

Spanish Economic and Financial Outlook

Spanish banks: Resisting a difficult climate

2016

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Letter from the Editors

Since the publication of the previous issue of *Spanish Economic and Financial Outlook* (SEFO), the election of Donald Trump in the US this November is arguably the biggest game-changing event to hit the US (and the global) economy by recent historical standards. For the time being, there remains a high degree of uncertainty surrounding the details of Trump's economic policy and thus, logically, the implications it will have for the US and world economy and financial system. At present, Trump's main proposed growth drivers appear to be infrastructure and deregulation.

In short, Donald Trump's administration is expected to be fiscally expansionary, with massive tax cuts, and liberalization and public spending in civilian and military projects that may, in turn, raise growth and inflation. Markets are pricing in a faster than anticipated Fed rate hike cycle, beginning in December – although in the US, there has already been a *de facto* tightening. In Europe, while there has been a recent uptick in inflation, the ECB is expected to maintain its exceptional monetary easing stance, at least as far as into March of next year.

In the context of remaining policy uncertainty and the persistence of Europe's low interest rate environment, the November SEFO assesses the Spanish and European banking sectors today and their prospects for 2017. For Spanish

banks, the intensity of the restructuring effort undertaken, together with the depth and transparency of the asset provisioning effort, appear to be paying off and have emerged as a competitive advantage. Non-performing assets in the Spanish banking system have contracted by 38% since December 2013. Their common equity tier 1 (CET1) capital ratio remains above 12%. This combined improvement in asset quality and solvency has placed Spanish banks in a better position to tackle the profitability challenge, as evidenced by Spanish bank's recent performance on profitability, as well as high price-to-book ratios, relative to their European peers. If the situation in the European financial sector stabilizes in 2017, we could see an increase of concentration within the sector, alongside some improvement in profitability, although still within the context of a challenging monetary environment. Moreover, uncertainty remains high for the EU banking sector, particularly ahead of Italy's upcoming referendum and the potential implications results may have as regards addressing the problems of the country's ailing banking sector.

We then take a look at just how the ECB's prolonged policy of low interest rates is affecting Spanish banks, in the context of the rest of the euro area. We find that, although these policies initially had a positive impact on increasing loan volumes and demand, maintaining them over a

prolonged period may increase negative pressure on financial stability, compressing banks' margins by varying degrees across Europe. For the case of Spain, the result has been a decrease of the average income of the outstanding loan portfolio – in part a function of the high degree of floating rate loans. Increasing Spanish banks' profitability in the future will require increased efficiency and a further reduction in the still high volume of unproductive assets.

We then move on to the macroeconomic picture, this time, by taking a snapshot of Spanish economic performance at the regional level. In line with the Spanish economy's overall performance, regional activity indicators for the first half of 2016 confirm recovery across all regions, although at distinct speeds. We expect to see higher growth rates in those regions that have most benefitted from tourism flows and diversification of their productive structures. Despite the overall improvement, disparities in GDP per capita (inequality) across the regions have intensified since the crisis, with implications for productivity, population loss, and unemployment levels. Fiscal performance too has varied significantly across the regions, both in terms of deficit reduction and outstanding stock of public debt. Going forward, public policy should take into consideration measures to reduce regional inequalities, such as well-designed investment and redistribution policies, as well as to correct deficiencies in some regions' education levels.

A further analysis at the regional level attempts to explain away some of these difference in performance across regions by looking at variation in business climate regulation. In this issue of SEFO, we analyse the World Bank's *Doing Business*

in Spain 2015 report, concerning the business regulations affecting SMEs and their relation to variables representative of regional economic activity in Spain. The report reveals significant differences in regional regulations affecting business activity. On aggregate, the best performing region is La Rioja, followed by Madrid, while the worst-and second-worst ranked regions are Galicia and Aragon, respectively. Despite some limitations to estimating the impact of the reports' findings on economic variables, the study still highlights the need to further improve business regulation across all of Spain's regions.

