BBVA | RESEARCH

Spain Economic Outlook

First quarter 2015
Spain Unit

- The Spanish economy's recovery is accelerating, supported by internal and external factors
- Between 2015 and 2016, nearly a million jobs would be created, but imbalances in the labour market are still relevant
- A reform promoting permanent employment would have positive effects on activity, employment, the unemployment rate and equality
- To drive productivity, more investment in innovation and human capital is needed

Index

Closing date: 6 February 2015

1 Editorial

Over the last three months, **economic activity** and job-creation in Spain **have both accelerated more than anticipated**, whereas **the downside risks** caused by the virtual stagnation in the EMU as a whole **have not materialised**. Furthermore, one of the **biases to the upside,** flagged up in the previous edition of this report, **has indeed occurred**: a **significant fall in the oil price**. Finally, **the ECB's monetary policy has surprised, with more ambitious announcements** than expected, which has had an additional impact on euro depreciation. These factors, together our expectation of a moderate acceleration in global growth, justify the **revision to the upside of our GDP growth forecast for 2015 to 2.7%, and the likelihood that this pace of activity will last into 2016 (2.7%)**. Moreover, if the economy's current momentum persists, the bias on these forecasts is to the upside.

GDP growth in 2014 was 1.4%, 0.1pp higher than we expected three months ago. In particular, whereas back in November we thought that GDP would grow by between 0.5% and 0.6% in the fourth quarter (vs. the third), the figure published by the INE actually showed growth of 0.7%, and confirms the real-time estimates made by BBVA Research during the quarter. **The indicators available at closing date suggest that during 1Q15 the economy could grow by between 0.8% and 0.9% QoQ**. In other words, annualised GDP growth is running at levels of around 3.5%. Underpinning this improved momentum is **the strength of domestic demand,** particularly in two of its components: private consumption and investment in machinery and equipment. The latter will have been reflected in a **relatively positive performance from goods exports** in the second half of 2014, despite the stagnant activity in EMU countries. The strength of sales abroad continues to be one of the most noticeable aspects of the Spanish economy in the last few years.

As we forecast in the last edition of our Spain Outlook, oil-price stabilisation at relatively low levels compared to the 2014 average could give a real boost to the Spanish economy in 2015 and 2016. In general, our view is that a good part of the reduction in the cost of fuel comes from supply-side factors, and not from a reduction in trade between countries as a result of a deceleration in aggregate world demand. This means that the impact on a net oil-importing economy such as Spain's will be positive and significant. In particular, **we estimate that GDP may grow by 0.7pp as an annual average over the next two years as a result of the lower cost of energy,** and that those of Spain's regions with more industry and foreign tourism could particularly benefit from this.

Likewise, the European Central Bank has surprised with a bigger quantitative easing programme than we expected, and has left open the termination date of said programme (at the very earliest, September 2016). These two factors have more than offset other less positive ones (limited mutualisation of risk), which have already been priced into a weaker euro vs. the US dollar than we previously expected. In particular, **we estimate that for every 10pp that the euro depreciates against the dollar, GDP will rise by 0.5pp,** and will be more beneficial to those regions of Spain with the most open economies, in a position to make a bigger contribution to growth with their exports and to promote import substitution more vigorously.

To all of the above, we should add that a set of circumstances which was already looking particularly positive for the Spanish economy three months ago has become more permanent. First, **after the widespread deterioration in EMU economies, there are signs of a moderate improvement in activity.** If the higher levels of growth among Spain's main trading partners are confirmed, exports of goods and services should remain as strong as they have proved themselves to be in these tougher times. Second, as well as the impact on the exchange rate, **the monetary policy measures implemented will reduce the costs of financing for the private sector**, particularly in economies such as Spain's where the fragmentation of the European financial system led to higher rates of interest for households and companies than in other

eurozone countries. This will support the more robust growth we are already seeing in new credit and which partly accounts for the solid performance of domestic demand. Third, the economic recovery and the drop in interest rates are expected to be sufficient to allow the government to continue meeting its deficit reduction targets in the next few years. Restrictive policies will not have to be introduced, whereas the expansionary ones that have been passed, such as reducing the average rate of income tax, are feasible provided that spending is kept within budget. Finally, as we forecast three months ago, housing investment is no longer making a negative contribution to growth, and employment in the sector is on the rise again.

Nevertheless, **this scenario is not free of risk.** First, **the uncertainty in financial markets has been building** because of the speculation about monetary policy decisions in some developed areas, and as a result of events of a geopolitical nature. **An intense election calendar**, in Spain above all, may skew the economic policies which are still necessary and which need to be introduced in the coming years. This increased uncertainty will have a negative effect on recovery, inasmuch as it squeezes private spending. Second, on the information available, we forecast that, although Spain's public administrations taken as a whole have met the agreed deficit reduction target, the regions have not. In order to restore the credibility they are losing, their targets will have to be adjusted, by announcing specific policies, well-designed and spread over time, for realistic deficit reductions in certain regions which have repeatedly failed to make the grade.

2 International environment[1]

The global economy was in better shape by the end of 2014 than at the start, growing at over 3% thanks to the boost from the US and the tailwind provided by the fall in oil prices, as a result of an increase in supply. In the most likely scenario, **this improvement in world growth will hold firm in 2015 and 2016, at over 3.5% on average.** Nevertheless, the difference between areas will be **significant,** given the **asymmetric effects** of the fall in price of raw materials and the divergence in monetary policies. Two events which mark the direction, a priori, for the perspectives for the global economic scenario.

The **fall in the oil price** is a good thing for importer countries, since it drives their economic activity and reduces inflationary pressure, but negative for exporters, since their revenues contract. In the case of the **euro area**, the downwards pressure on an already low inflation increases its vulnerability to a deflationary spiral (feedback loops between lower oil prices and aggregate demand). To avoid this risk, **the ECB launched an asset purchase programme, from March and until inflation expectations are compatible with price stability**. It is hoped that this measure will help boost growth via euro depreciation and the redirection of financial flows in a search for higher yields, thus helping to reactivate consumption and investment. Banking union should also favour the supply of credit, by reducing the cost of capital for some banks with sounder balance sheets, supervised and regulated by the single supervisory mechanism for the area.

In the **US**, which is growing faster than the euro area and where inflation is not so low, the Fed will have more room for manoeuvre to implement the interest-rate hikes expected for 2015. Average annual growth will be close to 3.0% in 2015-16, while unemployment will be around 5.0%. Inflation, meanwhile, helped by oil prices, will be around 2.0% on average. In this context of a dynamic economy and anchored inflation expectations, the Fed's dilemma will be resolved by the start of a period of interest-rate hikes towards the middle of 2015, although at a slower rate than in other expansionary cycles.

The **Fed's normalisation of monetary policy** is a symptom of the strengthening US economy, but also poses a **challenge to the EMs**, that have to implement anti-cyclical policies to mitigate the effects of falling commodity prices and reduced domestic demand. Those more in need of external savings will have to test their capacity to decouple from the Fed and face currency depreciation, while maintaining macroeconomic stability. This is a difficult balancing act, particularly in a volatile global financial context, due to the uncertainties regarding the Fed's first interest-rate hike since 2006.

Altogether, **the global growth scenario is moderately positive.** The world is growing at more than 3% but the improvement is slow in the DMs and the EMs are having to deal with lower commodity prices and the change in China's growth model. At the same time, the **risks are still skewed to the downside.** Not only is there uncertainty as to whether the policies introduced will be as effective as expected (for example, in Europe the ECB's asset purchase programme and the Juncker Plan to foster investment), but there are also uncertainties regarding the EMs' capacity to implement effective counter-cyclical policies. There are also the geopolitical risks, particularly if there is a negative feedback loop with oil prices.

In the euro area there is growing debate as to which is the most appropriate combination of supply-side reforms, pace of fiscal consolidation and ECB support to favour growth. If in addition, as in the case of Greece, we add to the discussion the payments on already restructured public debt mainly in the hands of other member states, the divergences of opinion turn into disagreements that have to be resolved sooner rather than later. The debate is evidence of the vulnerabilities of a monetary union with neither political nor fiscal union, neither of which are going to happen in the short term. Although in the most probable scenario we expect a negotiated settlement which does not lead to a systemic crisis in the euro area, if the period of uncertainty is prolonged it could weigh on the pace of recovery in Europe.

1: For more information see our Global Outlook, for the first quarter of 2015. Only available in Spanish: https://www.bbvaresearch.com/wp-content/uploads/2015/02/Situacion-Global_1T15.pdf.

3 Growth prospects for the Spanish economy

Recovery is accelerating, driven by both domestic and external factors

In 2014, the Spanish economy consolidated the recovery initiated in the second half of 2013. Although the international backdrop was not without risk[2], the positive tone of activity and employment was reinforced as the year wore on, encouraged by **greater support from fiscal and monetary policies, improved confidence and, finally, the structural changes of recent years**. The latter include correcting domestic imbalances, some of the reforms addressed and re-directing production to the export sector. Driven by these advances, quarterly growth stabilised at an annualised growth rate of 2.0% in 2Q and 3Q, accelerating to around 3.0% in the last quarter.

This combination of factors enabled **the Spanish economy to out-perform its GDP growth forecasts from a year ago at the close of 2014 (1.4% vs. 0.9%).** It was also the first time Spain had reported a positive annual balance since 2008. **Growth in economic activity for the year as a whole was concentrated in domestic (mainly private) demand**, **which held up surprisingly well** for most of the year. The highlights are, first, sustained growth in consumption and productive investment and second, the change of cycle with respect to investment in residential construction, which reported positive results in the second half of the year for the first time since 2007.

Net external demand, on the other hand, reduced growth in 2014, despite strong export sales in an environment of flat markets in Europe. Thus, the negative contribution to growth from the balance of trade is explained by **the surprisingly bullish final demand, met largely on this occasion by imported goods and services.**

Looking forward, the fundamentals of the Spanish economy justify a consolidation of the recovery over the next two years. The economy is set to grow around 2.7% in both 2015 and 2016, creating around 1,000,000 jobs in net terms by the end of 2016, and bringing the unemployment rate down to around 20%[3]. **On the international front, t**h**e global economy is expected to register higher growth than in 2014**, which will imply GDP growth rates in the European economy of around 1.3% in 2015 and 2.2% in 2016. This, together with geographic diversification and the **depreciation in the real effective exchange rate – based on internal devaluation and the more expansive monetary policy in Europe** – will have a positive impact on export performance.

Another of the external factors is the tail-wind effect of falling oil prices, down over 50% to around USD50 for a barrel of Brent at the closing date of this publication. While the forecasts made by BBVA Research suggest a gradual increase in oil prices to around USD70 a barrel (average 2015-16), **the net impact of the accumulated adjustment will be positive, and could account for 0.7pp of GDP on average for the two years 2015-16.**

On the home front, the Spanish economy is winding down its restrictive fiscal policy, at least for the moment: lowering tax rates –the first band came into effect in January – will drive growth in the short term. **Restoring confidence, the recovery of the labour market, improved funding for business and families** and the advanced state of some of the processes of internal adjustment will also provide support for a growth in domestic demand. All the components of domestic demand are expected to show a positive annual balance for the first time since 2007.

Although the scenario presented in this report includes an upward revision of growth forecasts for 2015 (by 0.7pp), the recovery is not free of risk. Internationally, geo-political risks are a continuing threat. On the other hand, although there is little doubt that the Federal Reserve (Fed) will act gradually and slowly, there is uncertainty about how many of the emerging markets will cope with the first hike in interest rates in the United States. Finally, it is not altogether impossible that the speed and intensity of the fall in oil prices could cause turbulence in some sectors, markets and countries, eating into the gains generated by cheaper oil.

2: Where there has been increase in volatility and the risk premium after the spike in geo-political tensions, fears of lower growth and inflation in the developed economies (with lack-lustre performance by the EMU of particular concern for Spain) and uncertainty about world-wide changes in monetary policy.
3: In average terms, employment will grow by 3.0% YoY and the unemployment rate will fall to around 20.9% in 2016.

One unwanted consequence of the measures taken by the ECB **in Europe could be to slow down the process of reducing financial fragmentation** as it does not include total mutualisation of risk. Beyond the scope of common monetary policy, **Eurozone member states must work on supply policies** that dissipate the doubts and increase capacity for structural growth. Furthermore, **Europe has to cope with a complicated electoral calendar**, with elections in at least eight countries. Political uncertainty could become a constraint on growth depending on the economic management of the new governments elected.

Finally, Spain faces the challenge of ensuring sustained and sustainable growth. Intense job-creation has to accompany economic improvement for the recovery to trickle down to society as a whole and make it internally sustainable. Improved employment figures have to be made compatible with positive current account balances such that recovery is sustainable externally.

2014: the year that the economy returned to positive growth

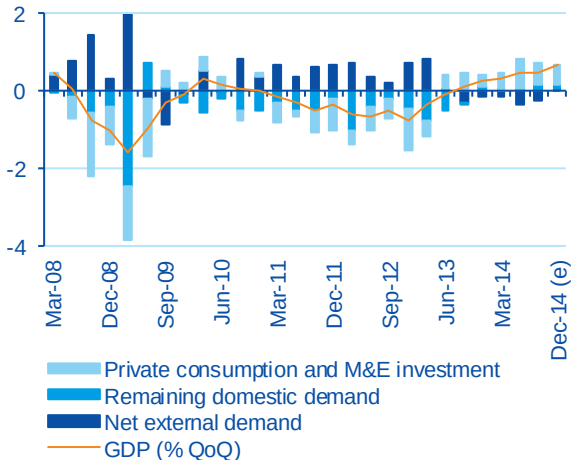
After a year (2013) of transition towards a new expansive phase of the cycle, the forecasts suggested that 2014 would be the year that the Spanish economy reported the first annual growth in the economy since 2007. **The recovery gained ground throughout the year, bearing out the forecasts**. The quarterly growth rate stabilised around half a percentage point in 2Q and 3Q, before picking up again in 4Q. Hence, without the confirmation of the detailed results, **the preliminary estimate of GDP published by the National Statistics Institute (INE from the Spanish acronym) indicate that the Spanish economy grew 0.7% QoQ (2.0% YoY) in 4Q14**[4], outperforming the forecasts made at the beginning of the quarter (BBVA Research: between 0.5 and 0.6% QoQ). Thus 2014 closed with an average annual growth in GDP of 1.4%, 0.5pp greater than the growth rate estimated a year ago.

With respect to the composition of the growth, **the most up-to-date partial indicators indicate that economic growth in 4Q14 was once again supported by domestic demand** (+0.6pp QoQ), mainly private demand (see Figure 3.1). On the down side, **external demand made a modest contribution to growth (+0.1pp QoQ)** taking into account the marginal growth of trade flows after the significant spikes of 3Q14 (4.3% QoQ in the case of exports and 4.7% QoQ for imports). The year-end figures point to a turn-around in the downward trend in demand observed over the last six years, contributing 2.1pp to annual GDP growth. However, net external demand has reduced economic expansion by 0.7pp in 2014, the first negative contribution since 2007.

Turning to the first quarter of 2015, the data available at the time of going to publication suggests that economic activity is accelerating (MICA-BBVA[5]**: between 0.8 and 0.9% QoQ)** (see Figure 3.2). This trend is consistent with the results of the BBVA Economic Activity Survey (EAE-BBVA, from the Spanish acronym)[6] that show an improvement in growth expectations (see Figures 3.3 and 3.4).

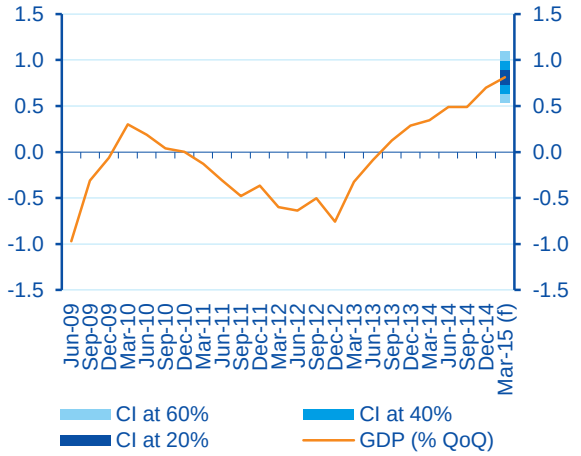
4: The details of the Quarterly National Accounts (CNTR, from the Spanish) will be published on 26 February 2015, with the possibility of a revision of the flash estimate.
5: For further details about the MICA-BBVA model, see Camacho, M. y R. Doménech (2010): "MICA-BBVA: A Factor Model of Economic and Financial Indicators for Short-term GDP Forecasting", BBVA WP 10/21, available at:
https://www.bbvaresearch.com/wp-content/uploads/migrados/WP_1021_tcm348-231736.pdf.
6: For further details about the BBVA Economic Activity Survey (EAS-BBVA), see Box 1of the Spain Outlook report for the second quarter of 2014, available at: https://www.bbvaresearch.com/wp-content/uploads/2014/05/1405_Situacion_Espana1.pdf.

Figure 3.1
Spain: contributions to quarterly GDP growth (%)



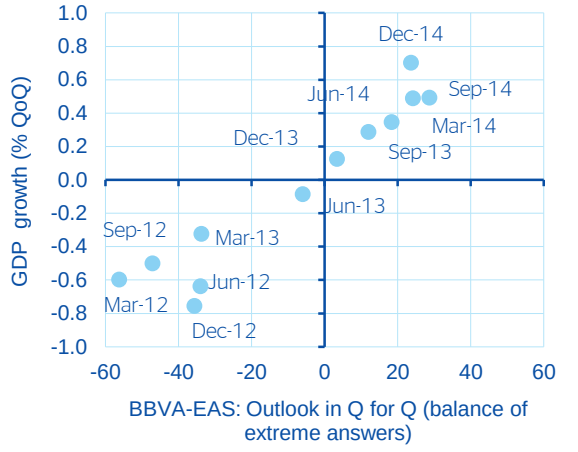
(e): estimated
Source: BBVA Research based on INE data

Figure 3.2
Spain: observed GDP growth observed and MICA-BBVA Model forecasts (% QoQ)



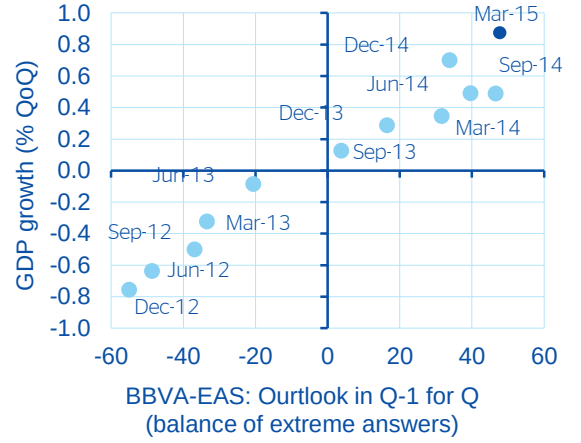
(e): estimated
Source: BBVA Research based on INE data

Figure 3.3
Spain: GDP growth and outlook of EAS-BBVA respondents



Source: BBVA Research based on INE data

Figure 3.4
Spain: GDP growth and outlook of EAS-BBVA respondents in the previous quarter



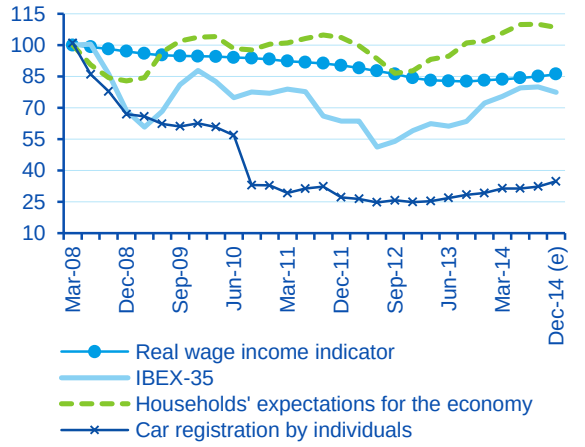
Source: BBVA Research based on INE data

Private domestic demand closed the year in positive territory

Consumption indicators – especially durable goods – suggest that **household spending has grown again in the fourth quarter of 2014**[7]. Although the wage component of household disposable income and new consumer credit transactions increased between October and December, perception of the economic situation and financial wealth ceased to improve (see Figure 3.5). So both the BBVA synthetic consumption indicator (ISC-BBVA) and the BBV coincident consumption indicator model (MICC-BBVA) indicate that **household spending had increased by around 0.7% QoQ in 4Q14 (3.0% YoY), about one tenth less than in the preceding quarter** (see Figure 3.6). Hence, private consumption increased by around 2.3% in 2014 after falling 2.3% in 2013.

