

Spain Economic Outlook

First Quarter 2014
Economic Analysis

- **The Spanish economy is growing and, for the first time since the onset of the crisis, the risks are to the upside.**
- **Exports will continue to lead growth** supported by progress in developed economies and geographical diversification.
- **New credit is growing, particularly for companies,** which will help to consolidate the recovery.
- **The ECB should be more forceful about ensuring its inflation target is met,** which will facilitate gains in competitiveness and deleveraging in Spain.
- **The tax reform needs to promote greater transparency, neutrality and efficiency,** to help job-creation and the sustainability of public-sector accounts.

Index

1. Editorial.....	3
2. Global scenario: more growth in sight and with more balanced risks	5
3. Growth outlook for the Spanish economy: a long-awaited recovery	10
Box 1. The moderation of Spanish inflation over the last five years.....	24
4. Although fiscal consolidation continues, the pace is too slow	31
Box 2. Expansion, crisis and consolidation of Spain's public accounts	36
5. The regions: on the road to a recovery in domestic demand.....	41
Box 3. Export diversification as an explanatory factor for regional growth	47
6. Tables.....	53

Closing date: February 7, 2014

1. Editorial

For the first time since the beginning of the crisis we see upside risk to our forecasts for economic growth in Spain. In particular, although our expectations for GDP growth in 2014 are unchanged at an average of around 1%, the most recent indicators point to an accelerating recovery. If this is confirmed over the course of the first quarter, it could lead to a sharper upturn in activity over the year as a whole, and a significant upwards revision of our spring forecast exercise. In any case, the probability has increased that growth will reach around 2% in 2015, hand in hand with sustained job-creation.

There are various factors driving this more favourable situation. First, activity is gaining traction at a global level, principally as a consequence of the recovery in the developed economies, even in Europe. This has confirmed the scenario that we forecast in November, of global growth accelerating from around 3.0% in 2013 to around 4.0% in 2014 and 2015. This scenario could be especially favourable for Spanish exports, given the improvements in competitiveness and the market diversification by Spanish exporters (see Box 3), which are enabling them to take advantage of more dynamic international demand. Although the recent deceleration of goods exports implies a risk to monitor, the slower growth appears to be a consequence of demand factors, which in the context of the global scenario described above, should be only temporary.

Second, the less uncertain environment has resulted in a considerable reduction in the toll taken on growth by internal demand. On the one hand, the boost from exports, the increase in productivity and the internal devaluation process has allowed companies to build up cash and invest in machinery and equipment. On the other hand, in the second half of last year, private consumption rose as a consequence of the improved fundamentals (note that job-creation is better than we expected). Meanwhile, the value of household and corporate collateral is starting to bottom-out (real estate wealth) or has increased substantially (financial wealth). Finally, the improvement in the capital markets continues to consolidate, and the uncertainty regarding economic policy has diminished considerably, which has resulted in a more favourable environment for household spending.

This increase in domestic demand has been reflected in an increase in imports, which we expect to be transitory. The rise in purchases outside Spain has been affected by the growth in exports and by temporary tax breaks such as the car-scrapping incentive scheme (PIVE). The impact of the latter will tend to disappear over time, but we expect the improvements in competitiveness at domestic manufacturers, together with the increased price-sensitivity of consumers, to maintain the import substitution process in future.

Third, there has been a turning point in new credit flows. As we noted in this publication three months ago, the key element in the financing preceding the economic recovery is the acceleration in new lending rather than the variation in outstanding balances (these are affected by the necessary deleveraging, which implies a high level of debt repayment). These flows indicate growth in consumer credit and new loans to corporates, both fundamental factors in the consolidation of economic recovery.

However, there are still some risk factors that could slow the recovery. In Europe, maintaining the progress towards banking union is crucial, as are dispelling the current uncertainty regarding the quality of the financial sector's assets and emphasising the positive effect of increased transparency and supervision on the credibility of the financial system as a whole. It is also important that the ECB is consistent with its inflation target for the eurozone and applies symmetrical measures now that the forecasts for inflation are below target, at least in 2014 and 2015. Low inflation in the eurozone makes Spain's efforts to deleverage and improve competitiveness more difficult (see Box 1). Also, the redistribution of resources between sectors would be easier with a slightly weaker exchange rate than at present.

At the domestic level, it will be important to assess to what extent the recovery is due to a possible deviation from the public deficit target, given the inevitable fiscal consolidation that lies ahead. The available data suggest that the public deficit has exceeded the promised percentage of GDP by around half a point, in the absence of any significant discretionary measures in December. If the acceleration in growth has happened in spite of having met the fiscal target, with higher-quality results in terms of either revenues or expenditure, the reading for the future of the Spanish economy would be very positive. However, if part of the budgetary adjustment has simply been pushed forward into 2014, the impact of this fiscal consolidation is yet to come. Even more importantly, if that is the case, the Government should announce the necessary measures to tackle the situation as soon as possible, to improve their credibility as regards reducing the imbalances in the public accounts.

In this environment of fewer systemic risks and expectations of recovery, it is crucial that the government continues to introduce reforms. In the past few years, a huge effort has been made to improve the sustainability of Spain's public accounts, to promote the restructuring of the financial sector and to improve the competitiveness of Spanish corporates. The recovery observed, partly due to these economic policy decisions, should be an incentive to drive a new round of measures that consolidate - and even improve - growth. In particular, the government will shortly tackle the reform of the tax system, where the objectives should be to incentivise job-creation, encourage national savings, attract foreign investment and increase potential economic growth. In addition, the reform should give rise to a transparent, neutral, efficient system that ensures the necessary level of revenues to maintain the welfare state (see Box 2). A proper tax reform that could help boost employment (for example, by reducing social security contributions), should be accompanied by new measures in the goods and labour markets that promote not only employment but also higher labour productivity and stability. These measures should increase the efficiency of active employment policies and incentivise open-ended contracts. The former would make available to all the unemployed many of the good initiatives included in the National Youth Guarantee Scheme; the latter would help companies and workers bound by collective bargaining agreements that imply higher salaries than justified by the productivity of the potential job in question to create jobs. The government should never lose sight of the fact that increasing competition will mean that these measures feed through into lower prices that increase both competitiveness at the corporate level and household purchasing power. Furthermore, the focus of all these measures should guarantee a propitious environment for the birth of new companies, and their rate of growth. Altogether, there is a pressing need to carry out all the reforms necessary to reduce the unemployment rate in as short a time as possible and change the growth model of the Spanish economy.

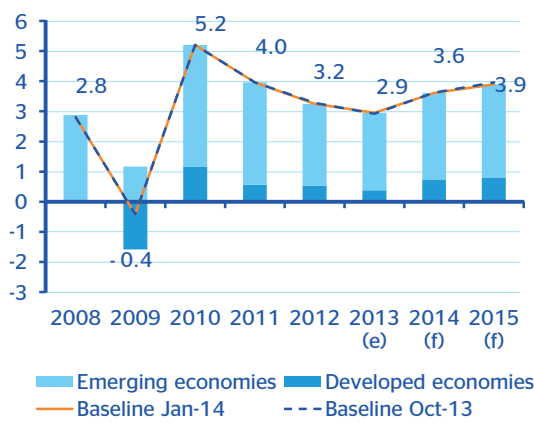
2. Global scenario: more growth in sight and with more balanced risks

The global economic cycle is improving and we now have clarity on some economic policy uncertainties

The global economic cycle strengthened during the latter months of 2013. According to our estimates, during the second half of 2013, global GDP accelerated to 1% QoQ, leaving behind the moderation with its roots in 2012 and its low at the beginning of 2013, when growth was barely 0.5%. This improvement was driven by the acceleration of the developed economies - particularly the US, but also the eurozone, which started to see moderate growth after the recession ended in mid-2013. In the EMs, the situation is more diverse, but some of them, such as China are posting relatively stable rates of growth.

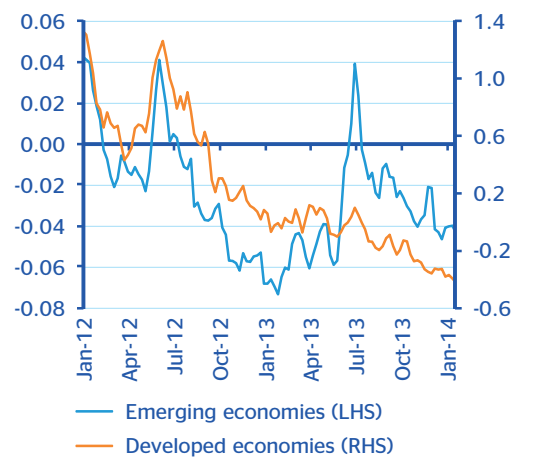
Our improved valuation of the global scenario is also the result of economic policy news flow, which has helped to reduce uncertainty. First, the US reached a more far-reaching agreement on fiscal policy than we expected. Furthermore, the improvement in activity allowed the Fed to start tapering its expansive monetary policy at the beginning of 2014. In Europe, further steps have been taken towards the construction of banking union, which together with the ECB's determination to keep risks under control, should eliminate the hobble represented by financial fragmentation. The global outlook would be clearer if it were not for the effect that the tapering is having on financial markets in the EMs, and which could eventually affect economic growth in some of the countries included in this category.

Chart 2.1
Contributions to Global economic growth (%)



Source: BBVA Research and IMF

Chart 2.2
BBVA Research Financial Tensions Index



Source: BBVA Research

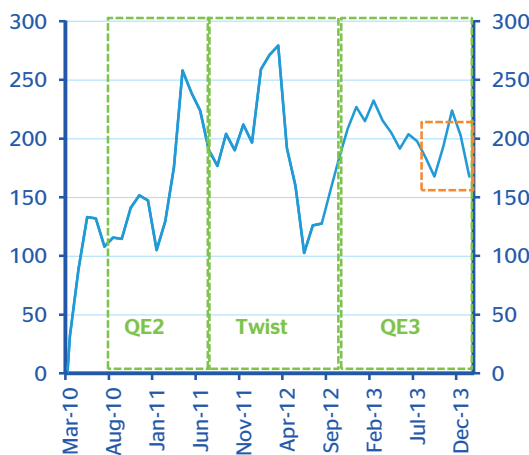
Altogether, our assessment of the global scenario is better than it was three months ago, and this is reflected in the adjustments to our forecasts. Our projections now indicate that global GDP growth, which in 2013 had decelerated to 2.9%, will increase to 3.6% and 3.9% in 2014 and 2015, respectively (Chart 2.1), practically the same as our forecasts three months ago, due to the offset between our growth expectations in the different areas: to the upside in the US, to the downside in some emerging economies and with no significant change in our forecasts for the eurozone as a whole in 2014. **In spite of the expected acceleration in growth, we still see some downside risks to our forecasts.** Although these risks are a long way from having the systemic nature that they had in the past, some recent events such as the fall in asset prices and currency depreciation in EMs have made themselves felt.

The US has reached sufficient cruising speed to start unwinding monetary stimulus

US GDP growth has been accelerating through 2013, and by year-end had already reached cruising speed, which allowed the Federal Reserve to take the first steps towards withdrawing monetary stimulus. In fact, growth in the third quarter accelerated to 1% QoQ, and the preliminary estimation pointed out that growth in the fourth quarter remained robust, although slightly below the third quarter.

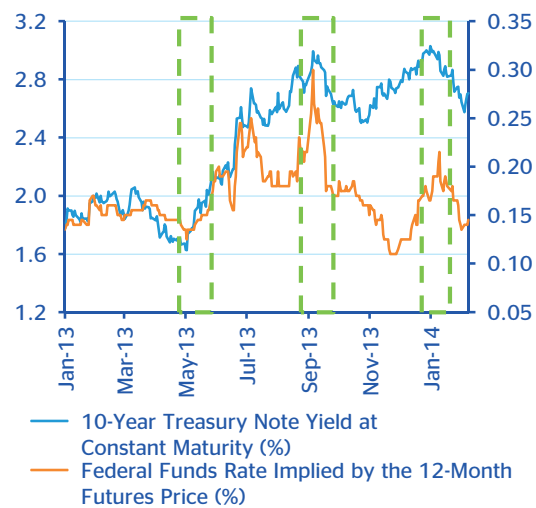
There is more certainty regarding the tone of fiscal policy, which for 2014 implies less of a drain on economic growth. The lack of agreement between the parties on the fiscal consolidation process in the US led to a partial and temporary interruption of the federal government's activity, which actually had little impact on GDP. Subsequently, in December, an agreement was reached that represented an important step forward in eliminating the uncertainty regarding the funding of the government's activity in 2014-15, as well as reducing the fiscal adjustment initially forecast for that period. The direct effect of this reduction in the intensity of the fiscal consolidation alone raises our forecast growth for 2014 by a couple of tenths. Then there are also the potential effects, via confidence, that this reduced uncertainty could have on household consumption and corporate decisions regarding investment and hiring. Nonetheless, there are still issues outstanding that affect the long-term sustainability of the public accounts, such as healthcare spending and pensions.

Chart 2.3
US: Private-sector non-farm payroll (MoM '000, 3-month moving average)



Source: BBVA Research and Bureau of Labour Statistics

Chart 2.4
US: Fed fund futures vs. long-term interest rates (%)



Source: Bloomberg

The outlook for monetary policy has also clarified recently, in line with our expectations. The Fed had linked the end of its monetary stimulus programme to economic growth. As noted above, activity has tended to accelerate, a rather contained acceleration in the case of the labour market, but nonetheless notable given the lack of additional stimulus (see Chart 2.3). Meanwhile, the unemployment rate fell to 6.7%, although this was partly a reflection of the fall in the active population. The above were in the context of an outlook for inflation well-anchored within the range determined by the Fed itself¹. As a consequence, the Fed decided to start to taper its monthly purchases of financial securities, public debt and mortgage-backed securities. All in all, in the fourth quarter of 2014, the central bank will have stopped expanding its balance sheet. Our base scenario also assumes that the first increase in interest rates will take place in the second half of 2015, although the FED will continue to use its forward guidance to anchor interest-rate expectations. In fact, the Fed's efforts to explain its exit strategy have been relatively

1: Inflation expectations on a one- to two-year horizon of no more than 0.5pp above the long-term target of 2%.

successful in avoiding episodes of volatility like we saw last summer. Both long-term interest rates and expectations regarding Fed funds remain at levels no higher than the beginning of the summer (Chart 2.4). This is significant because part of the US recovery was due to interest-rate sensitive sectors such as real estate.

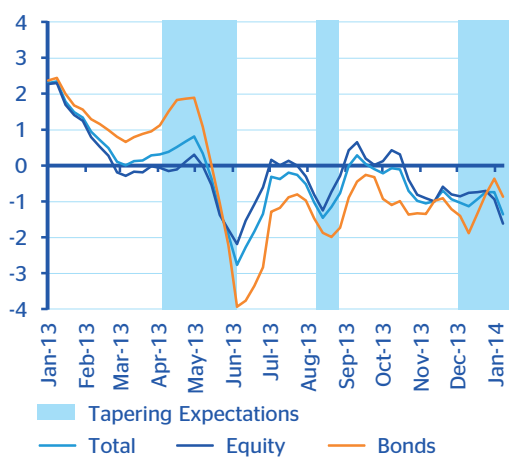
In summary, we have revised upwards our forecast for US growth in 2014 to 2.5%, the same as our estimate for 2015. This adjustment reflects both the strength of the US economy in the second half of 2013 and the additional momentum contributed by the reduced fiscal drain thanks to the agreement reached at the end of last year. Note that there are also upside risks to our forecast if the improvement in confidence results in additional corporate investment and hiring.

Tapering could cloud the outlook for some emerging economies

The change of direction in US monetary policy has, as usual, had a global impact. The emerging economies are being subjected to capital outflows and currency depreciation, intensified in some cases by domestic events that have increased uncertainty regarding the management of their respective local economic policies. Even so, to date and from an aggregate perspective, the intensity of the non-resident capital outflows is no worse than on previous occasions when expectations have changed regarding the start of Fed tapering (Chart 2.5). In addition, there continues to be a differentiation between economies depending on their fundamentals: higher external deficits and more dependence on short-term and foreign-currency funding are associated with greater vulnerability to capital outflows and currency depreciation (see Chart 2.6).

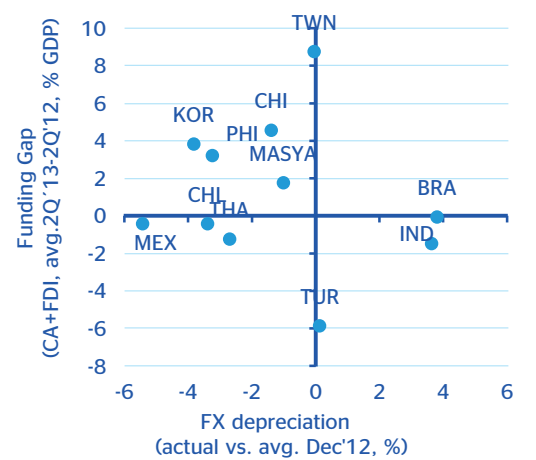
The recent tensions have not changed our growth forecasts for the EMs as a whole in our most likely scenario, but they do represent a significant downside risk. This risk is higher in the economies that are financially more integrated in global portfolio indexes and that have the above-mentioned vulnerabilities: Turkey, Brazil, Indonesia and India in particular. The monetary tightening being introduced by some of these countries to control currency depreciation and inflation expectations will inevitably have a negative impact on growth. All in all, the diversity within the EM group means that our outlook remains favourable for some parts of South America, such as the Andean economies, emerging Asia and Mexico. In the case of the latter, we have even improved our outlook for growth in 2014 (to 3.4%), driven by the cyclical momentum of the US economy (Chart 2.7).

Chart 2.5
Emerging Markets: flows into funds in bonds and equities (4 weeks cumulative, specialist EM funds, flows over total assets)



Source: BBVA Research based on EPFR data

Chart 2.6
Exchange-rate depreciation (%) and external funding gap (CA + FDI, % GDP)



Source: BBVA Research and Haver Analytics

Growth in China remains at around 7.5%, but the vulnerabilities are more evident

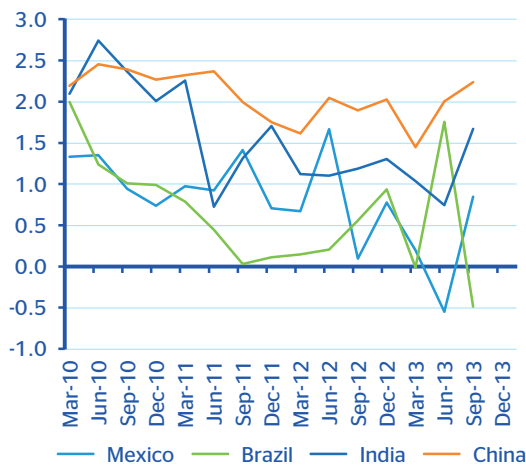
The fourth quarter was a clear example of the duality of China's economy as both a support for the global economy and a potential risk factor. The uncertainty at the beginning of the year regarding the sustainability of its growth and the possibility of a hard landing dissipated in the short term. The economy recovered in the second half of 2013 (Chart 2.7) and maintains a good tone, although some of the more recent data on confidence and expectations of manufacturing activity are once again below expectations.

Fundamental changes in economic policy have also been announced. At the Third Plenum of the Chinese Communist Party, the authorities reiterated their commitment to maintaining high rates of growth, while at the same time as proposing measures that will strengthen the role of the market in allocating resources and a rebalancing from a model based on investment and exports towards one of increasing household consumption. These announcements should be valued as steps in the right direction, but their effectiveness will depend on their execution, and they are not without risk.

For example, as regards the financial sector, the authorities are continuing to demonstrate their commitment to tackle the current vulnerabilities, fundamentally linked to the rapid growth of credit. This is being reflected in liquidity tensions in the interbank market which are above all affecting the so-called shadow banking sector². However, the authorities have not managed to moderate the rate of growth in credit (see Chart 2.8), but a continuation of these tensions could have unwelcome effects on the stability of the system.

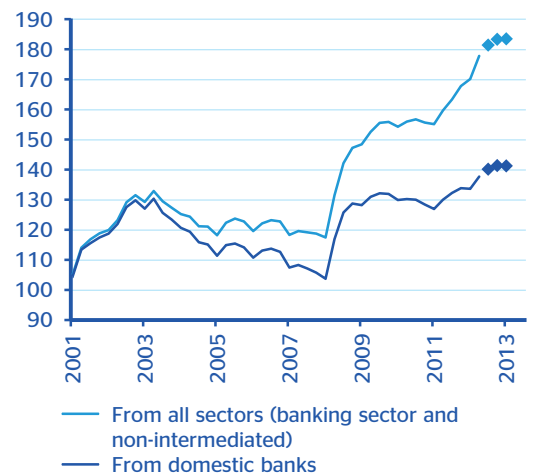
Our 2014 and 2015 forecasts for China's economy remain unchanged, based on our confidence in the authorities' scope and ability to take action. All in all, the risk of a hard landing would be particularly damaging given the size of the economy and its importance for world trade.

Chart 2.7
Emerging Markets GDP growth
(% QoQ, swda data)



Source: BBVA Research

Chart 2.8
China: credit to the non-financial private sector
(% GDP)



Source: BBVA Research based on BIS & Haver

2: The group of financial institutions and vehicles that fall outside the regulation of the banking system, but that carry out the same intermediary functions between the economic agents with surplus liquidity and those with insufficient savings to take consumption or investment decisions.

The gradual recovery in the eurozone continues, with the support of the ECB and with banking union in sight

After starting 2013 in recession, the eurozone managed to sustain moderate expansion throughout the second half of the year, in line with our forecast. Thus if our expectations are confirmed, the fourth quarter data indicates YoY growth of 0.4%, which although only slight, is its best since the end of 2011. The driver of this slight improvement was the prospect of an improvement in domestic demand, although the engine of European growth in 2013 and 2014 was, and will continue to be, the export sector.

The factors supporting the moderate recovery in the eurozone are: i) the recovery of external demand; ii) the sustained improvement in financial conditions, favoured by the ECB's determination of, and commitment to, an expansive monetary policy; and finally and linked to that, iii) the steps taken towards banking union, which should reduce the financial fragmentation that is hampering the role of monetary policy in the eurozone as a whole. In any case, we cannot rule out periods of instability as we approach events that could alter the panorama of progress in banking union and of strengthening the monetary union in Europe in general. The events to watch include the European Parliamentary elections, and news flow on the conditions as well as results of the stress tests and asset quality reviews conducted on financial institutions in the banking sector.

All in all, we maintain our forecast for eurozone GDP growth at 1.1% for 2014. For 2015 we estimate 1.9%.

3. Growth outlook for the Spanish economy: a long-awaited recovery

The situation of the Spanish economy improved gradually over the course of 2013, in part as a consequence of the measures adopted both in Europe and in Spain in the second half of 2012³. Though the international outlook was not without risks⁴, a more positive mood took hold in the financial markets as the year went on, which was reflected in the normalisation of capital inflows, rising share prices and a decline in risk premiums. This progress resulted in early steps towards a recovery in economic activity and jobs in the second half of the year, encouraged by a fiscal policy which was less tight than had initially been expected and a modest revival in the European economy in a context of historically low risk-free interest rates. Even so, the European financial sector remained seriously fragmented, and this continued to affect borrowing costs for both firms and families in countries like Spain.

The above factors combined to drive two consecutive quarters of positive growth in the Spanish economy in the second half of the year, closing the fourth quarter of 2013 with GDP growth of around 0.3% QoQ. However, the change in trend was not enough to prevent a contraction of -1.2% over the year as a whole, which was entirely due to the drop in domestic demand, despite the return to a more expansive scenario in the second half of the year. In contrast, net external demand once again cushioned the impact, in spite of the temporary correction observed towards the end of the year.

