factors that underlie the regime changes, the literature offers two possible answers** that are not mutually exclusive: the first one, related to the composition of growth in final demand and, the second one, to the role of foreign direct investment (FDI) in the globalization and economic integration processes²⁷.

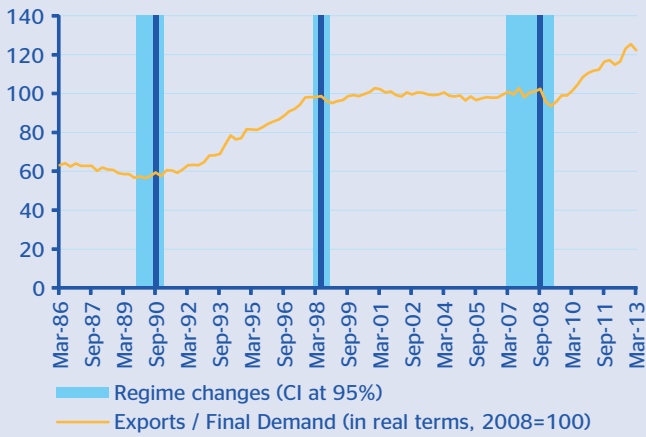
As for the composition of growth, the latest studies on the import content of the Spanish economy reveal that the import intensity of Spanish exports reached 39% in 2007, exceeding by far that of the rest of the final demand components (see Cabrero Bravo and Tiana Álvarez, 2012). Consequently, as it can be observed in the results of the present analysis (see Charts 30 and 31), **a greater marginal propensity to import characterizes the regimes in which the economy's growth is dominated by foreign demand.** Likewise, within this periods, **the elasticity of substitution of imported intermediate goods increases**, due to either the sheer composition effect on final demand or to the fact that exporting companies work in environments with greater competition and tend to be more efficient²⁸.

26: The percentage corresponding to the income effect is computed by dividing column 3 in Table 3 by column 2.

27: See, for example, Pain and Wakelin (1998) and Camarero and Tamarit (2003).

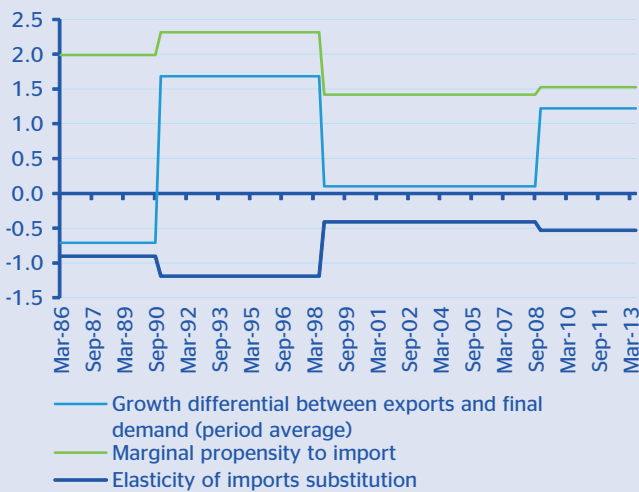
28: Readers interested in the development of the Spanish economy's competitiveness and the role of exporting companies in the internationalization process are referred to the Economic Watch issue : "The internationalization of Spanish companies", available at http://www.bbva.com/KETD/fbin/mult/121204_Observatorioeconomicoespana_tcm346-371889.pdf?ts=1642013.

Chart 30
Spain: identified regimes in the demand for imports and the composition of growth in final demand



Source: BBVA Research

Chart 31
Spain: identified regimes in the demand for imports and the composition of the growth in final demand

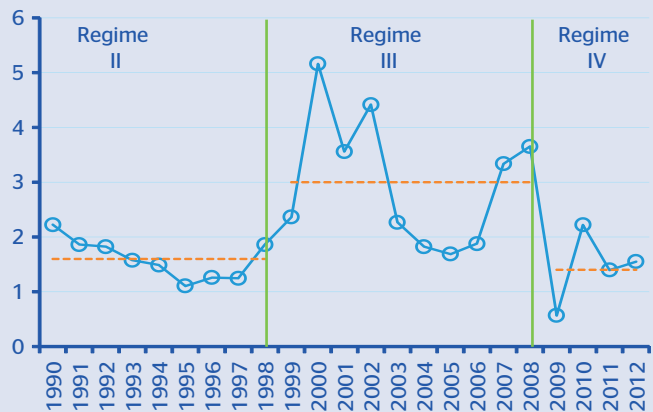


Source: BBVA Research

The importance of FDI as a possible driver of a regime change can be seen more clearly in the subperiod that starts with the introduction of the euro. **Both horizontal and vertical²⁹, FDI inflows, could have reduced the marginal propensity to import from final demand, stabilizing the export-to-domestic demand ratio (see**

Chart 32)³⁰. The reduction in the elasticity of substitution could be explained by the change in the composition, and the relative weight, of the basket of imported goods and services, which might have been driven by the bias experienced by domestic demand in the expansion that preceded the crisis³¹.

Chart 32
Spain: FDI inflows as a percentage of final demand, 1990-2012



Nota: La línea de puntos denota el promedio de cada régimen.
Source: BBVA Research a partir de Banco de España

Conclusions

This box has explored the factors that explain the high contraction of imports in Spain during the crisis. The **results obtained show that, although the deterioration in final demand explains a high percentage of the observed performance, the Spanish economy is undergoing a process of substitution of imports for domestic output that explains 42% of the decline.** Specifically, and for the first time in more than two decades, price-competitiveness gains have been registered in domestic products compared to imported goods and services, which reveals that an internal devaluation process is underway. In addition, **price-competitiveness gains have been reinforced by a relative demand for imports that is more elastic to the relative price.** However, the crisis has also prompted an increase in the marginal propensity to import, which has partially offset the contribution of the two factors mentioned.

29: Horizontal FDI is traditionally associated to market access while vertical FDI looks for cost advantages. However, Neary (2002) shows that the decision to undertake horizontal FDI by multinational companies is to a large extent driven by cost considerations as well.

30: In a panel of 12 OECD countries analysed for the period 1981-1998, Camarero and Tamarit (2003) found that the FDI stock reduced long-term imports in the Spanish manufacturing sector.

31: Between 1998 and 2007, the Spanish economy grew at an average annual rate of 3.8%, thanks to the expansion of domestic demand (a contribution of around 5.0 pp). The increase in investment explained approximately 1.8 pp, of which 1.2 pp are attributable to the construction boom.

The structural changes identified in the demand for non-energy imports correspond to the reorientation of growth in final demand towards the export component.

In the regimes where economic growth is driven by foreign demand, as the current one, a higher propensity to import is found. Likewise, given the composition effect and the greater productive efficiency of exporting companies, a greater elasticity of substitution in imported intermediate goods is observed.

To sum up, **the combination of strong export dynamics and the substitution effect of non-energy imports suggests that resources will continue to be reallocated towards a new production model** capable of generating structural current account surpluses.

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Appendix 1. Identification of regime changes³²

Table A1

Spain: Structural breaks test in the cointegration relation of the demand for non-energy imports

A. Kejriwal-Perron test (long-term equation):

k	TSupF(k) test		Sequential test (k/k-1)	
	Ho: There are no regime changes	Ha: There are k regime changes	Ho: There are k-1 regime changes	Ha: There are k regime changes
1		95.81***		95.81***
2		95.26***		34.38***
3		99.88***		24.18***
4		87.21***		8.01
5		71.51***		

Selected regime changes

		IC (95%)
I	Sep-90	Dec-89 ; Dec-90)
II	Jun-98	(Mar-98 ; Sep-98)
III	Sep-08	(Mar-07 ; Mar-09)

B. Bai-Perron test (short-term equation)

k	SupF(k) test		Sequential test (k/k-1)	
	Ho: There are no regime changes	Ha: There are k regime changes	Ho: There are k-1 regime changes	Ha: There are k regime changes
1		7.50		7.50
2		6.12		
3		6.10		
4		4.86		
5		3.88		

Notes: 1. Maximum number of regime changes = 5. Minimum number of observations between regime changes = 0.15*T.

2. Under the alternative hypotheses, the regime change case is shown in all the parameters. Critical values taken from Kejriwal and Perron (2010) and Bai and Perron (2003).

***, **, * denote that the statistics are significant at the 1%, 5% and 10%, respectively.

Source: BBVA Research

32: The intermediate results corresponding to the unit roots tests (with and without structural changes), the cointegration tests and the parameter stability tests are available to the reader on request.