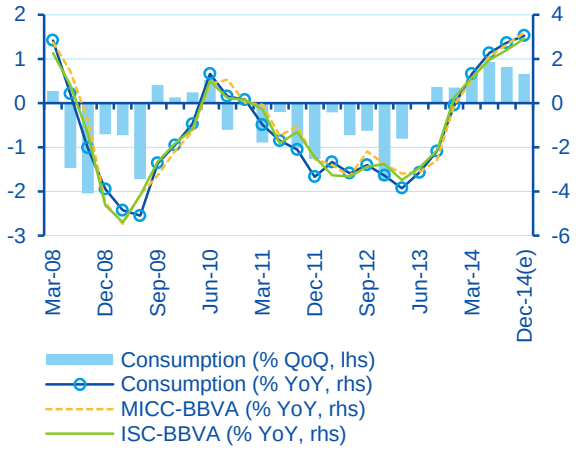
7: A detailed analysis of household spending trends by types of product can be found in the Consumption Outlook report for the second half of 2014, available at: https://www.bbvaresearch.com/en/public-compuesta/spain-consumption-outlook-second-semester-2014/

Figure 3.5
Spain: Determining factors of consumption (swda, 1Q08 = 100)



(e): estimated
Source: BBVA Research based on MINECO, Datastream, EC and BoS data

Figure 3.6
Spain: actual household consumption data and real-time forecasts

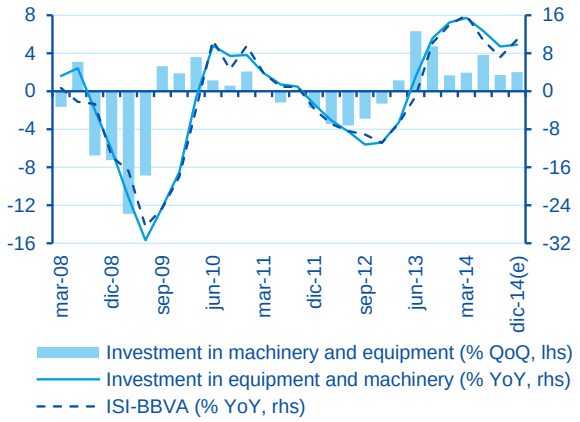


(e): estimated
Source: BBVA Research based on INE data

Judging by the indicators, investment in equipment and machinery may have grown more in 4Q14 than in the previous quarter: industrial confidence, the order book, the IPI for capital goods and the registration of industrial vehicles all performed better than in the third quarter. As Figure 3.7 shows, **the BBVA synthetic investment indicator (ISI-BBVA) suggests a 2.0% QoQ (9.8%YoY) growth in this component of demand**. Thus, private productive investment has expanded for eight consecutive quarters, closing 2014 with an annual growth of 11.9%, the best performance since 1998.

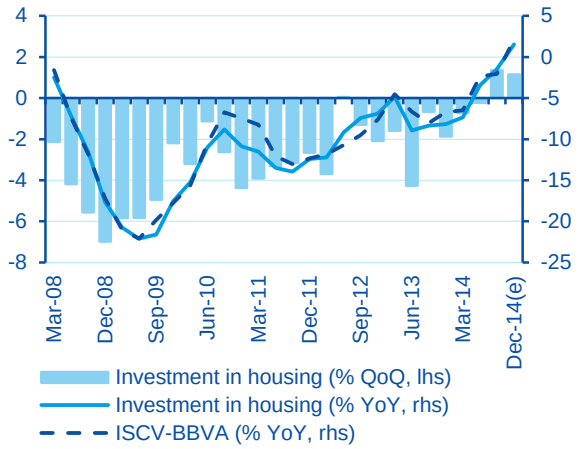
4Q14 household investment indicators point to a second consecutive growth in this component of demand. Business confidence continued to recover in the sector, cement consumption grew and, above all, an improvement in the construction labour market was observed. Sales also continued to perform well and, bar surprises from the December data, they will close the final quarter of 2014 with another quarterly increase. Consequently, **the BBVA synthetic housing construction investment indicator (ISCV-BBVA) points to a 1.1% YoY growth in residential investment in 4Q14**, which is in line with the previous quarter figures and implies the first increase (1.5% YoY) after 28 quarters of decline (see Figure 3.8). Despite the recent change in trend, housing investment will close the year with a 2.8% fall for the year, which is far below the fall seen in the last six years (11.9% average in 2008-13).

Figure 3.7
Spain: Actual data and real-time forecasts of investment in machinery and equipment



(e): estimated
Source: BBVA Research based on INE data

Figure 3.8
Spain: Actual data and real-time forecasts of investment in housing



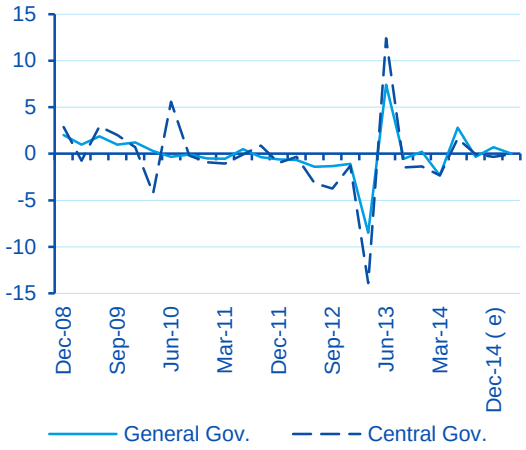
(e): estimated
Source: BBVA Research based on INE data

Public consumption spending stopped dragging growth in 2014

Based on the state budget execution data to November 2014, after seasonal and working day adjustments (swda), the nominal central government's spending is estimated to have remained stable against the previous quarter (see Figure 3.9). For general government, **real publicconsumption has closed the fourth quarter of 2014 by extending the almost flat growth observed in the previous two quarters (+0.0% QoQ, 1.1% YoY).** Data from the Labour Force Survey (EPA from the Spanish acronym) suggest that the non-wage component was the focus of the cost-containment measures. In fact, the number of public-sector employees increased slightly between October and December after the decline seen in the previous quarter (see Figure 3.10). Hence, public consumption closed the year with an increase of around 0.8% against the previous year, the first growth seen in this component of real spending since 2010.

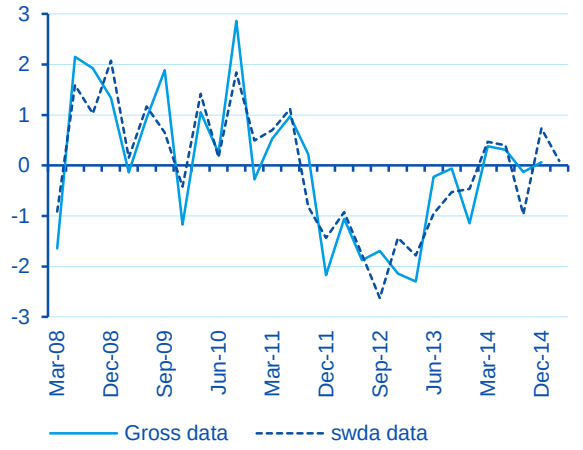
The implementation data show that **there was an acceleration in the adjustment to total public investment at year-end 2014**. However, spending appears to have been eased only temporarily, as the public bids tendered data show that there was an increase of around 44.0% YoY, suggesting an increase in investment spending going forward, although the baseline figure is historically low. This trend would help to consolidate **a turning point in non-residential construction, which had practically flat-lined in the fourth quarter of 2014 (+0.2% QoQ; -0.7% YoY)**. Thus, investment in other construction will have declined by around 2.9% in 2014, almost six points less than the average annual fall observed between 2008 and 2013 (8.4%).

Figure 3.9
Spain: nominal public-sector consumption (% QoQ, swda)



(e) estimated
(*) It does not include items such as fixed capital consumption.
Source: BBVA Research based on MINHAP and INE data

Figure 3.10
Spain: public-sector employees (% QoQ)



Source: BBVA Research based on INE data

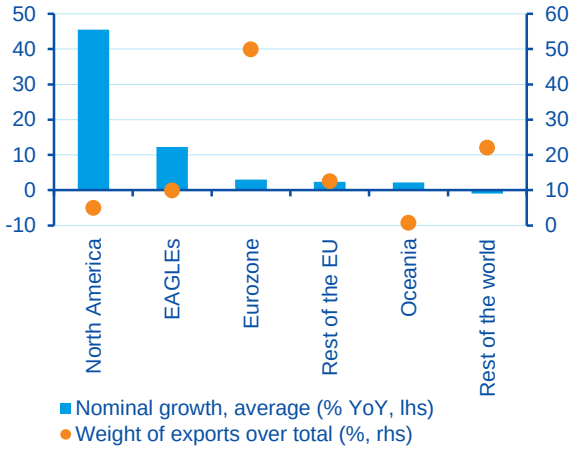
The slow-down in exports set the tone for the overseas sector in the last part of the year

The overseas trade indicators available confirm the **slow-down – probably transitory - in the external demand for goods**, particularly from Europe and some of the major emerging countries (China, Brazil and Russia). The geographical composition of this weakness spread significantly to total demand, giving rise to a **modest expansion in the export of goods in 4Q14 (0.5% QoQ; 7.0% YoY)** (see Figure 3.11). All in all, after strong growth in 2Q and 3Q, exports of goods closed 2014 with significant expansion (5.1%), albeit slightly less than the previous year (5.7%).

Weak service exports in the last quarter of the year (1.2% QoQt; 2.0% YoY) also contributed to the downward adjustment in trade flows. With respect to tourism, **non-resident consumption in Spain is estimated to have grown marginally (0.3% QoQ),** which was not enough to overshadow the positive performance of the year as a whole (3.3% against 2.9% in 2013). Thus, 2014 saw a new record for visitors (65 million, +7.2% YoY), despite the 1.1pp slowdown in tourist entries at the border to 1.5% QoQ in the final part of the year (see Figure 3.12).

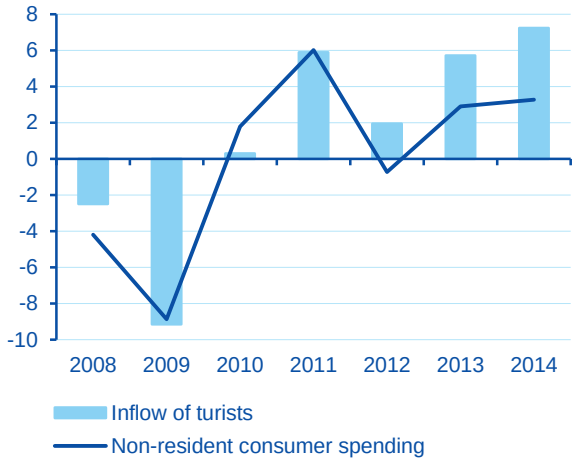
Non-tourist service exports in turn, **are set to grow** in the final quarter of 2014 (1.5% QoQ; 2.3% YoY) which would off-set the fall observed in the average for the first half year. Thus, the economic year will have closed with a 2.3% rise, thus overcoming the blip of 2013 (-0.4%). **As a whole, total export growth will have slowed down in 4Q14 to 0.6% QoQ (5.5% YoY)**, although growth for 2014 as a whole has been robust (4.4%) and in line with 2013 (4.3%).

Figure 3.11
Spain: growth and composition of exports of goods by geographic areas



Note: data average of October and November 2014.
Source: BBVA Research based on Datacomex data

Figure 3.12
Spain: Foreign tourist entries and non-resident consumer spending



Source: BBVA Research based on INE and Institute of Tourism Studies (EGATUR) data

In line with exports, the preliminary indicators available at the time of going to press suggest that **import growth tailed off in the final quarter of the year to 0.4% QoQ (8.4% YoY)**. Nevertheless, after three years in negative territory, 2014 saw the return of high import growth (7.6% YoY), helped by the export drive and the recovery of domestic demand.

In short, the factors mentioned above suggest a **almost flat contribution to growth from net external demand in 4Q14** (0.0pp QoQ) and a negative in the year as a whole (-0.7pp). The performance of the external sector aggregates propitiated the **erosion of the surplus on the current account balance obtained in 2013 and a return to a modest deficit at the end of 2014 (0.3% of GDP)**

The change in cycle of the labour market was consolidated in 2014

The recovery of the labour market accelerated in 4Q14 in line with economic activity. After seasonal adjustaments, **average Social Security affiliation increased for the fifth straight quarter, while registered unemployment showed a decline for six quarters in a row**. Specifically, the number of affiliates to the Social Security System grew by eight tenths between October and December, three tenths more than in 3Q14, while the fall in registered unemployment doubled to 1.4% QoQ (see Figure 3.13). Finally, hiring picked up in the fourth quarter (2.9% QoQ CVEC) after remaining flat in 3Q. The percentage of temporary contracts fell 0.1pp to 91.7% CVEC due to the greater growth in the number of indefinite contracts (2.9% QoQ CVEC against 1.4% for temporary contracts).[8]

The 4Q14 Labour Force Survey (EPA) confirmed the improvement in employment indicated by the records. Employment rose by 65,100 people between October and December, despite the negative seasonal effect. Adjusting for seasonality, **the number of people in work has grown by around 150,000 (1.0% QoQ swda)**, a significant advance against 3Q14 (60,000 people; 0.5% QoQ swda).

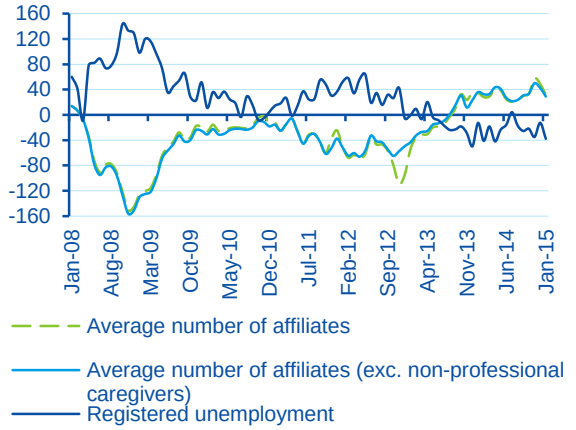
Job-creation was due to the **increased number of employees in the private sector (67,900)**. Public-sector employment remained stable (it grew by scarcely 1,900 jobs), in line with preceding quarters. Despite a slight increase in the last year (18,100), the fall in public-sector jobs exceeds 379,000 since 3Q11.

8: January employment records indicate that the labour market situation continued improving at the beginning of 2015. Although the primary sector performed surprisingly poorly, the improvement in non-agricultural membership (50,000 swda) and the fall in unemployment (38,000) consolidated the recovery observed in 2014. Only available in Spanish: https://www.bbvaresearch.com/publicaciones/espana-registros-laborales-de-enero-la-agricultura-ensombrece-la-mejora-de-los-restantes-sectores/

The increase in the working population (95,200) off-set the growth in employment, **stabilising the unemployment rate at 23.7%** (see Figure 3.14). Adjusting for seasonality, the employment rate fell for the sixth consecutive quarter; on this occasion, by six tenths to 23.7% swda.

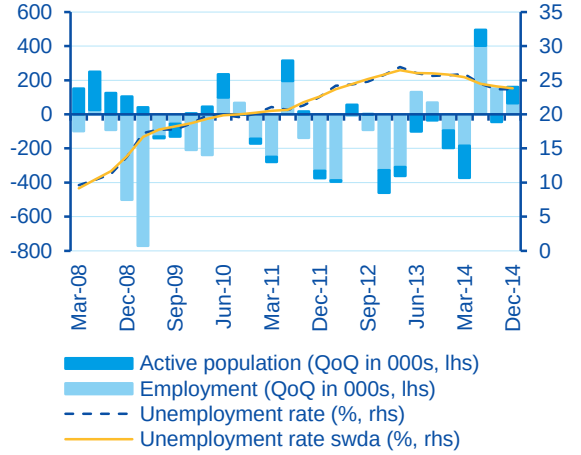
The 4Q14 figure closed the first year of net job creation since 2007. In net terms, the Spanish economy created 433,900 jobs in 2014 (205,200 in average terms), 79.3% in the services sector, and 49.0% of which were permanent jobs. These results gave rise to a two-point fall in the unemployment rate between 41Q3 and 4Q14 (annual average: 1.7pp to 24.4%) despite a decline in the working population (44,100 at the end of the year; 22,600 in annual average).

Figure 3.13
Spain: average Social Security affiliation and registered unemployment (monthly change in thousands, swda)



Source: BBVA Research based on ME&SS data

Figure 3.14
Spain: Labour market indicators



Source: BBVA Research based on INE data

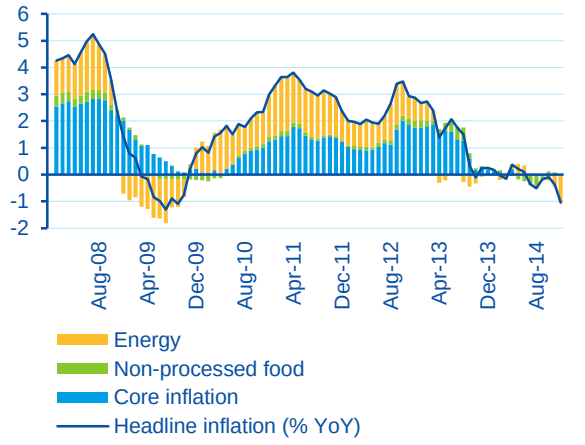
Price and cost containment continued in 4Q14, also helped by falling oil prices

The fall in headline consumer prices accentuated in the final part of 2014, reaching 1.0% YoY in December (0.2% YoY annual average)[9]. This was due to the reduction of the energy prices (8.5% YoY at the end of the year), driven mainly by the sudden fall in oil prices (to nearly USD50 a barrel at the closing date of this report). **The containment of core prices, in turn, continued in the last quarter of 2014, closing December with flat growth** (0.0% YoY annual average). Thus the contribution of core inflation to the year-on-year growth of prices last December was 0.0pp, while the residual component reached -1.0pp YoY (energy: -1.0pp YoY and unprocessed foodstuffs: +0,0 pp YoY) (see Figure 3.15).

According to BBVA Research estimates, the stabilisation of core prices in the Spanish economy continues against a backdrop of moderating European inflation and the recovery of price-competitiveness in Spain. Hence, **the difference in inflation against the eurozone, measured in terms of trends, remains favourable to Spain at around 0.7pp** (see Figure 3.16)[10].

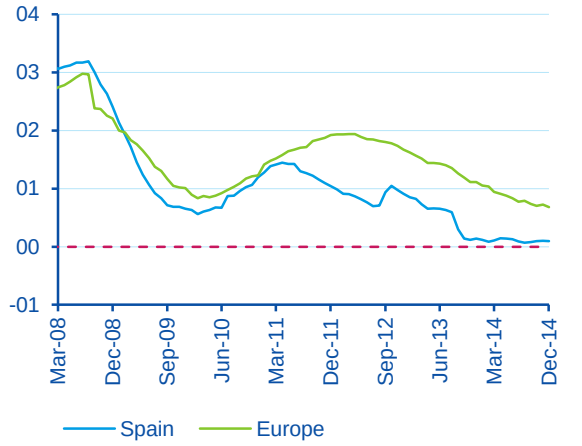
9: The CPI flash estimate confirmed an intensification of the fall in consumer prices in January (to 1.4% YoY), due to a fall in fuel prices. Our estimates suggest that core inflation remain flat. For further details. Only available in Spanish: https://www.bbvaresearch.com/wp-content/uploads/2015/01/IPCA_ene15.pdf
10: For further details about calculating the tendency inflation using the trimmed means method, see Box 1 of the Spain Outlook report for the first quarter of 2014, available at: https://www.bbvaresearch.com/en/publicaciones/spain-economic-outlook-first-quarter-2014-2/.

Figure 3.15
Spain: contribution to CPI growth (pp)



Source: BBVA Research based on INE data

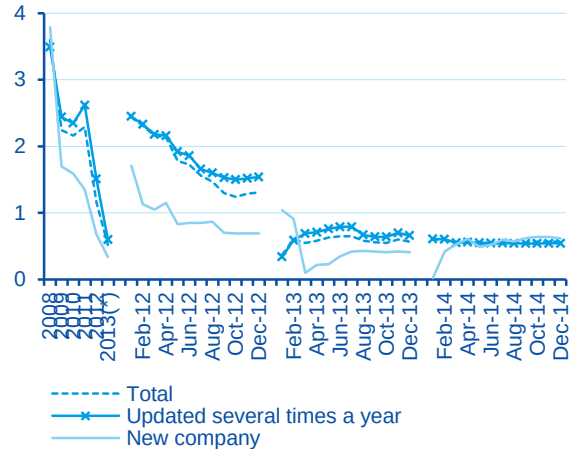
Figure 3.16
EMU: trend inflation (trimmed means method, % YoY)



Source: BBVA Research based on INE and Eurostat data

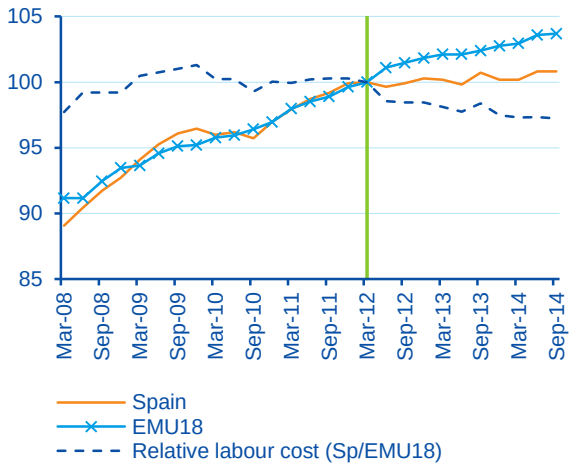
Falling inflation continued to help contain wage demands during the fourth quarter. The average wage growth agreed upon in collective bargaining agreements increased around 0.5% YoY between October and December in the multi-year review processes and 0.6% in those signed during the year, which affect only 1,585,000 workers[11]. The increase matches the maximum limit set in the II Employment and Collective Bargaining Agreement (*II AENC*[12]) for 2014 as a whole (see Figure 3.17). As Figure 3.18 illustrates, wage moderation since the labour market reforms came into effect in 2Q11 has provided a 2.8% cumulative gain in cost-competitiveness against the EMU.