Looking forward, the improvement in the fundamentals of the Spanish economy points to the consolidation of recovery over the course of the next two years. **Economic activity will expand by 0.9% in 2014, accelerating to 1.9% in 2015.** These rates of growth will in turn be sufficient to generate sustained job creation for the first time since the crisis began, although they will still not make any significant inroads in the unemployment rate. Internationally, faster growth in the world economy is expected than was observed in 2013, translating into Eurozone GDP growth of 1.1% in 2014 and 1.9% in 2015 after two years of recession. Together with geographical diversification and the depreciation of the real exchange rate (supported by internal devaluation and easing of monetary policy in Europe), this factor **should confirm the differentially positive performance of Spanish exports.** Meanwhile, domestic fiscal policy is expected to be somewhat looser than in 2013 and, particularly, 2012. At the same time, returning confidence, the recovery of employment, falling borrowing costs, the pull from exports and, finally, the advanced stage now reached by certain internal adjustment processes will all combine to support a **recovery in domestic demand.**

Though the scenario described in this report hardly differs from that anticipated three months ago, the data suggest that the Spanish economy is enjoying a stronger recovery in domestic demand and employment than was expected in November. As a consequence, **positive biases on growth are now observable for the first time since the onset of the crisis.**

Despite the **existence of continuing problems** which will have to be solved to consolidate the recovery, the likelihood of these risks materialising and their potential negative impact on the Spanish economy have both diminished. The relaxation of financial tensions and reversal of the fragmentation affecting the European banking system will depend on the fulfilment of commitments made both at the domestic level and in Europe. **In Europe, it will be essential to press ahead with determination towards the goal of banking union** and to undertake a review of the quality of financial sector assets to eliminate concerns about the viability of some banks

3: Key measures comprised the ECB's Outright Monetary Transactions (OMT) program; the financial assistance programme agreed by the European Commission and Spain to improve the solvency of the Spanish financial system; the raft of fiscal measures announced by the Spanish government to bring the adjustment of public spending into line with the objectives agreed with the European Union; and, finally, the recent action taken by the ECB to guarantee financial stability and underpin economic recovery.

4: Risks included political instability in certain European countries throughout most of the year, the slowdown in various emerging economies in the middle of the year, and fiscal and monetary uncertainty in the USA towards the end of the year, not to mention the shift in investment flows observed after interest rates rose in the advanced economies.

for once and for all. **Meanwhile in Spain, it will be vital to continue with plans for structural reforms and the adjustment of public finances.**

A number of risks from outside the Eurozone still persist, which could delay economic recovery. For example, concerns remain about slowing growth in the emerging economies. Meanwhile, the main uncertainty in the (non-European) developed economies continues to be the future of fiscal policy in the USA, even though the agreements reached at the end of 2013 are welcome.

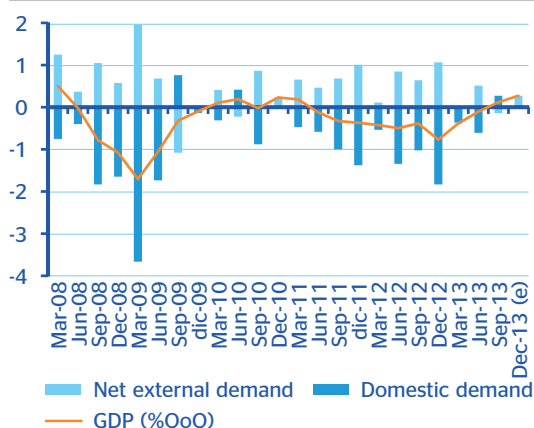
2013: a year of transition

After the collapse in confidence, recurring financial tensions and rapid processes of fiscal consolidation and structural reform seen in 2012, 2013 was expected to be a year of transition towards a new expansive cycle in the Spanish economy. **Confirming these forecasts, the economy has gradually picked up over the course of the year. The recession finally ended in technical terms in the third quarter, and growth gathered pace in the fourth.** Ahead of the detailed results, the advance estimate of GDP published by the Spanish National Institute of Statistics (INE in its Spanish acronym) points to **QoQ growth of 0.3% in 4Q13**, in line with expectations at the beginning of the quarter (BBVA Research: around 0.3%) although still not enough to prevent a fall of -1.2% in GDP for the year as a whole⁵.

With regard to the composition of growth, the partial short-term indicators suggest that **domestic demand made a positive contribution to growth in 4Q13 (+0.1 pp QoQ)**. At the same time, activity was supported by net external demand which, in spite of the stagnation of exports, **contributed 0.2pp to quarterly growth due to the decline in imports** (see Chart 3.1). Based on the annual results, domestic demand sapped 2.8pp from annual growth, while net external demand contribute 1.6pp, in both cases below the figures observed in 2012 (respectively -4.1pp and +2.5pp).

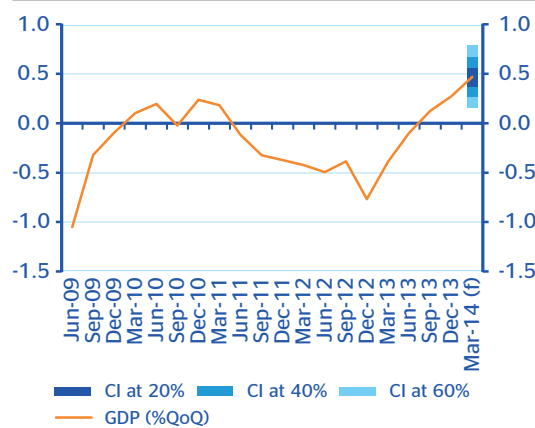
With a view to the first quarter of 2014, the information available to date suggests that the growth trend will continue (MICA-BBVA: between 0.3% QoQ and 0.5% QoQ) (see Chart 3.2)⁶.

Chart 3.1
Spain: contributions to quarterly GDP growth



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

Chart 3.2
Spain: observed GDP growth & MICA-BBVA model forecasts



(f) forecast.
Current forecast: 7 February 2014.
Source: BBVA Research based on INE

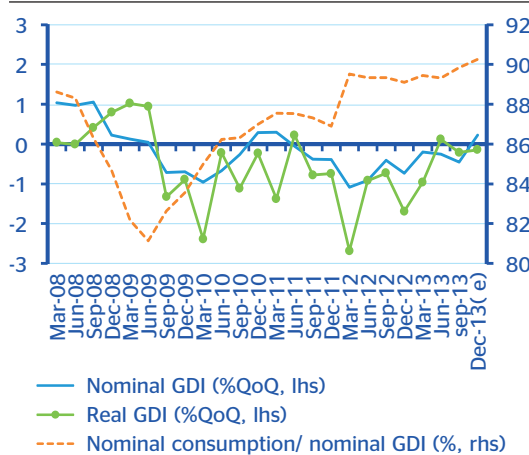
5: The detailed Quarterly National Accounts (CNTR in the Spanish acronym) for 4Q13 will be published on 27 February, when the advance estimate may be revised.

6: For further details of 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.

Upward trend in private domestic demand at the year end

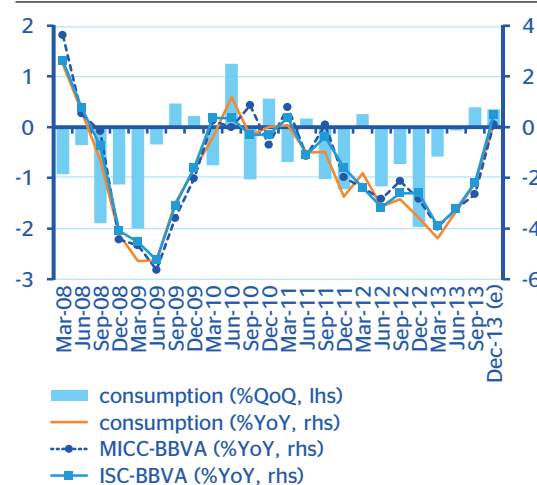
Consumption indicators, in particular those referring to consumer durables⁷, suggest that **household spending returned to growth in the fourth quarter of 2013**. Rising disposable income among families, improving perceptions of the economic situation⁸, increasing net financial wealth⁹, and the Efficient Vehicles Incentive Programme (PIVE in the Spanish acronym)¹⁰ appear to have offset the decline in property wealth to stimulate private consumption between October and December (see Chart 3.3). Both the BBVA synthetic consumption indicator (ISC-BBVA) and the BBVA coinciding consumption indicators model (MICC-BBVA) show that household spending grew by around 0.4pp in 4Q13 (+0.1% YoY) in line with the results reported for the preceding quarter (see Chart 3.4). On this basis, private consumer spending may have fallen by around 2.4% in 2013 following the 2.8% contraction seen in 2012.

Chart 3.3
Spain: Household GDI and propensity to consume (swda)



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

Chart 3.4
Spain: observed data & real time forecasts for household consumption



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

With regard to gross capital formation, the gradual recovery of domestic demand and the ongoing strong performance of exports have encouraged the launch of new private investment projects. The majority of partial indicators for investment in machinery and equipment (mainly imports of capital goods, the capital goods IPI and sales of industrial vehicles) display positive performance in 4Q13 and point to further growth in this segment of demand, which may have been as much as 0.9% QoQ according to our synthetic investment indicator (ISI-BBVA) (see Chart 3.5). As a result, investment in machinery and equipment achieved four positive quarters in a row in 2013, representing average annual growth of 0.7% following the contraction experienced in 2012 (-3.9%).

The latter months of 2013 showed no change of trend in indicators related with investment in housing. As shown by the changes in housing permit data, the construction industry continues to contract, although more slowly than in recent years. Likewise, the construction climate indicator continues to reflect a pessimistic outlook among entrepreneurs in the industry. Moreover, unless

7: For a detailed analysis of the evolution of consumer spending by types of goods and services, see section 3 of the journal *Situación Consumo* for the second half of 2013. http://www.bbvarresearch.com/KETD/fbin/mult/1312_Situacionconsumo_tcm346-416135.pdf?ts=2012014.

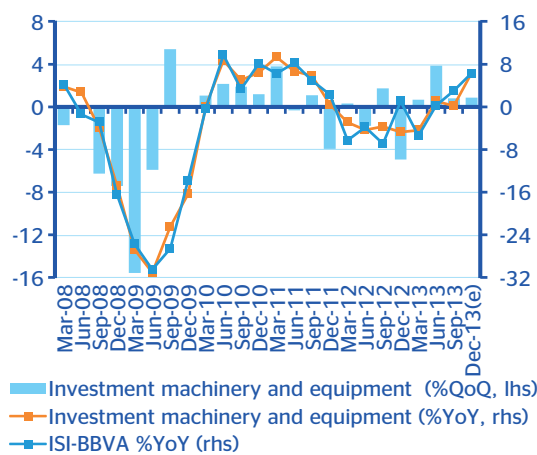
8: Households' perceptions of their future economic situation have improved uninterruptedly since October 2012, and this has had a significant effect on spending propensity. For a detailed analysis of how the evolution of households' expectations condition consumer spending, see Box 4 of the report *Situación Consumo*. http://www.bbvarresearch.com/KETD/fbin/mult/0912_situacionconsumoespana_tcm346-207180.pdf?ts=2012014

9: It is estimated that growth in real net financial wealth reported in 3Q13 (8.4% QoQ) contributed 0.5pp to growth in consumer spending in 4Q13, and it will provide a further 1.6 points in the coming four quarters.

10: The objective of the PIVE is to replace cars and light commercial vehicles which have been on the road for more than 10 or 7 years, respectively, by more energy efficient models. PIVE-5 came into effect on 29 January. The latest programme shares the same general characteristics and conditions as PIVE-4, but its budget has been increased 2.5 times to 175 million euros.

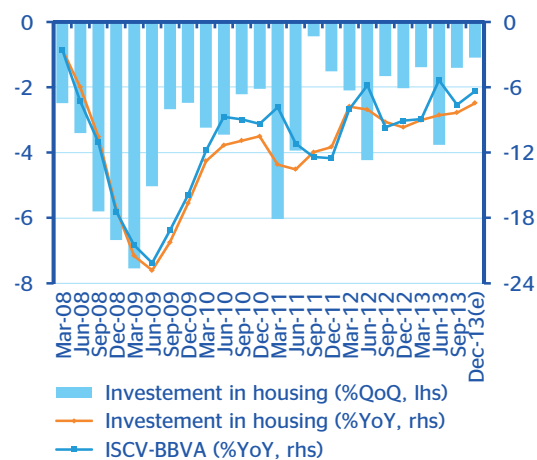
there is a surprise in store in December, sales in the last quarter of the year appear to have been weaker than in the preceding quarter. Consequently, the synthetic investment indicator for house building (ISCV-BBVA) points to a fall in this demand component to 1.1% QoQ (-7.4% YoY) in 4Q13 (see Chart 3.6). This means that investment in housing fell by 8.4% in 2013, making six consecutive years of contraction and reducing its share in the economy as a whole to a historic low (4.4% of GDP, 8pp less than in 2006).

Chart 3.5
Spain: observed data & real time forecasts for investment in machinery and equipment



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

Chart 3.6
Spain: observed data & real time forecasts for housing investment



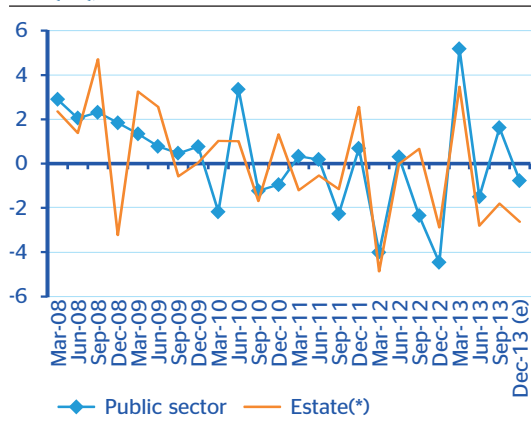
(e): estimate.
Source: BBVA Research based on INE

The adjustment in public sector demand was less severe than in 2012

Following the upturn in public spending and investment in 3Q13, the available information now points to a renewed decline in both in the last quarter of the year. Based on the latest State budget execution data at November 2013, final public spending by central government fell steeply by a cumulative 2.4% of GDP (see Chart 3.7) over twelve months. Moreover, the Labour Force Survey (EPA in its Spanish acronym) shows that public sector employees decreased in number over the whole of 2013, although the decline was more moderate in 4Q13 (see Chart 3.8). Based on these data, it is estimated that public spending may have fallen by around 0.7% QoQ (0.2% YoY), which would represent a contraction of 1.2% over the year as a whole compared to the prior accounting period.

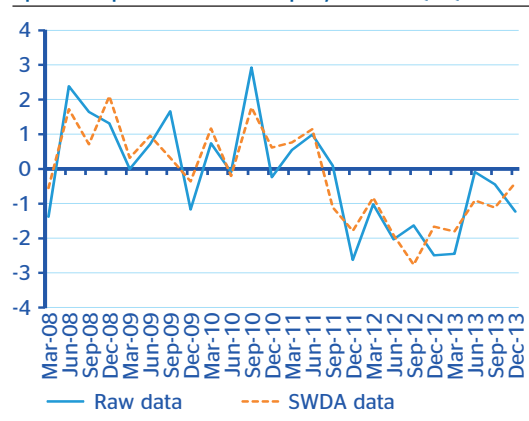
Meanwhile, the budget execution data show that investment cuts continue to account for much of the effort made in the area of fiscal consolidation, although to a lesser extent than in the preceding quarters. All of the above points to a fall in non-residential construction in 4Q13 similar to that experienced in 3Q13 (-0.3% QoQ; -11.6% YoY). As a consequence of the above, non-residential construction fell by around 12.0% over the year compared to 2012.

Chart 3.7
Spain: nominal public consumption
(% QoQ, swda)



(e): estimate.
(*) : fixed capital consumption not included.
Source: BBVA Research based on MINHAP

Chart 3.8
Spain: in public sector employees (% QoQ)



Source: BBVA Research based on INE

Trade performance was marked by the stagnation of exports in the closing months of the year

The available trade indicators confirm a temporary slowdown in demand for exports coming from non-European Union Countries (see Chart 3.9). Given the increasing geographical diversification of Spanish exports, this deceleration in non-EU demand may have had a more intense impact on total demand, resulting in a decline in exports of goods of -0.8% QoQ in 4Q13 (+4.3% YoY). This performance means that exports have fallen for two quarters in a row, although that did not prevent significant growth over the year as a whole (7.3%).

Nevertheless, the upturn in exports of services in the last quarter of the year (1.7% QoQ; +3.7 YoY) cushioned the downward correction in trade flows. Following the exceptional figures reported in the central quarters of the year, non-resident tourism again accelerated in the fourth quarter, which could result in an increase of as much as 1.4% QoQ in non-resident consumer spending (9,1% YoY). The uncertainties affecting Spain's main competitors prevented any correction of the effects of the Arab Spring on tourism, while economic recovery in the principal markets of origin facilitated a rise in the number of visitors arriving in this country. The upturn in the fourth quarter made it possible to end the tourist-year on record figures (see Chart 3.10). As a result, some 60.6 million tourists crossed the border in 2013 (5.2% up on 2012), compared to a previous peak of 58 million in 2008. Meanwhile, spending in real terms by foreign visitors grew by 3.6%, making the fifth such increase in as many years. Non-resident consumer spending may therefore have grown by as much as 3.7% over the year as a whole.

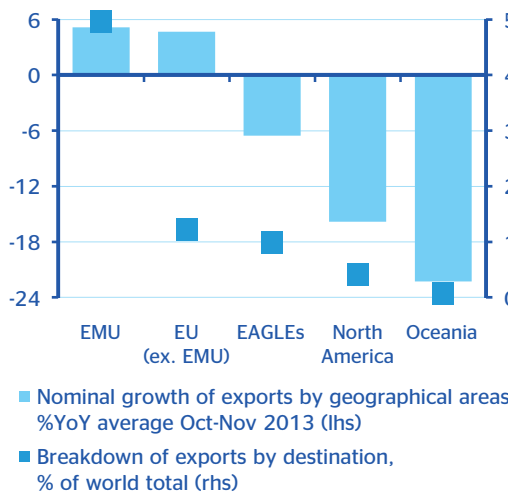
Furthermore, exports of non-tourist services are also estimated to have performed positively in the last quarter of 2013 (1.8% QoQ; -0.8 YoY) although not enough to offset the sharp fall observed in the first half of the year, resulting in a decline of -1.4% over the whole of the year. Overall, total exports seem to have stagnated in 4Q13 (0.0% in QoQ; +4.0% YoY), although growth was robust in 2013 as a whole (5.2%).

In line with the performance of exports, the advance indicators available to date suggest that import growth slowed gradually in the second half of the year and were in fact negative in 4Q13 (-0.7% QoQ; +2.6% YoY). On average, 2013 saw imports return to a path of still modest growth (0.3%), propelled by dynamic exports and a less unfavourable evolution of domestic demand than in the preceding years.

To sum up, the aforementioned components suggest a positive contribution to growth from net external demand both in 4Q13 (0.2pp QoQ) and over the year as a whole (1.6pp). The evolution

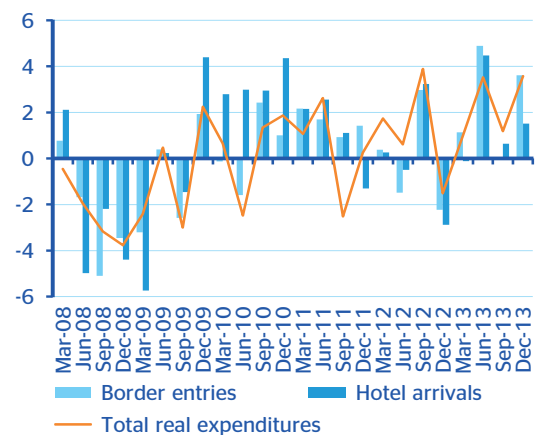
of aggregate trade figures meant Spain was able to achieve a current account surplus for the first time in 26 years (0.9% of GDP in 2013). This process of reversal of the current account deficit began in 2008, and it was founded in the first stage on a gradual reduction of the structural deficit and the generation of cyclical surpluses, and in the second in a sharp fall in the structural component of the deficit, producing a surplus at the close of 2013¹¹.

Chart 3.9
Spain: growth & composition of goods exports by geographical areas



Source: BBVA Research based on Datacomex

Chart 3.10
Spain: tourism service export indicators (% QoQ, swda)



Source: BBVA Research based on INE, Frontur and EGATUR

Labour market: change of cycle

Labour market data for the fourth quarter reveal a change of trend. For example, average Social Security affiliation grew by 0.6% QoQ swda in 4Q13 (0.4% QoQ swda discounting the loss of non-professional carers¹²), compared to a fall of three decimal points in the third quarter. This is the first non-seasonal increase in affiliation since 1Q08 (see Chart 3.11). Meanwhile, the reduction in registered unemployment gathered pace to -1.7% QoQ swda swda in 4Q13 compared to -0.6% in the preceding quarter, while the number of new hires again grew between October and December (4.6% QoQ swda) both for permanent (1.1% QoQ) and, especially, for temporary contracts (4.9% QoQ)¹³.

In general terms, the Labour Force Survey (EPA) for 4Q13 confirmed the developments in Social Security affiliation and unemployment described above. The fall in the active population (-73,500 people, -29,100 swda) offset the seasonal reduction in employment (-65,000 people, +35,380 swda) and as a result the unemployment rate hardly changed compared to the preceding quarter (26.0%, 26.1% swda). The rise in joblessness in 4Q13 was due to falls in the number of self-employed workers (-54,700 people) and public sector employees (34,800). In contrast, the number of private sector employees increased by 24,500 people, despite the

11: For further information on the recent evolution and outlook of the current account balance in Spain, see the Economic Observatory report *Un análisis de la evolución y los determinantes del saldo por cuenta corriente en España*, available at: http://www.bbva-research.com/KETD/fbin/mult/131119_Spain_Economic_Watch_tcm348-411578.pdf?ts=1422014

12 The special arrangements established in the Social Security System for non-professional carers looking after dependent persons were modified by Royal Decree Law 20/2012, of 13 July, concerning measures to guarantee budget stability and foster competitiveness. Specifically, the parties to the agreement (adherence to which is now voluntary) are required to pay Social Security contributions as from 31 August (85% until 31 December and 100% thereafter). This change caused the loss of more than 150,000 affiliates in the month of November last year.

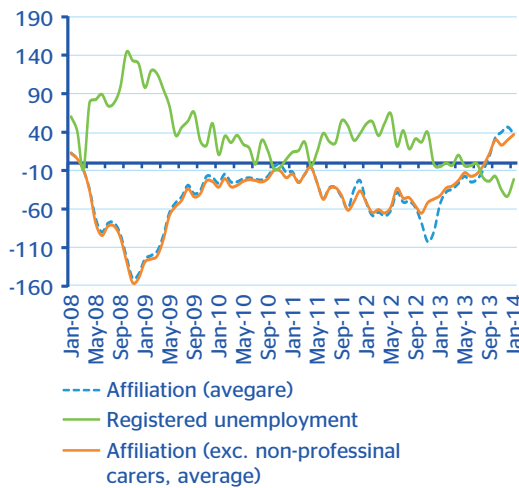
13The figures for January 2014 suggest that the year began in the same tenor as 2013 ended. Discounting seasonal effects, average Social Security affiliation rose for the fifth consecutive month (0.2% MoM swda) confirming the downward trend in registered unemployment (0-5% m/m). See http://www.bbva-research.com/KETD/fbin/mult/140204_Flash_Espana-Paro_ene14_tcm346-421119.pdf?ts=422014.

period's unfavourable seasonality. Meanwhile, the rate of temporary employment fell by four decimal points to 23.9% in 4Q13 after increasing in the second and third quarters, both because the number of employees on temporary contracts fell (-56,000 people) and because the number of permanent contracts rose (45,600) (see Chart 3.12).

The 4Q13 figure closed a year in which the labour market finally awoke from its lethargy. Overall, the Spanish economy lost an average of 532,000 net jobs in 2013 (290,700 less than in 2012), 65.3% of them in the private sector (mainly in services) and 70.5% permanent contracts. These results caused a fresh rise in the unemployment rate (1.3pp to 26.4%), despite the reduction of 305,700 in the working population.