Box 3. Expectations for the recovery of new loans

The relationship between banking credit and economic activity has been discussed extensively in many research articles. The best-known example is Bernanke et al (1999), which shows how credit markets can help **to expand and spread economic shocks**. This makes bank loans an essential element of modern economic cycles. In spite of this, **“credit-less recoveries”** have also been documented, for example, by Calvo, Izquierdo and Talvi (2006) and Claessens, Kose and Terrones (2008). This phenomenon takes place when economic recovery, usually after a financial crisis, occurs in spite of a fall in the credit level (or in the credit-to-GDP ratio). More recently, Biggs et al. (2013) have shown that the reconciliation of these two lines of research lies in **the mistake of comparing the outstanding credit balance with GDP flow (i.e. its variation)**. In particular, **new loans should be matched against the change in domestic demand, as they finance the purchase of recently produced goods and services**.

This distinction between the credit stock and credit flows is relevant in the current state of the Spanish economy since, while economic activity seems to be reaching a turning point, **the level of borrowing by households and corporates is still going through the necessary adjustment process**. It could therefore be argued **whether this process is compatible with an economic recovery or not**. This box describes the characteristics, advantages and limitations of the data series available in Spain for measuring the flow of new credit operations. It also shows forecasts based on the expected behaviour of GDP, on that of the components of aggregate demand, and on the behavior of interest rates, all of which seem to support that **credit flows to the private sector could be approaching a turning point**, registering positive growth rates in the first half of 2014. For the latter to become a reality, two issues are key. First, it is essential to both continue with the roadmap defined for the restructuring of the Spanish financial system and to reach the targets related to the establishment of the single European banking supervisor. These will allow both the gradual reduction of financial fragmentation and the improvement of the financing conditions for corporates and households. Second, it is essential to continue the structural reforms that make economic activity more dynamic and that, consequently, succeed in increasing the volume and quality of new loans.

Why is it important to distinguish credit flows from the credit stock?

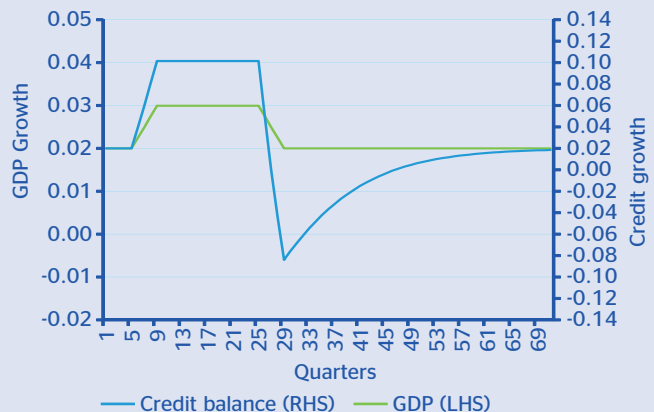
There is enough theoretical evidence not to use the stock of credit to assess the credit restrictions that characterize both the aftermath of a period of strong credit growth and a financial crisis. A very simple manner of illustrating this point is displayed in Charts 33 and 34. These show the theoretical behavior of GDP growth and the stock of credit, relating the latter to the evolution of both the flow of new loans and debt repayments (amortizaciones). The starting point is assumed to be a situation in which both the GDP and the credit stock grow at 2%, and where indebtedness is at 100% of GDP. Further, new loans are assumed to be 10% of GDP for the normal development of economic activity and in each year 10% of debt is supposed to be repaid.

In this setting, a financial shock makes the credit stock grow 10% during a period of several years, after which the economy is brought back to the stationary state. From this moment on, the stock of credit continues falling, even if the economy is at its steady-state growth path, in which GDP grows at 2%. Should this occur, new loans grow again 2% driven by economic activity, but debt repayments exceed by far the flow of new credits, given that they are related to the credit stock.

As a consequence of the different evolution of these variables, GDP and the flow of new loans recover their balanced growth path while the credit stock falls during several years. In sum, **while the credit stock is a proper variable to assess the indebtedness level of economic agents, it is not correct to use it when evaluating economic recovery, which is mainly related to the flow of new loans**.

Chart 33

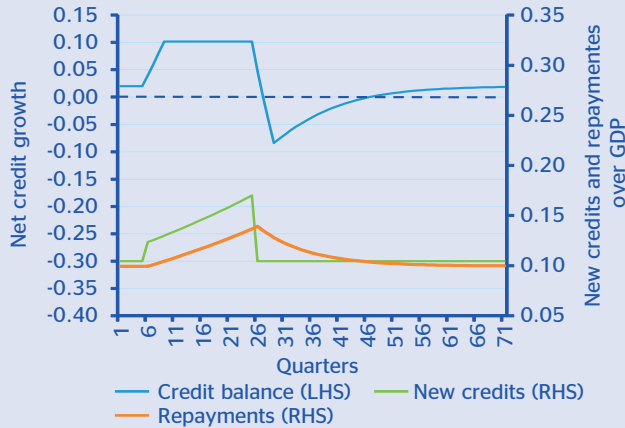
Theoretical simulations of the balance, new transactions and repayments of credit and GDP. Growth of credit balance and GDP



Source: BBVA Research

Chart 34

Theoretical simulations of the balance, new transactions and repayments of credit and GDP. Balance performance, new transactions and repayments of credit



Source: BBVA Research

Empirical evidence on new loans and debt repayments

When assessing the evolution of credit to the private sector in Spain, it is important to make a distinction between the outstanding balance (stock) and new loan transactions (flow). Often, the first one is usually considered because it shows the indebtedness level of the agents broken down by economic sector, enabling international comparisons and the assessment of the vulnerabilities of a country and its institutional agents. In contrast to this, credit flows are more closely related to economic activity of the corresponding period. However, statistical series that are available are generally shorter and more volatile, include extra items such as refinancing operations and are available for fewer countries.

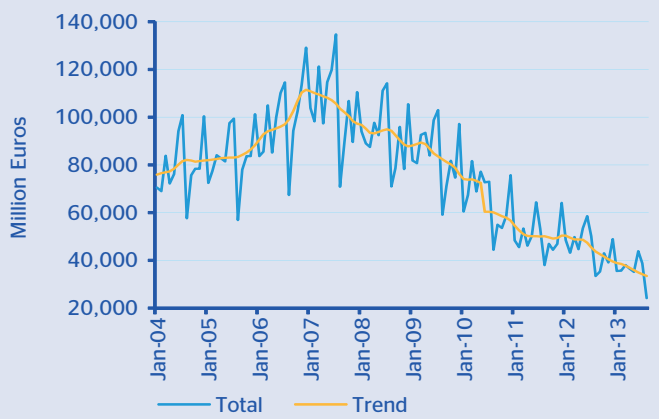
In Spain, statistics on credit flows by type are available on a monthly basis since January 2003 within the 19th Chapter of the Statistical Bulletin released by the Bank of Spain (BoS). However, new loans include both new credits and any change in existing credits that modifies the conditions of existing credit contracts (term, collateral, interest rate, amounts, etc.), including refinancing operations. **Therefore, the statistics for new transactions are not a perfect indicator of new loans, among others because the percentage of refinancing operations is not disclosed.** Since 2008, with the worsening of the financial crisis, credit institutions have carried out an intense risk management process via credit refinancing operations, which have been focused mainly on credits to real-estate developers -on the corporate side- and on mortgage loans on the household side. Through this process, financial institutions have made an effort to refinance loans granted to their customers in order to avoid foreclosures. In general,

refinancing is the right solution to solve debtors temporary liquidity problems, but it is not suitable if it hides or delays the acknowledgment of a solvency problem. In practice, the distinction between liquidity and solvency problems is often not clear, given that it can be influenced by the presence of asymmetric information problems between debtors and creditors. **In the spring of 2013, the BoS published a letter which recommended the review of refinanced portfolios in order to establish a more strict classification by risk levels. The latter implied increasing provisions and higher capital consumption.** As a result, default rates in household mortgage and business (real estate and non-real estate) portfolios have increased, there has been a higher volume of provisions and fewer incentives to refinance loans. **This recommendation will therefore result in flow statistics somewhat more precise than those observed up to now, by penalizing refinancing processes.** It is expected, thus, that future new loans' statistics contain a higher proportion of genuine new credit and a lower proportion of refinancing operations.

Chart 35 displays the evolution of total credit flows from 2003 to July 2013. The main feature that can be noticed is its strong variability, which is mainly due to its seasonal behavior and the presence of calendar effects. The estimation of its trend component shows a growing trend until early 2007, when the monthly average was at around 110 billion euros, and a sustained decline ever since, which seems not to have been reversed yet (see Chart 36). Nowadays, new loans are below €40bn a month. Its year-on-year variation peaked at around 30% in 2007 and is currently at around -25%, albeit new credits could be about to reach a turning point as detailed below.