The November SEFO then explores a key issue affecting Spain at the national level - the strength of the country's external sector in the context of a deceleration in global trade. The Spanish trade balance is holding up in the midst of a competitive environment characterised by increased flows of goods at notably lower prices, together with low oil prices. Aside from maintaining price competitiveness, the Spanish export sector faces various challenges in the short and medium term. These include Sterling depreciation and weaker growth in some key trading partners, especially the Euro Area. The increase in non-tourism exports may well represent the most significant structural change in the Spanish economy during the last decade, adding a strong boost to the services surplus.

This SEFO also provides a more in-depth analysis of a specific area where there is room for improvement and increased efficiency: shortening commercial debt late payment terms.

Recent regulations designed to reduce the term of commercial debt late payments are deemed to have had a limited impact on shortening average payment periods. There

exists room to introduce productive changes under a new regulatory push directed not at legally capping payment terms, but rather at supervising and overseeing compliance with the agreed-upon terms, vigorously upholding free competition and the effectiveness of the courts to impose justice and of the mediation mechanisms in the event of conflict.

Finally, we close this SEFO with a broader perspective with a debate as to whether or not there exists a single European business cycle. Our preliminary findings do reveal increased comovements during periods of European convergence as well as during the Great Recession. The analysis identifies the existence of just one cluster among the business cycles of European countries.

The Spanish and European banking sectors today and prospects for 2017

Santiago Carbó Valverde¹ and Francisco Rodríguez Fernández²

Although market conditions and profitability/asset management challenges remain real risks for the Spanish banking system, the intense effort in these areas by Spanish institutions places them in a relatively strong position compared to their European peers. Assuming the solvency and transparency issues currently affecting other European countries are resolved, 2017 should bring a more benign market environment for Spanish banks, which could translate into improved profitability and value creation for shareholders.

Spanish listed banks' latest earnings result demonstrates their ability to record profits even in the face of hostile market conditions since early 2016. Spanish banks' profits, as well as share prices, have fared relatively better than those of their European counterparts. Non-performing assets in the Spanish banking system have contracted by 38% since December 2013. Meanwhile, their common equity tier 1 (CET1) capital ratio remains above 12%. This combined improvement in asset quality and solvency has placed Spanish banks in a better position to tackle the profitability challenge. Indeed, the intensity of restructuring already undertaken and the depth and transparency of the asset provisioning effort have emerged as competitive advantages. As European markets foreseeably stabilise and financial stability issues surrounding some countries, such as Italy, are resolved, it is likely that we will see even greater concentration within the sector. It is also possible that European bank profitability will improve somewhat in 2017, although it remains to be seen how banks will adapt to a changing monetary environment, albeit still expansionary.

The monetary and financial climate and international scrutiny

2016 is drawing to a close, having proven a tough year for Europe's financial institutions. It was thought that 2016 would be a year of transition towards a more solid financial environment and a more robust recovery in lending and the banking business as

a whole. However, expectations at the start of the year were ultimately confounded by the market reality. Securities markets exhibited signs of stress as early as January and bank stocks were among the hardest hit. This convulsive market environment lasted until well into the summer and it was not until the autumn that signs of gradual recovery, albeit not exempt from episodes of volatility, began to emerge.

¹ Bangor Business School, Funcas and CUNEF.

² University of Granada and Funcas.

This difficult transition can be attributed to a host of factors. Firstly, in the year in which the banking union's Single Resolution Mechanism (SRM) entered into force, the challenges that are already putting it to the test were quick to emerge. When articulating the single supervision mechanism for the eurozone, it was thought that the recapitalisation and provisioning efforts made would give way to an era of enhanced transparency. However, it would appear that the stress tests conducted by the European Banking Authority this year, in coordination with the European Central Bank, have not had the desired effect. In fact, as indicated in the last edition of the *Spanish Economic and Financial Outlook*, questions have emerged about the quality of bank assets in Germany; meanwhile, and more worryingly, the existence of a major banking crisis in Italy has become clear, a crisis for which a definitive solution certainly remains pending. The result of all of this has been, yet again, to cast a shadow over the credibility of the sector as a whole due to the doubts circling a few. It is worth noting, at any rate, that although management of the legacy of impaired and non-performing assets left behind by the banking sector crisis still has some way to go, much has been achieved on this front.