Chart 3.11

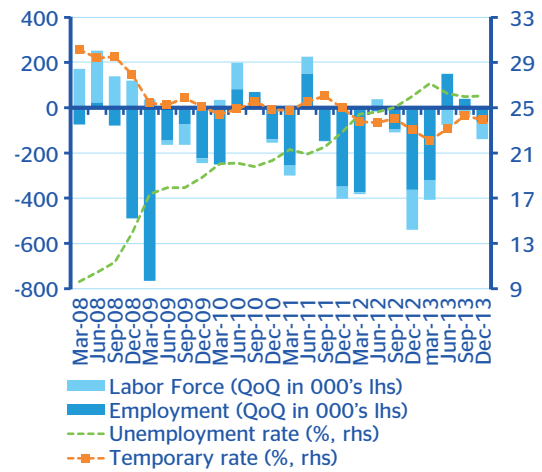
Spain: Social Security affiliation & registered unemployment (monthly change in 000s of people, swda)



Source: BBVA Research based on MEySS

Chart 3.12

Spain: labour market indicators



Source: BBVA Research based on INE

Desirable containment of prices and costs in the context of a still weak recovery

The closing figures for 2013 confirmed that the rise in consumer prices observed in the early part of the year was not due to inflationary pressures in the domestic market, but to factors exogenous to demand like the VAT hike and increases in certain regulated prices in the autumn of 2012. As the effects of these factors vanish, both the headline and the underlying rate of inflation slowed rapidly in the second half of the year to 0.3% YoY and 0.2% YoY in December (average of 1.4% YoY for 2013 as a whole in both cases)¹⁴.

These developments are characteristic of an economy in the midst of a still weak recovery following structural reforms¹⁵ aimed at regaining competitiveness, resulting in a favourable inflation gap with the Eurozone. The Harmonised Consumer Price Index (HCPI) reveals a general inflation gap of -0.5pp in December and a gap of around -0.9pp in terms of underlying inflation, compared to an unfavourable historic average of +0.8pp in both cases (see Chart 3.13).

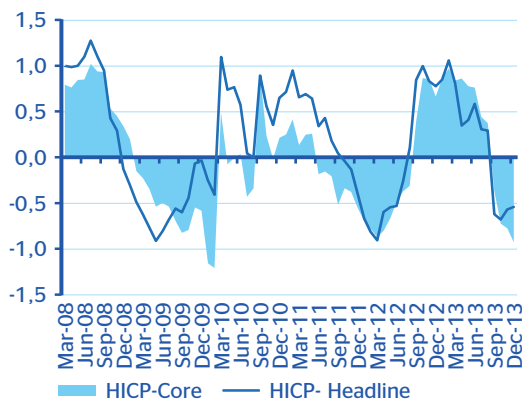
The low rate of inflation achieved helped in containing wage demands in the fourth quarter. In this regard, average wages agreed in collective bargaining processes rose by around 0.6%

14: The advance CPI indicator reflects a general inflation rate of 0.2% YoY, thereby confirming that prices are growing at low, but positive rates. See http://www.bbvarresearch.com/KETD/fbin/mult/140131_Flash_Espana-IPCA_ene14_tcm346-420684.pdf?ts=3112014.

15: Chief among them are the reform of the labour market, deregulation of shop opening hours and sales periods in 2012, de-indexation of the economy, and the reform of the pension system in 2013.

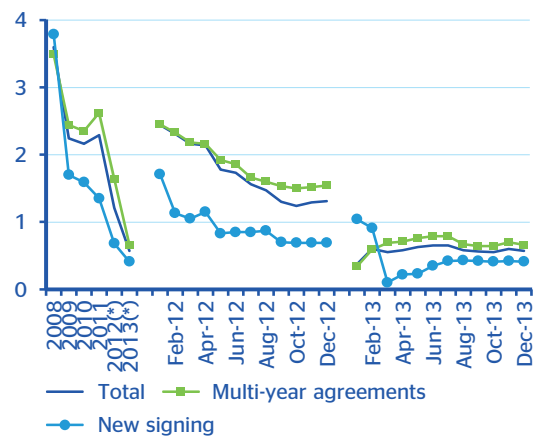
YoY between October and December (0.4% in the case of agreements made during the course of the fourth quarter), in line with the maximum limit established in the 2nd Employment and Collective Bargaining Agreement for 2013 (see Chart 3.14).

Chart 3.13
Spain-EMU: inflation differential (pp YoY rate)



Source: BBVA Research based on INE and Eurostat

Chart 3.14
Spain: average collective bargaining wage increase (% YoY)



Annual data include the collective bargaining agreements after December of each year and includes the contractually-required wage review.

(*) Provisional data. The 2013 is not homogeneous with that of previous years. See: http://www.empleo.gob.es/estadisticas/cct/CCT13DicAv/ANE/Resumen_CCT_diciembre_13.htm.

Source: BBVA Research based on EM & Soc.Sec

Credit is flowing back into the economy

When it comes to evaluating the performance of credit to the private sector, we have to differentiate between the outstanding balance (stocks) and new business (flows). The former is important because it gives us an insight into the level of indebtedness of economic agents by sector, to make international comparisons and assess vulnerabilities. However, flows are closely related to economic activity¹⁶. In recent months, the growth in new credit operations has shown profound differences with the performance of accumulated credit stock: while the flows show positive rates, the stock continues to contract, in the context of the necessary deleveraging of the private sector in Spain (see Charts 3.15 and 3.16)¹⁷.

The flow of new lending in Spain has improved substantially in recent months, particularly loans to corporates, while credit to households is still in the process of adjustment (with the exception of consumer lending) (see Table 3.1).

New lending to corporates has expanded substantially since September 2013, more than we expected. The trend in corporates requesting loans of more than EUR1mn has improved, and in the past two months the YoY growth has been substantially higher than in earlier months, closing the year at +6.1% YoY. Growth in new loans of less than EUR1mn, generally associated with SMEs, reached 9.6% YoY in December, also a huge improvement over the growth registered

16: For a discussion of the theoretical and empirical relationship between credit flows and economic activity, see Box 3 of Outlook Spain, 4Q12.

17: The statistics for credit flows include both the new transactions on new business generated during the period and existing loans where terms and conditions have been changed (maturity date, guarantees, interest rate, principal amount, etc.), including refinancings. Thus the new lending statistics are not a perfect indication of new business, as the proportion of refinancings is not disclosed. All in all, statistical analysis indicates the presence of very considerable seasonality and a high component of unpredictability which means that the average volatility of YoY variations is more than 8% (see Chart 1).

In general, refinancings are decisions that can increase the probability of a borrower repaying a loan. However, they are inappropriate when the financial institutions try to mask or delay the recognition of a solvency problem. For this reason, on 30 April 2013, the Bank of Spain published a letter in which it recommended reviewing the portfolios of refinanced loans in order to reclassify them by applying stricter risk criteria. This recommendation presumably gave rise to some cleaner flow statistics than observed until then, as the refinancing process was penalised.

earlier in the year. December was the fourth month of positive growth, confirming the turning point identified in the trend in these portfolios during the early part of the summer of 2013 and establishing what looks like a positive trend, at least for the first quarter of 2014.

Growth in new household lending was mixed at the end of 2013: a sharp contraction in mortgage and other loans, but increases in consumer credit. New household lending fell 35.6% YoY in December, but performance differed by customer segment.

New mortgage lending is still in negative territory, although not to the same extent as indicated by the December figure (-57.8%), which is distorted by the withdrawal of tax breaks in December 2012. Thus the average YoY variation in 2013 was -31.9% vs. 2012. Nonetheless, the weakness of household demand will continue to put downward pressure on this type of lending.

New consumer lending, which has been trending upwards since the beginning of the year, closed December with an increase of 32.4%. Nonetheless, this growth trend is showing signs of exhaustion, as the present rates of growth are lower than those estimated for previous months.

The outlook for new household lending for other purposes continues to improve, although still in negative territory around -18% YoY, in spite of starting the year with a YoY variation nearly 10 points higher than the previous month (-9.6%).

In future, total new lending will post positive growth hand in hand with the economic recovery, driven by the trend in the corporate portfolio.

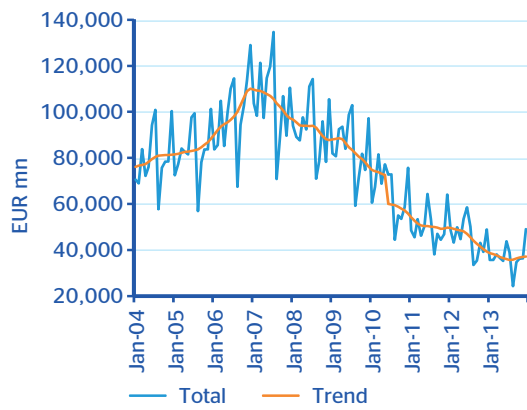
Table 3.1
New lending, corporates and households

	Total Sums	Companies			Households			
		Total	Up to 1 million	More than 1 million	Total	Housing	Consumption	Others
Million €								
Jul-13	38,838	33,851	12,442	21,409	4,987	2,117	1,316	1,554
Ago-13	24,238	21,049	8,577	12,472	3,189	1,301	1,043	845
Sep-13	34,700	31,288	10,517	20,771	3,412	1,418	1,047	947
Oct-13	36,164	31,837	12,273	19,564	4,327	1,907	1,246	1,174
Nov-13	36,268	31,869	11,584	20,285	4,399	1,962	1,171	1,266
Dec-13	48,992	43,853	12,775	31,078	5,139	2,233	1,511	1,395
YoY change (%)								
Jul-13	-22.5	-23.9	-6.9	-31.2	-11.6	-27.0	9.9	0.7
Ago-13	-27.5	-29.1	-6.4	-39.2	-15.2	-24.3	6.6	-20.6
Sep-13	-1.8	-1.0	-1.4	-0.8	-8.7	-18.5	16.1	-13.6
Oct-13	-15.9	-16.4	0.1	-24.2	-12.6	-20.4	19.2	-22.1
Nov-13	-7.2	-5.0	4.8	-9.8	-20.9	-32.6	8.2	-19.4
Dec-13	0.2	7.1	9.6	6.1	-35.6	-57.8	32.4	-9.6

Source: Bank of Spain & BBVA Research

Chart 3.15

Spain: new credit operations. Monthly flow



Source: Bank of Spain & BBVA Research

Chart 3.16

Spain new credit operations (%YoY)



Source: Bank of Spain & BBVA Research

Scenario 2014-2015: reactivation of the economy

As mentioned in the introduction to this section, **improvements in the fundamentals of the Spanish economy** allowed a return to the growth phase of the cycle in 2013, which is expected to continue in the next couple of years. **The economy will expand by 0.9% in 2014, and the growth rate will accelerate to 1.9% in 2015, sufficient to create jobs but not enough to make any significant dent in the unemployment rate (see Table 3.1).** Given the expected improvement in the international economy and ongoing gains in competitiveness, export growth is forecast to be robust. Meanwhile, a more expansionary fiscal policy stance and the general improvement in its determining factors will support the recovery of domestic demand, driven by the progress of certain internal adjustment processes. **Regional growth is expected to remain uneven given the differences in the exposure of each of the regions to external demand, the pace of corrections in structural imbalances and the adjustment of the public finances (see Section 5).**

Despite the appearance of upside biases on growth for the first time since the beginning of the crisis, recovery continues to depend on various factors. These comprise, in the first place, the processes of structural reform and fiscal adjustment in both Europe and Spain, and in the second, the rate of growth in the emerging economies, which have gradually become more important as export markets for the Spanish economy. A final key factor will be the removal of uncertainty over the course of US fiscal policy in the long run.

Table 3.2

Spain: macroeconomic forecasts

(% YoY unless otherwise stated)	1Q13	2Q13	3Q13	4Q13 (e)	2012	2013 (e)	2014 (f)	2015 (f)
National Final Consumption Expenditure	-3.7	-3.2	-1.5	0.0	-3.3	-2.1	0.4	1.3
F.C.E. -Private	-4.3	-3.3	-2.2	0.1	-2.8	-2.4	0.9	1.3
F.C.E. - Households	-4.4	-3.3	-2.2	0.1	-2.8	-2.5	0.9	1.3
F.C.E. Public Sector	-2.0	-2.8	0.3	-0.2	-4.8	-1.2	-1.1	1.3
Gross Capital Formation	-7.2	-6.2	-6.3	-3.4	-6.9	-5.8	0.1	5.0
Gross Fixed Capital Formation	-7.5	-6.3	-6.3	-3.3	-7.0	-5.9	0.2	5.2
Tangible Fixed Assets	-8.2	-6.6	-6.6	-4.2	-7.8	-6.4	-0.2	5.0
Equipment, Machinery & Cultivated Assets	-4.3	1.0	0.2	6.5	-3.9	0.8	6.0	7.8
Equipment & Machinery	-4.4	1.1	0.2	6.3	-3.9	0.7	5.8	7.8
Construction	-10.2	-10.7	-10.3	-9.7	-9.7	-10.2	-3.8	3.1
Housing	-9.0	-8.6	-8.3	-7.4	-8.7	-8.4	-3.4	5.0
Other buildings & Other Constructions	-11.1	-12.4	-12.0	-11.6	-10.6	-11.8	-4.2	1.5
Inventory changes (*)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic demand (*)	-4.4	-3.7	-2.5	-0.6	-4.1	-2.8	0.4	2.0
Exports	3.1	9.1	4.7	4.0	2.1	5.2	6.5	6.7
Imports	-4.7	2.5	0.7	2.6	-5.7	0.3	5.2	7.4
Trade balance (*)	2.4	2.1	1.4	0.5	2.5	1.6	0.6	-0.1
Real GDP mp	-2.0	-1.6	-1.1	-0.1	-1.6	-1.2	0.9	1.9
Nominal GDP mp	-0.8	-0.9	-0.7	0.6	-1.7	-0.5	1.5	3.0
Pro-memoria								
GDP exc. housing investment	-1.6	-1.3	-0.7	0.3	-1.2	-0.8	1.2	1.8
GDP exc. construction	-0.9	-0.5	0.0	1.1	-0.4	-0.1	1.5	1.8
Total employment (LFS)	-4.6	-3.6	-2.9	-1.2	-4.5	-3.1	0.4	1.0
Unemployment rate (% LFS)	27.2	26.3	26.0	26.0	25.0	26.4	25.6	24.8
Total employment (f.t.e.)	-4.6	-3.9	-3.2	-1.4	-4.8	-3.3	0.3	0.9

(*) Contributions to growth

(e): estimate;

(f): forecast

Source: BBVA Research based on INE

Domestic demand will recover, but growth will continue to be export led

On the domestic front, fiscal consolidation may be expected to continue acting as a drain on growth in 2014, although to a lesser extent than in prior years. The improved economic situation combined with more moderate interest costs for public debt and a more flexible fiscal target should permit a more expansionary fiscal policy stance compared to previous years (see Section 4). Even so, it is expected that public spending will fall by 1.1% in real terms in 2014, while investment in non-residential construction (which is affected by public works) will shrink by around 4.2%. **In a scenario without economic policy changes, contraction would end sometime in 2015, when both components of public demand would begin to show real growth at rates close to 1.3% and 1.5% respectively. However, this would mean a deviation from the deficit target of 1.0% of GDP established for that year¹⁸.** In the absence of new measures, a reduction in the public deficit would take off around 0.4pp from GDP in 2014, and it is forecast that fiscal policy will be neutral in 2015.

Private consumption will grow in 2014 and 2015 as a result of improvements in the fundamentals. The change in the labour market cycle will contribute to raising gross household

¹⁸: Deficit forecasts do not include assumptions about any potential policy measures which may be announced in the coming quarters.

incomes both in this year and the next. Meanwhile, the expected increase in net financial wealth, the lack of demand-side inflationary pressures and the outlook for historically low official interest rates will offset the further deterioration in property wealth (which will be less than forecast three months ago). As a consequence household consumer spending will grow by up to 0.9% in 2014, and it is expected to increase by 1.3% in 2015.

In the next two years, domestic demand will stop acting as a drag on private investment, and together with the strong performance of exports this will lay the foundations for sustained growth. In addition to these factors, the terms of borrowing for business look set to improve, in large part thanks to the results achieved in the process of bank restructuring and lower long-term interest rates. A recovery in the volume of new loans to business may, then, be expected in 2014. As a result, investment and machinery and equipment is forecast to increase to 5.8% in 2014, and this growth will reach 7.8% in 2015.

Meanwhile, investment decisions in the construction industry will continue to be constrained by the deleveraging process under way in firms. Furthermore, the housing stock remains high, even if the glut of new properties has continued to shrink, and these conditions will go on affecting the start of new residential housing projects. **However, the regional distribution of unsold houses is still very uneven.** Though significant imbalances remain in some regions (La Rioja, Valencia, Castile-La Mancha, the Canary Islands and Murcia), the proportion of unsold new houses is below 2% of the total housing stock in others like Extremadura, Cantabria, Navarre and, to a lesser extent, the Autonomous Community of Madrid and the Basque Country. These differences will have an impact on recovery in the construction industry, resulting in differentiated growth processes depending on the specifics of each market.

Meanwhile an improvement in the fundamentals of domestic demand for housing is expected over the next two years. In the first place, the outlook for the labour market points to the creation of jobs as of the current year. Second, mortgage interest rates will remain stable and may even fall slightly in 2014 to around 3% in 2015, due to a cut in mortgage spreads. Finally, the recovery of financial wealth and the advanced stage now reached in the process of correction of house prices could have a positive effect on demand¹⁹. **Meanwhile, it is expected that foreign demand for houses will remain strong, and fresh growth is expected in the next two years.** In this light, it is expected that the fall in house sales observed up to 2013 will slow in 2014, and recovery will begin in 2015.

Hence, the market context will change in the period 2014-2015 compared to the immediate past. **Against a backdrop of progressive recovery in demand, supply-side adjustment will continue due to the small number of houses which will be finished in the coming years, and this could result in a stabilisation of house prices in 2015.**

After six years of intense adjustment in the property sector, then, 2014 looks set to become the year of transition towards stabilisation, and it is expected to end with a more moderate correction in investment in housing than has been the norm in recent years (-3.4%). **It will not be until 2015, however, that we begin to see a recovery in housing investment (5.0%).** This growth will represent an increase in activity from a relatively low base, given that housing investment will start from historically low levels of around 4.0% of GDP, the lowest ratio since 1980.

Turning to trade, growth in the world economy in the period 2014-2015 (3.6% and 3.9%, respectively) points to robust demand for Spanish exports which, thanks to increasing diversification, are less exposed to any fall in demand in a given geographical region (See Box 3). **Together with the depreciation of the real exchange rate, driven by an advantageous inflation gap for goods and services produced in Spain, this factor points to high export growth over the forecast horizon (average 6.6% per year).** Meanwhile, imports of goods and services will return to a growth path (average 6.3% per year) driven by dynamic final demand due to the increasing contribution of exports and the recovery of internal demand. However, this growth will be moderated by the substitution effect derived from continued gains in the competitiveness-price of Spanish products in the domestic market²⁰. Hence, net external demand will continue

19: In some regions, prices have in fact been rising in real terms for the last three quarters.

20: Readers interested in the relative role of the underlying income and substitution effects in the evolution of imports in Spain may consult Box 2 of the report Situación España for the fourth quarter of 2013, available at http://www.bbvaresearch.com/KETD/fbin/mult/1311_Spain-economicoutlook_tcm348-410911.pdf?ts=1422014

to make a positive contribution to economic growth in 2014 (0.6 pp) but this will be reduced practically to zero in 2015 (0.1pp), when domestic demand is expected to gain traction in the recovery. By the end of the forecast horizon, the Spanish economy will complete the adjustment of the structural deficit in the current account balance.

Labour market: the patient shows signs of life but is still in need of treatment

The progress of economic activity and efficiency gains in the labour market brought about by the reform of 2012²¹ will result in higher employment in the private sector than was anticipated three months ago, and in a slight fall in the unemployment rate. The job creation rate for 2014 has been revised upward to 0.4%, while the unemployment rate is now expected to fall to 25.6%. **Growth in the number of people in work will speed up to 1.0% in 2015, but the reduction in the unemployment rate will be similar to the forecast for 2014, given the less unfavourable evolution of the active population (24,8%). Meanwhile, full-time equivalent jobs are expected to grow at a more modest rate.** BBVA Research's forecasts indicate that the ratio of full-time equivalent jobs to total jobs will continue to fall from the current 87.9% to 87.5% by the end of 2015.

Despite the improved outlook, the labour market still faces numerous challenges. These include endemic dualism, the scant appeal of part-time contracts, and the rising share of the non-wage component in labour costs. In order to reduce the segmentation of the labour market and encourage the use of part-time contracts, the Spanish government opted to simplify administration of official contracts of employment, and at the end of last year it approved Royal Decree Law 16/2013 establishing measures to foster stable contracting and improve the employability of workers²².

The administrative simplification implemented involved creating a virtual assistant to guide employers to the contract which best suits their needs²³. Though very welcome, administrative simplification and transparency will need to be backed up by improvements in the system of severance compensation to reduce labour market segmentation and incentivise the creation of permanent rather than temporary jobs. Despite the recent progress made towards a more flexible legislative framework for employment in Spain, a wide gap remains between the cost of terminating permanent and temporary contracts, incentivising rigid segmentation of the labour market to the detriment of (mainly young) workers on temporary contracts and producing perverse outcomes for firms' productivity. In this light, it would be desirable to establish a mixed system similar to that used in Austria, in which a part of severance pay would depend on an employee's years of service to the company and a part would be set aside in an individual savings account²⁴.

By approving the measures enshrined in Royal Decree 16/2013, the government has sought to foster part-time working by making the system more flexible. To this end, it will allow the extension of working hours (in contracts with an annual average of at least ten hours per week) and will facilitate uneven distribution of working time by regulating surpluses and shortfalls through working hours pools lasting beyond the current year. It will also allow the creation of a part-time permanent contract designed for SMEs²⁵.

Though efforts to foster part-time working are welcome insofar as they are relatively uncommon in Spain (15.4% of total jobs in 3Q13, 6 points below the Eurozone average), the measures adopted to make the system more flexible do not address the key issue, which is the complexity of the legislative framework²⁶. Moreover, the undesirable effects of part-time contracts also need

21: Labour market reform has facilitated the necessary balance between adjustment of the extensive margin (jobs) and the intensive margin (working hours and wages), and it has also helped raise productivity. Together with the change in the productive model taking place in the Spanish economy, these outcomes should ensure greater job creation and a faster reduction in the unemployment rate for each point of GDP growth. For more details, see Andrés, J., J. E. Boscá, R. Doménech y J. Ferri: "Job Creation in Spain: Productivity Growth, Labour Market Reforms or both", BBVA Working Paper 10/13, Madrid. Available at http://www.bbvarresearch.com/KETD/fbin/mult/WP_1013_tcm348-221513.pdf?ts=15112011.

22: Available at <https://www.boe.es/boe/dias/2013/12/21/pdfs/BOE-A-2013-13426.pdf>.

23: See http://www.sepe.es/contenido/empleo_formacion/empresas/contratos_trabajo/index.html.

24: Section 4 of the journal *Situación España* for the first quarter of 2009 contains a proposal in this regard.

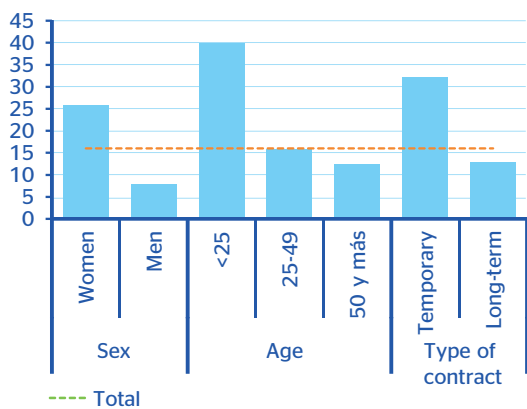
25: The Royal Decree Law also authorises temporary employment agencies to place workers with user-firms under training contracts.

26: See Mercader, J. R. (2013): *El trabajo a tiempo parcial: Situación actual y propuestas de futuro*. Instituto de Relaciones Laboral y Empleo (IRLE). Sagardoy Foundation. Madrid.

to be internalised. In this regard, we may note that part-time jobs are not uniformly spread across the population but mainly affect women, the young and temporary employees (see Chart 3.17). Meanwhile, more than 60% of part-time workers are in reality underemployed, which is to say they would prefer to work more hours (see Chart 3.18).