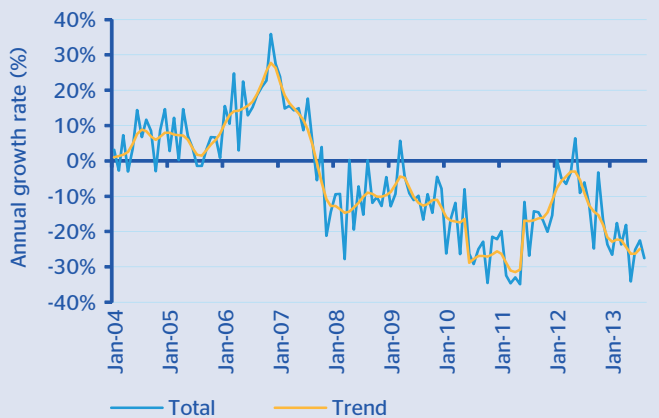
The analysis of new credits by type (housing mortgage loans, consumer loans and loans to households and businesses) reflects the presence of seasonal and calendar variability specific to each category. Within these categories, corporate credits have the highest percentage weight. In particular, the latter represents an 88.5% of the monetary value of new transactions in 2012 (influenced by credit renewals, which can be counted several times a year as a new transaction). Housing accounts for 5.8% and consumer and others for 5.7%. A change in the definition was introduced in the consumer and corporate categories in June 2010 to exclude credit granted via credit cards and credit facilities, respectively. **All credit types show a downward trend from around early 2007 until now, except for the consumer portfolio, which has stabilized since 2012 and is currently growing at positive rates.** The confirmation of this fact is the 16% year-on-year growth in the second quarter of 2013 in the balances of the non-durable consumer loan portfolio.

Chart 35
Total new credit transactions, monthly.
Million euros.



Source: BoS and BBVA Research

Chart 36
Total new credit transactions, monthly. YoY % change



Source: BoS and BBVA Research

Credit flows expectations: prospects of a change in trend

Credit flows depend positively on the levels of both activity and investment, and negatively on both the leverage level and the interest rates applied to the loans. In the current situation, after two periods of recession in Spain (2008-09 and 2012-2013), economic forecasts point to an economic recovery in 2014, with uncertainty about its intensity. Benchmark interest rates will remain at all-time lows in the short and medium term, but credit rates will remain relatively high due to credit risk pressures and the financial fragmentation of the euro zone. The non-financial private sector is undergoing

a necessary deleveraging process, reducing the over-indebtedness accumulated during the expansion phase, especially in sectors such as the real-estate. The financial sector is undergoing a restructuring process that includes adjustment plans for some banks, in order to abide by more demanding regulations and adapting to the future smaller size of the Spanish market, which is already mature.

So far, the attempts to determine the economic relationship between the flows of new credits and both economic activity and interest rates using econometric models have been unsatisfactory, possibly because of the lack of a sufficiently long sample period with which to obtain stable relations (at least two complete cycles). In particular, the current series only include a credit boom (2003-2007) and the low part of a severe financial crisis (2008-2013). However, the models have worked reasonably well when estimating the relationship between economic variables and credit repayments.³³

It must be noted that credit repayments are both the amounts related to the natural or early maturities of existing loans and the existing credits that have modified some of their characteristics being canceled before the corresponding new transactions were registered. In other words, a new credit transaction arising from a renewal of the conditions of an existing loan is a loan that is repaid (disappearing from the stock) and appears as a new transaction (is added to the existing stock). Therefore both series are clearly related. The only exception is the housing portfolio, which due to its longer term does not show these closely correlated movements, being its repayment series, thus, mainly the portfolio's natural maturities.

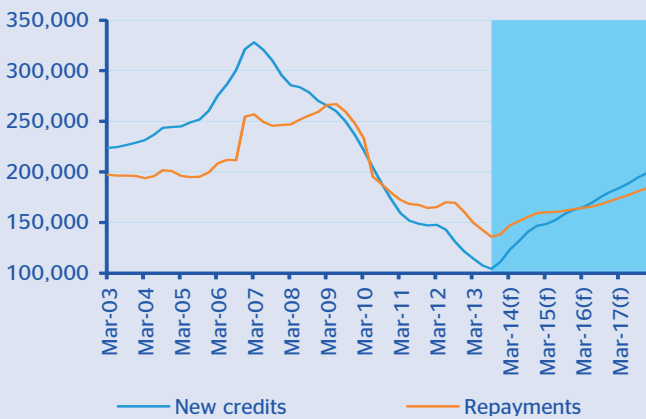
Forecasts for new credits can be obtained indirectly by using both the forecasts for the credit portfolios balances and the corresponding repayments under the macro-financial scenario for the coming years. Chart 37 shows the results found when using the trend estimates for total new credits. This trend is still below the one for repayments, but is expected to start recovering towards the end of 2013. **New credits will remain below repayments until the end of 2015, when credit balances will show positive increases.** For the reasons discussed above, these forecasts are subject to a considerable uncertainty, due not only to the macro environment, but also to statistical constraints and to the limitations of the period that has been considered. They should, therefore, be used with caution.

33: Although they are not published in specific repayment statistics, they can be obtained from the variation in the stock of credit and the flow of new transactions.

The estimates show that it is possible to reconcile the necessary deleveraging of the private sector (decline in stocks) with a positive growth in new credits that contributes to economic recovery and meets the needs of solvent demand (increase in flows), especially in those corporates with strong exports. On the other hand, given the significant differences among the Spanish financial institutions, it is likely that those with healthier balance sheets increase their credit levels a few quarters before the system as a whole.

Chart 37

Forecasts for new transactions and repayments of total credit. Quarterly. Private sector credit. Millions of €. Trend



Source: BBVA Research a partir de BdE

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4. A significant fiscal adjustment that will maintain the deficit at a level close to that of end-2012

Throughout the first half of 2013 a policy of expenditure control and fiscal adjustment continued to be implemented. This approach offset both the negative effect that cyclical deterioration had on the public accounts (particularly tax revenues) and the effect of increased interest payments. As a result, the cumulative deficit for the public sector as a whole, excluding aid to the financial sector (0.3 pp of GDP), was 2.8% of GDP at the close of the second quarter of 2013, 0.2 points below the figure of the first half of 2012 (see Chart 38). Broken down into sub-sectors, both central government and the autonomous regions continued to accumulate a deficit, closing the first half of 2013 with an imbalance of 3.0% and 0.8% of GDP, respectively. Meanwhile, the Social Security system increased its surplus to 0.8% of GDP, thanks to the advances on transfers from central government. Local corporations maintained the surplus recorded in the first half of last year at around 0.2% (see Chart 39).

Chart 38

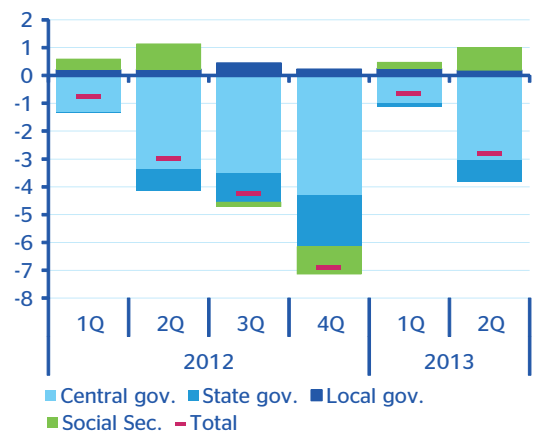
Public sector: net lending (+)/borrowing (-) capacity(*) (accumulated YTD. % GDP)



* Excluding aid to the financial sector.
Source: BBVA Research based on MINHAP

Chart 39

Public sector: net lending (+) / borrowing (-) capacity by sub-sectors(*) (accumulated YTD. % GDP)



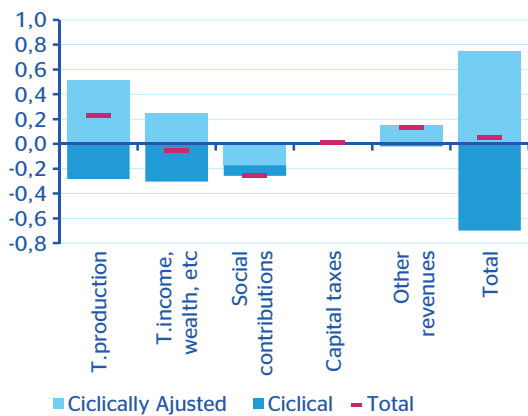
* Excluding aid to the financial sector.
Source: BBVA Research based on MINHAP

Against this background, in the first half of 2013 the deterioration of the economy has absorbed most of the structural improvement in public revenues derived from the discretionary measures that have been implemented since last year. Chart 40 shows how in the first half of 2013 the tax increases approved have boosted structural revenue for government by around 0.7 pp of GDP in year-on-year terms. This growth has been concentrated in taxes on output, where structural revenues have increased by 0.5 percentage points, and taxes on income and assets, which have registered a structural increase of 0.2 pp. However, the deterioration in the economic cycle has reduced revenue by 0.7 points of GDP in the first two quarters of the year, offsetting the structural effort of tax increases. As a result, overall total public revenues amounted to around 37.4% of GDP as aggregate YTD at the close of 2Q13, improving the figure for the first half of last year by more than 0.6 points.