Interest rate conditions and the role of the main central banks is also proving key. Beyond the impact of weak political stability in many countries and elections having recently taken place or planned in others, the monetary climate remains unprecedented. The possibility that the Federal Reserve will hike its benchmark rates before year-end is a development particularly worth watching. Some analysts maintain that monetary policy needs to take a definite step in the direction of tightening for private liquidity to gradually take the place of public support. The uptick in inflation is sending a positive signal in this respect. Although recent ECB talks would appear to suggest the existence of a time limit on quantitative easing in Europe, it is far less clear how private agents and markets will react to this prospect in light of the weak nature

of the economic recovery in the eurozone as a whole and onerous public and private borrowing levels in many nations. Nor is this situation helping matters for the banks because the interest rate equilibrium does not correspond to the crossover between demand and supply adjusted for risk but rather reflects the actions of the European Central Bank, which is injecting liquidity and driving rates to ultra-low levels. Generating a reasonable net interest margin in this context is undoubtedly a difficult task.

The forces of supply and demand are however hovering in the background, with two important drivers of change in the near-term horizon. The first is the persistence of excess supply. The restructuring process continues in the countries in which it started earlier (e.g., Spain), while it is still now even greater in the countries where it had been limited to date (e.g., Germany, Italy, Netherlands). The second is technological change, namely the scope for accessing customers and providing services using unconventional channels associated with the digital transformation. Although customers still have to embrace some of these changes, the transformation is unquestionably gathering pace and the financial institutions are tangibly upping their stakes in this arena.

The Spanish banks are relatively well placed compared to their European peers. They have proven able to steer a course to recovery, reporting profit growth in the third quarter of 2016, despite the market difficulties. They have also stayed ahead of a good number of the changes now being tackled by the sector in Europe, standing out on two fronts: restructuring and asset quality transparency. On October 24th, 2016, the staff of the ECB and the European Commission published a joint statement following the sixth post-programme surveillance visit to Spain.³ In it, the staff highlights the fact that the financial sector "has continued to show a high degree of stability, supported by low funding costs, the ongoing restructuring of the sector and the

³ <http://www.ecb.europa.eu/press/pr/date/2016/html/pr161024.en.html>

strength of the economic recovery (...) The quality of banks' assets has further strengthened and by mid-2016, the non-performing loan ratio had fallen below 10% at the aggregate level.

The staff also notes that the main challenge for the sector, "as in other euro area countries, remains sustaining profitability over the medium term, against the background of low interest rates and still negative growth of business volumes. Although the outstanding volume of credit is still decreasing, also reflecting the continuation of the deleveraging process by households and enterprises, new bank lending to households and SMEs continues to grow and supports economic activity."

Lastly, the staff allude to the bank restructuring process in Spain, remarking that "implementation of the restructuring plans of the Spanish banks that have received state aid is almost completed. However, there has been no progress in the re-privatisation of the two remaining state-owned banks since 2014."

Outlook for profitability in the Spanish bank sector

The comments made by the ECB and EC staff allude to a key factor for the Spanish banks: prevailing low interest rates may be having a greater impact on the reduction in private borrowing levels than on the generation of new credit and, although this phenomenon is beginning to revert, it has delayed the generation of new funding for the reactivation of productive investment. However, this opportunity cost, sparked by accelerating private sector deleveraging, will become a plus in the long term as it will enable doing business at more manageable borrowing levels, as will be seen further on.

The outlook for bank profits is somewhat more promising than it has been in recent months

insofar as Spanish banks are combining a lighter and more cost-efficient service structure with