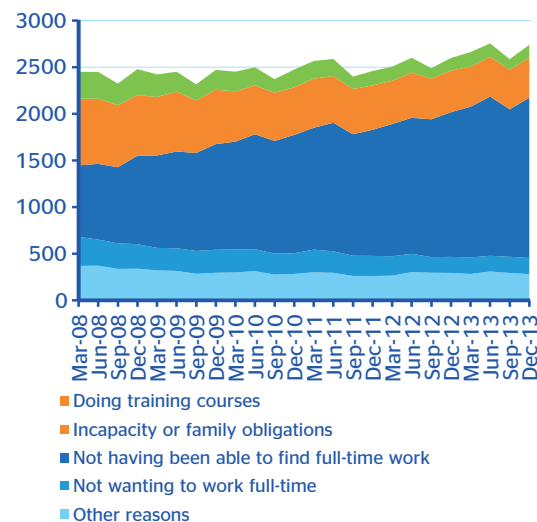
Finally, it will be necessary to adopt complementary measures to offset adverse outcomes from the inclusion of remuneration in kind in the Social Security contribution base provided for in Royal Decree Law 16/2013²⁷. Though necessary to prevent strategic behaviours in matters of employee remuneration and to enhance tax neutrality, the extension of contribution bases must be accompanied by a reduction in effective tax rates so as not to raise employment costs. Indeed, an economy in which one fourth of the workforce are unemployed needs alternative sources of funding for the Social Security system in order to incentivise job creation. For these purposes, it would be desirable to move towards a redistribution of the tax burden that would reduce the taxation of work and would increase the contribution of indirect taxes, resulting in a fiscal devaluation. A change of this kind in the tax structure would have significant effects on GDP, employment and, indeed, on consumer spending, as the income effect would prevail over the substitution effect caused by changes in relative prices.

Chart 3.17
Spain: part-time employment 2013 (%)



Source: BBVA Research based on INE

Chart 3.18
Spain: reasons for part-time employment (000s of people)



Source: BBVA Research based on INE

Prices will grow below the rate of inflation for the Eurozone

Following the exhaustion of the base effect caused by tax changes, the increase in regulated prices and the spike in raw materials in 2012, inflation is expected to remain low in the period 2014-2015 (see Box 1). Despite the gradual recovery expected in business and employment, the unemployment rate will remain at very high levels, limiting the appearance of demand-side inflationary pressures. On the supply side, it is not expected that upward pressure on domestic prices will emerge, because the recovery of competitiveness on which the Spanish economy has embarked is based, at least in part, on a change in the productive model, which has become more oriented towards external markets, and on the creation of greater flexibility in internal markets through structural reform. In this light, the forecast for average inflation is around 0.5% in 2014 and 1.0% in 2015, as a result of which the average inflation gap with respect to the Eurozone will continue to favour Spain (around -0.44% on average).

27: See the third final Provision of Royal Decree Law 16/2013.

Box 1. The moderation of Spanish inflation over the last five years

In certain circumstances, the evolution of the headline rate of inflation, and even of the rate of inflation excluding energy and unprocessed foodstuffs (the official definition of core inflation), can send erroneous signals about trends in the growth of prices and, as a corollary, about the likelihood of inflationary or deflationary tensions. This box analyses the recent performance of inflation in Spain, based on the empirical distribution of the disaggregated data from the Consumer Price Index (CPI). **The results obtained point to a moderating inflation trend and suggest that continuing falls in the general level of prices have become more likely than was the case a year ago, even though the inflation rate remains relatively low.** Underlying this situation are two domestic factors, namely **the steep fall in domestic demand and the removal of some non-competitive supply-side components (e.g. greater flexibility in wage formation).** This process is not new but began in 2008, and needs to continue in the future if the Spanish economy is to find a new balance. **In addition to these domestic factors, inflation shows signs of downward pressure in Europe as a whole. This is an unfortunate pattern, because it both makes it more difficult for Spanish companies to improve competitiveness and it hampers deleveraging.** In future, recovery in Europe should reverse this trend, but the ECB needs to take more decisive action to anchor inflation expectations around the target level.

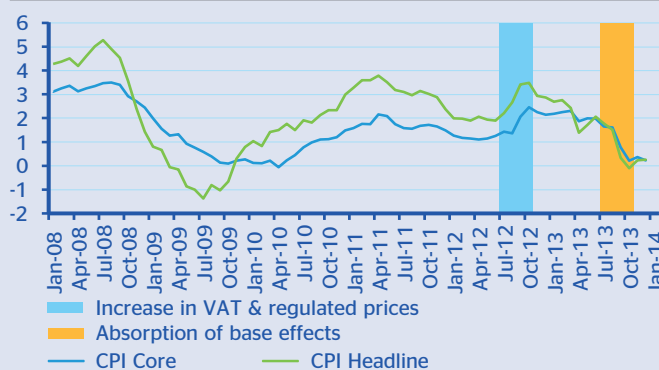
Motivation

Inflation slowed sharply in both Europe and Spain in 2013, falling to 0.8% YoY in Europe and 0.3% YoY in Spain in December. This caused some concern in a context of gradual economic recovery, because excessively low inflationary expectations could temporarily complicate the correction of certain macroeconomic imbalances in the short run, all else being equal. However, the official figures for the recent performance of inflation should be treated with caution, and above all more information should be analysed. First, this is because the slowdown observed over the last year is not due to a change in trend in inflation but to one-off factors like the disappearance of base effects following the VAT hike and increases in some regulated prices in the autumn of 2012 (see Chart B.1.1)²⁸. Second, very few episodes of low or negative inflation have ever been observed in Spain, in spite of cyclical fluctuations (see Chart B.1.2)²⁹, which could give rise to biased inferences about the likelihood of deflationary

tensions actually materialising from the standpoint of a classical (frequentist) statistical approach.

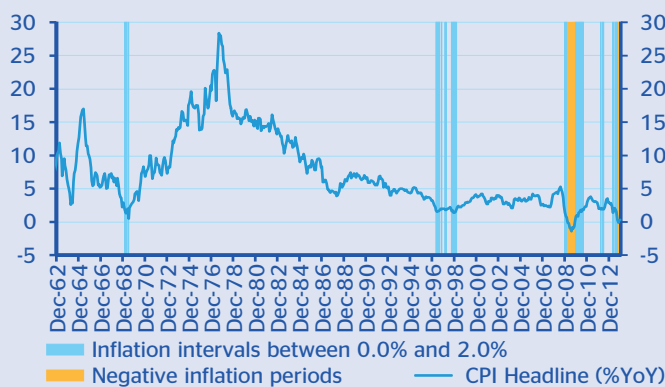
As a supplement to the analysis, the following sections examine the recent performance of inflation in Spain on the basis of changes in the empirical distribution of disaggregated inflation data. First, this provides a measure of trend inflation which is more robust to extreme and occasional variations in prices, and second, it reduces possible bias in the estimation of the likelihood of negative variations in the CPI. Finally, we discuss the economic factors underlying price movements over the last five years.

Chart B. 1.1
Spain: recent performance of inflation (% YoY)



Source: BBVA Research based on INE

Chart B. 1.2
Spain: historical performance of inflation (% YoY)



Source: BBVA Research based on INE

28: Both Eurostat and INE publish inflation statistics at constant tax rates. However, the level of aggregation used and the assumption that changes in tax rates feed through completely into prices do not accurately reflect the trend behaviour of inflation.

29: Due at least in part to the implementation of counter-cyclical exchange-rate policies before the introduction of the euro.

Methodology

The most common approach to the estimation of trend inflation in the literature is the exclusion method, which consists of eliminating those components of the CPI which are most volatile for reasons affecting supply (e.g. energy and unprocessed foodstuffs). However, these measures do not envisage the possibility that the prices included may change for reasons that are unrelated to the inflation trend (e.g. increases in regulated prices) or that the trend might in fact incorporate some of the prices excluded *ad hoc* (e.g. where permanent second-round effects exist)³⁰. In either case, exclusion methods will throw up erroneous signals about trend inflation and, therefore, about the likelihood of inflationary or deflationary tensions.

An alternative way of obtaining a trend inflation indicator that is robust to these biases is to construct trimmed-mean measures³¹. This method utilises the empirical distribution of CPI components at any given moment in time to identify extreme variations, which are excluded from the mean, so that the remaining observations can be re-weighted. Thus, the mean $\mu_t^{\alpha,\beta}$, which trims $\alpha\%$ of extreme values in the left tail of the CPI distribution and $\beta\%$ in the right tail, is calculated as follows:

1. For each month t , monthly changes in prices for each CPI component i $\pi_{i,t} : \{\pi_{1,t}, \dots, \pi_{n,t}\}$, and their respective weightings in the consumption basket, $\omega_{i,t} : \{\omega_{1,t}, \dots, \omega_{n,t}\}$, are arranged in ascending order.
2. The cumulative weighting to the i th CPI component, $W_{i,t} \equiv \sum_1^i \omega_{i,t}$, is then defined and the set of observations for which the mean is to be calculated, $I_t^{\alpha,\beta} : \{i,t \mid \frac{\alpha}{100} < W_{i,t} < \frac{\beta}{100}\}$, is determined.
3. Finally, the weighted mean of the observations in $I_t^{\alpha,\beta}$ is calculated by:

$$\mu_t^{\alpha,\beta} = \frac{1}{1-\alpha-\beta} \sum_{i \in I_t^{\alpha,\beta}} \omega_{i,t} \times \pi_{i,t}$$

Using the weighted distribution of the 126 subclasses which make up the CPI in Spain³², we created 2,601 symmetric and asymmetric trimmed means³³ in this way, beginning with the general rate of inflation observed, $\mu_t^{0,0}$, through to the median, $\mu_t^{50,50}$, progressing stepwise in increments

of α and β equal to one percentile. We then selected the "optimum" trimmed-mean, μ_t^* , for the total period 2002-2013 and for the two sub-periods of interest, comprising the expansion of 2002 to 2008 and the recession of 2008 to 2013. The criterion we applied to select the optimum trimmed-mean was its predictive capacity with respect to annualised mean inflation over a forecast horizon of 30 months^{34,35}. Finally, we constructed confidence intervals around the optimum trimmed-mean selected utilising the information from the other trimmed-means obtained and the results of the equal predictive capacity test proposed by Diebold and Mariano (1995)³⁶. Based on these confidence intervals, we can draw conclusions about changes in trend inflation and the likelihood that risk events associated with inflationary and deflationary pressures will occur.

Results

The results obtained applying the methodology described above to Spain are in line with the findings reported by Meyer and Venkatu (2012) for the USA, showing that the optimum trimmed-mean is close to the median. Chart B.1.A1 presented in the appendix shows the colour map with the values of α and β corresponding to the optimum trimmed-mean for the total sample (2002-2013) together with the respective confidence intervals. **The results suggest that the central 7% of the price distribution includes sufficient information with regard to the behaviour of trend inflation in Spain during the period 2002-2013.** This means that the optimum trimmed-mean for this period, $\mu_t^{43,50}$, excludes 43% of extreme values in the left tail of the distribution and all extreme values (50%) in the right tail.

Furthermore, the empirical distribution of the CPI displays significant uncertainty and asymmetry. The colour map shown in Chart B.1.A.1 shows a broad zone around the symmetric means trimming 30% or more of the distribution tails, which in terms of the ability to accurately predict future inflation are statistically equal to the optimum trimmed mean at a confidence level of 40%. As the percentage of trimmed observations increases, the probability mass shifts downwards and to the right, confirming the evidence for asymmetry towards the right distribution tail.

30: Chamberlin (2009) provides a brief review of the different approaches utilised in the literature to estimate trend inflation, summarising their advantages and disadvantages.

31: See Bryan and Cecchetti (1994), and Bryan et al. (1997).

32: The starting point taken was the distribution of monthly annualised inflation, adjusted for seasonal and calendar effects in order to prevent contamination of trimming results by the base effects present in the year-on-year rates of growth in inflation.

33: Numerous studies demonstrate that inflation follows an asymmetric, leptokurtic distribution (broad, asymmetric tails) (see, for example, Bryan et al. (1997), and Meyer and Venkatu (2012)). In this light, the construction of a full set of symmetric and asymmetric trimmed-means is justified.

34: The selection criterion employed was the square root of the mean quadratic error.

35: Following Meyer and Venkatu (2012), future mean inflation was selected as the target variable in this study (prospective approach) rather than central moving average at each observation (retrospective approach), which is more commonly used (see, for example Clark (2001) and Cogley (2002)). Alternative forecast horizons of 24 to 36 months were calculated to confirm the robustness of the approach. The results of this exercise (available to interested readers on request) do not differ qualitatively from the results described in this box.

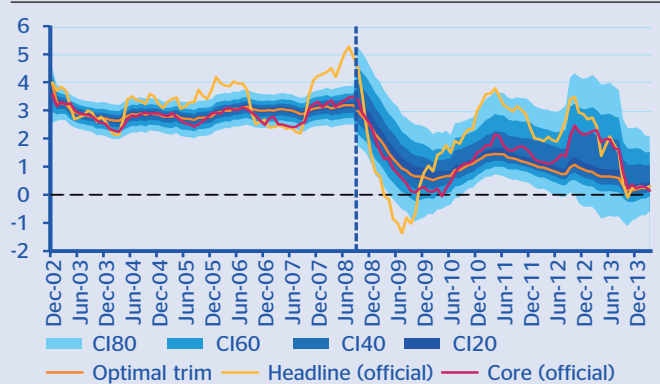
36: In particular, the trimmed-mean $\mu_t^{\alpha,\beta}$ belongs to the confidence interval $CI(p\%)$ around the optimum trimmed-mean μ_t^* when the test proposed by Diebold and Mariano (1995) does not reject the null hypothesis of equal predictive capacity at a significance level of $(1-p\%)$.

This is largely due to changes in the price formation process in the recent economic crisis. Charts B.1.A.2 and B.1.A.3 in the appendix show that the optimum trimmed-mean for the expansive period, $\mu_t^{28,32}$, eliminates 28% of the extreme values in the left distribution tail and 32% in the right tail, while the optimum trimmed-mean for the recession period, $\mu_t^{40,50}$, removes 40% of extreme values in the left distribution tail and 50% in the right tail. It is also apparent that the significant uncertainty in the distribution of the CPI is due to the increase in volatility in the second sub-period.

Chart B.1.3 shows the evolution of prices obtained on the basis of the optimum trimmed-means selected, together with the respective confidence intervals and the official aggregates for general inflation and underlying inflation. The first key finding is that trend inflation did indeed fall substantially at the onset of the crisis and it slowed again even more sharply in 2011, when the Spanish economy again slipped into technical recession. Meanwhile, an increase in uncertainty is observable, which at first sight would appear to be in line with the increased volatility found in general inflation. At the same time, the official underlying inflation figure is found to be a good indicator, in general terms, of trend growth in prices, although its evolution was upwardly biased by factors external to the trend in 2012 and downwardly biased in 2013. Specifically, the rise in prices observed in 2012 and the consequent deceleration in 2013 were largely due to factors exogenous to demand, like the VAT hike and increases in certain regulated prices in the autumn of 2012.

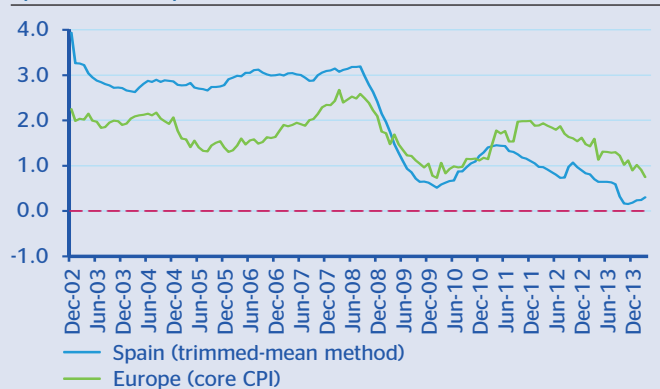
Finally, at the end of the sample there is a mass of probability that is close to 20%, below the level of a zero inflation rate. This result indicates that further negative price adjustments are possible in the current economic conditions with a probability close to the aforementioned threshold. In the main, this possibility could occur in the absence of inflationary pressures in Europe and the effort made by the Spanish economy to gain competitiveness (see Chart B.1.4).

Chart B.1.3
Spain: Inflation (% YoY)



Source: BBVA Research based on INE

Chart B.1.4
Spain and Europe: trend inflation



Source: BBVA Research based on INE and Eurostat

What are the factors underlying the moderation of inflation in Spain?

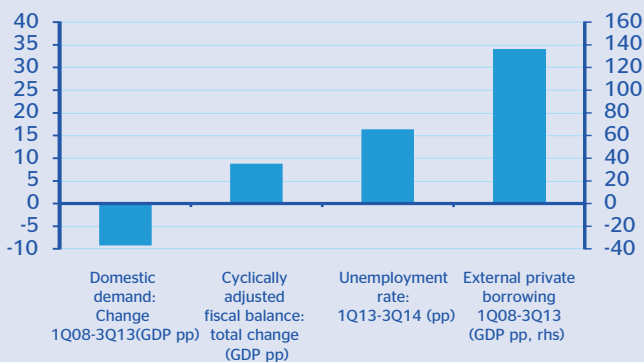
One of the key features of the deceleration in the Spanish inflation rate is that it has occurred after the Great Moderation. Beginning the early 1990s, the level and volatility of inflation rates in the advanced countries gradually declined to historically low levels. Meanwhile, economic growth became less volatile and macroeconomic stability lasted for almost twenty years (Bernanke, 2004). To a greater or lesser extent, the factors which explained the moderation of inflation at that time underlie the current process of moderating inflation³⁷. In particular, the literature offers three possible, mutually compatible arguments:

37: For a detailed analysis of the mechanisms explaining the Great Moderation, see McConnell and Pérez-Quirós (2000), Lubik and Schorfheide (2004), Cogley and Sargent (2005), Ball and Sheridan (2005), Sims and Zha (2006) and Gürkaynak et al. (2010), among others.

1. Increase in the volatility of shocks, related this time around with the global scope of the financial crisis and its duration in the industrialised nations.
2. Structural changes brought about by the raft of economic policies implemented, which is designed to improve the functioning of product and labour markets.
3. The functional context of macroeconomic policies, in particular monetary policy, the objective of which is to modulate inflationary pressures and anchor expectations of inflation.

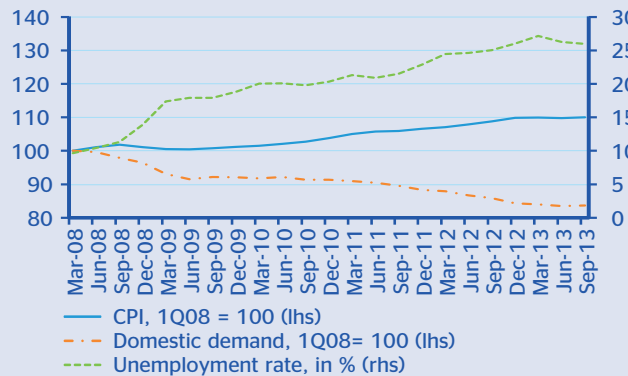
The virulence of the shock underlying the financial crisis of 2008 came as a surprise after the years of macroeconomic stability accompanying the Great Moderation. **The depth and duration of the economic crisis in Spain has had major consequences, in particular for domestic demand,** burdened by the weight of private-sector indebtedness, the high rate of unemployment, fiscal consolidation and the fallout from financial fragmentation in the EMU (see Chart B.1.5). The deterioration in domestic demand has been accompanied by a deceleration in inflation, which can only be described as moderate in comparison with the persistent fall in demand (see Chart B.1.6). **Considered from this standpoint, the deceleration of inflation would be temporary, and the path of moderation would reverse as and when demand reactivates** as a consequence of private-sector deleveraging, a let-up in the pace of consolidation of public finances, and convergence towards a sustainable level of lending, among other factors.

Chart B.1.5
Spain: macroeconomic indicators during the crisis



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

Chart B.1.6
Spain: CPI, domestic demand and unemployment rate



Source: BBVA Research based on INE

After more than twenty years in the EU, there were still significant weaknesses in the functioning of product and labour markets in the Spanish economy in early 2008³⁸. The economic literature documents the beneficial effects of increasing competition on inflation in the Spanish economy during the Great Moderation (Correa-López et al. 2013). Meanwhile, the agreement for employment and collective bargaining signed in January 2012 and the labour market reform approved in February of the same year have successfully reined in the inflationary bias of wages in the second phase of the crisis (BBVA Research, 2013a). Meanwhile, positive effects on prices are expected from the process of de-indexation currently under way in the Spanish economy and from the deregulation of professional services³⁹. Overall, **these structural reforms and targeted agreements have helped moderate fluctuations in prices and improve the competitiveness of the Spanish economy.**

At this point, the evidence suggests that the positive inflation differential with the EMU achieved in the last five years is the result of a narrowing of the wage-productivity gap based on higher productivity growth combined with wage moderation, and of a reduction in the inflationary bias of profit margins (see Chart B.1.1). **Better functioning of the markets will allow a more even inflationary response in Spain to macroeconomic imbalances, and will consolidate the permanent competitive gains made in the last few years.** Consolidation of the competitive gains made by the Spanish economy is a necessary step towards future growth. In this light, further progress is needed not only on the implementation of further

38: See Bentolila et al. (2012) and BBVA Research (2013b).

39: A detailed report on the economic policy measures which will in practice de-index the Spanish economy will be found in Bank of Spain (2014).

mechanisms to enhance business flexibility, but also on measures to boost competition and minimise monopolistic gains in those sectors in which the latter may be acting as a drag on competition.

Finally, in the absence of significant changes in monetary policy, **the ECB needs to align its response to the**

moderation of inflation in the EU to the signals it receives about inflationary expectations. In this regard, it is likely that looser monetary policy over a prolonged period will prevent any possibility of deflation in the Eurozone member states that are most exposed to this risk.

Table B.1.1

Inflation accounting in the Eurozone 12: contributions to changes in the GDP deflator (average YoY growth, %)

	1999-2008				
	Total	Wages	Productivity	Margin	Taxes
EZ-12	1,93	1,22	0,34	0,84	0,21
Deviation with respect to the Eurozone-12					
Germany	-1,17	-0,60	0,23	-0,35	0,00
Ireland	1,21	1,06	0,29	0,28	0,16
Greece	1,38	0,44	0,05	0,79	0,20
Spain	1,77	0,56	-0,33	0,79	0,08
France	-0,05	0,23	0,02	-0,19	-0,06
Italy	0,45	-0,05	-0,34	0,18	-0,02
Netherlands	0,66	0,71	0,38	0,18	0,15
Portugal	0,98	0,65	-0,03	0,02	0,27
Finland	-0,44	0,38	0,40	-0,29	-0,14
	2009-2013				
	Total	Wages	Productivity	Margin	Taxes
EZ-12	1,16	0,93	0,21	0,22	0,22
Deviation with respect to the Eurozone-12					
Germany	0,26	0,09	-0,31	-0,10	-0,04
Ireland	-1,82	-1,31	0,41	0,42	-0,52
Greece	-0,76	-1,84	-0,48	0,78	-0,18
Spain	-1,05	-0,23	1,17	0,24	0,11
France	0,03	0,19	0,08	-0,15	0,06
Italy	0,21	-0,24	-0,28	0,01	0,16
Netherlands	-0,17	-0,18	-0,17	0,04	-0,21
Portugal	-0,48	-0,47	0,43	0,79	-0,37
Finland	0,79	0,43	-0,39	-0,42	0,40

Notas: The contribution of profit margins has been calculated as a residual. The total represents the sum of the contributions from wages, margins and taxes, less the contribution from productivity. Productivity is measured as output per worker. AMECO forecast for 2013..

Source: BBVA Research based on AMECO

References

Ball, L. and Sheridan, N. (2005). "Does inflation targeting matter?" in B. Bernanke and M. Woodford (eds), *The Inflation Targeting Debate*, University of Chicago Press.

Banco de España (2014). "La desindexación de la economía española", *Boletín Económico*, January.

BBVA Research (2013a). "Persistencia del desempleo and dinámica salarial en España", *Situación España*, second quarter.

BBVA Research (2013b). "Los costes de una regulación anticompeticitiva: España en comparativa internacional", *Situación España*, third quarter.

Bentolila, S. , Dolado, J. J. and Jimeno, J. F. (2012). "Reforming an Insider-Outsider Labor Market: The Spanish Experience", *IZA Journal of European Labour Studies*, vol. 1, 2012.