In addition, given the discretionary nature of a significant part of most of the automatic stabilizers, these had a lower effect on public expenditure. In the first two quarters of the year, there was a year-on-year adjustment of the structural component of more than 0.4 percentage

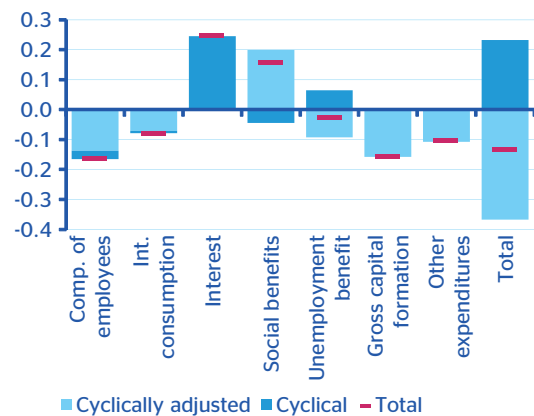
points of GDP, distributed across most of the public expenditure components (see Chart 41), although with a particularly large effect on investment, which accumulated a structural adjustment of 0.2 pp of GDP. This has been sufficient to offset the increased expenditure on public debt service (0.2 pp of GDP) and on social benefits (0.2 pp of GDP), the latter resulting from the rise in pensions approved by the Government for 2013. Thus, total aggregate expenditure YTD for the whole public sector was around 40.9% of GDP, 0.8 pp lower than the cumulative figure through June 2012.

Chart 40
Public sector: adjustment in non-financial revenues in the first half of 2013 (pp of GDP)



Source: BBVA Research based on MINHAP and INE

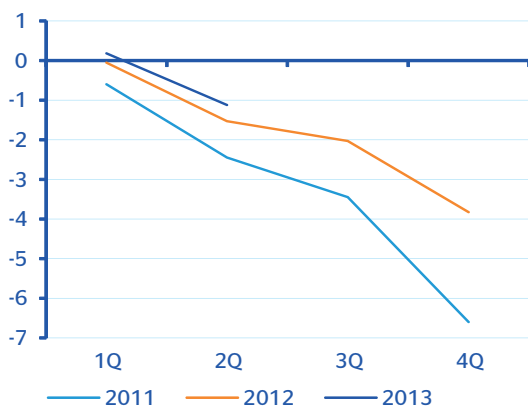
Chart 41
Public sector: adjustment in non-financial expenditure in the first half of 2013* (pp of GDP)



* Excluding aid to the financial sector.
Source: BBVA Research based on MINHAP and INE

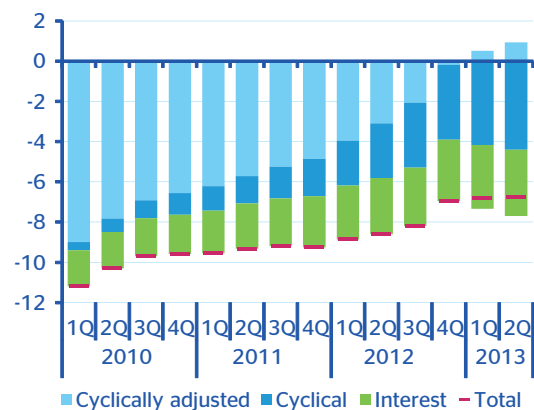
The evolution of both public revenues and public expenditures made, in the first half of the year, the structural primary balance of the public sector fall 1.1 pp of GDP compared with the same period in 2012. Once the negative effect of the automatic stabilizers (-0.7 pp of GDP with respect to the first half of 2012), the primary deficit through June 2013 amounted to 1.1% of GDP (see Chart 42). This figure shows the significant fiscal consolidation effort made since mid-2010. As a result of it, the primary structural deficit has fallen from 9.3% in 2009 reaching a cumulative surplus of nearly 1 pp at the end of June 2013. Thus, it is the greater deterioration of economic activity, together with the increase in the stock and cost of debt, what explain the persistence of the public deficit in Spain (see Chart 43).

Chart 42
Public sector: primary balance* (Aggregate YTD. % GDP)



* Excluidas las ayudas al sector financiero.
Source: BBVA Research a partir de MINHAP e INE

Chart 43
Public sector: decomposition of financing needs* (Cumulative 4Q. % GDP)



* Excluidas las ayudas al sector financiero.
Source: BBVA Research a partir de MINHAP e INE

Regarding the third quarter, the latest figures published point at a cumulative public deficit in the year till August 2013 of 4.8% of GDP. This result is basically due to the worsening of the Social Security accounts –with a deficit of -0.2 pp- and, to a lesser extent, to those of the central government, which reached in August the annual deficit target (-3.8 pp). The autonomous regions closed August with a deficit of 0.8pp. In addition, the central government's budget execution until September has led to a deficit of 3.6%, same as the figure reached until September 2012. This means the public deficit in 3Q13 would be over 4.5% of GDP, 2 pp off the stability target (-6.5%). These figures show that the adjustment continues to be focused on cutting investment and, to a lesser extent, intermediate consumption, and that the impact of discretionary measures that increase the tax burden is going through a process of moderation.

The figures observed in the first eight months of 2013 could, therefore, be insufficient to ensure the compliance with the stability target. Although the fiscal consolidation policies are expected to continue, there is a growing probability that those announced so far can barely offset the negative effects of the economic cycle and the increased cost of public debt. All these factors would leave the end-of-year deficit close to the one observed at the end of 2012. In particular, BBVA Research forecasts that public revenue for 2013 will be around 37.2% of GDP, only one 0.1 point above the figure for 2012. This marginal improvement in public revenues is due to the expectation that the automatic stabilizers will cut nearly a percentage point from tax receipts in 2013, affecting both taxes on production and taxes on income, and absorbing much of their structural improvement. On the expenditure side, the deterioration in the economic and financial environment will lead to an additional shortfall of around 0.3 pp of GDP. The expected cut in expenditure will continue to be focused on intermediate consumption, expenditure on investment and other expenditures such as subsidies or other current transfers (see Table 7).

Table 7

AA.PP: budget balance adjustment. Excluding the financial sector aids

(pp of GDP)	2011	2012	2013 (p)	2014 (f)
Compensations of employees	11.8	11.2	11.2	10.9
Intermediate consumption	6.0	5.7	5.5	5.4
Interest	2.5	3.0	3.5	3.6
Unemployment benefit	2.9	3.1	3.0	2.8
Social protection	12.7	13.2	13.7	13.8
Gross capital formation	3.0	1.7	1.5	1.4
Other expenditures	6.4	6.0	5.7	5.4
Non-financial expenditures	45.2	44.0	44.0	43.4
Taxes on production	10.0	10.4	11.0	11.1
Taxes on income, wealth, etc.	9.7	10.2	10.2	10.4
Social contributions	13.3	13.0	12.7	12.6
Taxes on capital	0.4	0.4	0.4	0.4
Other revenues	2.8	3.1	2.8	3.1
Non-financial revenues	36.2	37.1	37.2	37.6
Net lending / net borrowing	-9.1	-6.8	-6.8	-5.8

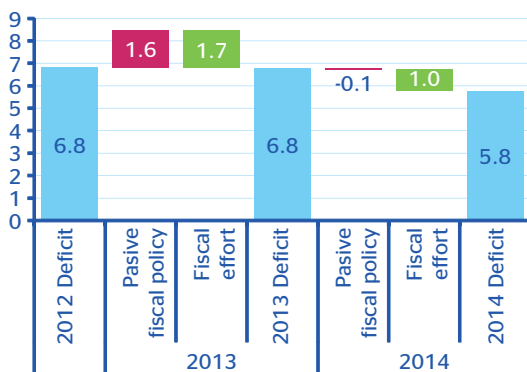
(f): forecast.