Figure 3.17
Spain: average wage growth agreed in collective bargaining agreements (%)



Annual data include the agreements made after December of each year which provide for reviews under a wage guarantee clause.
(*) Provisional data. The 2013 figure is not comparable with prior years. See:
http://www.empleo.gob.es/estadisticas/cct/CCT13DicAv/ANE/Resumen_CCT_diciembre_13.htm.
Source: BBVA Research based on MEySS data

Figure 3.18
EMU: labour cost per hour worked in the market economy (1Q12=100)



Source: BBVA Research based on Eurostat data

11 The number of workers affected by collective bargaining agreements approached 4.8 million to December, when those covered by agreements signed prior to 2014 joined (3,171,000). This is 5.6% less than the figure to December 2013 and only accounts for 40% of the employed committed to an agreement in 2008.
12 Note that the II AENC 2012-2014 provided that if the increase in GDP in 2013 were less than 1%, wage rises agreed for 2014 would not exceed 0.6%.

Retail lending started to recover in 2014 with double-digit growth

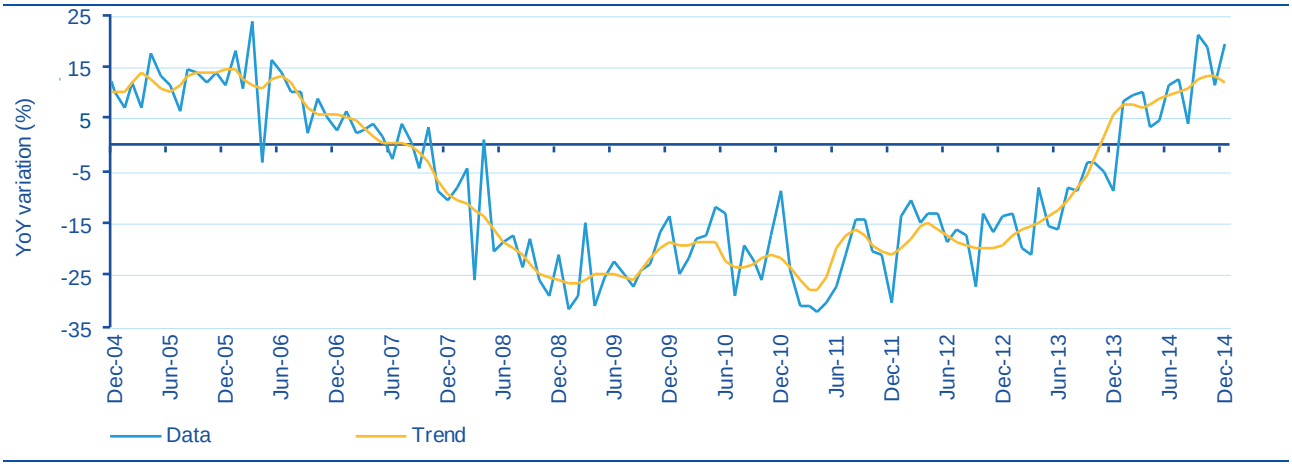
New lending transactions are the pertinent data for supporting economic recovery, as they are directly related to current investment and consumption flows[13].

At year-end 2014, new funding operations for large corporations had fallen by 19.0%, somewhat less than 2013 (23.8%), partially explained by better access to other sources of funding and partially by the necessary deleveraging of certain, still over-indebted sectors. However, **year-end 2014 seemed to point to a change in the trend, with an increase of 2.1% YoY after the sharp falls of the rest of the year**.

New funding for SMEs – for loans of up to EUR1mn - **continued to improve,** showing an 8.6% growth over the last year, compared to a fall in 2013 (7.9%). This reflects both the confidence that banks have in these companies and the drive that improved confidence has given to demand. **Finally, the flow of new lending to households showed signs of strength throughout 2014.** Thus accumulated consumer lending increased by 18.6% and home loans are up by a cumulative 23.5%. The rest of new household lending continued to improve in the second half of 2014, registering an annual increase of 11.9%.

In short, although the total number of new transactions still did not show a positive balance in 2014 – it fell by 6.3% in the year due to funding for large corporations – the data for the final part of the year seem to suggest a change of trend for the future.

Figure 3.19
Spain: new retail lending operations (% YoY)



Source: BBVA Research based on BoS data

2015-16 scenario: sustained growth

As was said in the introduction to this section, **innovations introduced to the macro-economic scenario trigger an upward revision** in the growth figures for the Spanish economy (see Figure 3.20). **The economy will grow by 2.7% both in 2015 and in 2016;** enough to accumulate a net creation of around 1,000,000 jobs and reduce the unemployment rate to around 20%[14].

Economic expansion will be founded on both internal and external factors. The global economy will accelerate which, along with the depreciation of the euro, the fall in oil prices and gains in domestic competitiveness will drive a healthy increase in Spanish exports. Expansive monetary policy will also drive increased demand. At the domestic level, the recovery in the fundamentals, progress with the correction of imbalances and the change of tone of fiscal policy will help towards a sustained recovery of domestic

13: Box 3 of the Spain Outlook report for the fourth quarter 2014 presents a detailed analysis of the relations between credit flows and economic activity. See https://www.bbvaresearch.com/en/public-compuesta/spain-economic-outlook-fourth-quarter-2014/
14: In average terms, employment will grow by 3.0% a year and the unemployment rate will fall to around 20.9% in 2016.

demand (see Table 3.1). The increase in final demand will have a positive impact on the import of goods and services, which will probably end up with a practically flat contribution to growth from net external demand.

Table 3.1.
Spain: macroeconomic forecasts

					Annual average				
% YoY unless otherwise indicated	**1T14**	**2T14**	**3T14**	**4T14(e)**	**2012**	**2013**	**2014(e)**	**2015(f)**	**2016(f)**
Domestic Final Consumption Expenditure	1.1	1.8	2.2	2.5	-3.1	-2.4	1.9	2.2	1.6
Private FCE	1.3	2.2	2.7	3.0	-2.9	-2.3	2.3	2.5	1.7
General Government FCE	0.5	0.7	0.9	1.1	-3.7	-2.9	0.8	1.5	1.4
Gross Capital Formation	0.5	3.2	3.1	4.2	-8.1	-3.8	2.8	5.2	6.4
Gross Fixed Capital Formation	15.4	12.7	9.5	9.9	-9.1	5.3	11.8	7.2	6.3
Equipment & Machinery	-8.1	-2.0	-1.2	0.3	-9.3	-9.2	-2.8	3.2	5.6
Construction	-7.3	-3.4	-1.5	1.5	-9.0	-7.6	-2.8	5.1	9.5
Housing	-8.8	-0.9	-0.9	-0.6	-9.6	-10.5	-2.9	1.8	2.6
Domestic demand (*)	**1.2**	**2.2**	**2.5**	**2.7**	**-4.3**	**-2.7**	**2.1**	**2.7**	**2.4**
Exports	6.3	1.5	4.6	5.5	1.2	4.3	4.4	6.1	7.2
Imports	8.9	4.8	8.2	8.5	-6.3	-0.5	7.6	6.8	7.1
Trade balance (*)	**-0.5**	**-0.9**	**-0.9**	**-0.7**	**2.2**	**1.4**	**-0.7**	**0.0**	**0.2**
Real GDP mp	**0.7**	**1.3**	**1.6**	**2.0**	**-2.1**	**-1.2**	**1.4**	**2.7**	**2.7**
Nominal GDP mp	**0.3**	**0.7**	**1.2**	**1.5**	**-1.9**	**-0.6**	**0.9**	**3.4**	**4.6**
Pro-memoria									
GDP exc. Housing investment	1.1	1.5	1.8	2.0	-1.7	-0.9	1.6	2.6	2.4
GDP exc. Construction	1.7	1.6	1.9	2.2	-1.1	-0.2	1.9	2.6	2.4
Total employment (LFS)	-0.5	1.1	1.6	2.5	-4.3	-2.8	1.2	3.2	2.9
Unemployment rate (%, LFS)	25.9	24.5	23.7	23.7	24.8	26.1	24.4	22.5	20.9
Total employment (f.t.e)	-0.6	0.8	1.4	2.1	-4.4	-3.3	0.9	2.6	2.3

(*) Contributions to growth
(e): estimated; (f): forecast
Source: BBVA Research based on INE and Bank of Spain data

Although the biases that have appeared imply accelerated recovery in 2015, there is no room for complacency. The growth of the Spanish economy still depends on factors that include structural adjustments. The expected cyclical improvement must guarantee both internal and external sustainability, by preventing a reduction in the rate of adjustment of the external imbalances. **Both Spain and Europe need to work on supply policies that can improve economic outlook in the medium and long term.** Although the stabilising efforts of monetary policy are considered positive, a more decided drive towards banking union in Europe is just as necessary.

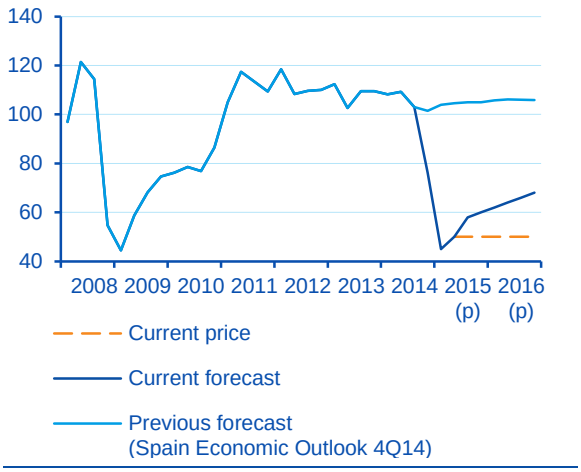
On the international front, geopolitical risks such as the Russian crisis, Ukraine and the Middle East remain a threat. On the other hand, uncertainty about the response of many emerging markets to the first interest-rate hike by the Federal Reserve in the US continues. Finally, the possibility of falling oil prices causing turbulence in some sectors, markets and countries cannot be ruled out.

Falling oil prices will make a positive contribution to growth

In recent months, **the price of oil has continued to fall** to the point that a barrel of Brent was slightly above USD50 at the closing date of this report , 55% below the price at the close of the first half of 2014, when prices started to fall (see Figure 3.20). Although uncertainty about the nature of this change remains high, **the available information suggest that most of the adjustment (between 2/3 and 3/4) is due to supply-side factors**[15]. These include unconventional crude oil production in the US (*shale-oil*), the decision by OPEC (backed mainly by Saudi Arabia) not to cut back production quotas despite the pressure on prices and, finally, the limited effect that geopolitical tensions are having on production, for example in Libya.

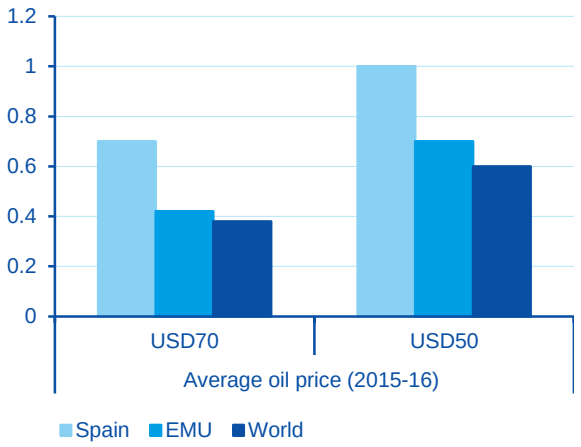
As it is mainly a supply-side shock, a net positive impact on the economy is to be expected: household disposable income will increase and production costs will be reduced for business, which will drive consumption, investment and trade flows. **BBVA Research estimates point to prices stabilising around USD70 per barrel** (average in 2015-16) which, if they materialise, would contribute an average of 0.4pp to annual growth of both the world and the European economy over the next two years. **Given the extent to which the Spanish economy is energy dependent, the oxygen provided by cheaper oil implies greater relative saving and therefore, a more significant drive to economic activity (0.7pp on average)** [16]**.**

Figure 3.20
Oil-price scenario (USD/bbl Brent)



Source: BBVA Research based on Bloomberg data

Figure 3.21
Impact of the fall in oil prices (pp of average annual growth in 2015-16)



Source: BBVA Research

Monetary policy will remain expansive

Given the weakness of recovery in the European economy and the low inflation rates, the ECB has once again taken forceful action. The Governing Council (GC) of the monetary authority decided in its January meeting **to extend its bond-buying programme**[17], which includes public securities issued by European governments, agencies and institutions. On balance, it **will represent a liquidity injection of at least 1.1 trillion euros (acquisitions of EUR60mn a month)** from March 2015, until at least September

15: The fall in crude oil prices since July 2014 has also reflected certain moderation in world growth prospects. BBVA research estimates however, suggest that his factor has played a secondary role in this episode (between 1/4 and 1/3 of the fall).
16: For further details about estimating the effects of oil prices by types of shock on economic activity and the prices of the Spanish economy, see Box 1 of the Spain Outlook report for the second quarter of 2011, available at: https://www.bbvaresearch.com/en/publicaciones/spain-economic-outlook-second-quarter-2011/
17: It includes the programmes in effect since the second half of 2014 (CBPP and ABSPP): purchase of asset-backed securities (ABS) and guaranteed bonds, which currently amount to approximately EUR13bn a month.

2016 (or until such time as the ECB considers that inflation is back on track with its objective, a rate close to, but below 2%)[18].

These measures, along with keeping the main reference interest rate at a historical low (0.05%) and the programme of operations focused on long-term funding (TLTRO), **form a suitable monetary policy tool** to fight low inflation, keep interest rates low in the long term (around 2.1% in 2015-16 for Spain, 50bp less than in 2014), contribute to the depreciation of the euro (16% nominal against the dollar in 2015) and support growth in demand and credit[19,20]. However, **one unwanted consequence of the bond-buying programme is that it could slow down the process of reducing financial fragmentation in Europe**, as the ECB has opted for a mechanism that will only share the risk associated with 20% of the asset purchases. An optimum design of the programme should have included a totally shared risk in its road map to banking union.

The improvement in funding flows will be consolidated over the next two years

Several factors allow for optimism about credit flows. First, the **recovery of loans of over EUR1mn to companies** seen in December 2014 and **the consolidation of the positive trend of funding operations to the retail segment** (families and SMEs), and second, **the improvement in economic activity and employment factored into the macro-economic scenario**. Finally, **the whole raft of stimulus measures that the ECB has rolled out**, **taken altogether, could have a positive effect on granting new credit and the increase in solvent demand**. In fact, an increase in new operations would be compatible with the necessary deleveraging of outstanding balances, if the out-flow (amortisations) is greater than the influx (new operations). According to our estimates, new operations could exceed amortisations from late 2015, which would translate into an increase in the outstanding credit balance.

Economic recovery will allow margin for implementing a slightly expansive fiscal policy

As we said in the previous edition of this report, the tax cuts – the first band of which came into effect in January 2015 – will be a driver for growth over the next two years and, at the same time result in a fall in structural revenues for the public sector[21]. However**, the improved economic context along with a moderation in the cost of public-sector borrowing will allow budget targets to be met** (4.2% in 2015 and 2.8% in 2016) (see Section 4).

Thus, **the Spanish economy closes the chapter of restrictive fiscal policy, at least for the moment**, which suggests a new recovery in public-sector demand over the next two years. More specifically, **public consumption is expected to grow by 1.5% in real terms in 2015, while investment in non-residential construction (affected by public works) should post growth of around 1.6%**. In a scenario of no change in economic policy, the tone of fiscal policy will become somewhat less expansive in 2016. Growth in real spending on public-sector consumption will moderate to 1.4%, while non-residential investment will expand at a rate of around 2.6% in that same year.

18: For further details, see the BBVA-Research ECB Observatory published 22 January 2015. Available in Spanish at https://www.bbvaresearch.com/wp-content/uploads/2015/01/Observatorio_BCE_01151.pdf
19: Box 3 of the Spain Outlook report for 4Q14 estimates that actions such as the TLTROs could add between 0.2 and 0.8pp to Spanish GDP growth, albeit only in the short term. See: https://www.bbvaresearch.com/en/public-compuesta/spain-economic-outlook-fourth-quarter-2014/
20: The economic scenario up-date includes a greater depreciation of the euro against the dollar than advised three months ago: by an additional 7% in 2015 and 4% more in 2016. BBVA-RVAR model estimates indicate that this additional depreciation will have an impact on Spanish GDP of around 0.3pp in 2015 and 0.2pp in 2016. For further details, see Box 1 of the Spain Outlook report of 4Q14.
21: Box 2 of the Spain Outlook report of 4Q14 presents an analysis of the impact of the income tax cut.

All the components of domestic demand will make a positive contribution to growth for the first time since 2007

The outlook for household consumption has improved during the last quarter. Job-creation, the fall in oil prices and income tax cuts will help real disposable income to recover both this year and next. The expected growth of financial wealth, an absence of inflationary pressures, the expectation that official interest rates will remain at historic lows and the adjustments to savings will offset the almost flat real estate wealth and the uncertainty surrounding the discontinuation of the PIVE programme. Finally, new consumer funding operations will continue to increase over the coming quarters in a context of deleveraging the outstanding credit balance, and it will sustain household expenditure in the medium term, especially in durable goods. Consequently, **private consumption is revised upwards by around seven tenths in 2015-16 to 2.5% and 1.7%, respectively.**[22]

Over the next two years, **investment in equipment and machinery will be backed by the increase in domestic demand and by the strong performance expected from exports**. Furthermore, there are two factors that will have a positive impact on this component of demand. On the one hand, maintaining funding costs relatively low will facilitate the roll-out of new investment projects. And on the other, the significant fall in oil prices that, given the Spanish productive system's high dependence on energy, will represent significant cost savings, which will free-up additional resources for productive investment. This leads to **a 0.6pp upward revision of the growth forecast** for equipment and machinery investment **in 2015, to 7.2%. This component of demand could well grow at an annual rate of 6.3% in 2016.**

Investment in housing, in turn, will continue the recovery started in the second half of 2014. The growth in housing starts will consolidate in the next two years, growth that will not however, be incompatible with reducing the excess supply of new housing[23], given that the number of completed houses will continue to flatten off in the short term. Moreover, the improvement in the fundamentals of demand, especially employment, the forecast that the cost of funding will remain low and the change in tone of house prices – which in aggregate terms will enter a stable phase – will propitiate a favourable environment for the sales recovery to continue. Thus, **the growth in transactions that has been observed in the last year** – around a 14% increase – **is expected to be consolidated in 2015 and 2016**.

Hence, while 2014 has been a year of transition, 2015 will be the first year in which investment in housing grows after contracting for seven consecutive years. **This element of investment is expected to grow at an annual rate of 5.1% this year to reach a growth rate of 9.5% in 2016**. To a large extent, high rates are due to the base-effect arising from a historically-low starting point: around 4.0% of GDP, the lowest ratio since 1980.