Bernanke, B. (2004). The Great Moderation, remarks at the Eastern Economic Association, Washington, DC, 20 February (available at <http://www.federalreserve.gov/boarddocs/speeches/2004/20040220/default.htm#fn3>).

Bryan, M.F., and Pike, C.J. (December 1, 1991). Median Price Changes: An Alternative Approach to Measuring Current Monetary Inflation. *Federal Reserve Bank of Cleveland, Economic Commentary*.

Bryan, M.F. Cecchetti, S.G., & Wiggins, R.L. (1997) "Efficient Inflation Estimation". *National Bureau of Economic Research Working Paper no. 6183*.

Chamberlin, G. (2009), "Methods explained: Core Inflation" *Economic & Labour Market Review*, vol. 3(9), pp 49-57.

Clark, T.E. (Second Quarter 2001). "Comparing Measures of Core Inflation". *Federal Reserve Bank of Kansas City Economic Review*.

Cogley, T. (2002), "A Simple Adaptive Measure of Core Inflation". *Journal of Money, Credit and Banking*. vol 34(1), pp. 94-113.

Cogley, T. and Sargent, T. (2005). "Drifts and volatilities: monetary policy and outcomes in the post-WWII US", *Review of Economic Dynamics*, Vol. 8, pp. 262-302.

Correa-López, M, García-Serrador, A. and Mingorance-Arnáiz, C. (2013). "Product Market Competition, Monetary Policy Regimes and Inflation Dynamics: Evidence from a Panel of OECD Countries", *Oxford Bulletin of Economics and Statistics*, forthcoming.

Diebold, F.X., and Mariano, R.S. (1995). "Comparing Predictive Accuracy", *Journal of Business & Economic Statistics*, vol. 13(3), pp. 253-263.

Gürkaynak, R, Levin, A. and Swanson, E. (2010). "Does inflation targeting anchor long-run inflation expectations? Evidence from long-term bond yields in the US, UK and Sweden", *Journal of the European Economic Association*, Vol. 8, pp. 1208-1242.

Lubik, T.A. and Schorfheide, F. (2004). "Testing for indeterminacy: an application to U. S. monetary policy", *American Economic Review*, Vol. 94, pp. 190-217.

McConnell, M. and Pérez-Quirós, G. (2000). "Output fluctuations in the United States: what has changed since the early 1980s?", *American Economic Review*, Vol. 90, pp. 1464-1476.

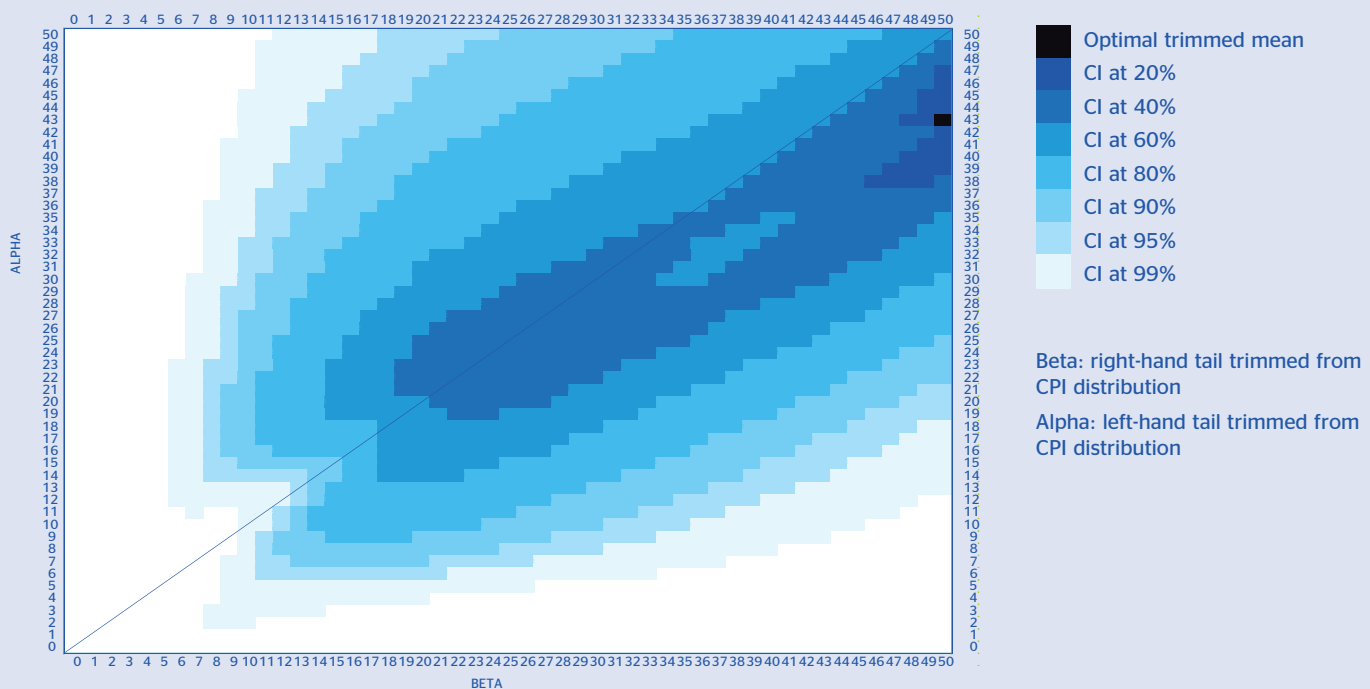
Meyer, B. and Venkatu, G. (2012), "Trimmed-Mean Inflation Statistics: Just Hit the One in the Middle." *Federal Reserve Bank of Cleveland, working paper no. 12-17*.

Sims, C. and Zha, T. (2006). "Were there regime switches in US monetary policy?", *American Economic Review*, Vol. 96, pp. 54-81.

Appendix 1

Chart B.1.A.1

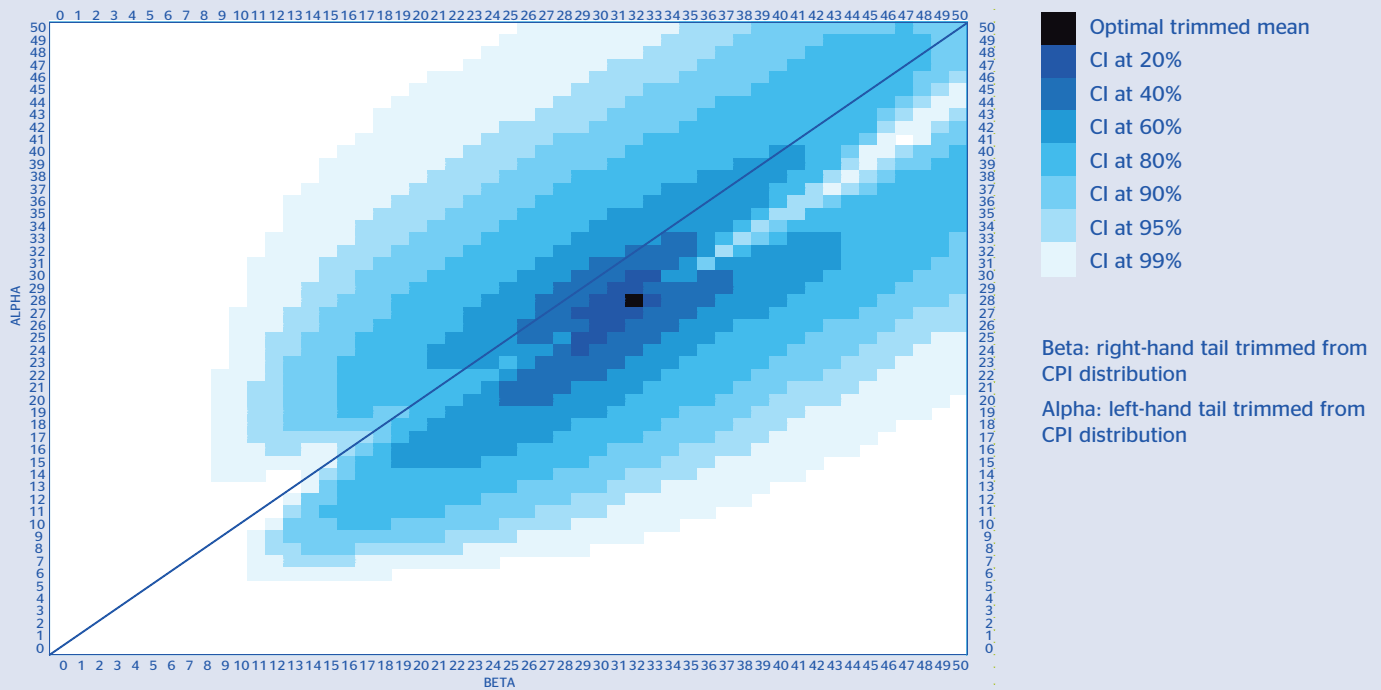
Spain: optimal trimmed mean of inflation and confidence intervals (forecast horizon: 30 months; 2002-2013)



Source: BBVA Research based on INE

Chart B.1.A.2

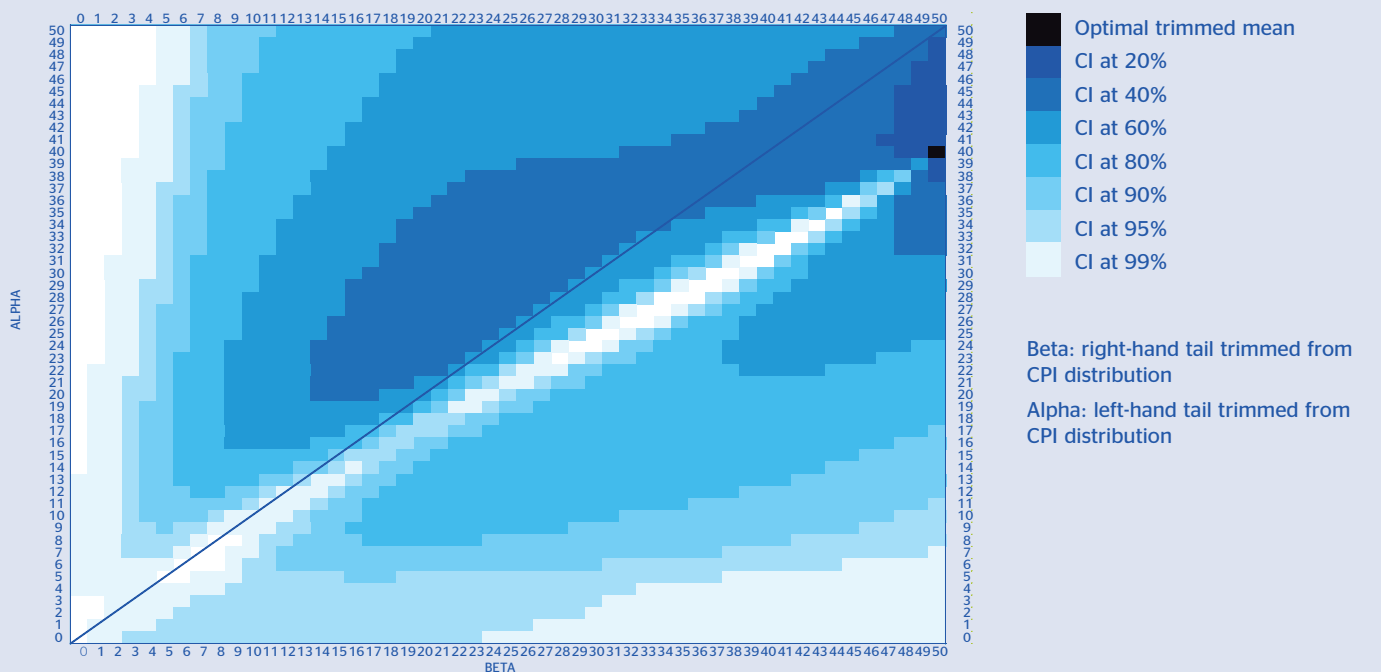
Spain: optimal trimmed mean of inflation and confidence intervals (forecast horizon: 30 months; 2002-2008)



Source: BBVA Research based on INE

Chart B.1.A.3

Spain: optimal trimmed mean of inflation and confidence intervals (forecast horizon: 30 months 2008-2013)



Source: BBVA Research based on INE

4. Although fiscal consolidation continues, the pace is too slow

Although adjustments were noted throughout 2013, **the 3Q13 public finance balance sheet showed pretty modest results if one only considers the total deficit figure**, thus increasing the likelihood of not reaching the end-of-year goal (-6.5% of GDP). This means that the accumulated Spanish public sector balance by the end of 3Q13 stood at -4.4% of GDP, once aid to financial institutions (0.5pp of GDP) is stripped out. This figure puts the 3Q13 deficit nearly 0.2pp (in absolute terms) over the figure recorded in 3T12 (see Chart 4.1), whereas the aim was to bring it down by 0.5pp by the end of the year, and without any announcement on measures similar to those put in place during the last quarter of 2012.

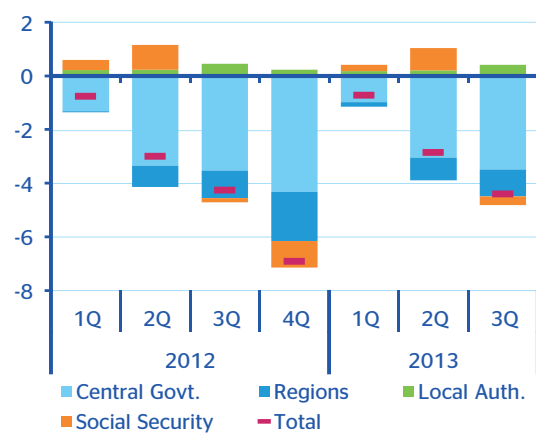
By administration level, Social Security closed 3Q13 with a deficit of 0.3% of GDP, compared to the accumulated -0.2% to September 2012 (see Chart 4.2), while the remaining administrations' accumulated deficit by the end of the third quarter was at similar levels to those over the same period in 2012. So the public sector closed September with a deficit of 3.5% and the regions with -1.0% of GDP, whereas local authorities registered a surplus of 0.4% of GDP. Both the central government and the regions had a small margin (0.3pp of GDP in both tiers, compared to the 0.8pp registered during 4Q12), thus succeeding in meeting their stability targets by year end.

Chart 4.1
Public sector: net lending (+)/borrowing(-) needs(*) (Accumulated YtD. % GDP)



(*) Without factoring in aid to financial institutions
Source: BBVA Research based on MINHAP

Chart 4.2
Public sector: net lending (+)/borrowing needs (-) (*) (Accumulated YtD. % GDP)



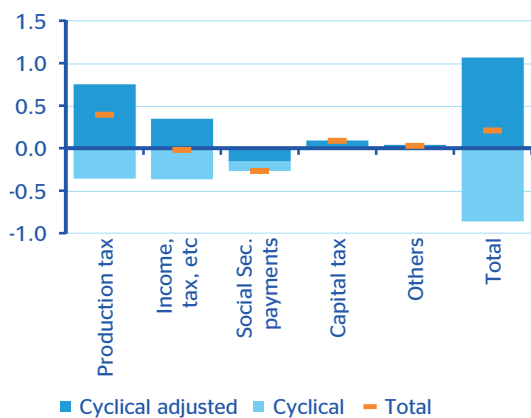
(*) Without factoring in aid to financial institutions
Source: BBVA Research based on MINHAP

The worsening that can be seen in Social Security accounts is symptomatic of the impact that the drop in activity and employment has had on the public deficit. So, in line with BBVA Research estimates, the economic cycle's tightening tone has drained around 0.9pp of total accumulated public revenue from 3Q13. This cyclical deterioration has absorbed most of the 1.1pp improvement in adjusted income from the cycle, deriving to a large degree from the measures passed (see Chart 4.3). This improvement has its roots in both the increased rate of VAT and special taxes - which are bringing in a structural increase of around 0.8pp of GDP, and increased income tax revenues and changes to the corporation tax regulations, which together are reporting increased revenues of around 0.3pp of GDP. As a result, public revenues as a whole showed an uptick of two decimal points over the previous year, reaching 37.4% of GDP (annual accumulated) to the end of September 2013.

Meanwhile, **lowered output has had less effect on public expenses, given their more discretionary nature** (see Chart 4.4). So in the first three quarters of 2013 the actual effects of the cycle increased public expenditure by slightly less than a decimal point of GDP. Similarly, adjustment to the structural component has continued in items such as the payroll, unemployment benefit and investment. However, this adjustment has not been enough to offset the increase observed in interest payments (0.3pp of GDP) and social benefits (0.4pp). As a result, total annual accumulated expenditure on the part of public administrations as a whole came in at around 44.4% of GDP at the close of the 3Q13, barely 0.2pp below the accumulated figure to September 2012.

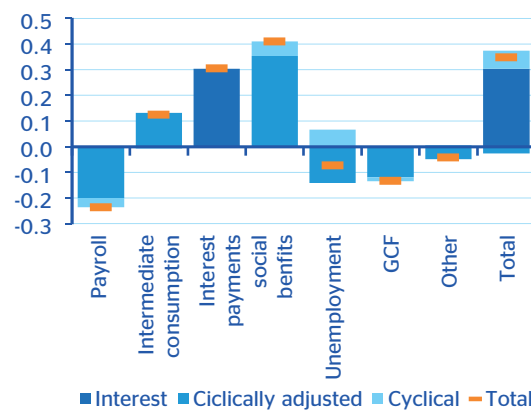
Based on these figures, **public sector primary balance as a whole has shown a structural adjustment close to 1.1pp**, and stood at -1.7% of GDP as of September 2013. If the impact of the economic cycle is factored in (-0.9pp), a primary deficit of 1.9% of GDP was reached by the close of 3Q, compared to the -2.1% registered in 3Q12. This result shows that, although it is ongoing, fiscal consolidation is less intense than it has been in previous years.

Chart 4.3
Public Sector: adjustment in accumulated non-financial revenues to 3Q13 (pp of GDP)



Source: BBVA Research based on MINHAP & INE

Chart 4.4
Public Sector: adjustment in accumulated non-financial expenditure to 3Q13 (pp of GDP)



(*)Without factoring in aid to financial institutions
Source: BBVA Research based on MINHAP

When it comes to the end of the year, **the latest figures on public sector budget execution show a degree of fiscal tightening**. The accumulated deficit grew in November 2013 to 4.0% of GDP, three decimal points below the deficit to November of the previous year. These figures are the fruit of having maintained YoY growth in revenues and increased expenditure, impacted by the increase in interest payments and larger sums transferred to the Social Security system.

In this scenario, **although fiscal tightening is expected to have continued during 4Q13, it is unlikely to be enough** to compensate for the negative effects of the drop in output on revenues during the previous quarters, and the expected rise both in interest and in social benefits (excluding unemployment benefits). According to BBVA Research, in the final quarter of 2013 the cycle stopped losing revenue and public income represented around 37.1% of GDP, the same as in 2012. This weak income performance means that the consolidation push in the last quarter of the year has again been aimed at expenditure, particularly on investment and intermediate consumption (see Table 4.1). However, this push has been insufficient and we estimate that Spanish public administrations closed financial year 2013 with a deficit of around 7.0% of GDP, nearly half a point above the stability target (-6,5 %).

Table 4.1

Public Sector.: net borrowing, excluding aid to the financial sector

% of GDP	2012	2013 (e)	2014 (p)	2015 (p)
Payroll	11.2	11.0	10.7	10.6
Intermediate consumption	5.7	5.7	5.5	5.4
Interest payments	3.0	3.4	3.6	3.8
Unemployment benefit	3.1	2.9	2.7	2.6
Social benefits	13.2	13.7	13.7	13.6
Gross capital formation	1.7	1.5	1.5	1.5
Other expenses	6.0	5.9	5.5	5.2
Non-financial expenses	44.0	44.2	43.2	42.8
Production taxes	10.4	11.2	11.1	11.4
Income, wealth taxes, etc.	10.2	10.3	10.4	10.4
Social contributions	13.0	12.6	12.3	12.3
Capital taxes	0.4	0.5	0.5	0.6
Other revenues	3.1	2.6	3.1	3.1
Non-financial revenues	37.1	37.1	37.4	37.7
Net borrowing	-6.8	-7.0	-5.8	-5.1
Stability target	-6.3	-6.5	-5.8	-4.2

(e) estimate.

(p) forecast.

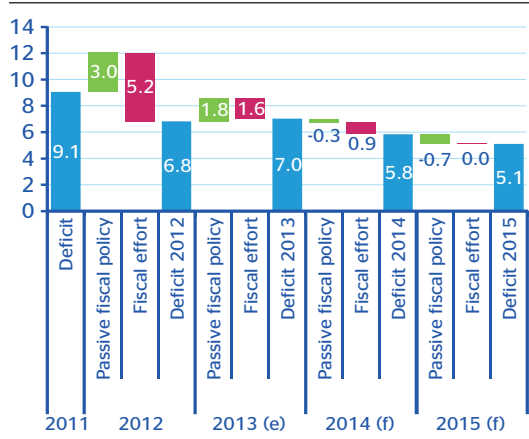
Source: BBVA Research based on MINHAP & INE

The predicted deviation from the 2013 deficit target is once again moving part of the adjustment pressure to 2014. As Chart 4.5 shows, for 2014 we estimate that the positive effects of the economic recovery will more than make up for the expected structural increase in expenditure on social benefits and debt interest payments, which will reduce the deficit by about 0.3pp of GDP. Added to this, BBVA Research forecasts predict that the impact of the fiscal tightening measures taken in this period will contain the public deficit by a little more than 0.9pp of GDP. In this way the 2014 deficit, once aid to the financial sector has been excluded, will be about 5.8% of GDP, in line with the budget stability target For 2015 we believe that the economic cycle will continue to correct the fiscal deterioration and will again compensate for the increase in increased debt interest payments. As a result, and in a no-policy-change scenario⁴⁰, the deficit by 2015 will remain at around 5% of GDP, above the target of -4.2% agreed for the year in question.

Nevertheless, if BBVA Research's forecasts are realised, the cyclically-adjusted public balance will already go below 2% of GDP by 2014, a level that has not been seen since the beginning of the century. If interest payments are discounted, there will be a primary surplus from the end of 2013 onwards after a correction of the latter of over 10pp of GDP between 2009 and 2013 (see Chart 4.6). However, going forward, uncertainty persists as to the government's capacity to reduce deficit levels to below 3% of GDP in 2016, given the high burden of interest payments on debt, the temporary nature of some of the measures imposed and a recovery which will be slow to start.

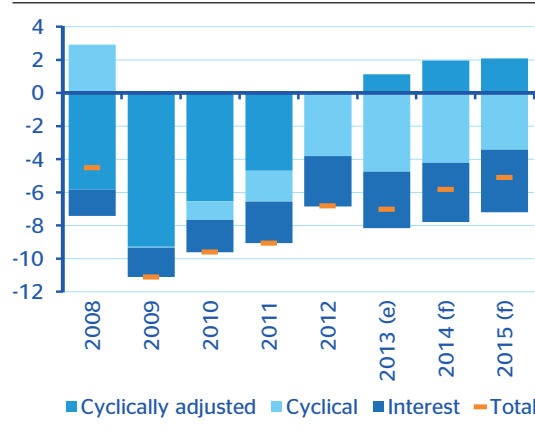
40: In other words, without bearing in mind the effects of the tax reform that has been announced, nor other measures relating to the reform of public administrations.

Chart 4.5
Public Sector: expected fiscal tightening(*)
(% GDP)



(*)Without factoring in aid to financial institutions
(e): estimate;
(f): forecast
Source: BBVA Research based on MINHAP & INE

Chart 4.6
Public Sector: net lending (+)/net borrowing (-)(*)
(% GDP)



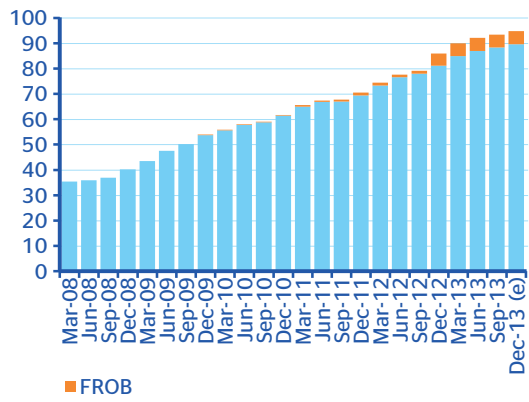
(*)Without factoring in aid to financial institutions
(e): estimate;
(f): forecast
Source: BBVA Research based on MINHAP & INE

Public debt: a long way to go

According to BBVA Research estimates, public sector debt has risen to 94.7% of GDP in 2013, and will be around 100% by the end of 2015. With this outlook, **there is still a long way to go on controlling the public balance sheet, if debt is to be brought below the 60% threshold.** To achieve this, primary surpluses will have to start appearing in public accounts but the economy's nominal growth will also need to be higher than the implicit interest of public debt. The analysis in Chart 4.7 of the earlier period of fiscal consolidation shows that this occurred between 1998 and 2007; over this period public debt went down by over 27pp of GDP, at an average rate of about 3pp a year. During this time, economic growth (at an annual average rate of 7.5% of nominal GDP) played an important role in the reduction of public debt levels, since it more than compensated for debt interest repayments (with an annual implicit rate of 5.3%).