Source: BBVA Research based on INE and MINHAP

The expectation that the deficit will be broadly unchanged in 2013, however, does not mean that the size of the expected fiscal effort for the year is not significant. As it can be seen in Chart 44, economic deterioration together with the structural increase in pensions and the increase in debt interest payments will raise the deficit in 2013 by 1.6 percentage points of GDP. The total size of the fiscal adjustment measures required to achieve the 6.5% deficit target would be around two percentage points. However, according to the forecasts of BBVA Research, the consolidation policies would reduce the public deficit by around 1.7 pp of GDP, implying a deficit for 2013 of 6.8% of GDP. For 2014, despite not complying with the stability target for 2013, it is expected that both the economic recovery and the structural improvement of public revenues and public expenditure cut the public deficit to around 5.8% of GDP, a figure that would be consistent with the stability target.

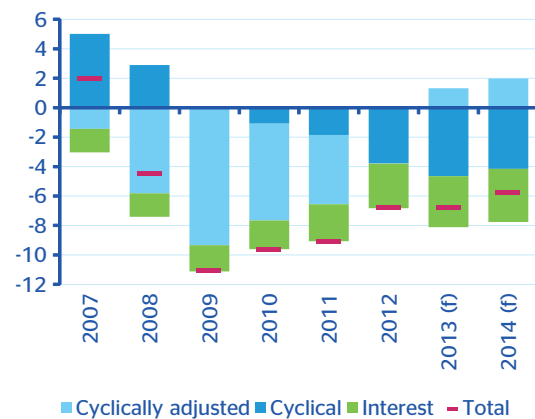
In this context, if BBVA Research forecasts prove right, the public sector in Spain would be already recording a primary structural surplus in 2013, which would increase to 2% of GDP at the end of 2014 (see Chart 45), with a cumulative correction of 6.7 pp since 2011.

Chart 44
Public sector:
expected fiscal adjustment* (% GDP)



* Excluding aid to the financial sector.
Source: BBVA Research based on MINHAP and INE

Chart 45
Public sector: borrowing capacity or requirement* (% GDP)



* Excluding aid to the financial sector.
Source: BBVA Research based on MINHAP and INE

The draft of, the National Budget for 2014 (referred to by its Spanish acronym PGE 2014), which was approved by the Government in September, continues with the consolidation policies undertaken in previous years without introducing any major changes. Thus, the revenue forecasts are judged reasonable given both the combination of a credible macroeconomic scenario that is in line with BBVA Research and the lack of tax increases. Discretionary government expenditure will continue to fall, in order to offset the expected increase in both pensions and unemployment benefits. In any event, the fiscal policy stance contained in the 2014 budget will be considerably less contractionary than in previous years, consistent with the moderate recovery that is expected. Overall, all these factors make feasible the central government's deficit target for 2014, provided that the deviation from the 2013 target is not too significant.

Likewise, the Budget Plan for 2014, submitted recently by the government to Brussels in compliance with the new legislative package on budget supervision (the so-called "Two Pack") continues with these consolidation policies, introducing few new items for the upcoming years. Thus, only Social Security and the local corporations will undertake new fiscal adjustment measures.

The approval of the law regulating the Pensions' Sustainability Factor and the index used for pension increases will imply a review of the mechanisms for calculating and indexing pensions in order to deal with demographic changes and guarantee the sustainability of the pension system (see Box 4). On the revenue side, the 2014 budget has also included an

additional 5% increase in the maximum contributive bases. Overall, the government expects the imbalance in the Social Security system to fall around €1.9 billion (0.2 pp of GDP) in 2014. Given the expected weak recovery of employment and the deviation from the deficit target of 2013, this saving is insufficient to dispel all doubts about the capacity of the Social Security system to achieve its deficit target for 2014 (-1.1% of GDP). With respect to local corporations as a whole, additional savings will come from the reform of local government administrations, once the law is passed by the Parliament. In accordance with the Budget Plan, increased savings by local corporations will come from the elimination of misplaced competences and from the integrated management of basic services. Although these savings will be a step toward the sustainability of the local accounts, the withdrawal of misplaced competences will not imply an overall improvement in the public sector, as the responsibility for their management will be transferred to the autonomous regions.

Finally, the Budget Plan does not introduce new measures for the autonomous regions. Rather, it implies the continuation of the substantial fiscal effort made in 2012 and 2013. As a result, so the probability of compliance with the stability target in 2014 will depend on the size of the deviation in 2013.

To sum up, a significant proportion of the measures approved and/or already in force (i.e. the independent authority for fiscal responsibility, the reform of the public administration and the reform of the tax system) will have long-term effects, so that the risk of not complying with the stability target in the next few years lies either in economic recovery being weaker than expected or in a relaxation of the fiscal consolidation policies.

Box 4. The recent reform of the pension system: a key measure to ensure its sustainability

In 2013, the estimated deficit of the public pension system will reach 1.4% of GDP, approximately 12% of the Social Security revenue. A substantial part of this deficit is structural (i.e. not transitory). This implies that it would not disappear in a neutral cyclical situation growing, thus, over time unless corrective measures are applied. In addition:

1. In 2013 -2020 alone the number of pensioners will increase 8% (approximately 750,000 pensioners). From 2020 on, moreover, the increase will be even higher: the baby boom generation will begin to retire at the start of the next decade, raising the number of pensioners in Spain from 9 million in 2012 to 15 million by 2050.
2. Not only will there be more pensioners, but they will also live longer: life expectancy for individuals aged +65 will increase approximately 16 months every 10 years.

The imbalance of the public pension system required, thus, an urgent and efficient response. In this context, the Government proposed the application of a Sustainability Factor by 2019 and a Pension Revaluation Index in 2014, both of which follow the recommendations of the report drawn up for this purpose by the Expert Committee appointed by the Government last spring.

The Sustainability Factor (SF)

The main objective of the SF is to treat equally those who retire at the same age with the same employment history, albeit in different years. Note that due to differences in life expectancy, these otherwise alike individuals end up benefiting from the pension system during a different number of years. The aim of the SF is to ensure that each person receives a pension that matches his or her initial pension times his or her life expectancy when he or she reached the retirement age, thus guaranteeing a fair treatment among generations.

It must be noted that the SF affects only the calculation of the initial pension, modulating its growth rate (approximately 5% every 10 years for new pensioners) according to the increase in life expectancy with respect to a base year. Therefore, the SF does not imply lower initial pensions: it only influences their growth rate. In fact, a number of factors would cause initial pensions to increase even more than inflation (i.e. economic growth,

greater development of careers, higher contribution bases, etc).

Finally, although the implementation of this reform was postponed until 2019, the fact that it has been approved in 2013 sends a strong signal to the markets and allows future pensioners to anticipate and adopt measures which might offset, at least partially, its effects.

The Pension Revaluation Index (PRI)

The PRI aims to ensure the sustainability of the current distribution system by means of balancing the budget of revenue and expenses, both corrected by the economic cycle³⁴. The PRI takes into account three types of expenses whose growth would have to be lower than the growth in revenues before being able to revalue pensions:

1. The growth in the number of pensions (which will gradually increase as a result of the baby boom)..
2. The “substitution effect”, which prompts growth in the average pension given that the pensions of those individuals entering the system are usually higher than those who leave.
3. The partial correction of the corresponding structural deficit at the time of calculation³⁵.

Charts 46 to 49 show, respectively, the evolution of the system’s revenues growth rates, the number of pensions over time, the evolution of spending as a result of the substitution effect and, finally, the system’s deficit over time. In addition to actual figures, forecasts are also displayed for all these factors, taking into account the estimations published by the Government in the Updated 2013 Stability Program, approved by the European Commission in June.

In 2000 - 2008, the revaluation of pensions appears to have allowed a slight surplus in the system, in light of the pattern of revenue and spending. From the start of the crisis, however, revaluations were higher than needed to keep the system in balance. This prompted the appearance of a structural deficit. In fact, by the end of this year, the deficit will probably reach 16% of total revenues, or, to put it another way: slightly over 900 euros per contributor to the Social Security or, alternatively, 1,600 euros per pensioner. At least a third of this deficit has a structural nature.

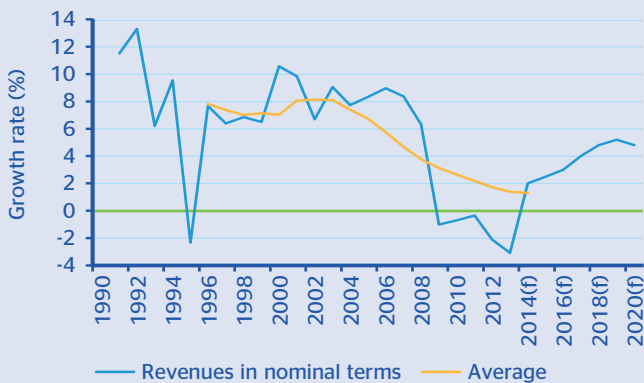
34: This is achieved by calculating the moving average of the variables included in PRI, using values for the last 5 years and forecasts for the next 6 years.