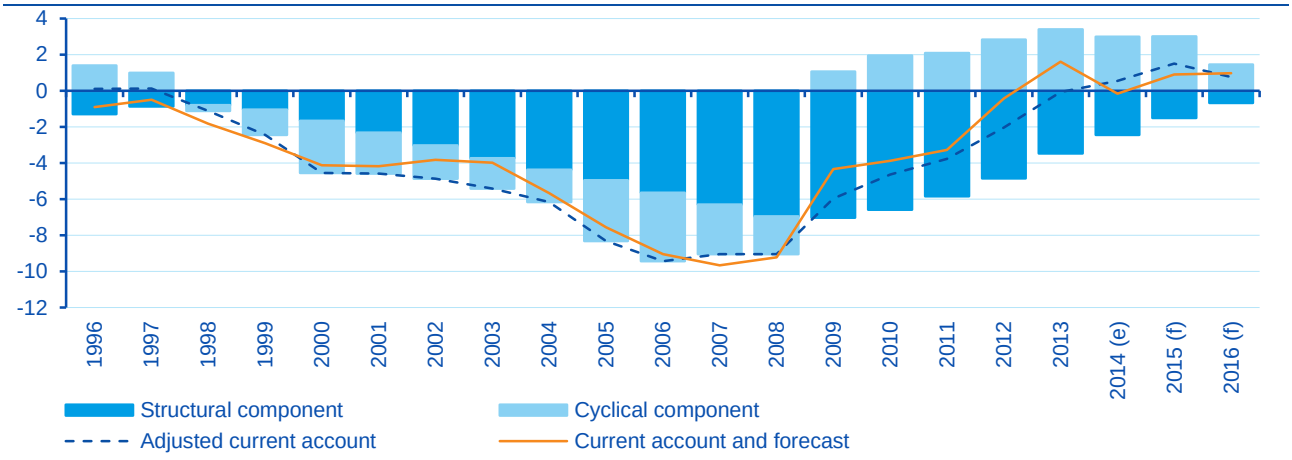
With respect to the overseas sector, the growth of the world economy for 2015-16, points to sound demand for Spanish exports. This factor, along with gains from recent geographic diversification[24], will be reinforced by a more depreciated euro in the medium term, which should help exporters to gain market share with a strategy that involves improving the relative price of their products[25]. Lower transport costs, as a consequence of falling oil prices, will have a positive impact both on the trade flow of goods and on the

22: With the change in the foundations of the National Accounts, the private consumption series underwent a significant review. This, together with the modification of the real estate wealth data by the Bank of Spain, has altered the elasticity estimates of the consumption of each of its determining factors. In particular, it shows that spending sensitivity to disposable income is less than estimated with the previous accounting foundation, whereas real estate wealth elasticity is greater. Moreover, convergence to the long-term consumption level is now faster, so the spread between observed spending and that explained by the fundamentals is less than estimated with the previous data.
23: In fact, the stock of new, unsold housing in some regions, such as Cantabria and Extremadura is already very small.
24: An analysis of the productive and geographic diversification of Spanish exports can be found in Box 3 of the Spain Outlook report of the first quarter of 2014, available at: https://www.bbvaresearch.com/en/publicaciones/spain-economic-outlook-first-quarter-2014-2/
25: As an average for the year, nominal depreciation of the euro against the dollar could be around 16% in 2015. In a similar depreciation episode (13.4%) recorded in 2000, the Spanish economy experienced a substantial increase in nominal exports to Europe (16.2%) and, above all, to the rest of the world (25.2%).

export of tourist services. All this allows for a forecast of **high growth in total exports over the timeline (average: 6.6% per year).**

As a consequence of the boost from final demand, **imports of goods and services will continue on the road to recovery (average: 6.8% per year)**. Hence, **the contribution to economic growth from net external demand in 2015 will be virtually flat (0.0pp) and will return to positive territory, albeit only slightly, in 2016 (0.2pp)**. Over the next two years, cheaper crude oil will alleviate the Spanish economy's external energy deficit, supporting the **return to current account surplus (average 2015-16: 1.0% of GDP)**[26]. The adjustment of the structural deficit on the current account balance will be concluded by the end of the timeline under study (see Figure 3.22).

Figure 3.22
Spain: breakdown of the cycle-structure of the current account (% of GDP)



(e): estimated; (p): forecast.
Source: BBVA Research

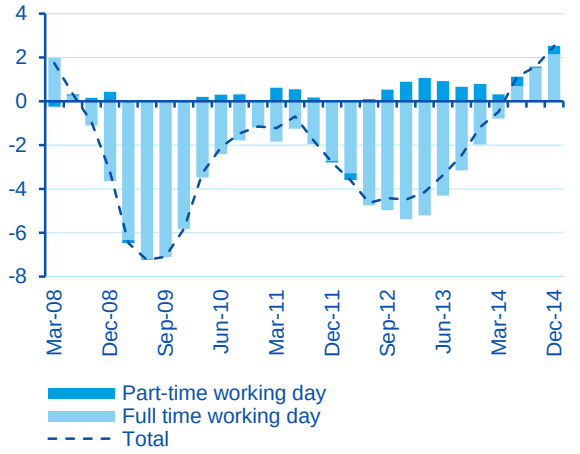
The labour market will improve in line with the economy, but imbalances will persist

Labour market prospects are revised upwards against the last edition of this report, in line with economic activity. The economic momentum expected and a more efficient labour market will help to increase private-sector employment and reduce the unemployment rate[27]. Thus, in 2015, the number of people employed is expected to grow by 3.2%, 1.4 points more than the October forecast, and a 2.0 point reduction in the unemployment rate, down to 22.5%. **Job creation will be 2.9% in 2016, but the fall in the unemployment rate (to 20.9%) will be less than the fall expected for 2015** given the less favourable performance of the working population [28].

The 2014 data indicate that full-time hiring is picking up (see Figure 3.23). If this trend continues over the coming quarters, full-time equivalent employment will be similar to total employment. BBVA Research forecasts, illustrated in Figure 3.24, indicate that the ratio of full-time equivalent jobs to total jobs will only fall two tenths to 87.5% over the next two years. Expected economic and employment figures suggest a slowdown of the apparent productivity of labour (APL) in 2015 and an increase of around 0.3% in 2016. Although this growth is less than in the last recession (2.1% on average in 2008-2013), it is in line with the growth registered in the previous phase of expansion (0.4% on average in 2000-2007)[29].

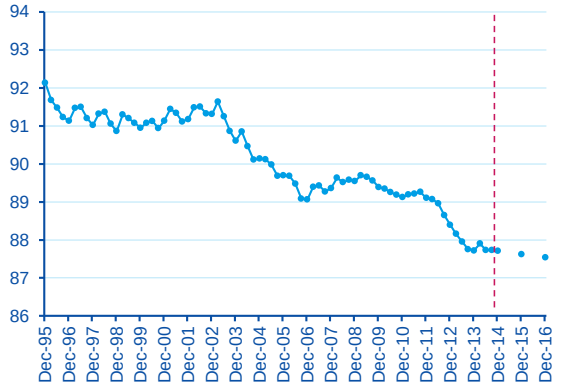
26: BBVA Research estimates suggest that the fall in the price of oil during 2015 will improve the current account balance by 1.0pp of GDP.
27: A proposed labour market reform that would help to accelerate job creation and reduce duality can be consulted in Box 1.
28: Box 2 shows that the expected ageing of the Spanish population will hinder the recovery of the employment rate even if individual propensity to enter the labour market or the economic cycle improved.
29: Box 3 analyses the performance and the determining factors of the productivity of Spanish manufacturing businesses over the last three decades.

Figure 3.23
Spain: contribution to YoY growth in employment (%)



Source: BBVA Research based on INE data

Figure 3.24
Spain: Full-time-equivalent jobs/total jobs (%)



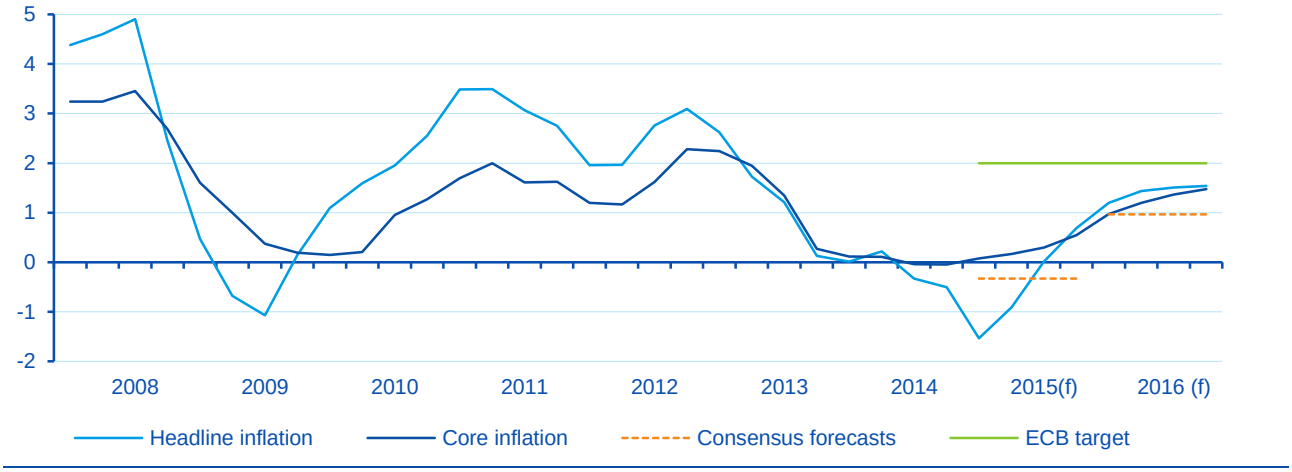
(e): estimated; (f):forecast
Source: BBVA Research based on INE data

The price of oil will keep inflation in negative territory, but only in the short-term

Although the euro exchange rate will depreciate more than was expected three months ago, **the fall in the price of oil (to USD70 a barrel on average for 2015-16) has led to forecasts for headline inflation to be revised downward significantly for this year (1.4 points to -0.4% as the annual average)**. But the determining domestic factors suggest that core inflation will remain positive, although at moderate levels in 2015 (0.3% as annual average) (see Figure 3.25). On the demand side, **the still high level of unemployment will constrain the emergence of inflationist pressures**. On the supply side, **the Spanish economy's present process of recovering competitiveness is expected to continue**.

Although inflation expectations remain below the ECB target, **both in Europe and in Spain, prices will obviously start to rise again during these two years (1.4% and 1.0% on average for 2015 and 2016, respectively).** As stated above, the one-off measures adopted by the monetary authority since June 2014 (reduction of interest rates, fostering an easing of credit, extended programme of buying assets and guaranteed bonds) have made a significant contribution to this normalisation of inflation.

Figure 3.25
Spain: inflation (% YoY)



(f): forecast
Source: BBVA Research based on INE and Consensus Forecast Inc. data

Box 1.The advantages of boosting permanent employment

Executive summary

In November last year, BBVA Research and the Sagardoy Foundation presented a proposal to reform the employment protection system, with the aim of promoting stable hiring and protecting those groups which find it most difficult to find work. The document set out an effective way of simplifying the current shopping list of labour contracts and a modernisation of the severance pay system. This Box summarises that proposal and presents our estimates of its macroeconomic effects. The results of these simulations indicate that the reduction in the short-term employment rate and unemployment, together with the increased productivity per worker resulting from the reform, would have positive effects in the long term on GDP (between 4.1% and 12.0%), levels of occupation (total hours worked would increase by between 2.2% and 5.2%), as well as flattening income distribution, with a reduction of inequality of between 3.9% and 7.1%.

A reform proposal for a labour market that is still two-tier

The 2012 labour market reform, and the supplementary measures adopted since then[30] have helped to repair some of the Spanish market's endemic deficiencies. However, **unemployment and temporary employment are both still very high, which means that labour legislation must be further modernised**[31].

Spain has a combination of large severance payments to long-term workers, when compared with other developed economies, and ineffective legislation on short-term hiring, which divides workers into two categories, depending on whether they have more or less protection. This two-tier system has negative effects on equality, on top of the burden of increased unemployment. Temporary hiring is more widespread among vulnerable groups (the young[32] and the low-qualified, as Figure B.1.1 illustrates). Furthermore, temporary workers aremore likely to lose their jobs than permanent employees (see Figure B.1.2), which exacerbates the volatility of unemployment's cyclical component.

To encourage long-term hiring and protect those for whom it is more difficult to find a job, **BBVA Research and the Sagardoy Foundation proposed an effective simplification of the myriad of labour contract types, together with a significant change in the severance model**[33]:

- **All the open-ended contract types currently in existence should be grouped together and distilled into one type of contract which can** accommodate the existing ones. The temporary contract should have a specific purpose and a maximum length of two years. Finally, the standard training and apprenticeship contract should help the transition to a long-term job once the training process is complete.
- The reduction in the number of types of contract would be supported by **a new mixed system of severance payments for contract termination.** Part of the money would come from an **individual savings account** provisioned by regular contributions from the employer, for a sum equivalent to eight days of wages per year worked (dwyw)[34]. **To ensure the company absorbs the negative externalities caused by laying off a long-term employee, it should make a further severance payment**, which would grow in proportion to the time the employee had worked in the company and would be higher in the case of unfair dismissal[35]. In the case of the **temporary short-term contract**, together with the contribution to the individual account, **the**

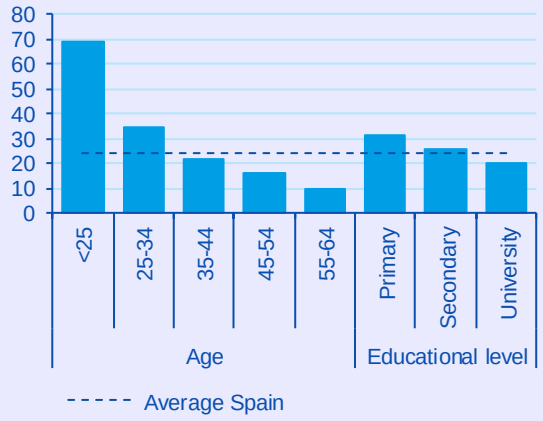
30: Since the labour market reform came into force, the Government has passed measures designed to intensify the search for work by the unemployed on benefits, to mitigate the two-tier system and encourage the use of the part-time contract, to subsidise long-term hiring provisionally, to increase the efficiency of active employment policies and to make young people more employable.
31: Spain ended 2014 with an unemployment rate of 23.7%, and a 24.2% rate of temporary jobs. On average, these rates in EMU countries were 11.4% and around 15% respectively.
32: See Dolado et al. (2014).
33: See BBVA Research and the Sagardoy Foundation (2014).
34: The contribution would be greater if a system similar to the Austrian one were adopted.
35: As with the current arrangements, the severance payment disbursed by the company would have a cap: 12 months' wage if fair dismissal, and 24 if unfair.

dismissal compensation for terminating the contract would remain at 12 dwyw, whatever the cause of dismissal[36].

As illustrated in Figure B.1.3, **the severance payment on a long-term contract will be lower than the cost of terminating a temporary contract.** There are at least two reasons for this: to make them more attractive, and to penalise companies with a high turnover of staff. In exchange for a lower compensation pay-out initially, workers will have more stable employment, higher wages and the benefits of a longer-lasting professional career within the company. As a result, Spain would have a less extreme position when compared with neighbouring economies (see Figure B.1.4).

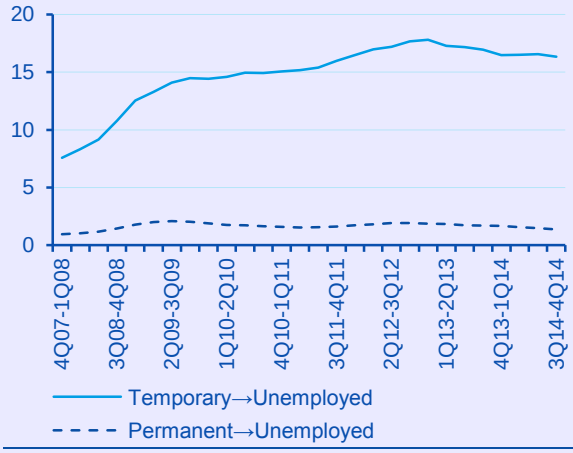
Implementing the proposal would lessen the uncertainty which is a hindrance to long-term hiring, promote investment in specific human capital, increase productivity, create an incentive for labour and geographic mobility, aid the re-assignment of jobs across different sectors, and help to modernise collective bargaining. Finally, creating the capitalisation fund would help companies with their financial planning and increase workers' savings and the incomes of future pensioners.

Figure B.1.1
Spain: temporary employment rates by age and educational level in 2014 (%)



Source: BBVA Research based on INE data

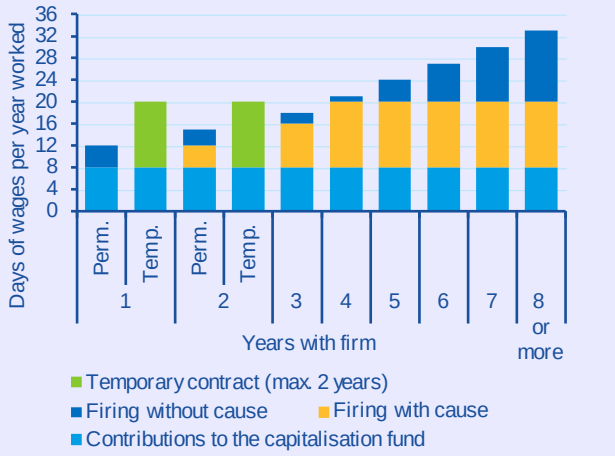
Figure B.1.2
Spain: % of waged who lose their job in the following quarter, by type of contract (4-month moving average)



Source: BBVA Research based on INE data

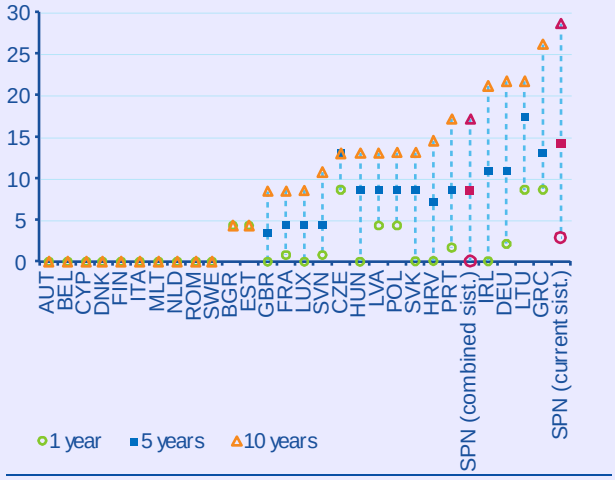
36: the new severance payment system would be mandatory for all new contracts. The transition would be carried out by mutual agreement between the employer and the employee in the case of pre-existing contracts:

Figure B.1.3
Costs of terminating a job contract in the mixed system (days of wages per year worked)



Source: BBVA Research

Figure B.1.4
EU: severance payment for fair dismissal, by years of tenure (weeks of wages)



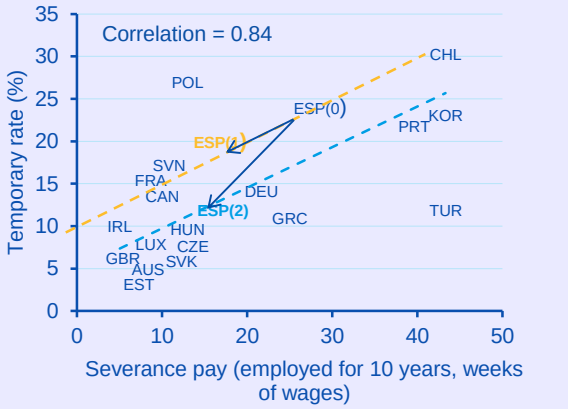
Source: BBVA Research based on World Bank (Doing Business 2015)

An initial estimate of the economic impact of the new employment protection system

To simulate the general equilibrium effects on economic activity and on the use of the new system, we used the REMS[37] model (Boscá *et al*., 2011). To do so, first we calibrated the rates of temporary hiring, unemployment and the variation in productivity, all resulting from the change in the level of employment protection.

As Figure B.1.5 shows, the evidence for the OECD[38] economies suggests that **the paying by instalments of the severance payment inherent to the new system could translate into a fall in temporary employment of between 6 [**of ESP(0) to ESP(1)] **and 11 points [**of ESP(0) to ESP(2)], depending on the improvement in the rate of conversion of temporary contracts into long-term ones, as a result of the relative cheapening of the latter.

Figure B.1.5
Severance pay for fair dismissal, typical worker; rate of short-term employment in the OECD. 2010-13 average

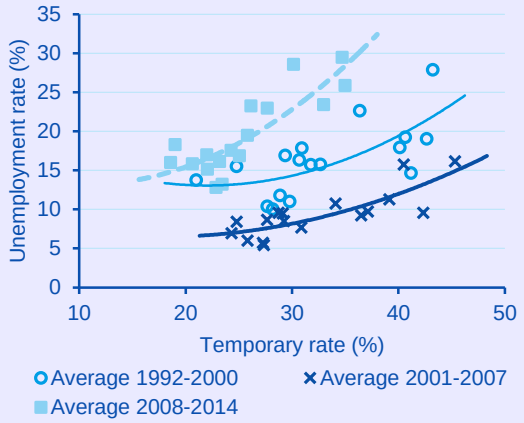


Source: BBVA Research based on OECD and World Bank (Doing Business 2015)

Second, **we estimated that for every percentage point (pp) by which the rate of temporary contracts is reduced as a consequence of the reform, the unemployment rate could fall by between 0.5pp and 0.8pp**. The lower limit is obtained from the ratio between the rate of temporary jobs and regional unemployment in the Spanish economy from 1990 onwards (see Figure B.1.6). The upper limit is taken from Sala & Silva (2009), which simulated the effects of the reduction in the cost differential between terminating the contracts of long-term workers and of temporary ones since the 1997 labour reform[39].