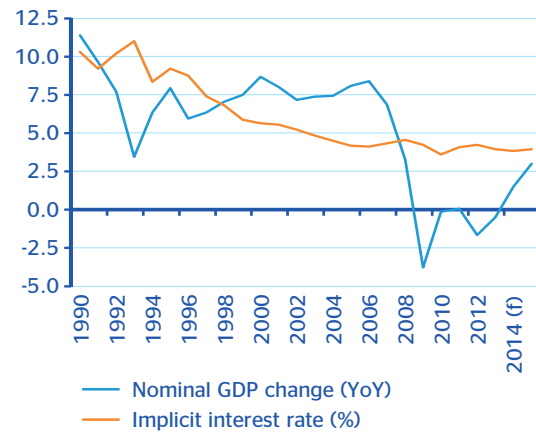
In the current scenario, it is unlikely that the economy will grow at such rapid rates as it did between 1998 and 2007; nor is it likely that growth will be greater than the implicit interest rate before 2016. Therefore, the debt reduction that we need to see will have to come from the capacity of governments to generate powerful primary surpluses. For this to happen, it is crucial that deficit control policies continue. Although a significant part of the measures passed and/or implemented will have long-term effects, the risk of not complying with stability goals in the next few years lies in a weaker economic recovery than forecast and/or in a relaxation of fiscal consolidation policies.

Chart 4.7
Public Sector: EDP debt (% GDP)



(e): estimate.
Source: BBVA Research based on Bank of Spain and MINHAP

Chart 4.8
Spain: YoY change on nominal GDP and implicit interest rate of public debt (%)



(f) forecast.
Source: BBVA Research based on INE, MINHAP and Bank of Spain

Box 2. Expansion, crisis and consolidation of Spain's public accounts⁴¹

One of the principal consequences of the economic crisis, and of the discretionary policies introduced to mitigate its effects, has been the significant deterioration in Spain's public accounts. Spain's public administrations went from posting a surplus of 2.4% of GDP in 2006 - the fourth-largest in the EMU - to posting a deficit of more than 11% at end-2009. Spain thus became the country with the worst imbalances in its public accounts, after Greece and Ireland. This deterioration, together with the financial tensions of the past few years, has determined economic policy and forced the public administrations to effect considerable fiscal consolidation to bring their accounts back into balance.

In this context, this box is a general overview and comparison of the performance of Spain's public revenues and expenditure, enabling us to evaluate the fiscal policy put in place and indicate the possible direction of reforms.

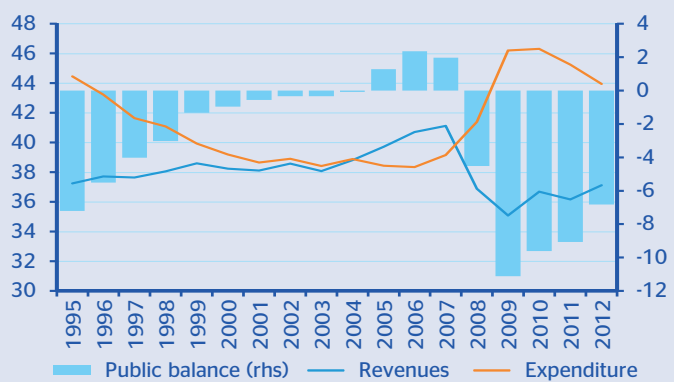
A point of departure

The present consolidation process is not the first that Spain's public administrations have had to undertake. **In the mid-90s**, in order to meet the targets for joining the euro, Spain started to reduce its public deficit, and this led to the most stable budgetary period of the last forty years. As Chart B.2.1 shows, between 1995 and 2007 public expenditure as a percentage of GDP went down more than revenue went up (5.2pp and 3.9pp respectively). With the arrival of the crisis and the implementation of countercyclical measures, public expenditure went up 7pp to 46.2% by the end of 2009, while revenues fell to 36.7% of GDP, levels similar to the mid-80s. High deficits at the beginning of the crisis pushed public administrations' debt up to nearly 18pp of GDP. Although the level of public debt stayed under the threshold of 60% of GDP, its swift growth increased the pressure on financial markets, making it essential to implement fiscal consolidation policies. For this reason, **since the middle of 2010, tightening measures were gradually implemented, both through spending cuts and through revenue increases, which have had uneven results.** These enabled Spain to reduce its public deficit by 4.3pp of GDP, bringing it down to 6.8%.

If the effect of automatic stabilisers on public debt is analysed, as we can see in Chart B.2.2, **the consolidation that began in the mid-90s was mainly driven by the balance's cyclical component and by the reduction in interest on debt repayments.** Meanwhile, the cyclically-

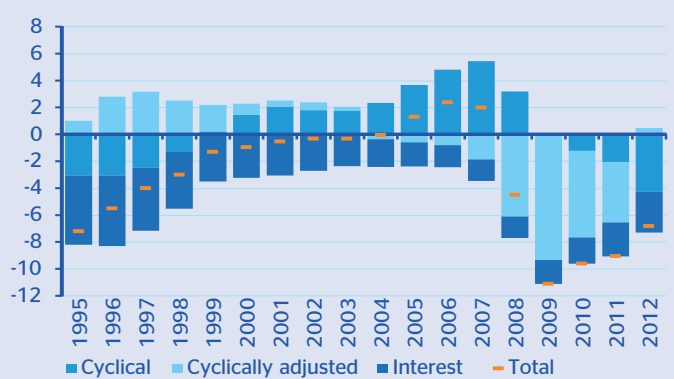
adjusted primary balance (excluding interest payments) stabilised at around 2.5%. In the same way, the significant increase in public deficit between 2007 and 2009 was due to two factors: a deterioration in the cyclically-adjusted balance and the negative effects of a drop in output. Lastly, since 2010 the structural balance adjustment has more than compensated for the cycle's negative impact and increased interest payments. Nevertheless, the cyclically-adjusted deficit continues to stand at around 3% of GDP, which indicates that the end of the consolidation path has not been reached.

Chart B.2.1
Spain: PA's net borrowing (-)/lending (+) needs, excluding aid to the financial sector (% of GDP)



Source: BBVA Research based on MINHAP & INE

Chart B.2.2
Spain: Net borrowing (-)/lending (+) needson the part of PAs, excluding aid to the financial sector (% of GDP)



Source: BBVA Research based on MINHAP & INE

41: This box is a summary of the Economic Watches "Public expenditure and Revenues: expansion, crisis and consolidation" (available in : <http://serviciodeestudios.bbva.com/KETD/ketd/esp/index.jsp>) and "Comparative Performance of Public Revenues", to be published shortly

Public expenditure: where to set the limit?

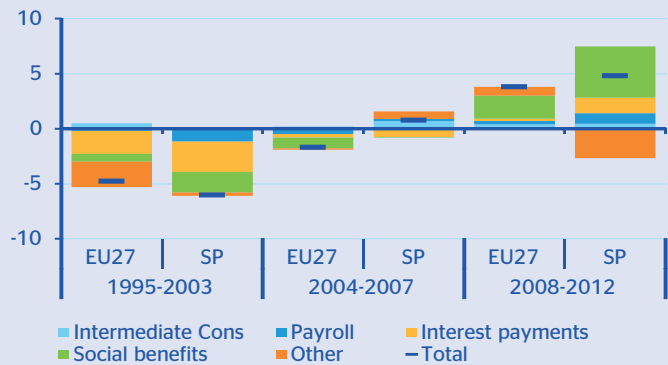
As discussed above, since the mid-90s Spanish public expenditure gradually went down from 44.5% of GDP to the 38.4% registered in 2003. As Chart B.2.3 illustrates, practically all the expense items contributed to this fall of 6.1pp, although reduced interest payments and social benefits were somewhat more intense. However, from 2004 onwards growth could be seen in items such as payroll figures, intermediate consumption and investment. These improvements more than made up for the continued reduction in interest payments (connected to the drop in implied rates and the fall in the level of public debt) and social benefits (associated to a large degree with the positive performance of the labour market). This trend in Spanish public expenditure is in contrast to what was happening in most of the European Union, where until 2007 contraction in expenditure was visible in nearly all areas.

Despite all of the above, public expenditure in Spain has always stayed below that of the European countries' average. Even during the expansion policy at the outset of the crisis, it remained below the European average (51.0% of GDP in 2009 too). Similarly, when fiscal consolidation policies began to be implemented, the adjustment in Spain was slightly more intense than the European average, although it has been restricted by a much greater growth in interest and social benefits compared to its European neighbours.

Thus, between 1995 and 2007 public expenditure in Spain began to converge with that of other European countries, although there was a slight difference in the adjustment process. During this period, over 60% of the expenditure reduction in Spain came from interest payments, whereas in Europe the drop in interest rates represented just under 40% of total adjustment. As a result, primary expenditure in Spain went down by 1.8pp, whereas the average for all European countries was 4.1pp of GDP. With the crisis cuts to primary expenditure have been greater in Spain in relative terms than elsewhere in Europe, going down by 40.9% and 46.4% of GDP respectively.

However, even though Spanish public expenditure has converged, particularly during the economic crisis, to levels similar to those we see in other European countries, this does not mean that expenditure does not have to be a part of the necessary process of public deficit reduction. A shake-up needs to take place in the composition of public expenditure, one which improves the efficiency of public administrations.

Chart B.2.3
EU: change in non-financial jobs (pp. of GDP)



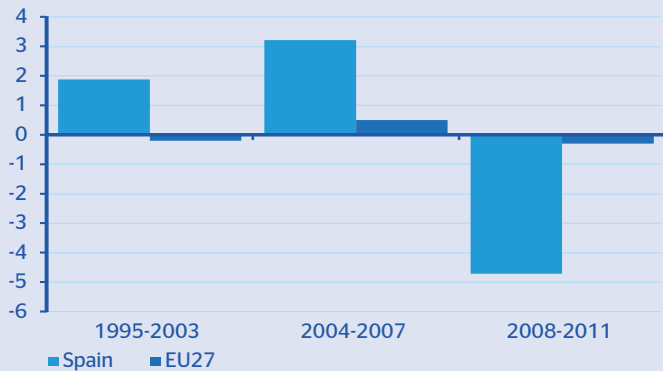
Source: BBVA Research based on MINHAP

Growth in public revenues beyond their potential

The economic crisis interrupted the rise in Spanish public revenues that had begun at the beginning of the 80s, which was driven by tax revenues (including social security). This meant that tax resources in Spain went from around 33% of GDP in 1995 to over 38% by the end of 2007, levels that were still lower than the European Union average (40% of GDP).

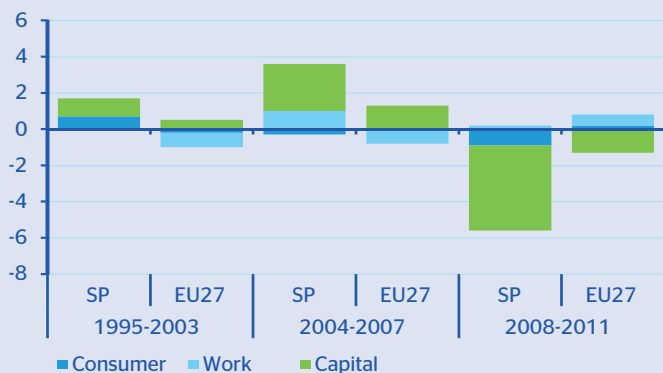
Chart B.2.5 shows that in the initial phase (1995-2003) Spanish tax resources grew by 1.9pp of GDP, then flattened at around 35% of GDP, reducing the difference with the EMU countries' average (39.8%). A second phase (2004-2007) was characterised by strong expansion in Spanish tax revenues, which raised resources by over 3pp of GDP. Finally, once the economic crisis occurred, Spanish tax revenues came crashing down between 2008 and 2009, much more strongly than in the European Union as a whole (with a drop of 5.8pp and 0.7pp of GDP respectively). Furthermore, while from 2010 onwards the drop in tax revenues stabilised in the EU as a whole, in Spain, after a slight recovery due to the impact of initial fiscal consolidation measures, they fell again in 2011 until they had dropped back to levels not seen since the early 90s.

Chart B.2.4
EU: change in tax resources as pp of GDP



Source: BBVA Research based on MINHAP & Eurostat

Chart B.2.5
EU: change in tax resources, depending on tax base type, as pp of GDP



Source: BBVA Research based on Eurostat

These changes can be explained by the tax structure. Specifically, revenues can be classified according to their type of tax base. In Spain, the share of taxes on work (which includes social security contributions) and consumer spending in total tax revenues have been rather less than the European average. The burden of taxes on capital in total tax revenues, however, has always been rather higher. However, once again the performance of each has been different.

During the expansion period and until 2007, tax collection on consumer spending in Spain increased slightly, while in EU countries on average it hardly moved. This came at the same time as an increase in the implicit rate on consumer spending in Spain and a slight dip in that rate in the EU

as a whole. **The crisis had a particularly hard impact on consumer tax collection.** Since 2007 there has been a fall everywhere, and more so in Spain, both in revenue and in implicit rates. Fiscal consolidation measures and rises in the VAT rates approved in 2009 unleashed a swift surge in the implied rate, both in Spain and in the rest of the EU. This jump in implied rates explains the growth in consumer resources over the last few years, 1.1 pp in Spain and 0.5 pp in the EU on average (see Charts B.2.5 and B.2.6). Even so, and **even though implied rates are converging with the European average, tax resources on consumers are still lower in Spain than in neighbouring countries, and represent a small share of the country's total revenues.**

In terms of the **fiscal burden on work, this has been noticeably stable** at around 16% of GDP in Spain and slightly below 20% in EU countries on average. However, the pattern has changed in the first few years of this century. While in the European area the trend has been to reduce work-related taxation, in Spain it has gone up slightly. **The crisis interrupted this tax rate dynamic with an across-the-board hike from 2009 onwards in employment taxes** (see Chart B.2.5). This comportment was in the context of implicit tax rates in European countries going slightly down, whereas in Spain there was a continuous increase in these taxes until 2009 (see Chart B.2.6). Since then both geographical areas have shown a tendency to raise their implied rates, more firmly even that in the pre-crisis period. Nevertheless, **Spain's implicit rate of employment tax has at all times remained below the European average. As a result, tax collection on employment has been comparatively low.**

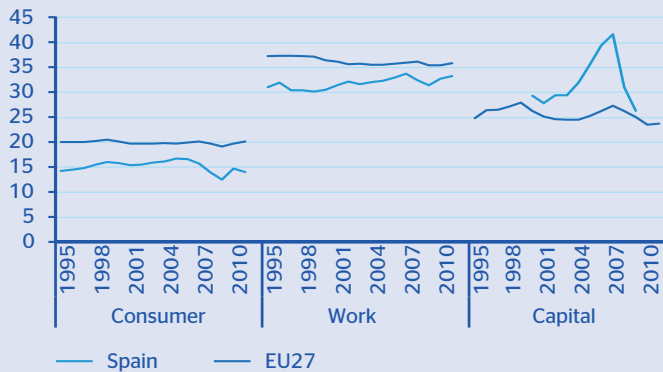
The recent history of capital tax revenues has differed hugely in Spain from other EU countries. **Although in the latter half of the 90s the tax burden on capital grew as much in Spain as the European average, from the beginning of the century and until the crisis began, the increase in the Spanish ratio was much higher than the European average** (4.4pp of GDP compared to 0.4pp, respectively). With the arrival of the crisis, tax revenues from capital fell quickly in Spain from 11.3% of GDP in 2007 to 6.6% in 2012, and stuck at levels lower than those reached in the mid-90s. This behaviour on the part of capital taxation is **mirrored in the implicit rates which, after a growth spurt at the beginning of the century, suffered a steep drop** from 41.6% in 2007 to approximately 23.3% in 2011⁴² (see Charts B.2.5 and B.2.6).

42: Estimate based on the ratio of capital revenue over GDP and the capital tax base published in Box 2: Capital tax base, from Taxation trends in the European Union, 2013. When interpreting implied rates on capital it is wise to bear in mind that in the expansion phase prior to the economic crisis there was a boom in capital markets throughout the EU, which considerably increased tax resources on capital earnings. Given that these earnings are not included in the denominator used to calculate implied capital rates, they may be overestimating the effective tax burden of capital taxes. This is what may be behind the significant increase in the implied rates we have seen in Spain.

The data in Chart B.2.8 make clear that tax revenues obtained from these taxes have come in on average below the level they should have, according to the implied rate. Given that nominal capital rates, despite cuts over the years, continue to be amongst the highest in the European area, this may be a sign of a degree of inefficiency in the tax.

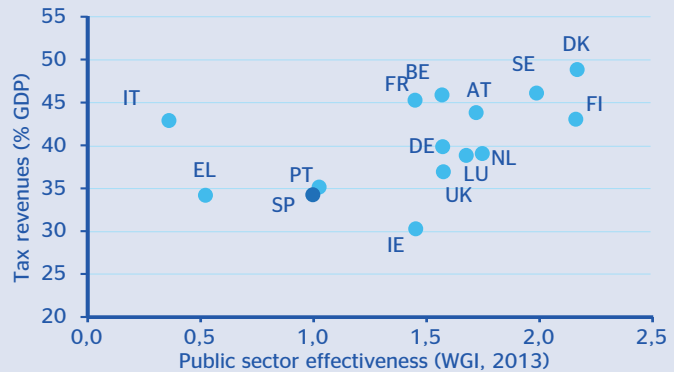
sizes of public sector to those of Spain (see Chart B.2.8). In this situation, until the reforms necessary to increase public sector efficiency are introduced, we are unlikely to see any convergence towards the tax rates enjoyed by residents of other countries in the European environment with more consolidated public sectors.

Chart B.2.6
EU: implicit rates by type of tax base (as percentages)



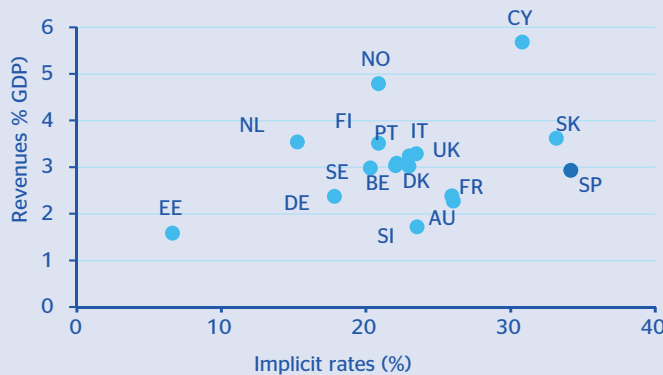
Source: BBVA Research based on Eurostat

Chart B.2.8
EU: change in non-financial jobs (pp. of GDP)



Source: BBVA Research based on Eurostat y World Bank

Chart B.2.7
EU: taxes on capital, business income. 1995-2011 average (percentage of GDP)



Source: BBVA Research based on Eurostat

Together with all this, the information available about public sector expense efficiency, such as that presented in the Worldwide Governance Indicators (WGI)⁴³, shows that the level of efficiency in the Spanish public sector is lower than that of many other European countries with similar

Conclusions

The fiscal consolidation process prior to 2007 was intense and had the effect of cutting the deficit, making it possible to reduce public debt and widen the scope of action for public administrations. However, an important part of the tightening on the expenditure side was due to the steep fall in debt repayment interest rates. On the revenue side, a higher than expected increase in GDP explained firstly how it came to stabilise at levels close to 38% of GDP and then, between 2003 and 2007, 41.1% growth. With the economic crisis, public revenues went down significantly, reaching 36.3% of GDP by 2012.

After five years of crisis, the Spanish economy is facing the challenge of having to continue reducing the public deficit, stabilise debt and eventually reduce it. To do this, economic policy makes a reduction in public debt that improves public administrations' efficiency advisable in the short term. After this, **when this improvement can be felt, it will be more feasible to enlarge the public sector with tax increases.** We should not forget that the size of the public sector is the result of both social preferences and of governmental efficiency at the various

43: WGI is a World Bank Project which aims to measure the quality of governance in countries by surveying a large number of companies, individuals and experts from 215 countries, both industrialised and developing. The quality of governance is analysed around six major areas: voice and accountability, political stability and absence of violence, regulatory quality, rule of law and control of corruption and governmental efficiency. This last area measures the quality of public services, the capability and freedom from interference exercised by civil servants and quality in formulating public policies. More information at <http://info.worldbank.org/governance/wgi/index.asp>

levels of public administrations, of institutional quality, tax design, the level of tax evasion, the effectiveness of expenditure policies, etc. The greater the efficiency, the more society will accept gradual increases in fiscal pressure, if the goal is a public sector of similar size to those in some northern European countries. In any event, **this improvement in efficiency in the public sector is a process which will take quite a long time and** for that reason we are unlikely to see this convergence in either the short or medium term.

To summarise, the Spanish economy is embarked on achieving expenditure levels lower than those of neighbouring countries if not permanently, at least for a long time. For public finances to be stable and solvent, the following are necessary:

- **Increase efficiency in collecting public revenue taxes**, maintaining, or even reducing as far as possible, theoretical tax rates and widening the tax base.
- **Reorganise fiscal infrastructure so that it is more transparent, simple and efficient, in order to promote economic growth.**
- **Reduce the weight of public expenditure on GDP to levels approaching 38%**, as was the case in public revenues between 1995 and 2003, in order to guarantee budgetary stability in the medium and long term.
- **Improve the transparency and efficiency of expenditure policies at the various levels of public administration and evaluate their results.**

References

European Union (2013): "Taxation trends in European Unión. 2013 edition (http://ec.europa.eu/taxation_customs/taxation/gen_info/economic_analysis/tax_structures/).

Kaufmann, D., Kraay, A., y Mastruzzi, M. (2010): "The Worldwide Governance Indicators: Methodology and Analytical Issues". World Bank Policy Research Working Paper No. 5430. Disponible en SSRN: <http://ssrn.com/abstract=168213>.

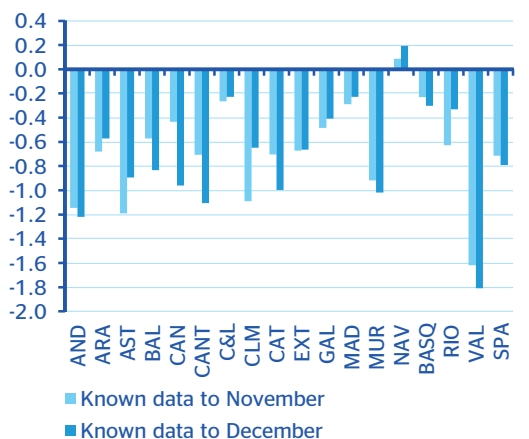
OECD (2010), "Growth-oriented tax policy reform recommendations", in Tax policy Reform and economic growth, OECD publishing (<http://dx.doi.org/10.1787/9789264091085-3-en>).

5. The regions: on the road to a recovery in domestic demand

Over the last three months, we have observed certain changes in the economic data of the different regions and have received new information with respect to the previous scenario. This consequently warrants a review of the outlook for some regions, notwithstanding the fact that for the regions taken as a whole, our forecasts of a decline in 2013 and a recovery in 2014 and 2015 remain relatively unchanged. In particular, we perceive three types of impacts on regional activity trends in the short term: one caused by the revision of INE's regional accounting (SRA Spanish Regional Accounting); one that includes the information which has become available since the publication of our last quarterly report in November; and one arising from a different fiscal policy than what was expected three months ago. In 2014 and 2015, the regions will continue relying on exports (of both goods and services) to generate growth. However, the varying degree of progress in the correction of the imbalances amassed before and during the crisis will reduce the negative contribution of residential investment and public expenditure to domestic demand, and may even turn the contribution positive in some regions.