35: The proposal is that for each year approximately a quarter of the system’s structural deficit (in percentage terms) is corrected with respect to total spending in the pension system.

BBVA Research's estimates indicate that by 2014 the average nominal growth in revenues (1.30%) will not be sufficient to offset the expected increase in the number of pensions (-1.30%), the "substitution effect" (-1.60%) and the partial correction of the structural deficit (-4,84%)³⁶. As a result, the application of the PRI formula would

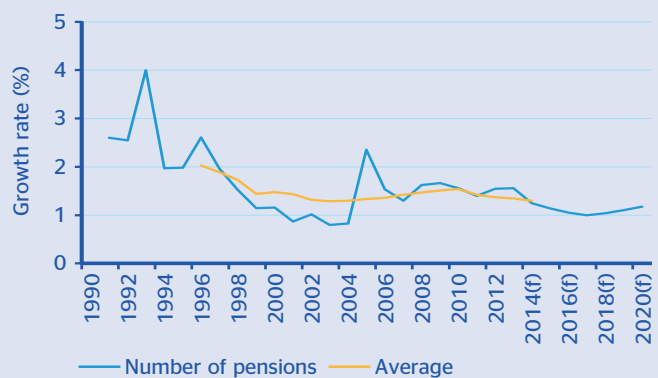
give rise to a negative theoretical revaluation (-2.57%) of pensions. However, given that the approved reform restricts revaluations to a maximum (inflation +0.25%) and a minimum (+0.25%), pensions will grow by 0.25% in 2014, instead of being reduced by 2.57%.

Chart 46
Nominal growth in Social Security contribution income



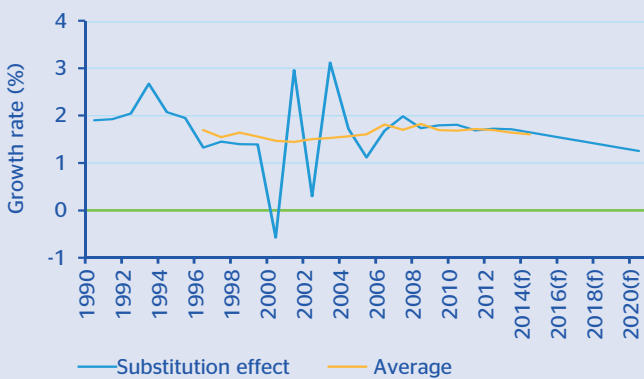
(f): forecast.
Source: Social Security (2013), Stability Program and BBVA Research

Chart 47
Growth in number of contribution pensions (%)



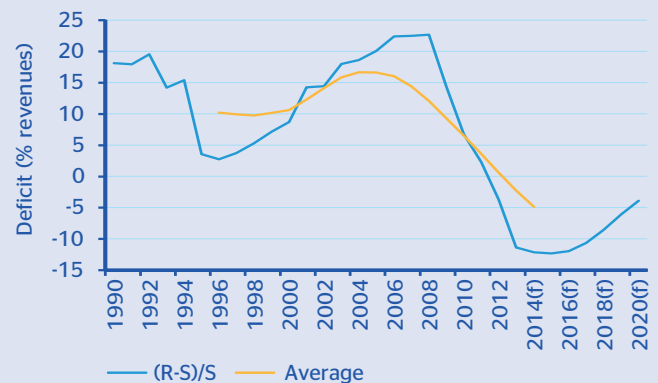
(f): forecast.
Source: Social Security (2013), Stability Program and BBVA Research

Chart 48
Rate of growth in average pension due to substitution effect (%)



(f): forecast.
Source: Social Security (2013), Stability Program and BBVA Research

Chart 49
Surplus (+) or deficit (-) of contribution system (%)



(f): forecast.
Source: Social Security (2013), Stability Program and BBVA Research

36: As indicated above, all these estimates refer to centered moving averages of 11 years. With averages of 15 years or eliminating the cycle with the Hodrick-Prescott filter (with a smoothing parameter equal to 400), a somewhat smoother evolution of trend components and a theoretical revaluation of -0.73% are obtained, so that, in any event, the +0.25% floor would be applicable.

Advantages of PRI

The PRI guarantees the mandate of both the article 135 of the Spanish Constitution and the **Budget Stability and Financial Sustainability Act**, which forbids structural deficits in the Social Security system. It also allows the average pension to be **slightly adjusted** to the upward or downward changes in the rest of variables that make up the formula, preventing, thus, pensions from unnecessarily reductions in recession periods by correcting for the economic cycle. Furthermore, it redistributes **amongst present and future pensioners** both the additional resources and the lower expenses that result from **other changes in parameters**. Finally, it sets an environment of **transparency and knowledge** towards the society, which permits a preemptive response to demographic and economic challenges that might arise.

Effects of the PRI on the substitution or replacement rate (average pension over average wage)

Given that Social Security revenues represent a relatively stable percentage of wage income, it is likely that the number of pensioners increases more rapidly than the number of contributors in the following years, thereby prompting a **fall in the ratio of the average pension to the average salary**. In other words, given that the number of pensions is expected to rise from 9 to 15 million in 2050, 27 million **Social Security contributors would be needed to keep the the current dependence ratio (and, with it, the replacement rate) constant**. Currently, however, Spain has slightly over 16 million **Social Security contributors**, so the latter appears to be unlikely in light of population forecasts for the coming years. Given this imminent fall in the ratio of the average pension to the average salary, the Spanish society could **choose among combinations of the following alternatives**:

1. Accept the reduction in the ratio of the average pension/ to the average salary and compensate it with **extra resources from private saving**.
2. **Increase** resources used for public pensions: more taxes or less spending in other public spending items.
3. Undertake structural reforms that **reduce the unemployment rate and increase the working population and its wages** (i.e more productive human and technological capital).

Conclusions

The public pension system is a cornerstone of the welfare state. Thus, its sustainability needs to be guaranteed. The Government's proposal not only establishes budgetary balance and fairness among generations, but also **provides greater transparency and very relevant information regarding the situation of the system**. In the **mid and long term**, under the most likely scenarios, pensions will be **adequate and sufficient**:

1. The purchasing power of pensions will not fall if the adequate reforms are undertaken and
2. the average pension will increase in real terms, although
3. the replacement rate will fall.

In the **short term**, the purchasing power of pensions will depend on the **intensity of economic recovery and its effects on structural revenues**: the higher the potential economic growth, the greater the revaluation. In order to cope with the **challenges posed by the sustainability factor in a transparent way**, the Spanish society can **choose among combinations of the following alternatives**:

1. The acceptance of the reduction in the average pension-to-average salary ratio, which can be compensated with **more resources from private saving**.
2. **The increase in resources** used for public pensions: more taxes or less spending in other public spending items.
3. The implementation of structural **reforms that reduce the unemployment rate, and increase the working population and their wages** (higher productive, human and technological capital).

Therefore, all the possible solutions fit within the Government's proposal, except for one: the financing of current pensions through **structural deficits**. **This violates both the Spanish Constitution and the Budget Stability and Financial Sustainability Act**.

5. The regional economy: more of foreign demand and less of fiscal consolidation

The **latest economic data have confirmed the regional** growth forecasts made in the previous quarter, **thanks to an improvement in the foreign sector, both in goods and services (tourism), although with some heterogeneity across regions.** Regions such as Castile-La Mancha, Valencia and Galicia, for example, have maintained a strong growth in exports of goods in real terms. Others such as Catalonia and La Rioja have grown in the third quarter after a relatively negative performance in the first half of the year. Finally, exports in Castile-Leon and Extremadura have fallen, possibly affected by the high weight of their exports to France and Portugal.

The performance in the touristic sector also varied by region. In general, beach destinations have benefitted from reduced competition from the Middle East, Turkey and the Arab countries, which has once more increased foreign visitors to the Balearic Islands and Catalonia and, to a lesser extent, Andalusia and the autonomous region of Valencia. In addition, after various years of decays, domestic tourism has improved slightly this summer, particularly in those geographical areas that have registered the biggest improvements in their price competitiveness. Murcia, the autonomous region of Valencia and to a lesser extent Andalusia have benefited from this, to the detriment of the number of visitors to Catalonia and, especially, to the Canary and Balearic Islands, both of which also suffer from the extra traveling costs that arise from their location. Besides, these two autonomous regions are different from the mainland in terms of hotel prices (which increased in 2013), and this could have kept demand down in the case of the Canaries.