37: REMS: Rational Expectations Model for the Spanish economy. For more on the model, see Boscá et al. (2011).
38: Countries with no severance pay are excluded. Likewise, neither Turkey nor Poland is included because their temporary job rates do not appear to have any bearing on their severance pay system.32: See Dolado et al. (2014).
39: Law 64/1997, dated 26 December, instituted the contract encouraging open-ended hiring, with severance pay for unfair dismissal of 33 dwyw, up to a ceiling of 24 monthly payments, compared to 45 dwyw and 41 monthly payments in force with the ordinary open-ended contract.

Figure B.1.6
Short-term employment and unemployment rates by region in Spain



Source: BBVA Research based on INE data

Finally, **we considered an improvement in labour productivity as a result of converting temporary contracts into long-term ones**. Given that, in an equilibrium, wages and the productivity per worker would match, we used the wage differential by contract type to calculate the productivity differences. According to data from the latest Annual Wage Structure Survey, in 2012, the average annual gross earnings of a long-term worker are 34.5% higher than those of a temporary worker. However, this difference could depend on other characteristics of the worker or the company apart from the type of contract. On this subject, de la Rica (2010) estimates that the conditional wage premium on the permanent contract is still as high as 15.2%.

In the light of the above, we built **two scenarios: one with the lower limits, the other with the upper.** Table B.1.1 summarises how we calibrated the short-term factor, unemployment and productivity parameters in each scenario.

Table B.1.1
Scenarios of temporary work, unemployment and productivity as a result of the reform of the severance pay system

	Lower limit scenario	Upper limit scenario
Decrease in short-term employment	6 pp	11pp
Decrease in unemployment rate (1)	3 pp	9 pp
Increase in productivity per worker(2)	0.8%	3.8%

Notas:
(1): For each pp reduction in the rate of short-term hiring, the unemployment rate falls by 0.5pp in the lower limit scenario, and by 0.8pp in the upper limit scenario
(2): In the lower-limit scenario, the productivity differential between a long-term worker and a short-term on is taken as being 15.2%. In the lower-limit scenario, the difference increases to 34.5%
Source: BBVA Research based on INE data

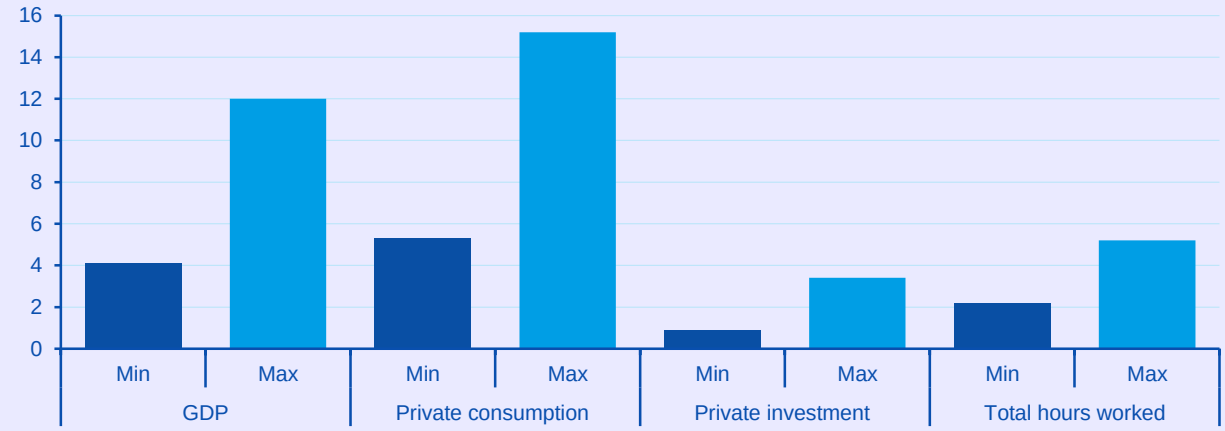
Results of the simulations

Using the former assumptions, we simulated the general equilibrium effects of the two scenarios outlined in Table B.1.1. Following the proposal made by Andrés *et al.* (2011), starting from a situation of initial equilibrium in which the structural unemployment rate is 18%, the separation rate (that is, the percentage of working people who lose their jobs) has fallen, with the result that the unemployment rate drops by between 3pp and 9pp, while total factor productivity increases by between 0.8pp and 3.8pp.

In both scenarios, the positive effects of the reform would be economically significant (see Figure B.1.7). In the **lower limit scenario, GDP would grow by 4.1% over the long term** from the baseline scenario, private consumption would do so by 5.3%, private investment would rise by 0.9% and the total number of hours worked by 2.2%. In the **upper limit scenario, GDP would rise by 12%**, private consumption by 15.2%, private investment by 3.4% and the total number of hours worked by 5.2%. In both scenarios, the relationship between unemployment and economic growth is consistent with the Okun's Law coefficient for the Spanish economy (in the region of 1%).

Inasmuch as the unemployment rate is responsible for increased inequality in income distribution (see the ILO, 2014), reducing it by between 3pp and 9pp would **reduce inequality** (measured on the Gini index) by between 3.9% and 7.1%.

Figure B.1.7
Long-term effect of reforming the employment protection system (pp over the baseline scenario)



Source: BBVA Research

Conclusions

This box has quantified the effects of the reform proposed by BBVA Research and the Sagardoy Foundation to encourage open-ended hiring by simplifying the range of contracts available and modernising the severance payment system. The results of our simulation show that reducing temporary contracts and unemployment, together with the increased productivity per worker, which would all be consequences of the reform, would have long-term positive repercussions on GDP (between 4.1% and 12.0%), total hours worked (between 2.2% and 5.2%) and on a more even income distribution, with a reduction in inequality of between 3.9% and 7.1%.

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Box 2: The recent fall in the participation rate in Spain: a structural challenge

Introduction

After over 20 years of unbroken growth, the **Spanish economy's participation rate[40] slowed down in 2008, then went into retreat from late 2012**.

Finding out the factors underlying this behaviour is of the utmost importance, as, together with employment and productivity, the LFPR is what determines the economy's growth potential[41]. Recent estimates put the contribution of the participation rate to annual potential growth of the Spanish economy at around 0.6pp over the last growth phase (2000-07)[42].

In this context **we examine what portion of trends in the participation rate is accounted for by structural factors and what part by temporary changes, and is therefore reversible**. Among the structural factors, we look into the role played by demographic aspects (particularly population ageing) and developments as regards the propensity to participate in the labour market by certain segments (for example women entering it). Among the second ones we analyse the fluctuations in the participation rate owing to transitory factors such as the economic cycle.

The findings from the estimates suggest that structural changes have predominated in the recent patterns for the participation rate in Spain. To begin with, it is verified that population ageing is exerting downward pressure on the participation rate: the original members of the baby-boom are starting to move away from the high participation phase, and the low birth-rates mean that a broadening of the base of the population pyramid is unlikely. Second, it can be seen that, although there is cyclical behaviour in the propensity to participate in the labour market of certain population brackets (particularly among the under-25s), it does not have much of a bearing.

In the last part of the box, **we assess the Spanish economy's ability to reverse the recent fall in the participation rate**. To do this, scenarios are constructed which use as a given the population projections made by the National Statistics Institute (INE), and exogenous situations are established regarding trends in the participation rate for the various population groupings.

The results of the simulations suggest that, given the adverse population dynamics forecast by the INE, **the participation rate of the Spanish economy will not be restored to pre-crisis levels unless there is a significant increase in the propensity to participate among the young and the over-55s**.

From these results, it seems clear that the postponement of the retirement age, which has been effective since 2013, and the efforts to extend people's working lives are necessary measures towards limiting the negative fall-out from a shrinking participation rate.

A 25-year run of a rising participation rate, which came to an end in 2013

The Spanish economy's participation rate grew steadily over the last three decades, peaking at over 60.5% in the middle of 2012. The fall in the reading since then (0.8 points) has not been exclusive to Spain. Other countries, such as Belgium, Denmark, Portugal and the United States[43], among others, have experienced dwindling participation rates over the last few years.

The dynamics of the participation rate vary among the population segments. As Figure B.2.1 shows, the LFPR for men in the 25-54 age-group (representing 42.4% of those in the labour force) has barely altered in the last 40 years. By way of contrast, the progressive inflow of women into the market since the 70s has translated into a

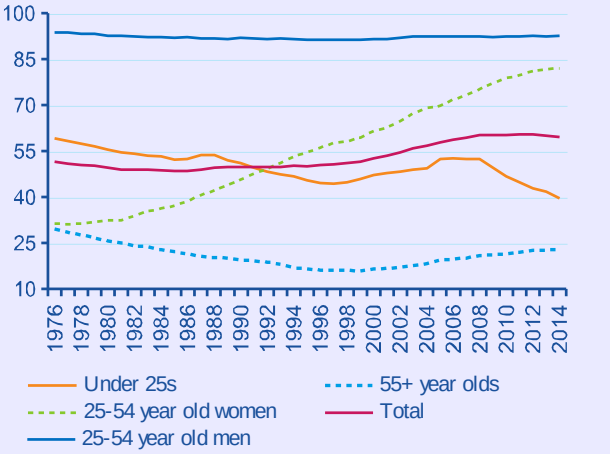
40: The participation rate is the ratio between the labour force and the population aged 16 or over.
41: According to growth accounting, GDP per capita (GDPpc) can be decomposed into this expression:

$$GDPpc = \frac{GDP}{Employed} * \frac{Employed.}{Actives} * \frac{Actives}{Pop.+16} * \frac{Pop.+16}{Population} = Productivity * (1 - Unemployment\ rate) * Participation\ rate$$

42: See Hernández de Cos, Izquierdo & Urtasun (2011).
43: See Bengali, Daly & Valletta (2013), Executive Office of the President of the US (2014) or Fujita (2014), among others.

more than 50-point increase in their participation rate within the 25-54 age band (37.0% of the labour force). Finally, the youngest and the oldest segments show contrasting trends. The participation of under-25s has dropped back by over 10 points since the outset of the crisis (among other things, due to the difficulties of getting them into work and the extension of their time in education), whereas that of the over-54s continues to edge higher as their working lives become longer.

Figure B.2.1
Spain: participation rate by population groups (%)*



(*) Series corrected for outliers and changes of methodology
Source: BBVA Research based on INE data

Propensity to participate or composition effect?

The evidence given in Figure B.2.1 suggests that the decline in the LFPR of the young has played a part in explaining the recent deterioration in the aggregate participation rate. This might, however, not be the sole determinant. If the population weight of the groups with a participation level lower than the mean has grown (e.g. the young and the over-55s), the participation rate in the economy would have fallen even if each individual's propensity to participate were to have increased. This is what is known as the 'composition effect'.

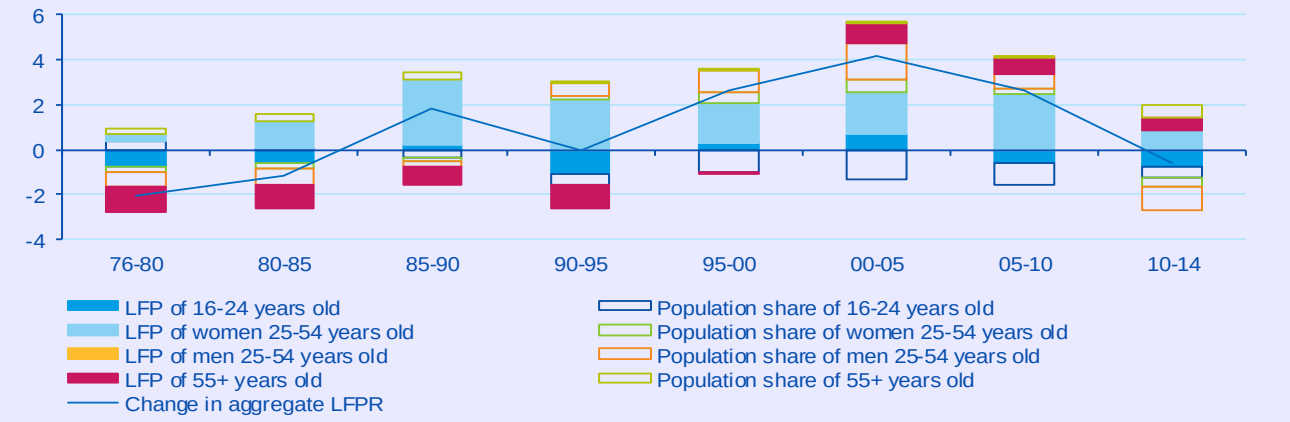
To **distinguish what part of the dynamics of the participation rate is due to the change in the participation level of each group, or to the composition effect**, a shift-share analysis is performed. The variation in the participation rate between two years $(\Delta LFPR_t = LFPR_t - LFPR_{t-j})$ may be expressed thus:

$$\Delta LFPR_t = \sum_i \underbrace{\left[\left(LFPR_t^i - LFPR_{t-j}^i\right)p_t^i\right]}_{Participation\ effect} + \underbrace{\left(p_t^i - p_{t-j}^i\right)LFPR_{t-j}^i}_{Mix\ effect},$$

where *i* denotes the population group (under-25s, men and women in the 25-54 age bracket, and the over-54s), and *p* the weight of each collective in the population of working age.

Figure B.2.2 gives the breakdown of growth in the participation rate in five-year periods. If we turn our attention to the last of these, we see that **the reduction in the participation rate can be explained, not only by the drop in the participation level of the young, but also the fall in the population weight of women, the under-25s and, most especially, men in the 25-54 age band**. The decline in the participation rate would have been higher if the propensity of women and the over-54s to participate in the labour market had not risen.

Figure B.2.2
Spain: contributions to the five-yearly variation in the participation rate (pp)



Source: BBVA Research based no INE data

Structural breakdown of the participation rate

The analysis in the previous section indicates that the propensity to participate in the labour market could depend on both structural factors and transitory elements, the influence of which does not seem to be uniform among the various population groups. Good examples of these include the inflow of women into the labour market, the progressive lengthening of the working life, the increase in the years in education or the problems of breaking into the labour market experienced by the young in the recessionary phase of the cycle[44].

Taking these stylized facts into account, **a breakdown is given below of the (observed) participation rate for each group among the (unobserved) structural and transitory components which govern the rate's dynamics**. The estimates are confined to the 1976-2014 period and apply regional heterogeneity to make it easier to identify said components.

The participation rate of the population group *i* in the j^{th} autonomous region in the quarter *t*, $LFPR_{i,j,t}$, can be expressed as:

$$LFPR_{i,j,t} = \alpha_{i,j} * TLS_{i,t} + \beta_{i,j} * C_{i,t} + (\mu + \vartheta)_{i,j,t}$$

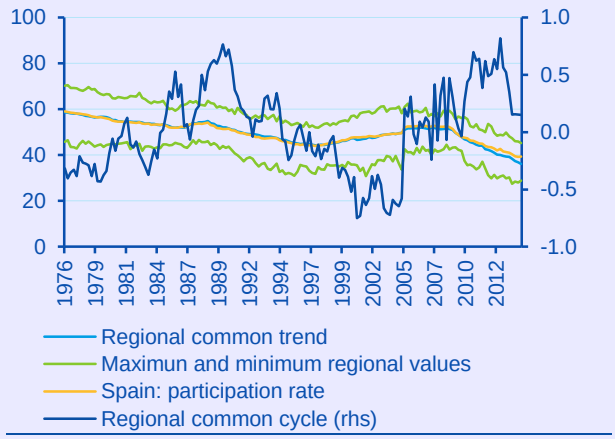
where $\alpha_{i,j}$ and $\beta_{i,j}$ respectively denote the impact of the trend ($TLS_{i,t}$) and the cycle ($C_{i,t}$) common to all the autonomous regions for the i^{th} group, whereas $(\mu + \vartheta)_{i,j,t}$ is an idiosyncratic component which describes elements that are traits of each autonomous region[45].

Figures B.2.3 to a B.2.6 give the key results gleaned from the estimated structural breakdown:

- Firstly **it emerges that the participation rate for under-25s displays a downward trend and a cycle that is common to all the autonomous regions**. Nonetheless, this component does not even represent more than 0.8pp of the participation deviation relative to the estimated trend, which implies that, this alone is not sufficient to reverse the retreat observed (see Figure B.2.5). Beyond this, it can be seen that the cyclical position of the participation rate of the young was positive throughout the initial years of the economic crisis.
- **As regards women under 55, there is confirmation of a positive common structural trend**. The rising pattern reveals clear signs of flagging in the last few years, which suggests that the inflow into the labour market which began 40 years ago is probably drawing to a close (see Figure B.2.4). A cyclical component can also be made out which, however, is not economically significant.
- **Men in the 25-54 age-band have not altered their propensity to participate in the labour market substantially**. Even though there is a discernible slightly decreasing common trend, this does not explain more than one point of the performance observed in the last three decades (see Figure B.2.5). Moreover, the estimates suggest that the hypothesis of a common cycle existing in the participation rate for this group cannot be accepted.
- **Positive signs can be drawn from the estimates concerning the LFPR of over-55s** (see Figure B.2.6). Specifically, there is a visible common trend for most of the autonomous regions, which is a rising one from early 2000 (see Figure B.2.6)[46]. The postponement of the retirement age, as well as the rule changes relating to the conditions for accessing a contributory pension, should have helped speed up the increase in the participation rate for this group. The estimates show that the participation rate for the over-55s does not have a unique cyclical component in common.

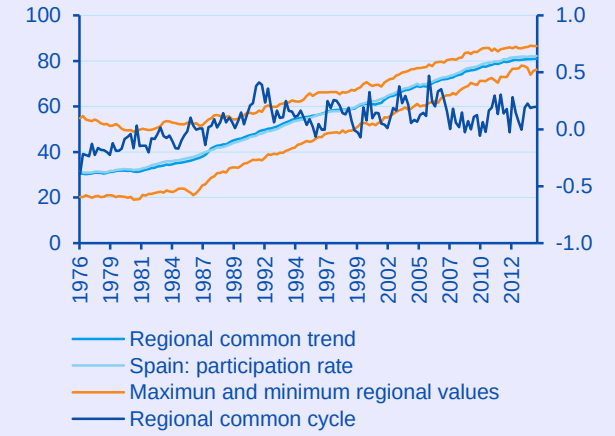
44: For the US economy, for example, it is estimated that around one third of the decline in the participation rate is reversible, as it is due to a cyclical component (IMF, 2014).
45: See the Annex for futher details about this model.
46: The estimates show that the most important component in explaining the performance of the participation rate for this group in Galicia is its idiosyncratic component. As a result, the cycle/trend breakdown has been carried out excluding this autonomous region.

Figure B.2.3
Under-25s: breakdown of the participation rate into cycle and trend



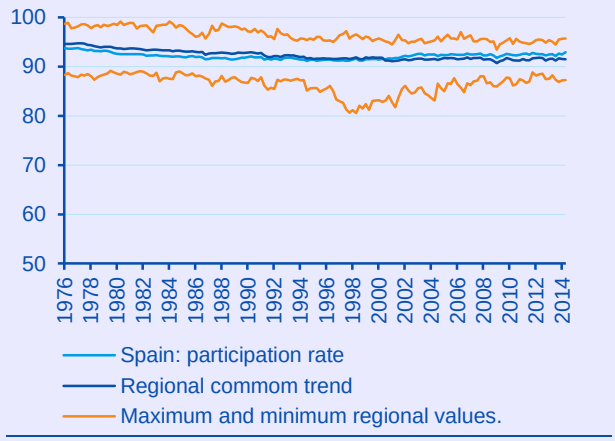
Source: BBVA Research

Figure B.2.4
Women aged 25-54: breakdown of the participation rate into cycle and trend



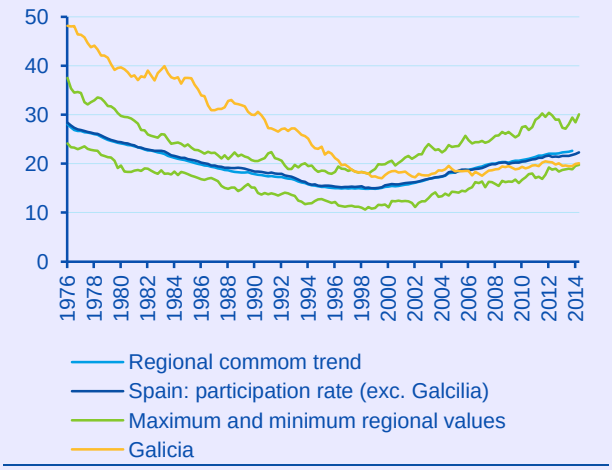
Source: BBVA Research

Figure B.2.5
Men aged 25-54: breakdown of the participation rate into cycle and trend



Source: BBVA Research

Figure B.2.6
Over 55s: breakdown of the participation rate into cycle and trend*



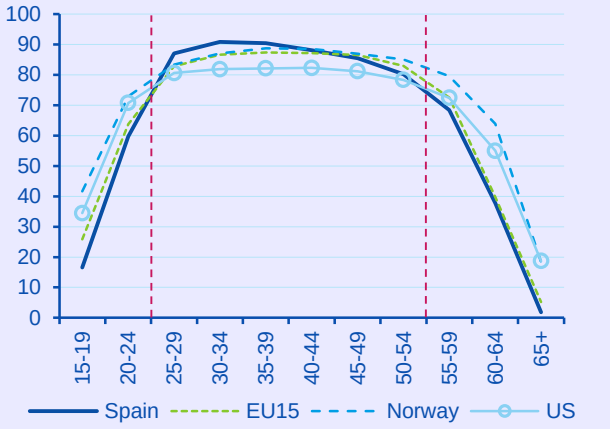
(*): Galicia has been excluded from the estimate
Source: BBVA Research

Is the Spanish economy capable of reversing the drop in the participation rate? The Scandinavian countries as a paradigm

As has been shown in the previous section, trends in participation rates in Spain can principally be explained by structural factors. They are therefore unlikely to return to pre-crisis levels when the upswing comes.