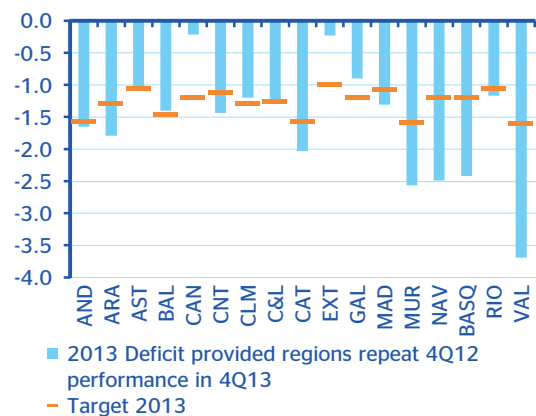
The SRA **revision includes two changes: the extension of** the timeframe of available information which has used 2008 as the base year and the update of the data for the 2010-2012 period, making them compatible with the changes observed in Spain's national accounts (QNA)⁴⁴. The former means that we have access to homogeneous series from 2000 to 2012, vs. the links that were previously used for pre-2008 data. This affects the information used by the models and has a **significant impact on some regions**⁴⁵. The update of the information for 2010 through 2012 also reveals significant changes in the performance of some regions over the said period, in terms of both average growth rates (see Chart 5.1) and growth profile, the worst-affected being Cantabria, the Canary Islands, Catalonia, Valencia (to the downside) and Asturias and Castile-La Mancha (to the upside). With respect to the performance profile, the most significant variation occurred in the Balearic Islands, resulting in a downward revision of its 2012 growth (by six-tenths to 1%) that has a negative impact on the 2013 forecasts.

Chart 5.1
Annual average GDP growth 2008-2012 (%)



Source: BBVA Research based on INE

Chart 5.2
Estimate of regional deficit deviation, 2013



Source: BBVA Research based on MINHAP

44: The QNA's most noteworthy revision took place in August with the publication of new performance figures for the Spanish economy in 2011 and 2012 (see Spain Economic Outlook, November 2013, available here: http://www.bbva-research.com/KETD/fbin/mult/1311_Spaineconomicoutlook_tcm348-410911.pdf?ts=1022014). The Regional Accounting series consistent with the new profile of the Spanish economy were not published until 27th December, 2013.

45: The new data also reveal major differences with respect to those published in March. The most remarkable cases can be seen in the Basque Country and Cantabria (to the downside) and Castile-La Mancha (to the upside).

The second significant output bias in the latter part of 2013 stems from a somewhat greater improvement of the Spanish economy than we expected three months ago, giving rise to an upward revision of 0.1pp in 2013 GDP (up to -1.2%). This results in a widespread **improvement of the performance of most regions. Having said that, we still observe differences in the speed at which each of them is recovering. Thus, Andalusia, the Balearic Islands, Castile-La Mancha, Catalonia, Galicia, the Basque Country and Valencia display a mildly more optimistic bias than in November.** On the one hand, tourism (with good year-end data) has had a positive impact on the regions that most rely on this activity, and as such has impacted on labour market figures. The growth in goods exports, however, would appear to have entailed a greater benefit for Castile-La Mancha, Galicia and the Basque Country. On the other hand, in Extremadura and Madrid, domestic demand and goods exports appear to have decelerated more than we expected, although Madrid, and to a lesser extent La Rioja, may have benefitted from a year-end recovery in tourism.

The third bias for 2013 forecasts stems from the diverse performance of the regions and signs of easing in deficit target compliance in the latter part of the year. **Our forecasts three months ago⁴⁶ assumed that, once the asymmetrical deficits were approved, the regional governments would make the necessary efforts to meet their targets in the second half of the year.** Third quarter data reveal that the progress in some cases is clearly insufficient to meet the targets, particularly when bearing in mind that a number of exceptional measures were implemented in 2012 (such as the cancellation of public sector employees' Christmas pay cheque) but were not repeated in 2013 nor replaced by actions having a similar impact. **A conservative scenario, which assumes a performance of the regions in 4Q13 equal to that of the same period of 2012, would result in eight regions failing to meet their deficit targets** (see Chart 5.2). The regions' delay in consolidating their public accounts would suggest a change for some of them in the expected fiscal impulse at the end of 2013. Specifically, Aragon, Castile-La Mancha, Catalonia, Madrid, Murcia, the Basque Country, Navarre and Valencia could see a slight rise in their 4Q13 GDP as a result of that easing, even if not all of them were to fail to meet their targets as a result of that performance⁴⁷. If this were to be the case, **it would imply that the consolidation would have to be reinforced into 2014 and, therefore, prolong the public sector's negative contribution to growth.**

Chart 5.1 summarises the information that affects the revision of 2013 forecasts. The "SRA Bias" column reflects all changes arising from the modifications of the SRA and QNA. The "Fiscal Bias" column reflects the variation of the budgetary adjustment vs. what we expected three months ago. The "New Information" column shows the effect of including the new information available⁴⁸.

46: The information on Autonomous Community Accounts available at the time was up to 2Q13.

47: As this publication goes to print, some regions have announced compliance with their deficit targets. This appears to be the case for Madrid and for Andalusia (1.1% and 1.6% of regional GDP, respectively). In the Mediterranean regions, however, the most likely outcome appears to be a failure to meet their targets.

48: Following standard annual practice, the information published by Datacomex (Ministry of Economy and Competitiveness) was revised by including the final information for 2011 and 2012. This has caused changes in the performance profile of these indicators.

Table 5.1
2013 Growth by region (%) Breakdown of variation

	Forecast made in			February forecast
	November	SRA bias	Fiscal bias	
Andalusia	-1.6			-1.4
Aragon	-1.4			-1.3
Asturias	-1.6			-1.4
Balearic Is	0.0			-0.2
Canary Is.	-0.7			-0.4
Cantabria	-1.7			-1.2
Castile León	-1.5			-1.3
Castile-La Mancha	-1.7			-1.4
Catalonia	-1.3			-1.1
Extremadura	-0.8			-1.1
Galicia	-1.3			-1.0
Madrid	-1.1			-1.2
Murcia	-1.5			-1.2
Navarra	-1.5			-1.5
Basque Country	-1.2			-0.9
Rioja (La)	-1.3			-1.1
Valencian Com	-1.8			-1.5
Spain	-1.3			-1.2

(*) Green represents an upward bias. Orange (dark orange) represents a downward bias (more intense)

(II) SRA bias + fiscal bias + New information bias

Forecast closing date: February 7, 2014

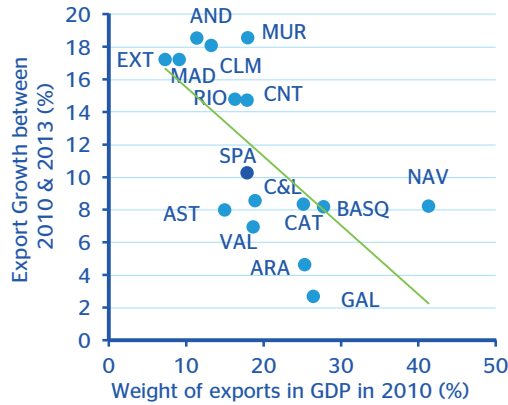
Source: BBVA Research

In 2014 and 2015, the stronger growth of European economies will favour an ongoing improvement of exports. As observed in previous years, the regions with a lower weighting of exports are those where foreign sales have risen the most in real terms (see Chart 5.3), supported by their progress in export diversification (see Box 3).

Furthermore, foreign tourism could continue to improve, supported by both the economic recovery of countries of origin and the political difficulties and atmosphere of insecurity in some rival countries. This could favour additional foreign tourism growth in those regions most focused on the sector (the Balearic Islands, the Canary Islands and Catalonia). In those more focused on domestic tourism, the adjustment of hotel rates over the course of the crisis has been greater and this, in turn, has led to a recovery in the influx of Spanish-resident visitors last year (see Chart 5.4). If the rates' adjustment process continues, the recovery of Spain's domestic demand might continue to be driven by these markets⁴⁹. Given the importance of tourism in regional GDP, this could entail an additional boost for the economies of Murcia and Aragon.

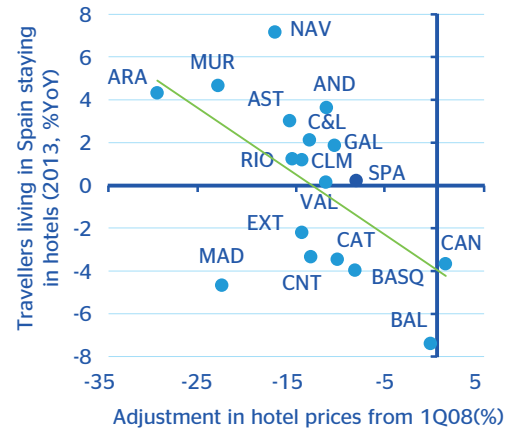
49: The level of hotel occupancy in the most foreign-oriented regions (the Balearic Islands, the Canary Islands and Catalonia) recorded new peaks in the high-season periods of 2013. Further improvements in foreign tourism could therefore mitigate the downward pressure on prices in these regions.

Chart 5.3
Weight in GDP & real export growth(*)



Source: BBVA Research based on INE & MINHAP

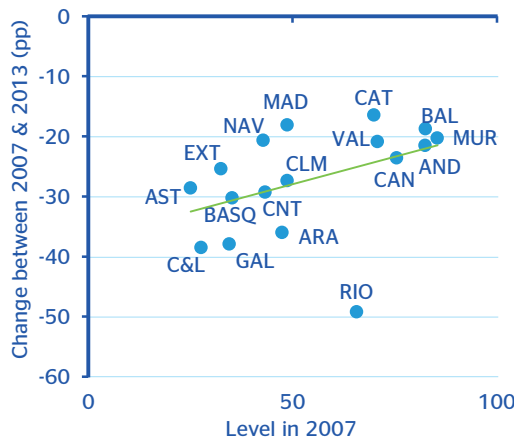
Chart 5.4
Domestic tourism in Spain



Source: BBVA Research based on INE

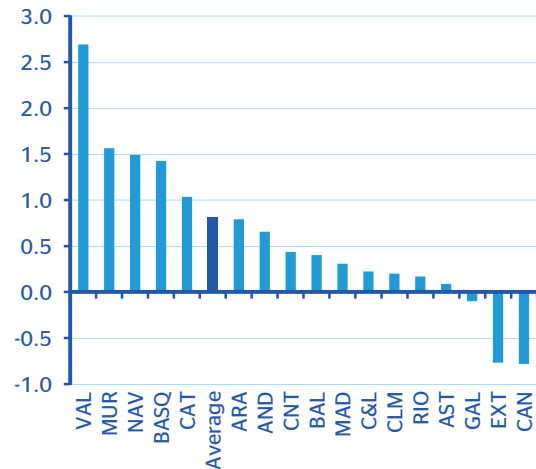
In the domestic market, the correction of imbalances will continue to characterise some of the differences in the performance of the regions, although less intensely than in past years. There are **important issues with respect to this point: the level of private-sector debt and the need for further fiscal consolidation in the regions' public sector.** With respect to the former, **the regions that had lower levels of household and corporate debt at the onset of the crisis have been the quickest to correct the situation** (see Chart 5.5). This means that internal demand is less constrained by borrowing costs. On the other hand, the Mediterranean regions, Madrid and Navarre are those that could be affected to a greater extent by this constraint. **On the fiscal side, while the consolidation effort in some regions can be considered practically complete, in others major adjustments** must still be made (see Chart 5.6), due to both the failure to meet the 2013 deficit target and the level of debt, which is still far from the limit set for 2020 (13% of regional GDP). Given our deficit assumptions for 2013, the catch-up required to meet the 2014 target would be as shown in Chart 5.6. **Once again, the Mediterranean regions would be the worst-affected** together with, in this case, the Basque Country and Navarre.

Chart 5.5
Change in leveraging ratio of Other Residential Sectors (ORS) (net balance between credit & deposits to ORS, as % of nominal GDP)



Source: BBVA Research based on BoS & INE

Chart 5.6
Fiscal pressure regions must impose to reach deficit target in 2014 (forecast using regions' deficit data as of 3Q13)



Source: BBVA Research

In addition to the above-mentioned biases, **the correction in the real estate sector has progressed and residential investment should cease to contribute negative growth in most of the regions. The adjustment progress is more advanced in Madrid, Navarre, Cantabria and Extremadura**, where the stock of unsold homes is close to the frictional level. The recovery of economic activity might be accompanied by a resurgence of housing demand, which would entail a recovery in the construction sector. In Madrid and Navarre, house prices have now recorded three quarters of growth in real terms. The situation is the same in the **Canary Islands and the Balearic Islands, supported by a recovery of foreign demand, which is also the case in the Mediterranean regions and which** could help hasten the correction of oversupply. In contrast, **the very significant oversupply in La Rioja and Castile-La Mancha combined with a virtual absence of foreign demand** means that the recovery of these markets will depend exclusively on local purchasing power, which implies a slower recovery.

In summary, we maintain our outlook for a moderate recovery, in which the diversity between the regional economies will continue, driven by their different exposures to the recovery of foreign demand and by the level of correction of their domestic imbalances. Some regions have made progress in opening up to foreign markets and cutting the excesses accumulated in the past. Others, however, continue to be weighed down by a domestic demand that is affected by high debt levels and low export exposure.

Table 5.2
2014 GDP growth by region (%). Forecasts revision

Summary Table: bias over forecast in 2014

	Spain Outlook Forecast Nov	Bias by models & information changes	Fiscal bias	Forecast in February
Andalusia	0.6			1.0
Aragon	1.0			0.9
Asturias	1.0			0.4
Balearic Is	1.3			1.1
Canary Is.	1.0			1.5
Cantabria	0.4			0.7
Castile León	1.3			1.2
Castile La Mancha	1.0			1.1
Catalonia	0.6			0.6
Extremadura	0.9			1.2
Galicia	1.3			1.5
Madrid	1.5			1.4
Murcia	0.3			0.1
Navarra	1.0			1.1
Basque Country	1.0			0.8
Rioja (La)	1.2			1.2
Valencian Com	0.2			0.4
Spain	0.9			0.9

(*) Green represents an upward bias. Orange (dark orange) represents a downward bias (more intense)

(*) The bias by models includes effects due to changes in the SRA and the new information available

The fiscal bias reflects the change in tax rates for 2014 compared to expectations 3 months ago

Source: BBVA Research

Table 5.3
GDP growth by region (%)

Region	Forecast				
	2011	2012	2013(e)	2014(f)	2015(f)
Andalusia	0.2	-2.1	-1.4	1.0	1.7
Aragon	-0.2	-1.9	-1.3	0.9	2.0
Asturias	0.4	-2.1	-1.4	0.4	1.3
Balearics	1.0	-0.8	-0.2	1.1	1.5
Canaries	0.4	-1.4	-0.4	1.5	2.1
Cantabria	-0.8	-0.9	-1.2	0.7	1.6
Castile Leon	1.1	-2.0	-1.3	1.2	1.9
Castile La Mancha	0.1	-3.1	-1.4	1.1	2.3
Catalonia	-0.4	-1.3	-1.1	0.6	1.5
Extremadura	-0.9	-2.8	-1.1	1.2	1.9
Galicia	-0.5	-0.9	-1.0	1.5	2.6
Madrid	0.7	-1.6	-1.2	1.4	2.4
Murcia	-1.0	-2.0	-1.2	0.1	2.0
Navarre	1.4	-1.6	-1.5	1.1	2.1
Basque Country	0.2	-1.3	-0.9	0.8	1.6
La Rioja	0.9	-2.0	-1.1	1.2	2.3
Valencian Com	-1.1	-1.6	-1.5	0.4	1.4
Spain	0.1	-1.6	-1.2	0.9	1.9

(e): estimation.

(f): forecast.

Forecast closing date: February 7, 2014

Source: BBVA Research

Box 3. Export diversification as an explanatory factor for regional growth

The importance of export diversification

Since they bottomed out in 2009, Spanish exports have expanded at an average YoY rate of 8.8%, a figure which is likely to enable the overall figure for 2013 to be 33% higher than 2009. This has meant that in an environment where internal demand has been contracting strongly, export dynamism has been the only component in final demand making a positive contribution to growth since 2010. Furthermore, unlike the scenario in the previous expansion cycle, regional export growth has taken place in a context of global economic crisis in which demand on the part of traditional trading partners, especially European countries, has been significantly affected.

Regionally, although the export sector has not behaved uniformly, the contribution of goods exports⁵⁰ to economic growth has increased significantly in most autonomous regions ("regions"). As a result, their share of GDP has grown to over 20% on average (see Chart B.3.1). This growth has been less buoyant in the island regions, which are more focused on services exports, particularly tourism.

Chart B.3.1

Breakdown of the weight of goods exports in the regions' GDP



Source: BBVA Research based on Datacomex

Efforts to reduce labour costs, productivity improvements and a strategy of diversification among Spanish exporters towards emerging markets have formed the basis for the sector's growth⁵¹, and have turned it into the main driver of economic activity⁵². This has meant that the export quota's positive differential over other developed countries has been maintained⁵³.

In this context, this box analyses the effects of geographical and product diversification among goods

exports from each region, and their potential repercussion on regional per capita GDP growth (pcGDP hereinafter).

In particular, the relevance of export diversification is a result of two key factors: the portfolio effect (export volatility diminishes as the number of destination countries and the product range increase) and the stimulus effects accounted for by the positive externalities of belonging to a global, competitive marketplace⁵⁴.

In line with the methodology proposed by Samen (2010), we have estimated a model with panel data in three steps. In the first one, a method is implemented for measuring the degree of diversification by region, and a model is estimated to determine its effect on export growth⁵⁵. The second step consists of estimating the contribution of exports to pcGDP. Finally, once the first two relationships have been estimated, the effect of export diversification is isolated in order to analyse its impact on pcGDP growth.

The **main results** of this box can be summarised as follows:

- Export diversification on the part of the regions has become more marked in the last 4 years**, which has meant that robust growth in these areas has been possible, despite the slack demand from traditional trading partners.
- Export growth is a determining factor in the continuing performance of regional pcGDP.**
- Export diversification has contributed, on average, 20bp to annual regional per capita income growth in the last 17 years.** This explains **12% of total pcGDP growth.**

This analysis differs in three ways from earlier empirical studies. In the first place, the time scale is lengthened, considering the period 1995 to 2012 with annual data, whereas Gordo & Tello (2013) analyse the 2000-2009 period. Second, the sample is enlarged to cover the 17 autonomous regions ("the regions"), unlike Cuadras & Puig (2008), who analyse export behaviour in Catalonia, Madrid, Basque Country, Valencia, Andalusia and Galicia through extensive and intensive margins⁵⁶. Finally, it is the first time that the effects of diversification on pcGDP growth on all the regions of Spain have been studied, although work has been done from the perspective of euro area countries. (Al-Marhubi, 2013) as well as from that of emerging countries (Lederman & Maloney, 2007), with similar results to those reached in this box.

50: Limited data on service exports broken down by region has meant that the analysis is restricted to exports of goods.

51: See IMF (2013) Country Report No. 13/232.

52: In Box 1 Spain Economic Outlook 4Q2013 the Spanish economy's stylised facts are analysed, and the forward-indicator nature of exports within the economic cycle can be seen. See http://www.bbva.com/KETD/fbin/mult/1311_Situacionspana_tcm346-410394.pdf?ts=2812014.

53: See BBVA (2012) "The Internalisation of Spanish Companies".

54: See Ghosh & Ostry (1994) and Amin Gutierrez de Pineres & Ferrantino (2000), among others.

55: In line with Gordo & Tello (2011), who give an export model for the Eurozone's four major economies in the 2000-2009 period.

56: The extensive and intensive margins used in Cuadras & Puig (2008) are alternative ways of measuring the degree of diversification.

Estimation method

STEP 1: Does diversification determine the behaviour of exports?

In order to establish the degree of diversification of goods exports by destination and by product, one of the most commonly used indicators for measuring export complexity has been employed: the Herfindhal-Hirschman index (HHI hereinafter):

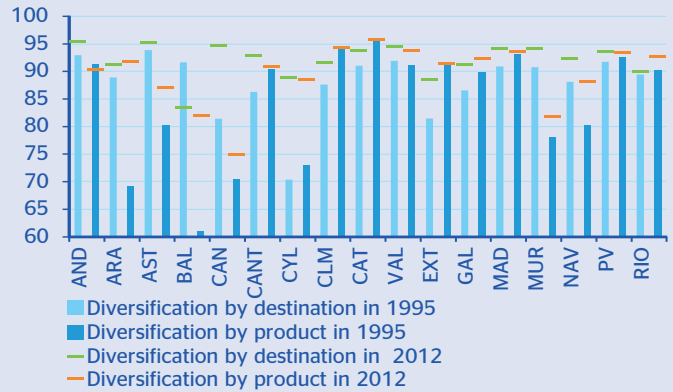
$$HHI_{destination}(k) = \sum_{(i=0)}^n \left(\frac{D_{k,i}}{\sum_{(i=0)}^n D_{k,i}} \right)^2$$

$$HHI_{product}(k) = \sum_{(j=0)}^n \left(\frac{P_{k,j}}{\sum_{(j=0)}^n P_{k,j}} \right)^2$$

Where $D_{k,i}$ is the total value of nominal exports from the region k to a country i and $P_{k,j}$ is total nominal exports from the region k of a product j ⁵⁷. By their very nature, these indexes, which measure the dispersal of international trade in an economy through export quotas, rise as the concentration of export sales increases. For the sake of analysis, they have been normalised for the purpose of keeping them within 0 and 100⁵⁸, and they are transformed, as Agosin (2009) proposes, in such a way so as to express diversification and not concentration: $HHI^* = (100 - HHI)$

Chart B.3.2 shows an overall increase in diversification by destination since the mid 90s; here regions such as Castilla y León and Extremadura stand out, with a brusque return to the non-weighted regional average. However, the progress of the degree of diversification by product is less even. Thus, there are regions which have undergone much change in their international trade, such as Castilla y León and Aragón, while others such as Andalusia and Catalonia have relatively steady figures throughout the period of the sample.

Chart B.3.2
Diversification of regions by product and destination. (1995-2012)



Source: BBVA Research based on Datacomex

Once the HHI^* have been computed, an export growth equation is estimated where the relevant explanatory variables are the normalised diversification indexes, with the aim of testing the influence of export diversification on international trade of goods from the regions.

$$\Delta X_{k,t} = \beta_1 HHI_{destination}^*_{k,t} + \beta_2 HHI_{destination}^{*2}_{k,t} + \beta_3 HHI_{product}^*_{k,t} + \beta_4 HHI_{product}^{*2}_{k,t} + \alpha_k + \eta_t + e_{k,t} \quad (1)$$

The terms α_k and η_t capture, respectively, sensitivity to the economic cycle and the idiosyncratic effects of each region⁵⁹. The results of each estimation indicate that diversification, whether by product or geographical destination, contributes positively to export growth. Quantitatively, elasticity in diversification by destination is greater than one, whereas diversification by product shows an impact lower than one (see B.4.1). However, it is important to highlight the non-linearity of this relationship (as indicated by signs of the quadratic variables), which indicate decreasing rates of return as higher levels of diversification are reached.

The results are consistent with those obtained in Gordo & Tello (2011), where the extensive and intensive margins play an important role in explaining the behaviour of export quotas in the eurozone's four biggest economies, and with those of Cuadras & Puig (2008), where margins help to explain the export ratios over GDP of the regional economies with the most exports.

57: The number of destination countries is 257 and the number of products, 59. Obviously, not all regions export to the same number of countries or trade with the same range of products.

58: $HHI^*_k = \frac{(HHI_k \cdot 1/N_k)}{(1-1/N_k)}$ where N represents the number of destination countries or products for each region.

59: Variables α_k and η_t represent diverse cyclical and idiosyncratic regional factors. However, the existence of omitted variables from the estimation cannot be ruled out.