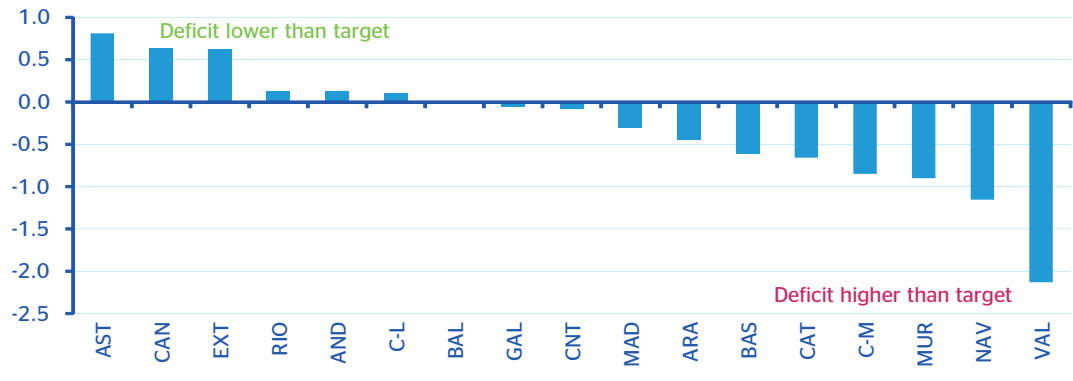
As far as fiscal consolidation is concerned, the implementation of asymmetric deficit targets this year has allowed a lower fiscal effort in regions that were in a worse position. As the level of fiscal effort to be made by the regional governments converges, growth dispersion is likely to be reduced³⁷. However, although the required effort in 2013 is considerably lower than in 2012, **progress is not being made in all the regions at the rate needed to comply with targets.** In this respect, Chart 50 shows the position of each autonomous region with respect to its 2013's deficit target if the effort made during the second half of this year were the same as the effort made in the same period last year. It should be noted that a large number of one-off measures that were introduced last year are not adopted now, the most notable being the withdrawal of December's extra-payment to public-sector workers. Thus, the result obtained illustrates in principle, and in the absence of any unexpected measures, the floor that the regional deficit could reach this year.

Only La Rioja, Andalusia, Asturias, the Canary Islands, Cantabria and Extremadura would be in a better position at the end of the second quarter, implying a smaller fiscal effort than in the second half of 2012. In contrast, some autonomous regions now have a clearly lower margin than they had a year ago. Because of this, regions such as Catalonia and Andalusia have already announced new adjustment measures, such as the elimination of the second extra-payment for public-sector workers. This situation, however, is not common to other autonomous regions, so the application of more measures enabling the fulfillment of the year-end deficit target can be expected.

37: See Section 5 of Spain Economic Outlook for the third quarter of 2013.

Chart 50

Deviation from the deficit target assuming the same behavior in the second half of 2013 as in the second half of 2012 (pp of regional GDP).



Source: BBVA Research based on Ministry of Finance

The combination of these two factors (the improved economic situation and the better fiscal stance) is reflected in Table 8, which shows the qualitative impact of each of the factors on the forecasts. In any event, the extra fiscal effort that has to be made to reach the target will have hardly any impact on economic activity in 2013 (see column 4 of Table 8), although it will affect that of 2014. In this situation, autonomous regions such as Catalonia, the region of Valencia, Murcia and the Balearic Islands will be affected by the negative contribution of their public sector to economic activity, while in others such as Madrid this effect is likely to be neutral in the short term.

Table 8

Effect of fiscal and short-term data on GDP growth forecasts, 2013 and 2014

	2013				2014			
	Forecast made in August	Model bias	Fiscal bias	October forecast	Forecast made in August	Model bias	Fiscal bias	October forecast
Andalusia	-1.7			-1.6	0.6			0.6
Aragon	-1.4			-1.4	1.0			1.0
Asturias	-1.7			-1.6	1.1			1.0
Balearic Islands	-0.2			0.0	1.3			1.3
Canary Islands	-0.6			-0.7	1.0			1.0
Cantabria	-1.7			-1.7	0.7			0.4
Castile-Leon	-1.5			-1.5	1.4			1.3
Castile-La Mancha	-1.7			-1.7	1.0			1.0
Catalonia	-1.3			-1.3	0.6			0.6
Extremadura	-1.0			-0.8	1.0			0.9
Galicia	-1.1			-1.3	1.4			1.3
Madrid	-1.2			-1.1	1.5			1.5
Murcia	-1.5			-1.5	0.3			0.3
Navarre	-1.5			-1.5	1.0			1.0
Basque Country	-1.2			-1.2	1.0			1.0
La Rioja	-1.5			-1.3	1.0			1.2
Valencia	-1.8			-1.8	0.2			0.2
Spain	-1.4	0.1		-1.3	0.9			0.9

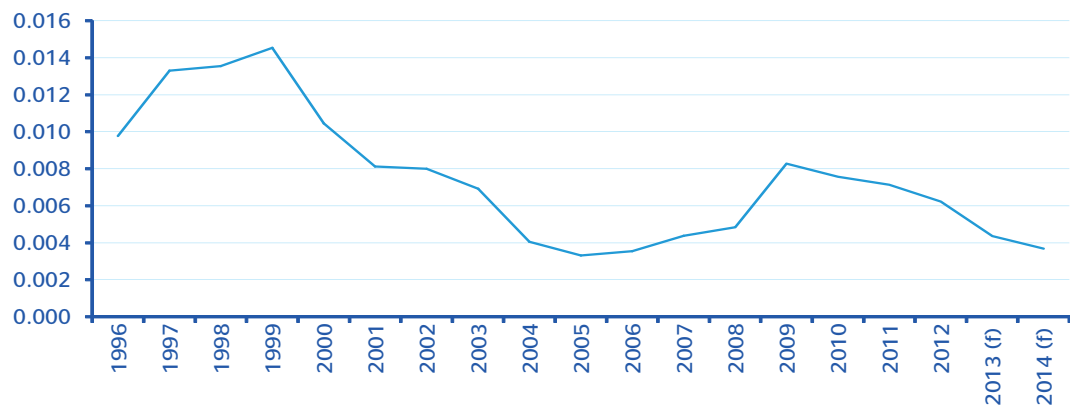
Green: positive bias; Red: negative bias.

Date: 4th November 2013.

Source: BBVA Research

Finally, following various years of imbalances correction after both the boom and the crisis, some regions may be close to a turnaround point. As shown in Chart 51, since 2009 volatility in the growth of the autonomous regions has decreased. This implies that heterogeneity has been reduced, being their performance more uniform. Looking ahead, however, the incipient observed recovery may be affected by greater disparity, because of both the size of the accumulated imbalances during the expansion and the crisis, and the speed at which they can be corrected in each region.

Chart 51
Standard deviation of growth by autonomous region



(f): forecast.
Source: BBVA Research a partir de INE

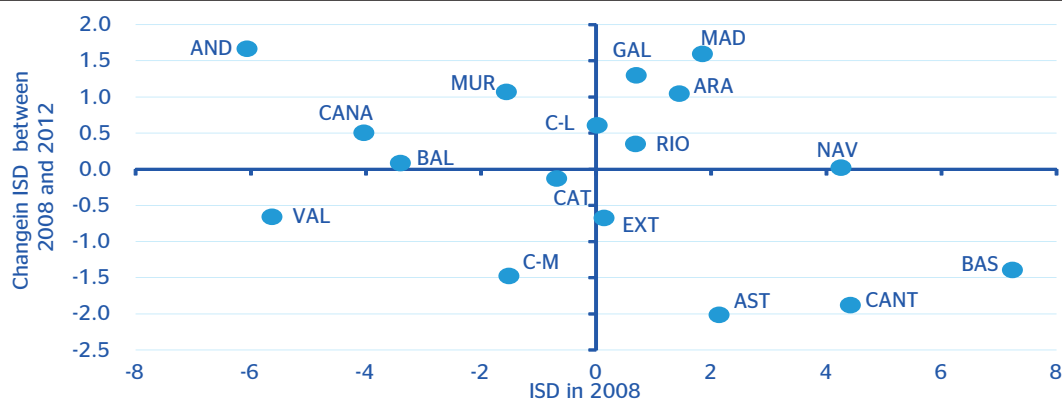
The progress made in absorbing these and other imbalances is key for ensuring economic stabilization and the subsequent recovery. Chart 52 shows the accumulated imbalances per autonomous region as of 2008 according to BBVA's Synthetic Index of Imbalances, and how these have varied during the crisis. As it can be seen, most regions have corrected their imbalances,³⁸ most notably Madrid (which started from a good position) and Andalusia (which started from a worse position, and still belongs to the group of regions with the greatest imbalances). At the other extreme, there are two groups of regions. First, those that started with a lower level of imbalances and that, thus, did not have to correct them quickly, such as the Basque Country, Cantabria and Asturias. In this case, lack of progress could be considered a minor problem, as their current position denotes already that they have less severe imbalances than the average. The second group, however, consists of those regions where imbalances were more significant than the average by 2008, worsening between 2008 and 2012.