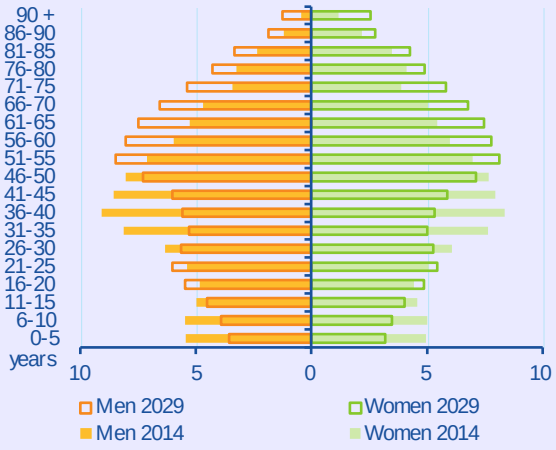
Overall, the **empirical evidence suggests that the participation rate in Spain has room for improvement**. Even though workers in the intermediate age-group (25-54) have achieved similar, or even better, participation figures than in the other developed economies, the differences at either end of the population's age distribution are striking. Figure B.2.7 shows that the participation rates for under-25s and over-54s are below the EU-15 average for all age ranges, and have a long way to go to catch up with the United States and the Scandinavian countries.

Figure B.2.7
Participation rate by country and age-band (2013, %)



Source: BBVA Research based on OECD data

Figure B.2.8
Spain: population pyramids. 2013 and 2029



Source: BBVA Research based on data from INE

To gain a sense of how the aggregate participation rate might evolve, six participation scenarios are created for each population group (see Table B.2.1). The INE's latest population projections are used (2014-64)[47] to give a weighting to the participation rate for each segment (see Figure B.2.8).

The first scenario ('Spain 2014') assumes that the participation rates are held constant at 2014 values. In the second ('EU-15') and the third ('USA'), each population group would reach the participation rate of its European and US counterparts at the end of the next decade. The fourth ('Top 3 Autonomous Regions') and the fifth ('Scandinavian countries') consider the case where the proportion of the labour force in each group would converge on the average for the three autonomous regions with the highest participation levels (Balearic Islands, Madrid and Catalonia) and that for the Scandinavian countries (Finland, Norway and Sweden), respectively. Finally a 'best case scenario' is posited, where the participation rates would together tend towards the maximum values in the other scenarios.

Table B.2.1
2029 participation rate scenarios. Convergence values

	<25 year olds	Women 25-54 years old	Men 25-54 years old	55+ year olds
Spain 2014	39.59	82	92.56	23.03
EU-15	46.51	79.38	91.81	26
US	**55**	73.9	88.4	40.31
Top 3 AR	45.41	85.26	**94.52**	26.33
Scandinavian countries	54.1	**85.7**	91.5	**45**
Best scenario	**55**	**85.26**	**94.52**	**45**

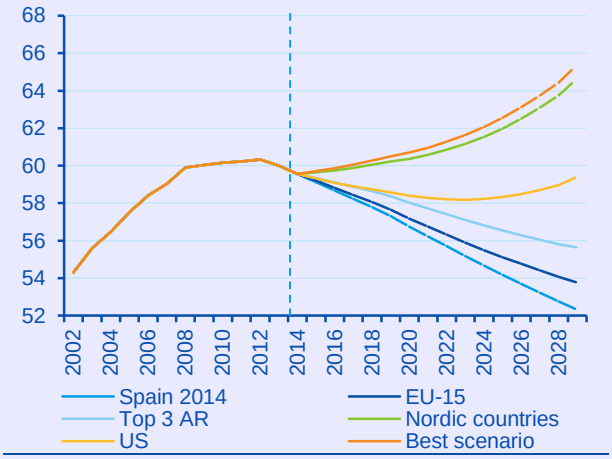
Source: BBVA Research based on data from INE

The results framed in Figure B.2.9. indicate that the **Spanish participation rate would only increase in the medium term if the propensity to participate in the labour market of the young and, above all older people, manages to narrow the behind that of the Scandinavian countries.**

47: Available in Spanish at: http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t20/p278/p01/serie/&file=pcaxis

In a persisting scenario[48], the reduction in the population considered in the demographic projections would give rise to a decrease of over seven points in the aggregate participation rate over the next 15 years[49]. The decrease would be one of almost four points, even if the percentage of the labour force in each population group converges towards that of the top-ranking autonomous regions.

Figure B.2.9
Spain: aggregate participation rate projections (%)



Source: BBVA Research based on INE and OECD data

Conclusions

In 2013 Spain experienced a drop in its participation rate for the first time in 25 years, which is a cause for concern, given that the LFPR is one of the factors which influences economic growth potential.

In this box we have studied the **causes underlying the retreat in the participation rate**. The results indicate that **the structural trends (an ageing population, the conclusion of the process of women's incorporation into the labour market, and the extension of the schooling years of the young) predominate in the recent pattern displayed by the participation rate**. There is also little evidence of any influence from temporary factors, meaning that **a reversal of recent trends is unlikely going into the upswing**.

In view of these results, in the final section of the box we examine the **Spanish economy's capacity to see through a structural recovery in its participation rate**. The simulation results suggest that, given the expected ageing of the population, **the LFPR will not return to pre-crisis levels unless there is a substantial increase in the propensity to participate among the young and over-55s**.

All this means that **a positive view should be taken of any policies which offer incentives to extend the working life.** The international comparison reveals that in Spain there is ample scope for an improvement, both as regards bringing the young into the labour market and extending the working lives of the older segment.

Annex

Details of the structural breakdown of the participation rate

The approach is using maximum likelihood estimation with the Kalman filter (1960) with partially diffuse initial conditions. The time series used in the analysis have been seasonal adjusted, additive and pre-2002 level-shift outliers (using the TRAMO-SEATS statistical package).

The regional heterogeneity allows endogenous structural breakdown of the participation level without resorting to exogenous estimation of the cycle and trend components or using filter techniques (such as the method employed by Hodrick & Prescott, 1997) which might bring biases in at the end of the sample.

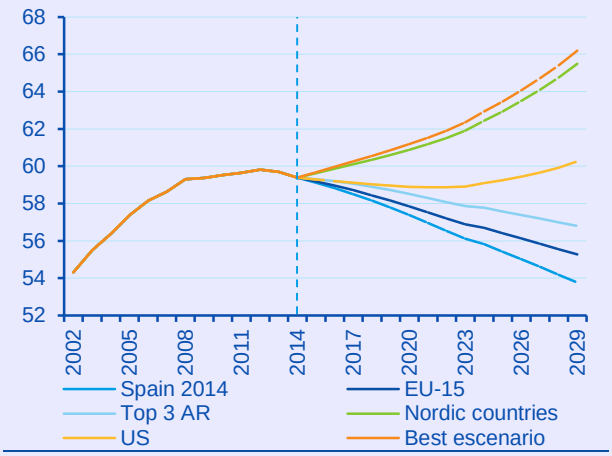
It is assumed that $\mathrm{TLS}_{i,t} = \delta_{i,t} + \mathrm{TLS}_{i,t-1} + \varepsilon_{i,t}$ is a local stochastic trend with $\delta_{i,t} = \delta_{i,t-1} + \eta_{i,t}$, and where $\varepsilon_{i,t}$ and $\eta_{i,t}$ are well-behaved disturbances. This trend is centred on the observed regional experiences: $\sum_i \alpha_{i,j} / J = 1$. On the other hand the cyclical component is approximated using a stationary second order autoregressive structure:

48: This scenario does not embrace changes in the participation rate of the various population groups and must therefore be interpreted as an extreme case. As new cohorts join the over-55s over time, this segment could see a rise in its participation rate.
49: The results are robust with the demographic projections used. Figure B.2.A.1 shows that if the demographic scenario is chosen which was forecast by INE in 2001 (more optimistic than the current one), the qualitative results do not vary.

$C_{i,t} = \varphi_{i1} * C_{i,t-1} + \varphi_{i2} * C_{i,t-2} + \omega_{i,t}$.

The idiosyncratic component comprises a mean, $\mu_{t,i}$, and a stochastic process, $\vartheta_{t,i} = \gamma_i * \vartheta_{t-1} + \nu_{t,i}$, which can be either I(0) or I(1). In other words, $\gamma_i \leq 1$, where $\nu_{i,t}$ is the error term.

Figure B.A.2.1
Spain: Aggregate participation rate projections. 2001 demographic forecasts (%)



Source: BBVA Research based on INE and OECD data

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Box 3. Human capital and productivity: an analysis of manufacturing firms in Spain since the beginning of the nineties[50]

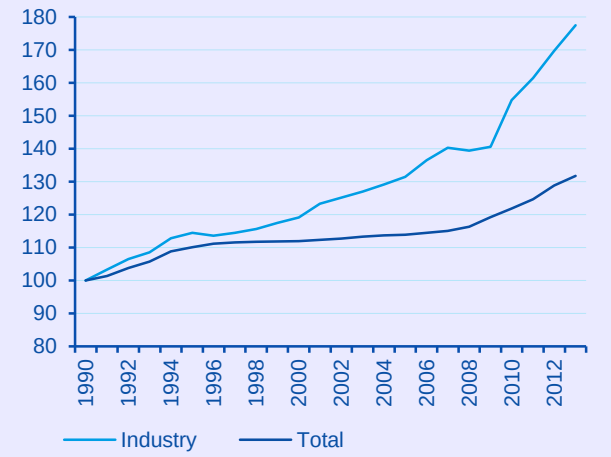
1. Introduction

This box aims to identify the empirical regularities that characterise the productivity of firms in the manufacturing sector and to investigate the factors underlying productivity performance. Among them we pay particular attention to the role of human capital in the manufacturing sector over the last two decades. Taking a micro-economic approach, and consistent with the evolution of the aggregate data, we show the degree of progress made by manufacturing productivity and the change in the composition of employment towards higher educational levels. Likewise, the results confirm the particular importance of human capital, of the internationalisation process and of the results of R&D investment as determinants of productivity.

At a macroeconomic level, the apparent productivity of labour in industry has grown steadily since the first half of the nineties, with periods of stagnation and a notable acceleration from 2010 onwards (Figure B.3.1). In 2007, before the economic crisis, productivity per worker was 40% higher than in 1990. From 2010 onwards, as a result of intense job destruction, productivity rose another 37pp in a short space of time.

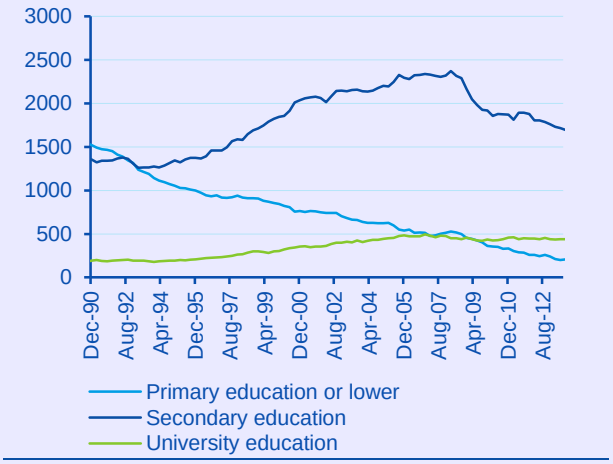
At the same time, since 1990, the Spanish industry has shown a long-term trend towards less dependence on low-skilled employees (Figure B.3.2). During the crisis, aggregate employment fell by 17%, but sectors suffered to very different degrees: construction lost 62% of its jobs, industry 28%, and services 5%. From the human capital point of view, the loss of employment affected all educational levels, with the exception of workers with university degrees, who gained 4%. The returns to education, viewed from the perspective of job stability, increased over the crisis, with lower levels of education leading to greater job losses.

Figure B.3.1
Productivity per worker in industry, 1990-2013 (1990=100)



Source: BBVA Research based on INE data

Figure B.3.2
Employment in industry by educational level, 1990-2013 (thousands of people)



Source: BBVA Research based on EPA.

50: This box summarises the main results in Cardoso, Correa-López and Doménech (2015).

2. Stylised facts of productivity and human capital in the company

To what degree do these macroeconomic regularities transfer to the reality of a manufacturing company? What factors determine its productivity? The firm data used for this research come from the Survey on Business Strategies (SBS) conducted every year by the SEPI Foundation, between 1991 and 2012[51]. With the aim of providing a broad vision, the project focuses on the study of apparent productivity and total factor productivity (TFP), also known as economic efficiency. **In order to investigate the determinants of productivity at the firm level, we explore a wide range of variables relating to technology, human capital, the ownership structure and business experience, among others.**

Table B.3.1 provides the definitions for the variables used. Among them, **the construction of two alternative measures of years of education at the firm level.** Specifically, the years of education variable is based on the breakdown of employment by qualification declared in the survey (percentage of those without school qualifications, those with secondary education or with some sort of medium level qualification, and those with an engineering or other university degree) and the years of schooling corresponding to each qualification according to the 1970 education law (first measurement of the variable) or according to the LOGSE law (second measurement of the variable)[52]. The qualifications data are only available up to 2010 and for that reason our estimates are limited to the 1991-2010 period[53].

Table B.3.1
Description of variables, 1991-2012

	Definition
TFP (log)	Estimate following the Levinsohn and Petrin (2003) method
Productivity per employee (log)	Real value added per employee
Productivity per hour (log)	Real value added per hour
K/L ratio (log)	Stock of real productive capital per employee (or per hour worked)
Low qualification (%)*	Proportion of little educated workers
Medium qualification (%)*	Proportion of workers with school certificates
High qualification (%)*	Proportion of engineers and other degrees
Years of education (units) *	Two alternative indicators for human capital (1970 Law and LOGSE Law)
Age (log)	Years past since the firm set up
Patents (uds.)	Number of patents registered in Spain and abroad
R&D investment (EURmn)	R&D expenditure and technology uptake
Temporality rate (%)	Average proportion of temporary workers over the year
Degree of openness	Exports and imports over total sales
Foreign-owned property (%)	Percentage of foreign capital in company capital
Market share (%)	Self-declared market share in principal market
Debt ratio	Long term debt with financial institutions over own funds
Firm size	Category variable according to the average number of employees over the year
Establishments (units)	Number of industrial installations the firm has

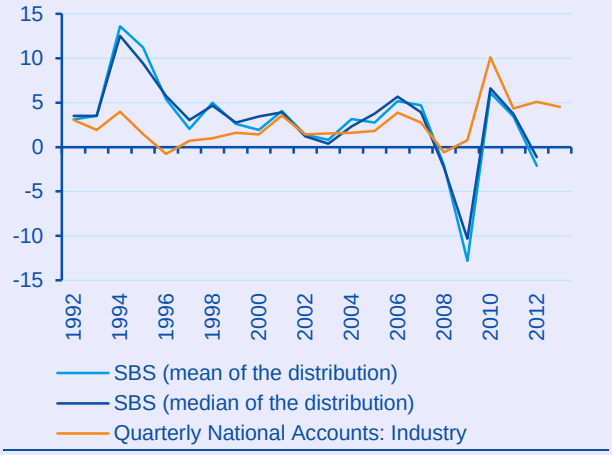
Notes:
1: Data available to 2010
2: The data on qualifications are available every four years, so the annual frequency has been linearly intrapolated.
3: The stock of private productive capital is calculated by the permanent inventory method
4: Years of schooling are obtained by assigning 8 (or 6, respectively) years of schooling to staff with no academic qualifications, 11 (or 12, respectively) to those with school certificates, and 17 to engineers and other graduates, according to a criterion aligned with the 1970 General Education Law and the LOGSE law, respectively.
Source: BBVA Research based on EPA.

51: The SBS is representative by manufacturing sector and by size of the firm. The latter is defined by the number of employees: large firms (over 200 employees) and small and medium-sized firms (between 10 and 200 employees). Once the sample has been cleaned, the unbalanced panel has 32,101 observations, belonging to 3,748 manufacturing companies classified by 10 sectors of activity. For more information, see Cardoso, Correa-López and Doménech (2015).
52: In the absence of individual data, the optimum construction of the years of schooling variable ought to weight the degree of co-existence of cohorts of workers who were educated in different educational systems. Since this information is not available, we have conducted the analysis by using two alternative ways of measuring years of study.
53: The data available do not permit us to quantify measurements of human capital, such as leadership ability or how well trained the people making up the workforce are. In the estimates, these factors are gathered in the fixed effect at the firm level.

Figure B.3.3 shows the average growth rate of labour productivity at the firm level. **Taking an annual average between 1992 and 2012, productivity growth was 3% in employment terms and 3.4% in hourly terms.** The evidence suggests continual progress in productivity over the fifteen years prior to the financial crisis of 2008, although with a slowdown in the second half of the nineties and at the beginning of this century. The 2009 recession gave rise to a significant reduction of labour productivity in the sample, which was only partially reversed in the next three years.

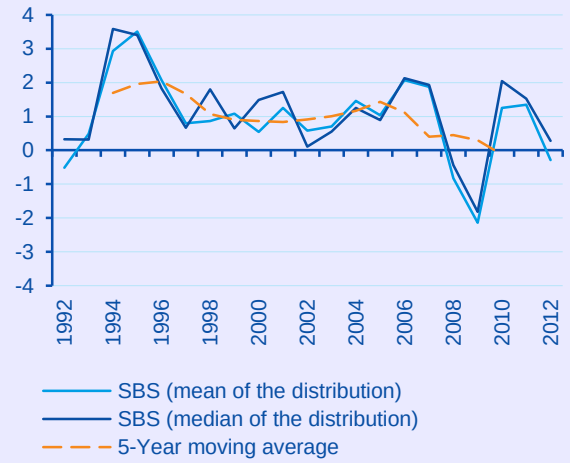
The average growth rate of total factor productivity at the firm level shows more modest progress, with an annual average of 1% between 1992 and 2012 (Figure B.3.4). Once again, we see a decline in TFP coinciding with the onset of the financial crisis and a falling trend in its more structural component.

Figure B.3.3
Productivity per worker, 1992-2013 (% YoY)



Source: Cardoso, Correa-López and Doménech (2015).

Figure B.3.4
Total factor productivity, 1992-2012 (% YoY)

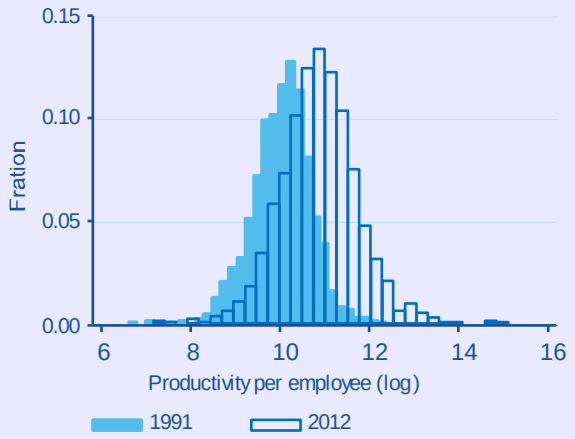


Source: Cardoso, Correa-López and Doménech (2015).

Firms' labour productivity displays a normal distribution, with very productive and unproductive firms co-existing (Figure B.3.5). By firm size, this normal distribution pattern characterises the productivity of both large companies and SMEs. The pattern of TFP is bimodal: the difference between TFP in the most efficient and the least efficient firms persistently reaches a considerable magnitude. On the one hand, a subset of sectors (chemicals, paper and printing, electrical and optical equipment and, to a lesser degree, other manufacturing) are in the lead; on the other, the TFP in firms in the remaining sectors tends to be in the lower areas of the distribution (Figure B.3.6). This TFP distribution pattern is present in both large firms and SMEs; furthermore, the data reveal how seldom the companies move from the lower towards the upper quintiles of the distribution[54].