Table B.3.1

Estimates of the goods export growth function (1995-2012)

Dependent variable: ΔX	estimated β	
Diversification by destination	1.816	(0.185)***
Diversification by destination ²	-0.042	(0.004)***
Diversification by product	0.424	(0.180)**
Diversification by product ²	-0.033	(0.004)***
Cross section data: 17		
Total panel data: 289		

Notes: Standard errors in brackets.

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

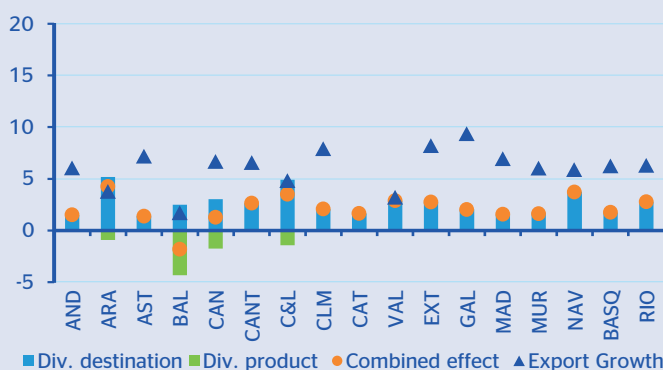
Method: Feasible GLS corrected for serial and contemporary auto-correlations and heteroskedasticity in errors⁶⁰.

Source: BBVA Research

As Charts B.3.3 and B.3.4 show, **greater diversification by destination contributed 2pp annually to export growth in the regions between 1996 and 2010. This share increased up to the 7pp it was registering between 2010 and 2012**, the period in which demand from the EU, the Spanish regions' main trading partner, went down significantly. However, certain individual factors have counteracted the cycle's effect in some regions. In particular, the cases of Murcia and the Canary Islands, linked to energy (the expansion of the refinery at Cartagena and the high weight of energy exports correlated with the tourism sector in the archipelago) and Andalusia (growth in aeronautical exports). **In the case of diversification by product, performance has been mixed.** The fact is, these relationships are weaker in the case of island regions, where goods exports have a substantially lower weighting on GDP and, in any case, are skewed because of the weight of energy products.

Chart B.3.3

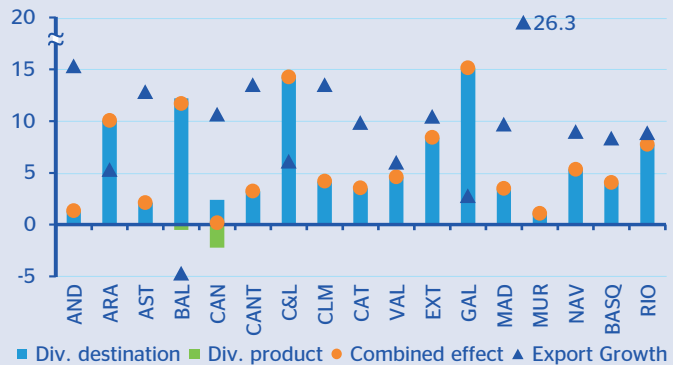
Contribution of diversification to growth of goods exports in real terms (1996-2010) (pp)



Source: BBVA Research

Chart B.3.4

Contribution of diversification to growth of goods exports in real terms (2010-12) (pp)



Source: BBVA Research

STEP 2: Do exports determine the behaviour of per capita GDP?

With the aim of quantifying the importance of the export sector on per capita GDP growth, the second step is to estimate a classic growth equation (Solow model) in which the explanatory variables of education, capital and employment are augmented by the performance of exports:

$$\Delta PIBpc_{k,t} = \beta_1 \ln PIBpc_{k,t-1} + \beta_2 obj1_{k,t} + \beta_3 GA_{k,t} + \beta_4 ED_{k,t} + \beta_5 \Delta K_{k,t} + \beta_6 \Delta L_{k,t} + \beta_7 \Delta X_{k,t} + \alpha_k + \eta_t + e_{k,t} \quad (2)$$

The endogenous variable is per capita GDP growth; obj1t is a binary variable which takes the value of one when the regions obtain the classification of target 1 in the framework of structural EU funds; GAt is the degree of openness of the economy; EDt is the percentage of working age population with tertiary education; ΔK_t is the growth in capital stock per capita; ΔL_t is the rate of variation of those employed; ΔX_t is the increase in exports; while the terms α_k and η_t capture the idiosyncratic characteristics of each region and the effect of the economic cycle.

Table B.3.2 summarises the results of the estimate. **In the first place the lagged pcGDP ratio is statistically significant and indicates a process of convergence between Spain's regions at an average annual speed of 7.5%**⁶¹. Second, it is noticeable that the variable of structural funds from the EU is not significant once a period is controlled for lagging pcGDP. Third, **traditional growth variables such as education, capital and workforce have positive effects on growth. Finally the positive contribution of exports to growth in per capita income is visible.**

60: The estimate has been corrected with serial auto-correlation (Wooldridge test), contemporary correlation (Breusch & Pagan test) and heteroskedasticity (Wald test).

61: Barro y Salai i Martín, (1992).

Table B.3.2

Estimation of the growth function of pcGDP

Dependent variable: Δ PIBpc	Estimated β	
Ln PIBpc _(t-1)	-0.075	(0.014)***
Target 1	0.127	(0.07)
Degree of openness	1.19e-05	(7.55e-06)
Education	0.017	(0.007)**
Δ L	0.362	(0.016)***
Δ Kpc	0.097	(0.025)***
Δ X	0.008	(0.001)***
Cross section data included: 17		
Total panel data:255		

Notes: Standard errors in brackets..

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

Method: Feasible GLS corrected for serial and contemporary auto-correlations and heteroskedasticity in errors.

Source: BBVA Research

STEP 3: Does export diversification determine the behaviour of pcGDP?

In the third step of the estimation, values adjusted to the equation (1) are extracted, shown in Charts B.3.3 and B.3.4, with the aim of isolating the proportion of growth in goods exports which can be explained exclusively by diversification. These adjusted values take the place of total growth of exports in the equation (2). This is how we can collate the effect of diversification on pcGDP growth.

Table B.4.3 illustrates the results of the estimation. It is clear that the traditional components of growth equations are still significant and going in the same direction as in the equation (2). Finally, we demonstrate that export growth exclusively attributable to the diversification component is still significant and has an explanatory capacity that is statistically not different from that shown by total growth in exports over pcGDP. Specifically, **a marginal growth increase in exports that can be attributed to the diversification process results in a 0.1% increase in pcGDP**, all other things being equal. These results are in line with, although slightly lower than, those published in Agosin (2009) for countries in Latin America. Similarly, export growth that cannot be explained by diversification is also significant and in the expected sign.

Table B.3.3

Estimates of the growth function of pcGDP

Dependent variable: Δ PIBpc	Estimated β	
Ln PIBpc _(t-1)	-0.074	(0.014)***
Target1	0.123	(0.076)
Degree of openness	-1.26e-05	(8.72e-06)
Educ	0.019	(0.008)**
Δ L	0.364	(0.017)***
Δ Kpc	0.093	(0.027)***
Diversification (2)	0.009	(0.005)*
Rest of X not explained by diversification	0.008	(0.002)***
Cross section data: 17		
Total panel data: 255		

Notes: Standard errors in brackets.

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

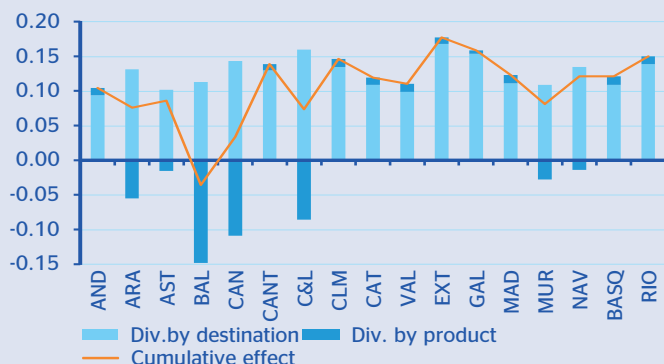
Method: Feasible GLS corrected for serial and contemporary auto-correlations and heteroskedasticity in errors.

Source: BBVA Research

Charts B.3.5 and B.3.6 illustrate the main results of this box. They show how on average **the export diversification process has contributed 0.2pp to annual per capita GDP growth throughout the whole sample period, accounting for 12% of total growth in pcGDP between 1995 and 2012. The greater number of destinations appears as the main component in gains, given that diversification of products is a slower process**, which generally requires changes in the economy's productive structure. Similarly, it is important that we point out that diversification variables used in the model do not consider variations in a given product's quality, a factor which could be behind the differing performance between regions.

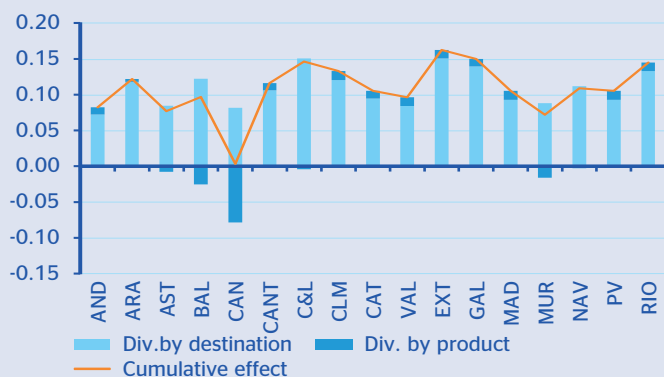
The small volume of goods exports in the island economies (illustrated in Chart B.4.1), more focused on service exports, together with the important relative weight of energy exports within the sector, are the determining factors behind the different behaviour of these regions.

Chart B.3.5
Average annual contribution of diversification to pcGDP growth (1995-2010) (pp)



Source: BBVA Research

Chart: B.3.6
Average annual contribution of diversification to pcGDP growth (2010-2012) (pp)



Source: BBVA Research

Conclusions

This box has analysed the factors underlying the performance of pcGDP in the different regions of Spain between 1995 and 2012. In particular, emphasis has been placed on the key role played by the export diversification process. **The results indicate the existence of a positive and significant contribution of diversification (especially by destination) to growth of regional per capita income, which is estimated at an average of 20bp a year.**

This effect is greater in the latest recessionary period, where cyclical factors and contraction on the part of the country's main trading partners have persuaded Spanish companies to look for new market niches. The contribution to growth of product diversification has been smaller due, among other reasons, to this requiring a modification of the region's productive structure and,

on occasions, incorporating technological innovations. Furthermore, the greater non-linearity in product diversification may be evidence of the existence of an opportunity cost in terms of specialisation, above all in more developed economies, as set out in the studies by Al-Marhubi (2000) and Hesse (2008).

In summary, Spanish companies' capacity to increase diversification in their exports, mainly focusing on more dynamic markets, has made it possible to maintain robust foreign trade growth, even during the latest recession cycle. Similarly, a positive contribution of export diversification to regional pcGDP growth is evident which, when combined with this portfolio effect, will enable them to reduce risks in the face of possible adverse events among their principal trading partners.

References

Aditya, A. & Roy, S. S. (2010) "Export diversification and Economic Growth: Evidence from Cross-Country Analysis", Paper presented at 6th Annual Conference on Economic Growth and Development, December 16-18, 2010. Indian Statistical Institute, New Delhi.

Agosin, M. (2009) "Crecimiento y diversificación de las exportaciones en economías emergentes", *Revista Cepal* 97, pp. 117-134.

Al-Marhubi, F. (2013): "Export Diversification and Growth: An Empirical Investigation", *Applied Economics Letters* 7, pp. 559-562.

Amin Gutierrez de Pineres, S., & M.J. Ferrantino (2000) "Exports Dynamics and Economic Growth in Latin America", Burlington, Vermont: Ashgate Publishing Ltd.

BBVA (2012): "La internalización de las Empresas Españolas", Documento de trabajo 12/29, BBVA Research. Available in: http://www.bbvarresearch.com/KETD/fbin/mult/WP_1229_tcm346-363151.pdf?ts=2912014

Bleaney, M. & D. Greenaway (2001): "The impact of Terms of Trade and Real Exchange Volatility on Investment and Growth in Sub-Saharan Africa", *Journal of Development Economics* 65, pp. 491-500.

Cuadras, X. & Puig, J. (2008): "La variedad y calidad de las exportaciones españolas", *Cuadernos ICE* 76, pp. 147-166.

Ghosh, A. R. & Ostry, J. D. (1994): "Export Instability and the External Balance in Developing Countries", *IMF Working Paper*, pp. 1-30.

Gordo, E. & Tello, P. (2011): "Diversificación, precios y calidad de las exportaciones españolas: una comparación a nivel europeo", *Cuadernos ICE* 82, pp. 31-62.

Herzer, D. & F. Nowak-Lehmann D. (2006) "What does export diversification do for growth? An Econometric Analysis", *Applied Economics* 38, pp. 1825-1838.

Hesse, H. (2008) "Export Diversification and Economic Growth", Working Paper No. 21, *Commission of Growth and Development*. World Bank.

Hummels, D. & P.J. Klenow (2005) "The Variety and Quality of a Nation's Exports", *American Economic Review* 95(3) pp. 704-723.

Imbs, J., & R. Wacziarg (2003) "Stages of Diversification", *American Economic Review* 93(1) pp. 63-86.

IMF (2013) Country Report No. 13/232. Available in: <http://www.imf.org/external/pubs/ft/scr/2013/cr13232.pdf> pp 28-31

Lederman, D., & W.F. Maloney. (2007) "Trade Structure and Growth" *Natural Resources: Neither Curse Nor Destiny*, D. Lederman & W.F. Maloney, eds. Palo Alto: Stanford University Press.

6. Tables

Table 6.1

Macroeconomic Forecasts: Gross Domestic Product

(YoY growth rate, %)	2011	2012	2013	2014	2015
United States	1.8	2.8	1.8	2.5	2.5
Eurozone	1.6	-0.6	-0.4	1.1	1.9
Germany	3.4	0.9	0.5	1.8	2.0
France	2.0	0.0	0.2	1.1	1.6
Italy	0.6	-2.6	-1.8	0.8	1.5
Spain	0.1	-1.6	-1.2	0.9	1.9
UK	1.1	0.3	1.9	2.6	2.4
Latin America *	4.0	2.6	2.2	2.5	2.6
Mexico	4.0	3.7	1.2	3.4	3.0
Brazil	2.7	1.0	2.2	2.5	1.9
EAGLES **	6.7	5.0	4.8	5.2	5.4
Turkey	8.5	2.4	3.9	1.5	5.2
Asia Pacific	6.0	5.3	5.2	5.3	5.4
Japan	-0.4	1.4	1.7	1.5	1.3
China	9.3	7.7	7.7	7.6	7.5
Asia (exc. China)	3.7	3.5	3.4	3.7	4.0
World	4.0	3.2	2.9	3.6	3.9

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

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

Forecast closing date: February 7, 2014

Source: BBVA Research

Table 6.2

Macroeconomic forecasts: 10Y interest rates (average)

	2011	2012	2013	2014	2015
US	2.8	1.8	2.3	3.2	3.7
EMU	2.6	1.6	1.6	2.0	2.5

Forecast closing date: February 7, 2014

Source: BBVA Research

Table 6.3

Macroeconomic forecasts: exchange rates (average)

US dollars (\$) per national currency	2011	2012	2013	2014	2015
US (EUR/USD)	0.72	0.78	0.75	0.77	0.75
EMU	1.39	1.29	1.33	1.30	1.33
UK	1.60	1.59	1.56	1.57	1.62
Japan	79.7	79.8	97.6	110.0	117.1
China	6.46	6.31	6.20	5.97	5.85

Forecast closing date: February 7, 2014

Source: BBVA Research

Table 6.4

Macroeconomic forecasts: official interest rates (end of period)

	2011	2012	2013	2014	2015
US	0.25	0.25	0.25	0.25	0.50
EMU	1.00	0.75	0.25	0.25	0.50
China	6.56	5.75	6.00	6.00	6.50

Forecast closing date: February 7, 2014
 Source: BBVA Research

Table 6.5

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

	2011	2012	2013	2014	2015
Real GDP	1.6	-0.6	-0.4	1.1	1.9
Household consumption:	0.3	-1.4	-0.5	0.7	1.2
Public consumption	-0.1	-0.5	0.3	0.5	0.7
Gross fixed capital formation	1.8	-3.9	-3.1	1.6	5.0
Equipment, machinery and cultivated assets	4.8	-4.4	-2.5	2.8	7.1
Equipment and machinery	4.9	-4.4	-2.5	2.9	7.1
Construction	-0.3	-4.1	-3.9	0.2	3.3
Housing	-0.3	-3.4	-3.0	1.0	3.6
Other buildings and other constructions	-0.2	-4.8	-4.9	-0.7	2.9
Change in inventories (contribution to growth)	0.2	-0.5	-0.1	0.0	0.0
Domestic demand (contribution to growth)	0.7	-2.1	-0.9	0.8	1.7
Exports	6.7	2.7	1.2	3.5	4.9
Imports	4.7	-0.8	0.2	3.3	5.1
Net exports (contribution to growth)	0.9	1.5	0.5	0.3	0.2
Pro-memoria					
GDP w/out housing investment	1.7	-0.5	-0.2	1.1	1.8
GDP w/out construction	1.9	-0.2	0.0	1.2	1.7
Employment (LFS)	0.3	-0.7	-0.8	0.1	0.7
Unemployment rate (% active pop.)	10.2	11.4	12.1	12.0	11.6
Current account balance (% GDP)	0.1	1.2	2.1	2.1	2.0
Public sector balance (% GDP)	-4.1	-3.7	-2.8	-2.4	-2.1
CPI annual average	2.7	2.5	1.4	1.0	1.4

Forecast closing date: February 7, 2014
 Source: Official bodies and BBVA Research

Table 6.6

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

	2011	2012	2013	2014	2015
Activity					
Real GDP	0.1	-1.6	-1.2	0.9	1.9
Private consumption	-1.2	-2.8	-2.4	0.9	1.3
Public consumption	-0.5	-4.8	-1.2	-1.1	1.3
Gross fixed capital formation	-5.6	-6.9	-5.8	0.1	5.0
Capital goods	5.5	-3.9	0.7	5.8	7.8
Construction	-10.8	-9.7	-10.2	-3.8	3.1
Housing	-12.5	-8.7	-8.4	-3.4	5.0
Domestic demand (contribution to growth)	-2.1	-4.1	-2.8	0.4	2.0
Exports	7.6	2.1	5.2	6.5	6.7
Imports	-0.1	-5.7	0.3	5.2	7.4
Net exports (contribution to growth)	2.1	2.5	1.6	0.6	-0.1
GDP at current prices	0.1	-1.7	-0.5	1.5	3.0
(Billion euros)	1046.3	1029.0	1024.1	1039.3	1070.6
GDP w/out housing investment	1.0	-1.2	-0.8	1.2	1.8
GDP w/out construction	2.0	-0.4	-0.1	1.5	1.8
Labour market					
Employment (LFS)	-1.9	-4.5	-3.1	0.4	1.0
Unemployment rate (% active pop.)	21.6	25.0	26.4	25.6	24.8
Employment QSNA (equivalent to full-time)	-2.2	-4.8	-3.3	0.3	0.9
Productivity	2.3	3.1	2.1	0.6	1.0
Prices and costs					
CPI (annual average)	3.2	2.4	1.4	0.5	1.0
GDP deflator	0.0	0.0	0.8	0.5	1.1
Household consumption deflator	2.5	2.5	1.4	0.5	1.2
Compensation per employee	1.3	0.2	0.6	0.2	0.5
Unit labour cost (ULC)	-0.9	-2.9	-1.5	-0.4	-0.5
Foreign trade					
Current account balance (% GDP)	-3.8	-1.1	0.9	1.6	1.7
General government					
Debt (% GDP)	70.5	86.0	94.7	99.1	101.4
Budget balance (% of GDP)	-9.1	-6.8	-7.0	-5.8	-5.1
Households					
Nominal disposable income	0.0	-2.8	-0.8	-0.8	2.2
Savings rate (% of nominal income)	12.7	10.5	10.8	9.0	8.4

(*): Excluding financial aid to Spanish banks.

Forecast closing date: February 7, 2014

Source: Official bodies and BBVA Research

DISCLAIMER

This document has been prepared by BBVA Research Department, it is provided for information purposes only and expresses data, opinions or estimations regarding the date of issue of the report, prepared by BBVA or obtained from or based on sources we consider to be reliable, and have not been independently verified by BBVA. Therefore, BBVA offers no warranty, either express or implicit, regarding its accuracy, integrity or correctness.

Estimations this document may contain have been undertaken according to generally accepted methodologies and should be considered as forecasts or projections. Results obtained in the past, either positive or negative, are no guarantee of future performance.

This document and its contents are subject to changes without prior notice depending on variables such as the economic context or market fluctuations. BBVA is not responsible for updating these contents or for giving notice of such changes.

BBVA accepts no liability for any loss, direct or indirect, that may result from the use of this document or its contents.

This document and its contents do not constitute an offer, invitation or solicitation to purchase, divest or enter into any interest in financial assets or instruments. Neither shall this document nor its contents form the basis of any contract, commitment or decision of any kind.

In regard to investment in financial assets related to economic variables this document may cover, readers should be aware that under no circumstances should they base their investment decisions in the information contained in this document. Those persons or entities offering investment products to these potential investors are legally required to provide the information needed for them to take an appropriate investment decision.

The content of this document is protected by intellectual property laws. It is forbidden its reproduction, transformation, distribution, public communication, making available, extraction, reuse, forwarding or use of any nature by any means or process, except in cases where it is legally permitted or expressly authorized by BBVA.

This report has been produced by the Spain Unit:

Chief Economist for Developed Economies

Rafael Doménech
+34 91 537 36 72
r.domenech@bbva.com

Spain

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

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

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

Amanda Tabanera González
+34 91 807 51 44
amanda.tabarena@bbva.com

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

Laura González Trapaga
+34 91 807 51 44
laura.gonzalez.trapaga@bbva.com

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

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

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

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

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

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

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

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

With the contribution of:

Economic Scenarios
Julián Cubero
juan.cubero@bbva.com

Europe
Miguel Jiménez
mjimenezg@bbva.com

Financial Systems
José Félix Izquierdo
jfelix.izquierd@bbva.com

BBVA Research

Group Chief Economist

Jorge Sicilia

Emerging Markets:

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

Cross-Country Emerging Markets Analysis

Álvaro Ortiz Vidal-Abarca
alvaro.ortiz@bbva.com

Asia

Stephen Schwartz
stephen.schwartz@bbva.com.hk

Mexico

Carlos Serrano
carlos.serrano@bbva.com

Latam Coordination

Juan Ruiz
juan.ruiz@bbva.com

Argentina

Gloria Sorensen
gsorensen@bbva.com

Chile

Jorge Selaive
jselaive@bbva.com

Colombia

Juana Téllez
juana.tellez@bbva.com

Peru

Hugo Perea
hperea@bbva.com

Venezuela

Oswaldo López
oswaldo_lopez@bbva.com

Developed Economies:

Rafael Doménech
r.domenech@bbva.com

Spain

Miguel Cardoso
miguel.cardoso@bbva.com

Europe

Miguel Jiménez
mjimenezg@bbva.com

United States

Nathaniel Karp
nathaniel.karp@bbvacompass.com

Global Areas:

Economic Scenarios

Julián Cubero
juan.cubero@bbva.com

Financial Scenarios

Sonsoles Castillo
s.castillo@bbva.com

Innovation & Processes

Clara Barrabés
clara.barrabes@bbva.com

Financial Systems & Regulation:

Santiago Fernández de Lis
sfernandezdelis@bbva.com

Financial Systems

Ana Rubio
arubiog@bbva.com

Financial Inclusion

David Tuesta
david.tuesta@bbva.com

Regulation and Public Policy

María Abascal
maria.abascal@bbva.com

Recovery and Resolution Policy

José Carlos Pardo
josecarlos.pardo@bbva.com

Global Regulatory Coordination

Matias Viola
matias.viola@bbva.com

Contact details:

BBVA Research

Paseo Castellana, 81 - 7th floor
28046 Madrid (Spain)
Tel.: +34 91 374 60 00 and +34 91 537 70 00
Fax: +34 91 374 30 25
bbvaresearch@bbva.com
www.bbvaresearch.com
Legal Deposit: M-31254-2000