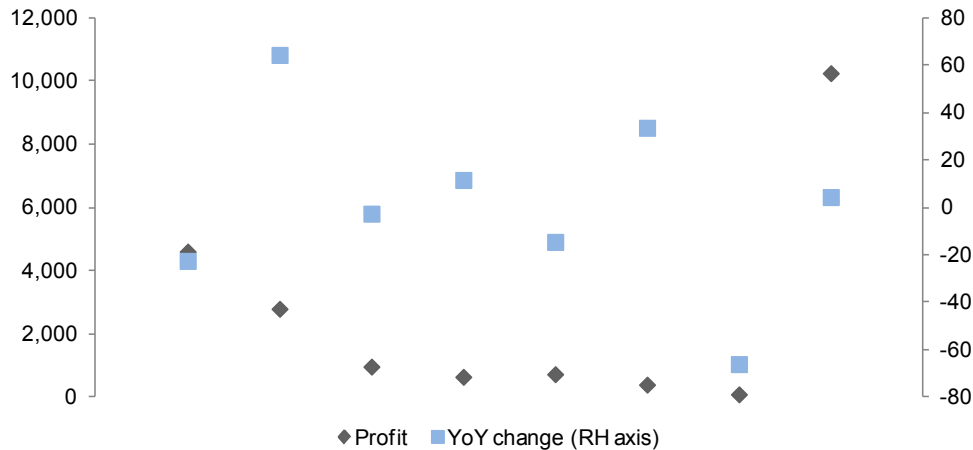
The outlook for profitability is somewhat more promising than it has been in recent months insofar as Spanish banks are combining a lighter and more cost-efficient service structure with a strategic shift in distribution channels and determined management of outstanding impaired and non-performing legacy assets.

a strategic shift in distribution channels and determined management of outstanding impaired and non-performing legacy assets. In its most recent *Financial Stability Report*, dated November 2016,⁴ the Bank of Spain highlights certain factors that support this prognosis:

- Non-performing bank assets had come down by 38% between December 2013 and June 2016.
- The common equity tier 1 (CET1) capital ratio remains above 12%.
- At the consolidated level, the entities' total assets were 0.4% higher year-on-year as of June 2016. This growth is the result of increased activity internationally (growth of 15.5% in international financial assets), offsetting continued contraction in Spain (-2.2%).
- Using European Banking Authority data, the *Financial Stability Report* shows that the Spanish banks' exposure to sovereign bonds is in line with the European average (13% of all exposures vs. 11.5% across the EU), with a level of exposure to home-country sovereign risk (57%) that is higher than the European average (48%) but not dissimilar to the percentages presented by the German, French and Italian banks.

⁴ http://www.bde.es/bde/en/secciones/informes/boletines/Informe_de_Estab/

Exhibit 1

3Q16 profits presented by the listed Spanish banks (€ million) and YoY change (%)

Sources: Quarterly earnings reports released by the banks and authors' own elaboration.

- As for asset quality, the *Report* notes that foreclosed assets originating from the banks' Spanish businesses (81 billion euros) had declined by 1.4% year-on-year as of June 2016, extending the downtrend, albeit modest, of recent years. In total, 'unproductive' assets (the sum of non-performing and foreclosed assets) have declined by 12%, although still at around 199 billion euros as of June 2016). Refinanced/restructured loans were down 12.1% year-on-year as of June 2016, and down 26% since March 2014.

The Spanish banks presented their third-quarter 2016 earnings throughout the month of October. As shown in Exhibit 1, the universe of listed banks as a whole presented third-quarter profits of 10.25 billion euros, marking year-on-year growth of 4.4%. Although profit generation was uneven, affected moreover the impact of the numerous non-recurring, earnings-impacting transactions undertaken between 2015 and 2016, all of the banks presented a profit in a delicate market environment, in contrast to the losses reported in other European markets.

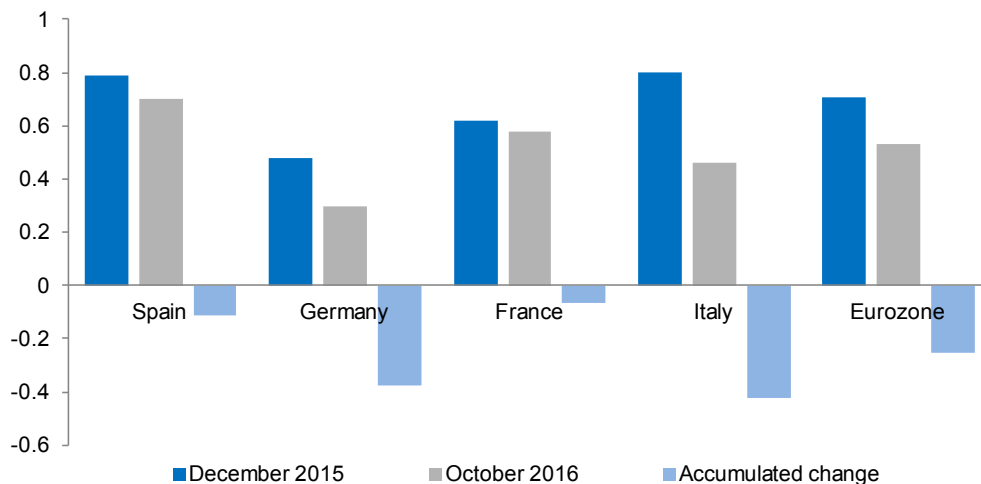
And although stock market falls have been widespread across Europe in 2016, as Exhibit 2 illustrates, the price-to-book ratio presented by the Spanish banking industry is among the highest within the major European sectors: at 0.7x, it is higher than that of Germany (0.3x) or France or Italy (between 0.5x and 0.6x).