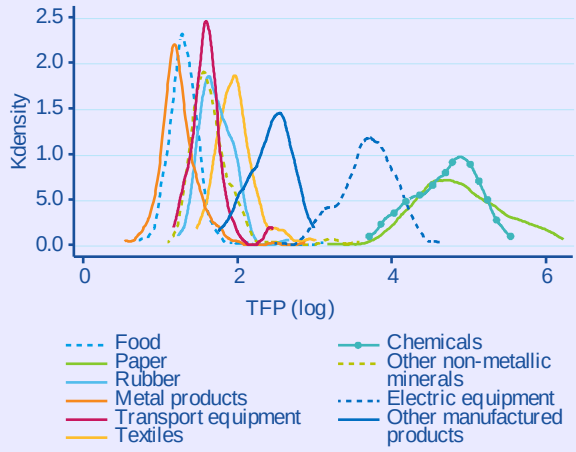
54: The vast difference in behaviour within sectors, and particularly between sectors, of business TFP is a stylised fact which needs appropriate modelling to measure the sector effect on the estimates.

Figure B.3.5
Distribution of productivity: GVA per employee, 1991 vs. 2012



Source: Cardoso, Correa-López and Doménech (2015).

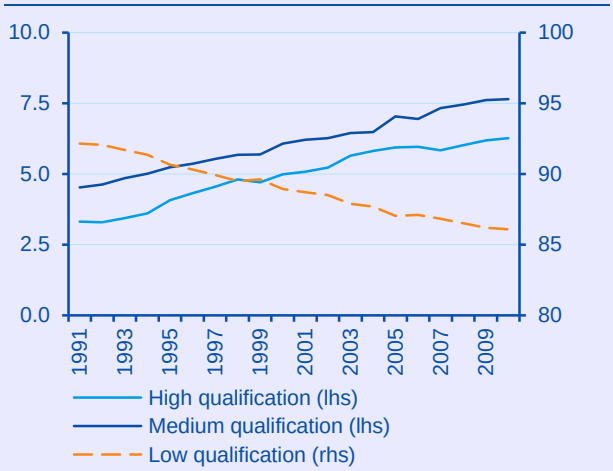
Figure B.3.6
Distribution of TFP by activity sector, 1991



Source: Cardoso, Correa-López and Doménech (2015).

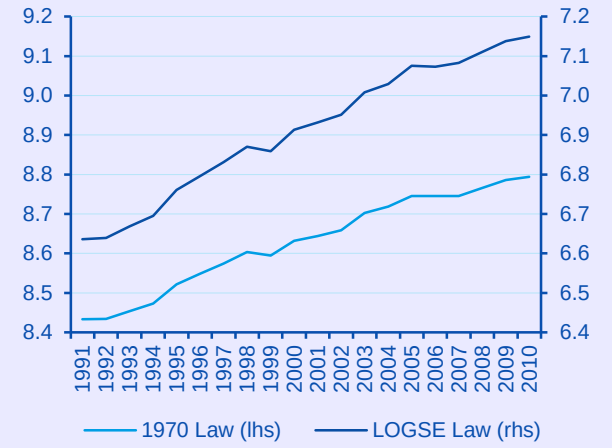
In line with the main macroeconomic characteristics, the behaviour of human capital at the firm level shows a systematic upward trend in the use of medium- to high-skilled workers, in substitution of low-skilled workers (Figure B.3.7). The average years of study by employees rise, although slowly, in the sample of firms (Figure B.3.8).

Figure B.3.7
Breakdown of employment by qualification, mean of the distribution, 1991-2010 (%)



Source: Cardoso, Correa-López and Doménech (2015).

Figure B.3.8
Years of schooling, mean of the distribution, 1991-2010



Source: Cardoso, Correa-López and Doménech (2015).

How is employment distributed by qualification level? Table B.3.2 illustrates that, on average, firms in the upper productivity quintiles make a more intensive use of more highly educated staff. This characteristic is more pronounced in the 20% of companies located in the highest productivity quintile. Nevertheless, the data also show that whatever their productivity level, firms have increased over time the number of medium- to high-skilled jobs, and reduced the number of low-skilled ones[55].

55: Likewise, the preliminary evidence suggests that the fall in employment during the first phase of the crisis – 10% on average, or 24 people per company from 2006 to 2010- was higher in those companies which in 2006 used more low-qualified staff.

Table B.3.2
Employment skills by productivity quintile, sample of manufacturing firms, 1991-2010 (mean of the distribution)

		Qualification (%)			Years of education	
		Low	Medium	High	1970 Law	LOGSE Law
Quintiles:	TFP					
	1	90.8	5.4	3.8	8.5	6.7
	2	90.0	5.9	4.0	8.5	6.8
	3	90.9	5.3	3.8	8.5	6.7
	4	89.7	6.4	3.9	8.5	6.8
	5	82.8	7.8	9.4	9.1	7.5
	Productivity per employee					
	1	94.3	3.4	2.3	8.3	6.5
	2	91.7	5.0	3.3	8.4	6.7
	3	90.1	5.5	4.4	8.6	6.8
	4	86.6	7.4	5.9	8.8	7.1
	5	81.3	9.5	9.1	9.1	7.6
	Productivity per hour					
	1	94.3	3.5	2.2	8.3	6.5
	2	91.8	4.9	3.3	8.4	6.7
	3	90.0	5.6	4.4	8.6	6.8
	4	86.4	7.5	6.1	8.8	7.1
	5	81.3	9.5	9.1	9.1	7.6

Source: Cardoso, Correa-López and Doménech (2015).

In synthesis, our analysis confirms that firm level productivity increased over the last two decades in parallel with a change in the skill composition of employment in manufacturing firms. The presence of both stylised facts suggests a possible association between firm productivity and human capital, the study of which is addressed below.

3. The determinants of productivity at a company level: econometric results

3.1. Apparent productivity

In order to quantify the importance of the different factors determining productivity, we have formulated two panel data models[56]. In the first, **labour productivity at the firm level is accounted for by a set of exogenous variables which will have a direct effect on productivity** – among them, human capital - as the economic literature suggests (see, for example, Martín Marcos and Moreno Martín, 2007). Estimates from the first model are shown in Table B.3.A.1 of the Appendix[57].

The results which figure in the table indicate that there is a negative and significant association between productivity and the percentage of low-skilled employees in the company. Likewise, the proportion of medium-skilled employees has a positive and significant relationship with productivity; however, the positive association between highly qualified employees and

56: The reader can find a detailed explanation of the models in Cardoso, Correa-López and Doménech (2015).
57: The model is estimated using the fixed-effect estimator and, as such, controls for idiosyncratic characteristics which cannot be seen from the company.

productivity does not reach statistical significance in the sample[58]. **When it comes to the magnitude of the effect, an increase of 10pp in the proportion of low-skilled workers (or, medium-skilled, respectively) reduces (or, respectively, increases) firm productivity by 2%.** Along the same lines, there is a positive and significant relationship between years of schooling and firm level productivity. An additional year of schooling on the part of the workers is associated with an increase of between 2.3% and 3.1% in apparent labour productivity. **Viewed from another perspective, a company with employees who, on average, have one more year of education would enjoy, *ceteris paribus*, about 2%-3% higher productivity.**

Whatever the measure of human capital used, **the estimates reveal the statistically significant role of the capital-labour ratio, the rate of temporary jobs, the degree of openness, the number of patents and the share of foreign capital as determinants of labour productivity.** When it comes to magnitudes, there is a positive and significant relation between the capital-labour ratio and productivity, with an estimated elasticity that reaches 0.13%. Likewise, an increase of 10pp in the fixed-term employment rate reduces the level of productivity by an average of 2%. Meanwhile, a 10pp increase in the foreign share of a company's social capital brings with it a 1% boost in productivity, a similar effect to that obtained by registering 10 patents. A quantitatively relevant effect seems to emerge from a 0.1pp increase in the firm's degree of openness, with a productivity increase of around 0.7-0.8%. After controlling for a wide range of explanatory variables, the size of the company, its R&D spending and its age do not have a significant association with productivity. This does not imply that these variables are irrelevant for productivity, merely that, since they are correlated with others, their effects are captured by other determinants that have already been included in the estimation.

3.2. Total factor productivity

The second model has the aim of studying the determinants of TFP at the firm level. The specification expresses TFP as a function of a set of exogenous variables – among them human capital, patents applied for and R&D spending - and of a set of potentially endogenous variables: the degree of openness, the market share, the debt ratio and the share of foreign ownership. Given that the impact of the explanatory variables on TFP may take some time to materialise, the model includes lags in its structure, as well as persistence of the endogenous variable. Table B.3.A.2 of the Appendix shows the results of the estimate[59].

With two statistically significant lags, firm level TFP displays high persistence. **The TFP determinants can be summarised in four: human capital, patents, degree of openness and size.** The percentage of low-skilled employees has a negative impact on TFP, although its magnitude is modest. A 10pp increase in the proportion of unskilled workers reduces TFP by 1.8% in the long-run. The most important impact in quantitative terms is found among the high-skilled. **Thus, an increase of 10pp in the proportion of engineers and other graduates raises TFP by 4.1%**, while the positive impact of medium-skilled workers does not reach statistical significance. Along the same lines, there is a positive and significant relationship between the number of years of schooling and firm level TFP. An extra year of study increases TFP between 2.4% and 3.5% in the long-run.

Finally, after controlling for a wide number of variables, the results suggest that a company can increase its long-term efficiency by 4.4% if it registers 10 patents. Once again, the most important effect in quantitative terms appears when the openness of the company rises by

58: The results are similar if the option is taken of estimating the model including a single category which groups qualified staff, that is, those educated at secondary level, engineers and other graduates. We have chosen to keep the greatest disaggregation possible, in order to separate the impact of each qualification tranche.
59: The estimate uses the Generalised Method of Moments (GMM) system (Arellano & Bover (1995), Blundell & Bond (1998)).

0.1pp, with an increase in TFP of 1.5%. Furthermore, we can see that larger firms have a higher TFP level when compared with smaller firms.

4. Conclusion

Over the last twenty years, firms producing goods in Spain with more than 10 employees have seen their productivity grow steadily. While the growth in labour productivity during the crisis was based on job destruction, progress over the period as a whole can be said to be notable. Contrary to what might have been expected of a period characterised by the introduction of new technologies, the improvement in productive efficiency has been more limited.

In parallel, companies have borne witness to a change in skill composition of employment towards a higher level of education. However, the data from the SBS suggest that there is still a long way to go (on average, over 80% of workers still have low qualifications). **The results of this study reveal that productivity and human capital are intimately linked parameters. Likewise, the importance of firm´s internationalisation and of achieving results in R&D are also shown to be precursors to productivity.**

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Appendix

Table B.3.A.1

Human capital and productivity: extended model of fixed effects, sample of manufacturing firms, 1991-

	Qualification						Years of education			
	Low		Medium		High		1970 Law		LOGSE Law	
	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error
Dependent variable: Productivity per employee										
Regresors										
K/L ratio	0.121***	[0.016]	0.122***	[0.016]	0.122***	[0.016]	0.121***	[0.016]	0.121***	[0.016]
Human capital	-0.002**	[0.001]	0.002*	[0.001]	0.002	[0.002]	0.031**	[0.015]	0.023**	[0.010]
Patents	0.001*	[0.001]	0.001*	[0.000]	0.001*	[0.001]	0.001*	[0.001]	0.001*	[0.001]
R&D expenditure	0.000	[0.000]	0.000	[0.000]	0.000	[0.000]	0.000	[0.000]	0.000	[0.000]
Degree of openness	0.076**	[0.036]	0.076**	[0.036]	0.078**	[0.036]	0.077**	[0.036]	0.076**	[0.036]
Temporality rate	-0.002***	[0.000]	-0.002***	[0.000]	-0.002***	[0.000]	-0.002***	[0.000]	-0.002***	[0.000]
Foreign property	0.001*	[0.000]	0.001*	[0.000]	0.001*	[0.000]	0.001*	[0.000]	0.001*	[0.000]
Firm size										
51-250 employees	-0.026	[0.028]	-0.026	[0.028]	-0.026	[0.028]	-0.026	[0.028]	-0.026	[0.028]
>250 employees	-0.055	[0.044]	-0.055	[0.044]	-0.056	[0.044]	-0.055	[0.044]	-0.055	[0.044]
Age	-0.008	[0.013]	-0.009	[0.013]	-0.009	[0.013]	-0.008	[0.013]	-0.008	[0.013]

Notes: 1: All specifications include a constant, binary time variables and industry-year interaction.
2: (***) denotes statistical significance to 1%, (**) to 5% and (*) to 10%.
3: Robust standard errors.
4: A binary variable with self-declared cyclical position (recession or not) is included
Source: Cardoso, Correa-López and Doménech (2015)

Table B.3.A.1

Human capital and TFP: GMM system estimate, sample of manufacturing companies, 1993-2010 (pp)

	Qualification						Years of education			
	Low		Medium		High		1970 Law		LOGSE Law	
Regresors:	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error
TFP (t-1)	0.5898***	[0.0488]	0.5891***	[0.0490]	0.5906***	[0.0486]	0.5905***	[0.0487]	0.5902***	[0.0487]
TFP (t-2)	0.0708***	[0.0256]	0.0705***	[0.0256]	0.0712***	[0.0255]	0.0711***	[0.0256]	0.0710***	[0.0256]
Human capital (t-1)	-0.0006*	[0.0003]	0.0002	[0.0004]	0.0014**	[0.0006]	0.0121**	[0.0061]	0.0080*	[0.0043]
R&D expenditure (t-1)	0.00001	[0.0002]	0.0001	[0.0002]	0.0000	[0.0002]	0.0001	[0.0002]	0.0001	[0.0002]
Patents (t-3)	0.0015***	[0.0004]	0.0016***	[0.0004]	0.0015***	[0.0004]	0.0015***	[0.0004]	0.0015***	[0.0004]
Degree of openness (t-1)	0.0526**	[0.0213]	0.0529**	[0.0213]	0.0537**	[0.0212]	0.0530**	[0.0212]	0.0528**	[0.0212]
Tasa de temporalidad (t-1)	-0.0001	[0.0001]	-0.0001	[0.0001]	-0.0001	[0.0001]	-0.0001	[0.0001]	-0.0001	[0.0001]
Market share (t-1)	-0.0000	[0.0002]	-0.0000	[0.0002]	-0.0000	[0.0002]	-0.0000	[0.0002]	-0.0000	[0.0001]
Debt ratio (t-1)	0.0002	[0.0002]	0.0002	[0.0002]	0.0002	[0.0002]	0.0002	[0.0002]	0.0002	[0.0002]
Foreign property (t-1)	0.0002	[0.0002]	0.0002	[0.0002]	0.0002	[0.0002]	0.0002	[0.0002]	0.0002	[0.0002]
Firm's size:										
51-250 employees	0.0308**	[0.0131]	0.0324**	[0.0134]	0.0296**	[0.0129]	0.0299**	[0.0129]	0.0302**	[0.0130]
>250 employees	0.0415**	[0.0189]	0.0436**	[0.0216]	0.0395**	[0.0185]	0.0400**	[0.0185]	0.0405**	[0.0186]
Age	0.0014	[0.0035]	0.0016	[0.0035]	0.0012	[0.0034]	0.0013	[0.0034]	0.0014	[0.0034]
Installations	0.0003	[0.0025]	0.0005	[0.0025]	0.0004	[0.0025]	0.0003	[0.0025]	0.0003	[0.0025]

Notes: 1: All the specifications include a constant, binary variables by time and by industry
2: See notes 2, 3 and 4 of Table B.3.A.1.
3: A binary variable is included of the location of industrial installations (in the same province or not).
4: The excluded category, of company size, refers to companies with between 11 and 50 employees.
Source: Cardoso, Correa-López and Doménech (2015).

Box 4. Practical effects and problems resulting from the Supreme Court Judgement of 22 December 2014 on the conditions that apply in an "ultractivity" situation once a collective agreement is no longer valid

By Jesús Rafael Mercader and Íñigo Sagardoy (Fundación Sagardoy)

Spanish Supreme Court Judgement (SCJ) of 22 December 2014 (R. 264/2014) ruled on the interpretative uncertainty that surrounds the application of Article 86.3 of the Spanish Workers' Statute (SWS) at companies that do not have an applicable collective agreement that takes precedence. **Once the collective agreement in question loses its validity, how are the respective rights and obligations of the parties to be regulated?** The judgement indicates that "the solutions that have been offered both in specialist reference works and legal doctrine essentially fall into one of two opposing categories", namely:

"A first approach, which we could call "disruptivist" and which considers that the rights and obligations of the parties in question will now be governed exclusively by the provisions contained in national law and regulations, returning to the blank slate of the employment conditions that existed in the sector prior to the now invalid collective agreement". "And a second approach that we could call "conservationist", under which the employment conditions (an equivalent though shortened version of the more specific 'respective rights and obligations of the parties') that were in force prior to the expiry of the collective agreement in question should be maintained, since they form part of the contract that was entered into by mutual agreement between the parties".

The judgement rejects the idea that the provisions of the expired collective agreement should be rendered inapplicable, because: i) "undesirable consequences would arise"; ii) lawmakers find support from collective agreements in some highly important issues; and iii) there could be a substantial alteration of the legal situation. Given all of the above, it is the Court's opinion that **the conservationist approach is the one that is legally correct,** based on the following arguments:

- **The regulation of employment conditions is established in employment contracts whether they are entered into in written or verbal form**, in the manner defined, in all cases, by Article 9.1 of the SWS. The judgement rules that "the principle of the independence of individual free will has full force in the area of employment law", in such a way that when responding to the question, "where are a worker's employment conditions regulated?", one must answer, "in his or her employment contract". The role of the provisions established by both the state and by collective agreement is to uphold a uniform interpretation of these contractual clauses.
- **It is clear that any rights or obligations pertaining to the parties at the time that the ultractivity of a collective agreement ends do not disappear as soon as the collective agreement in question loses its validity.** This is not "because, as stated on several occasions, the provisions of the expired collective agreement become contractualised from that moment", but rather "because these conditions had already become contractualised from the very moment (one might say, from the first minute) of the creation of the legal employment relationship, from which point they have undergone the relevant development.
- **These contractual conditions**, which now lack the minimum support offered by the collective agreement, **may be modified, where applicable, by the application of Article 41 of the SWS**.
- **Newly engaged employees will lack this safety net that was afforded by the now expired collective agreement.**

The obligation to negotiate in good faith under Article 89.1 of the SWS remains.

The **practical conclusions** that can be drawn from the above ruling are as follows:

First, it should be pointed out that **the judgement is a long way from being unanimous**. On the contrary, there are two individual judges who agree with the ruling but disagree with the arguments on which the judgement is based, and a further two dissenting judges who not only disagree with the ruling but also entirely disagree with the arguments that supposedly support it. As a result, even though the ruling has the support of the majority of the Chamber (eight judges to six), the arguments offered as a basis for the ruling are only supported by a minority of the Chamber, that is to say, only six of the fourteen judges supported the legal arguments in full session.

Second, **the judgement introduces a clear weakening of the collective agreement as a source for the legal regulation of employment.** The individualising element introduced by the theory of contractualisation has the effect of devaluing the regulatory efficacy of the collective agreement and altering the Supreme Court doctrine that had formerly been constant in maintaining that the collective agreement, given its regulatory nature, was not a source for the generation of contractual conditions.

Third, **the judgement works from the premise of a "complete contractualisation" of all the conditions contained in the collective agreement, and in doing so ignores the fact that there are rights and obligations in an employment relationship that cannot be regulated or managed** such as, for example, a significant number of issues relating to collective rights. If this were the case, such conditions would be subject to the powers of renewal provided for in Article 3.1c of the SWS and would fall outside the protective scope of Article 3.5 of the SWS.

Fourth, **the judgement raises significant questions regarding the scope of any subsequent collective agreement that may be entered into in a situation in which contractualisation has already occurred**, particularly as regards whether the new collective agreement will be able to "decontractualise" the existing conditions. If it cannot, this would have the effect of setting the contents of the "expired collective agreement" in stone, meaning that they would only be subject to modification through individual agreement.

Fifth, according to the judgement, **conditions remain contractualised but they lose the support of the collective agreement, which leads the judgement to accept that they may be modified under Article 41 of the SWS.** However, one would have to conclude that the possibility for individual negotiation remains open, under the terms of Article 3.1c of the SWS, or the possibility of making individual provisions, without the entry into play of the restrictions involving the inapplicability of rights under Article 3.5 of the SWS, which refers to rights recognised under "the legal provisions of compulsory law" or "collective agreements". One could even be led to believe that, in these cases, the restrictions established in the constitutional doctrine for agreements entered into en masse (Constitutional Court Judgement 105/1992) would not come into play.