These imbalances represent a constraint for future growth. For example, a higher excess supply of new houses limits the recovery of residential construction. Likewise, a greater imbalance in the public budget implies a negative differential contribution from the public sector for a longer period. Thus, to the extent that the size of these imbalances is relevant and is not reduced, the capacity for recovery in the medium and long term may be reduced.

38: See BBVA Research, Spain Economic Outlook, Second Quarter of 2012, available here: http://www.bbva.com/mult/1205_Situacionspana_tcm346-326621.pdf?ts=31102013

Chart 52

Synthetic Indicator of Imbalances (SII) of the autonomous regions



Source: BBVA Research

Table 9

GDP growth estimates by region (%)

	2013	2014
Andalusia	-1,6	0,6
Aragon	-1,4	1,0
Asturias	-1,6	1,0
Balearic Islands	0,0	1,3
Canary Islands	-0,7	1,0
Cantabria	-1,7	0,4
Castile-Leon	-1,5	1,3
Castile-La Mancha	-1,7	1,0
Catalonia	-1,3	0,6
Extremadura	-0,8	0,9
Galicia	-1,3	1,3
Madrid	-1,1	1,5
Murcia	-1,5	0,3
Navarre	-1,5	1,0
Basque Country	-1,2	1,0
La Rioja	-1,3	1,2
Valencia	-1,8	0,2
Spain	-1,3	0,9

Date: 4th November 2013.

Source: BBVA Research

6. Tables

Table 10

Macroeconomic Forecasts: Gross Domestic Product

(YoY growth rate, %)	2010	2011	2012	2013	2014
United States	2.5	1.8	2.8	1.6	2.3
Eurozone	1.9	1.6	-0.6	-0.4	1.1
Germany	3.9	3.4	0.9	0.6	1.8
France	1.6	2.0	0.0	0.2	1.2
Italy	1.7	0.6	-2.6	-1.9	0.7
Spain	-0.3	0.4	-1.6	-1.3	0.9
UK	1.7	1.1	0.1	1.4	2.3
Latin America *	6.0	4.0	2.5	2.4	3.1
Mexico	5.1	4.0	3.6	1.2	3.1
Brazil	7.5	2.7	0.9	2.6	2.8
EAGLES **	8.4	6.6	5.0	4.8	5.2
Turkey	9.2	8.5	2.2	3.7	3.6
Asia Pacific	8.2	6.0	5.3	5.2	5.3
Japan	4.7	-0.6	2.0	1.9	1.5
China	10.4	9.3	7.7	7.7	7.6
Asia (exc. China)	6.8	3.6	3.7	3.4	3.6
World	5.1	4.0	3.3	2.9	3.6

* Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela

** Brazil, Korea, China, India, Indonesia, Mexico, Russia, Taiwan, Turkey

Forecast closing date: November 4, 2013

Source: BBVA Research

Table 11

Macroeconomic forecasts: 10Y interest rates (average)

	2010	2011	2012	2013	2014
US	3.2	2.8	1.8	2.3	3.2
EMU	2.8	2.6	1.6	1.6	2.1

Forecast closing date: November 4, 2013

Source: BBVA Research

Table 12

Macroeconomic forecasts: exchange rates (average)

US dollars (\$) per national currency	2010	2011	2012	2013	2014
US (EUR/USD)	0.76	0.72	0.78	0.75	0.77
EMU	1.33	1.39	1.29	1.33	1.31
UK	0.65	0.62	0.63	0.64	0.64
Japan	87.8	79.7	79.8	97.3	109.9
China	6.77	6.46	6.31	6.19	6.02

Forecast closing date: November 4, 2013

Source: BBVA Research

Table 13

Macroeconomic forecasts: official interest rates (end of period)

	2010	2011	2012	2013	2014
US	0.25	0.25	0.25	0.25	0.25
EMU	1.00	1.00	0.75	0.50	0.50
China	5.81	6.56	5.75	6.00	6.00

Forecast closing date: November 4, 2013

Source: BBVA Research

Table 14

EMU: macroeconomic forecasts (yoy change, %, unless otherwise indicated)

	2010	2011	2012	2013	2014
Real GDP	1.9	1.6	-0.6	-0.4	1.1
Household consumption:	1.0	0.3	-1.4	-0.5	0.7
Public consumption	0.6	-0.1	-0.5	0.2	0.4
Gross fixed capital formation	-0.6	1.7	-3.8	-3.6	2.2
Equipment, machinery and cultivated assets	5.6	4.7	-4.2	-3.8	3.4
Equipment and machinery	5.7	4.7	-4.2	-3.8	3.4
Construction	-4.5	-0.3	-4.1	-4.3	0.6
Housing	-3.0	-0.3	-3.4	-3.0	2.0
Other buildings and other constructions	-6.1	-0.2	-4.9	-5.7	-0.9
Change in inventories (contribution to growth)	0.6	0.2	-0.5	0.0	0.0
Domestic demand (contribution to growth)	1.2	0.7	-2.2	-1.0	0.8
Exports	11.4	6.7	2.7	1.7	3.9
Imports	9.8	4.6	-0.8	0.4	3.7
Net exports (contribution to growth)	0.7	0.9	1.5	0.6	0.3
Pro-memoria					
GDP w/out housing investment	2.2	1.7	-0.5	-0.2	1.0
GDP w/out construction	2.7	1.8	-0.2	0.1	1.1
Employment (LFS)	-0.5	0.3	-0.7	-0.9	0.1
Unemployment rate (% active pop.)	10.1	10.2	11.4	12.0	12.0
Current account balance (% GDP)	0.0	0.1	1.2	2.1	2.1
Public sector balance (% GDP)	-6.2	-4.1	-3.7	-2.8	-2.4
CPI annual average	1.6	2.7	2.5	1.5	1.4

Forecast closing date: November 4, 2013

Source: organismos oficiales y BBVA Research

Table 15

Spain: macroeconomic forecasts (yoy change, %, unless otherwise indicated)

	2010	2011	2012	2013	2014
Activity					
Real GDP	-0.2	0.1	-1.6	-1.3	0.9
Private consumption	0.2	-1.2	-2.8	-2.6	0.1
Public consumption	1.5	-0.5	-4.8	-1.7	-1.6
Gross fixed capital formation	-4.2	-5.6	-6.9	-6.3	0.6
Capital goods	5.0	5.5	-3.9	1.1	6.5
Construction	-9.9	-10.8	-9.7	-11.0	-3.2
Housing	-11.4	-12.5	-8.7	-9.0	-0.7
Domestic demand (contribution to growth)	-0.6	-2.1	-4.1	-3.1	-0.1
Exports	11.7	7.6	2.1	4.6	6.3
Imports	9.3	-0.1	-5.7	-1.0	3.4
Net exports (contribution to growth)	0.4	2.1	2.5	1.8	1.1
GDP at current prices	-0.1	0.1	-1.7	-0.4	1.8
(Billion euros)	1045.6	1046.3	1029.0	1024.5	1043.4
GDP w/out housing investment	0.8	1.0	-1.2	-0.9	1.0
GDP w/out construction	1.8	2.0	-0.4	0.0	1.4
Labour market					
Employment (LFS)	-2.3	-1.9	-4.5	-3.1	0.0
Unemployment rate (% active pop.)	20.1	21.6	25.0	26.3	25.6
Employment QSNA (equivalent to full-time)	-2.3	-2.2	-4.8	-3.3	-0.1
Productivity	2.1	2.3	3.1	2.1	1.0
Prices and costs					
CPI (annual average)	1.8	3.2	2.4	1.5	1.1
GDP deflator	0.1	0.0	0.0	0.8	0.9
Household consumption deflator	1.9	2.5	2.5	1.4	1.2
Compensation per employee	0.4	1.3	0.2	0.3	0.0
Unit labour cost (ULC)	-1.7	-0.9	-2.9	-1.8	-1.0
Foreign trade					
Current account balance (% GDP)	-4.5	-3.8	-1.1	1.2	1.8
General government					
Debt (% GDP)	61.7	70.4	85.9	94.4	98.5
Budget balance (% of GDP)	-9.6	-9.1	-6.8	-6.8	-5.8
Households					
Nominal disposable income	-2.5	0.0	-2.8	-1.1	-1.0
Savings rate (% of nominal income)	13.9	12.7	10.5	10.8	8.7

(*): Excluding financial aid to Spanish banks.

Forecast closing date: November 4, 2013

Source: organismos oficiales y BBVA Research

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