Sixth, the judgement indicates the possibility that **this may give rise to "problems of a dual salary scale" with regard to newly engaged employees.** This finding is questionable, especially if one takes account of the Constitutional Court doctrine that has excluded the possibility of constitutionally unacceptable dual scales when one is not dealing "with the scope of a particular law or collective agreement with regulatory effect but rather with a business decision that is adopted on the basis of independent free will" (Constitutional Court Judgement 36/2011).

By way of conclusion, and while agreeing that the consequences of the disappearance of a collective agreement may, in some cases, be undesirable, this does not prevent the forcing of an interpretation that will leave many doors open and many uncertainties to be resolved in the future, which may disturb the consolidated network of sources for labour relations.

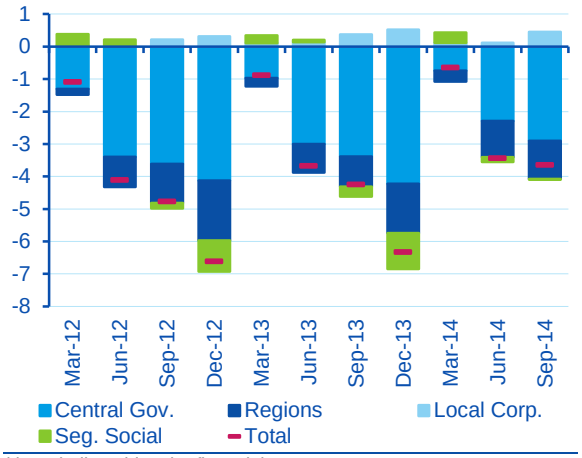
4 Towards a slightly expansive fiscal policy

The recovery in activity has helped to meet the 2014 stability target.

Over the course of 2014, economic recovery and lower borrowing costs had an impact on tax revenues as well as spending on social payments and interest payments on debt. Thus, the accumulated balance of the Spanish public administrations in 3Q14, taken as a whole, was -3.6% of GDP, which was more than 0.6pp better than in 3Q13. As Figure 4.1 illustrates, only the Spanish regions closed 3Q14 in a worse budgetary position than the year before (at -1.2% of GDP compared to -0.9% in 3Q13). By contrast, both the central government and Social Security improved their 3Q13 deficits, by nearly 0.5pp and 0.3pp respectively. Meanwhile, local corporations reported a surplus of 0.4% of GDP.

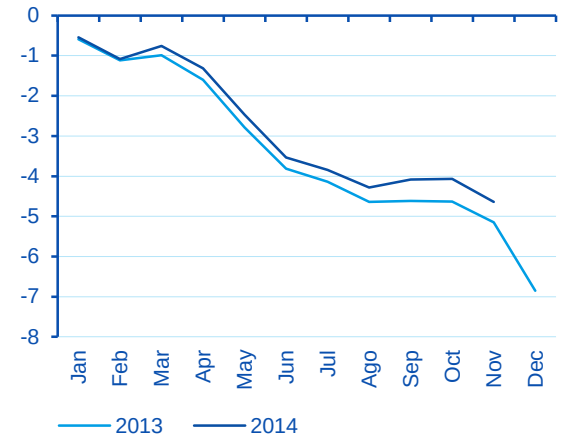
Looking to the end of the year, the latest data for public administrations' budgetary execution (excluding local corporations) to November 2014 confirm that they performed better than the year before. Even though the accumulated deficit grew by more than 0.5pp in November 2014 to 4.6% of GDP, it was still 0.5pp less than the deficit in November of the year before (see figure 4.2). These figures were the result of a higher-than-expected YoY growth in revenues, and of spending control more apparent in social payments - because of the changes in unemployment - and in gross capital formation.

Figure 4.1
Public administrations: net lending /net borrowing, by subsectors* (% of GDP)



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

Figure 4.2
Public administrations: consolidated budget balance, inc. central government, regions and Social Security * (% of GDP)



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

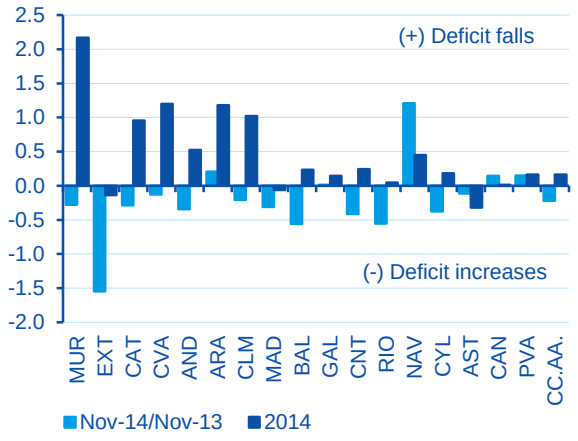
In this context, if the public administrations had performed in 4Q14 as they did in 4Q13, the public deficit would have closed the year at around 5.5% of GDP, without taking into consideration the acceleration in activity. So, it is more than likely that the public administrations as a whole will have met the stability target by the end of 2014. This will have been achieved thanks to the central government, for the most part, followed by Social Security and local corporations, which have completed the year by improving on their respective stability targets. On the contrary, the execution data known so far are starting to confirm, not only that the regions as a whole have not met their stability target, but that the 2014 deficit is higher than in 2013. Figure 4.3 shows, given the correction made up to November 2014 and which should have been respected in order to meet the targets for the year, that only four Spanish regions – Basque Country, Canary Islands, Asturias and Navarre - are clearly in a position to reach the target by the end of the year. At the opposite

extreme, in Murcia, Extremadura, Valencian Community, Catalonia and Castilla-La Mancha, it is highly unlikely that the target will be met.

This fair performance on the part of the public administrations taken as a whole has been aided by the recovery in the economic cycle in 2014. According to BBVA Research, in 2014 the economic cycle will have boosted tax collection by around 0.8pp of GDP, more than offsetting the negative impact of the structural deterioration of the tax base (see Figure 4.3). As a result, total public revenues will have risen by 0.4pp compared to the year before, reaching 37.9% of GDP at the end of 2014.

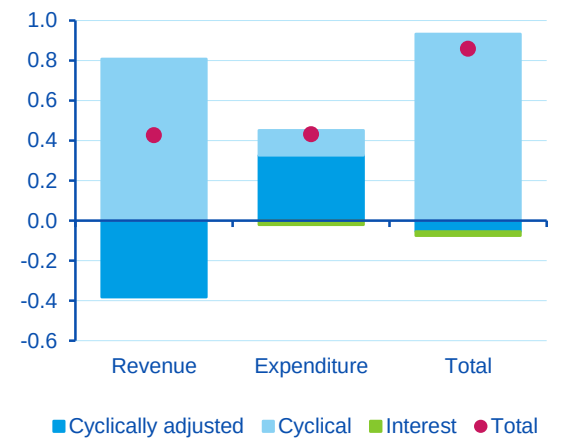
For its part, activity has had less impact on public spending, given the more discretionary character of the latter. All in all, in 2014 the cycle will have helped to reduce spending – fundamentally, unemployment benefits. Together with this, the effect of the consolidation measures in place will have put total public spending in 2014 at around 43.4% of GDP, 0.4pp less than in 2013.

Figure 4.3
Spanish regions: adjustment in the non-financial balance (pp of regional GDP)



Source: BBVA Research based on MINHAP

Figure 4.4
Public administrations: breakdown of fiscal correction in 2014 (pp of GDP)



Note: (+) revenue rises, spending drops and the deficit shrinks. (-) revenues fall, spending rises and the deficit grows.
Source: BBVA Research based on MINHAP e INE

These figures show that, for the public administrations as a whole, the primary balance suffered a structural adjustment of 0.1pp, and will come in at -1.8% of GDP in December 2014. If the impact of the economic cycle (+0.9pp) is added, they will have ended 2014 with a primary deficit of 2.2% of GDP, compared with the -3.1% figure for 2013 (see Figure 4.5). This result demonstrates that tighter fiscal control took place in preceding years, although the measures are still having an effect on deficit reduction.

2015 opens the way to a marginally expansionary fiscal policy

In this context, and as we argued in the previous issue of this report, the tax reduction in force since January 2015 will represent a boost to growth in 2015 and 2016, since the effective average rate over the income tax base is expected to fall significantly[60]. This will be achieved without endangering compliance with stability targets, thanks to the cyclical improvement forecast.

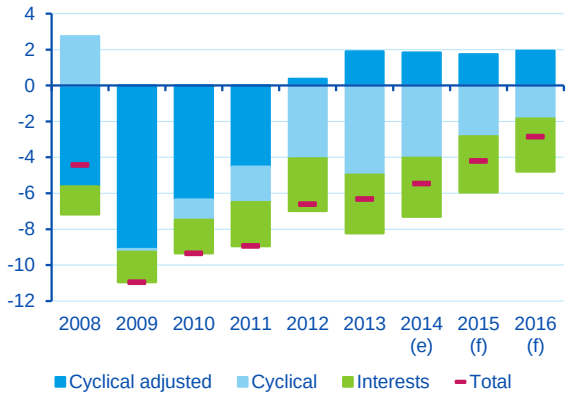
For 2015, BBVA Research forecasts indicate that **the tax cut will cause a fall in the public administrations' structural revenues which, in the short term, will be offset by the cyclical boost of tax resources**. Likewise, the economic cycle will continue to help to reduce public spending (particularly that

60: See Box 2. "Impact of the Personal Income Tax reform" in our Spain 4Q14 Economic Outlook

part of it used for interest payments and social benefits). In addition, a slight correction seen in the remaining spending items is expected to continue, more intensely in current spending than in capital (See Table 4.1 and Figure 4.6). Thus, with the policies that have been announced so far, the 2015 deficit should be close to the stability target (4.2% of GDP). When it comes to 2016, we forecast that the economic cycle will continue to correct the deterioration in public accounts, so that in a scenario without changes in fiscal policy the deficit for 2016 will fall to 2.8% of GDP, meeting that year's target.

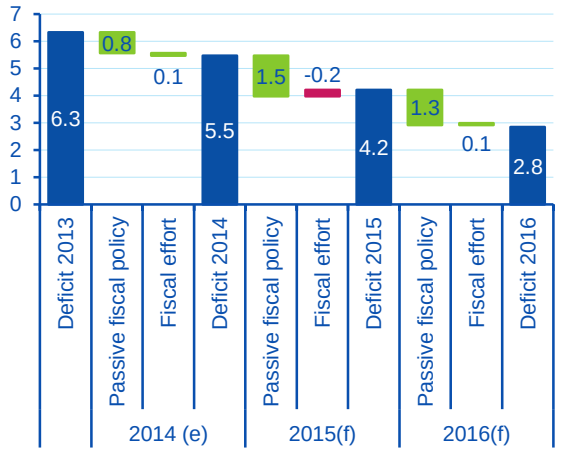
If this scenario materialises, the public sector's balance will be around -1.0% of GDP by the end of 2016, a level not seen since the end of the nineties. If interest repayments are discounted, this would be a primary surplus of around 2%, representing a correction of over 10pp of GDP since 2009 (see Figure 4.6).

Figure 4.5
Public Administrations: net lending /net borrowing (% of GDP)



Source: BBVA Research based on MINHAP and INE

Figure 4.6
Public Administrations: breakdown of the fiscal correction (pp of GDP)



Source: BBVA Research based on MINHAP and INE

Nevertheless, in the medium term uncertainty persists about the capacity of governments to generate big enough primary surpluses to enable them to reduce the high level of public debt accumulated (which is expected to reach 100% of GDP in 2015). That is why it is essential that deficit control policies are continued, but pushing through measures to increase the economy's growth capacity may be even more important in keeping the debt down. In any event, the risk of not meeting stability targets in the next few years lies in a relaxation of fiscal consolidation policies - more likely because of the electoral cycle - and/or in a smaller economic recovery than forecast.

Table 3.1.
Public sector: net lending/net borrowing*

(% of GDP)	2013	2014(e)	2015(f)	2016(f)
Compensations of employees	10.9	10.8	10.6	10.5
Intermediate consumption	5.3	5.3	5.1	5.0
Interests	3.3	3.3	3.1	2.9
Social benefits	16.3	15.9	15.6	15.3
Gross capital formation	2.1	2.2	2.1	2.1
Other spending	5.9	6.0	5.9	5.6
Non-financial expenditure	**43.8**	**43.4**	**42.3**	**41.5**
Tax on production	11.0	11.3	11.5	11.9
Taxws on income, wealth, etc.	10.0	10.2	10.1	10.1
Social contributions	12.2	12.3	12.3	12.3
Capital taxes	0.5	0.5	0.5	0.6
Other income	3.8	3.7	3.6	3.6
Non-financial revenues	**37.5**	**37.9**	**38.1**	**38.6**
Net lending / net borrowing	**-6.3**	**-5.5**	**-4.2**	**-2.8**

(*) Excluding aid to the financial sector
(e): estimate; (f): forecast.
Source: BBVA Research based on MINHAP and INE

5 Tables

Table 5.1
Macroeconomic Forecasts: Gross Domestic Product

(YoY rate)	2012	2013	2014(e)	2015(f)	2016(f)
United States	2.3	2.2	2.4	2.9	2.8
Eurozone	-0.7	-0.4	0.8	1.3	2.2
Germany	0.6	0.2	1.5	1.4	2.2
France	0.4	0.4	0.4	1.0	1.8
Italy	-2.3	-1.9	-0.4	0.6	1.3
Spain	-2.1	-1.2	1.4	2.7	2.7
UK	0.7	1.7	2.6	2.8	2.5
Latin America *	2.5	2.5	0.8	1.5	2.4
Mexico	3.8	1.7	2.1	3.5	3.4
Brazil	1.0	2.5	0.1	0.6	1.8
EAGLES **	5.5	5.4	5.1	5.0	5.2
Turkey	2.1	4.1	2.5	3.7	4.5
Asia Pacific	5.5	5.4	5.4	5.5	5.4
Japan	1.5	1.5	0.7	1.3	1.2
China	7.7	7.7	7.4	7.0	6.6
Asia (exc. China)	3.9	3.7	3.7	4.3	4.4
World	3.3	3.2	3.3	3.6	3.8

* Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela.
** Brazil, China, India, Indonesia, Mexico, Russia and Turkey.
Forecast closing date: 6 February 2015.
Source: BBVA Research and IMF

Table 5.2
Macroeconomic Forecasts: 10-year government bond yield

(Annual average)	2012	2013	2014(e)	2015(f)	2016(f)
United States	1.8	2.3	2.5	2.2	2.9
Germany	1.6	1.6	1.2	0.6	1.2

Forecast closing date: 6 February 2015.
Source: BBVA Research and IMF

Table 4.3
Macroeconomic Forecasts: Exchange Rates)

(Annual average)	2012	2013	2014(e)	2015(f)	2016(f)
EUR-USD	0.78	0.75	0.75	0.90	0.85
USD-EUR	1.29	1.33	1.33	1.11	1.18
GBP-USD	1.58	1.56	1.65	1.48	1.60
JPY-USD	79.8	97.6	105.9	125.0	131.7
CNY-USD	6.31	6.20	6.14	6.17	6.04

Forecast closing date: 6 February 2015.
Source: BBVA Research and IMF

Table 4.4
Macroeconomic Forecasts: Official Interest Rates

(End of period)	2012	2013	2014(e)	2015(f)	2016(f)
United States	0.25	0.25	0.25	0.50	1.50
Eurozone	0.75	0.25	0.05	0.05	0.05
China	6.00	6.00	5.60	5.10	5.10

Forecast closing date: 6 February 2015.
Source: BBVA Research and IMF

Table 5.5
EMU: macroeconomic forecasts (YoY change, %, unless otherwise indicated)

	2012	2013	2014(e)	2015(f)	2016(f)
Real GDP	-0.7	-0.4	0.8	1.3	2.2
Consumption					
Household consumption:	-1.3	-0.6	0.9	1.4	1.7
Public consumption	-0.2	0.2	0.9	0.5	0.9
Gross fixed capital formation	-3.2	-2.4	0.7	0.9	4.6
Domestic demand (contribution to growth)	-2.1	-0.9	0.7	1.1	2.0
Exports	2.6	2.1	3.7	4.8	4.9
Imports	-1.0	1.2	3.7	4.8	5.0
Net exports (contribution to growth)	1.4	0.4	0.2	0.2	0.1
Employment	-0.5	-0.8	0.5	0.8	1.1
Unemployment rate (% of labour force)	11.3	12.0	11.6	11.2	10.6
External Sector					
Current Account Balance (% GDP)	1.4	2.4	2.5	2.7	2.7
Budget Balance (%GPD)	-3.6	-2.9	-2.7	-2.5	-2.0
Prices and Costs					
CPI. % average	2.5	1.4	0.4	0.1	1.0
CPI Core. % average	1.8	1.3	0.9	0.8	1.1
Exchange rate					
USD (Annual average)	1.29	1.33	1.33	1.11	1.18
USD (End of the period)	1.31	1.37	1.23	1.15	1.20
Interest rate					
Official interest rate (Repo) (Annual average)	0.88	0.55	0.16	0.05	0.05
Official interest rate (Repo) (End of the period)	0.75	0.25	0.05	0.05	0.05

Forecast closing date: 6 February 2015.
Source: BBVA Research

Table 5.6
Spain: macroeconomic forecasts (YoY change, %, unless otherwise indicated)

	2012	2013	2014(e)	2015(f)	2016(f)
Activity					
Real GDP	-2.1	-1.2	1.4	2.7	2.7
Private consumption	-2.9	-2.3	2.3	2.5	1.7
Public consumption	-3.7	-2.9	0.8	1.5	1.4
Gross fixed capital formation	-8.3	-3.7	3.4	5.2	6.2
Domestic demand (contribution to growth)	-9.1	5.3	11.8	7.2	6.3
Exports	-9.3	-9.2	-2.8	3.2	5.6
Imports	-9.0	-7.6	-2.8	5.1	9.5
Net exports (contribution to growth)	-4.3	-2.7	2.1	2.7	2.4
Nominal GDP	1.2	4.3	4.4	6.1	7.2
(EUR bn)	-6.3	-0.5	7.6	6.8	7.1
Labour market					
Employment (LFS)	-4.3	-2.8	1.2	3.2	2.9
Unemployment rate (% active pop.)	24.8	26.1	24.4	22.5	20.9
Employment QNA (full-time equivalent)	-4.4	-3.3	0.9	2.6	2.3
Productivity	2.3	2.0	0.5	0.0	0.3
Prices and costs					
CPI (annual average)	2.4	1.4	-0.2	-0.4	1.4
CPI (end-of-period)	2.9	0.3	-0.5	0.7	1.5
GDP deflator	0.2	0.7	-0.5	0.7	1.9
Compensation per employee	-0.6	1.7	-0.1	-0.9	0.6
Unit labour cost (ULC)	-3.0	-0.3	-0.6	-1.0	0.3
External sector					
Current account balance (% GDP)	-0.3	1.4	-0.3	0.9	1.0
Public sector					
Debt (% GDP)	84.4	92.1	97.7	100.3	99.3
Budget balance (% of GDP)	-6.6	-6.3	-5.5	-4.2	-2.8
Hogares					
Nominal disposable income	-3.0	-0.3	0.1	1.4	2.7
Savings rate (% nominal income)	11.9	9.7	10.7	8.9	8.1

(*): Excluding financial aid to Spanish banks.
Forecast closing date: 6 February 2015.
Source: Official bodies and BBVA Research

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

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

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

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

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

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

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

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

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

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

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

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

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

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

With the contribution of:
Economic Scenarios
Julián Cubero
juan.cubero@bbva.com

BBVA Research

Group Chief Economist
Jorge Sicilia Serrano

Developed Economies Area
Rafael Doménech Vilariño
r.domenech@bbva.com

Spain
Miguel Cardoso Lecourtois
miguel.cardoso@bbva.com

Europe
Miguel Jiménez González-Anleo
mjimenezg@bbva.com

US
Nathaniel Karp
Nathaniel.Karp@bbva.com

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

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

Asia
Le Xia
le.xia@bbva.com

Mexico
Carlos Serrano Herrera
carlos.serranoh@bbva.com

LATAM Coordination
Juan Manuel Ruiz Pérez
juan.ruiz@bbva.com

Argentina
Gloria Sorensen
gsorensen@bbva.com

Chile
Jorge Selaive Carrasco
jselaive@bbva.com

Colombia
Juana Téllez Corredor
juana.tellez@bbva.com

Peru
Hugo Perea Flores
hperea@bbva.com

Venezuela
Oswaldo López Meza
oswaldo.lopez@bbva.com

Financial Systems and Regulation Area
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 Strategy
José Carlos Pardo
josecarlos.pardo@bbva.com

Global Coordination
Matías Viola
matias.viola@bbva.com

Global Areas

Economic Scenarios
Julián Cubero Calvo
juan.cubero@bbva.com

Financial Scenarios
Sonsoles Castillo Delgado
s.castillo@bbva.com

Innovation & Processes
Oscar de las Peñas Sánchez-Caro
oscar.delaspenas@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