Although there is no consensus in the investment community in this respect, a growing number of

The price-to-book ratio of the Spanish banking industry is among the highest within the major European sectors, leading a growing number of analysts to rank Spanish banks among the institutions trading at a discount and therefore presenting opportunities for value creation in 2017.

analysts are ranking Spanish banks among the institutions trading at a discount and therefore presenting significant upside in 2017, particularly if the questions regarding asset quality in other European sectors can be resolved.

Exhibit 2

Price-to-book ratios in Europe

Source: Bank of Spain - Presentation by the Deputy Governor (26/10/2016) based on Datastream figures and authors' own elaboration.

Structural indicators and sector concentration

In order to evaluate the state of the European banking industry from a structural perspective, it is worth analysing the sector's transformation since the onset of the crisis, particularly since 2008. Exhibit 3 uses figures from the ECB's *Report on Financial Structures* (published in October 2016), which provides a full spectrum of structural indicators for the purpose of evaluating the transformation undertaken and its intensity in different countries:

- The number of credit institutions in Spain declined from 282 in 2008 to 134 in 2015, or 52.5% on aggregate. This contraction is more pronounced than that witnessed in the other countries analysed, the eurozone average being 21.3%.
- The reduction in the number of players has had a direct impact on the population per credit institution statistic, which increased in Spain from 127,025 people in 2008 to 212,963 in 2015, a cumulative increase of 67.6%, again above the eurozone average of 30.4%.

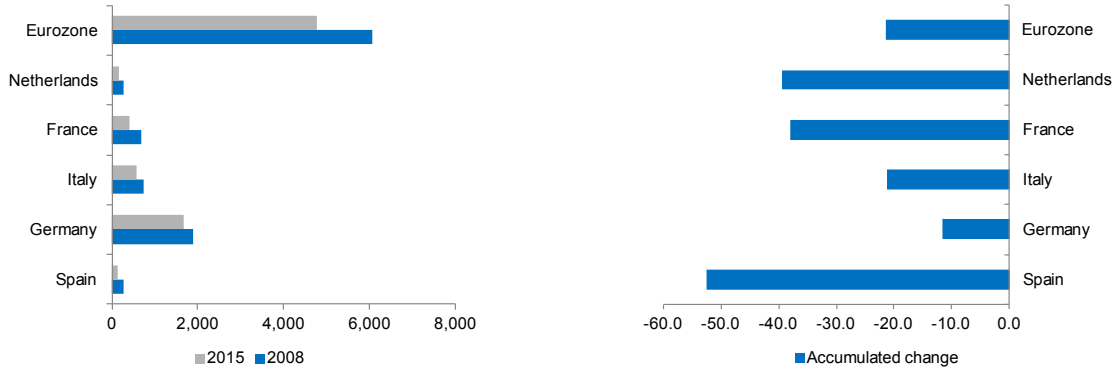
- Similarly, the population served per branch increased, specifically from 998 people in 2008 to 1,493 in 2015, albeit still implying a more exclusive level of customer service compared to the eurozone average (2,170).

The reduction in the universe of competitors is attributable to increased concentration in the sector. Such a phenomenon is foreseeable and customary during periods of surplus supply and does not significantly impact competition in the sector, which is intense in the traditional segments. The first sub exhibit within Exhibit 4 illustrates the Herfindahl-Hirschman Index (HHI) of bank concentration for several European countries. This index is obtained by summing the squares of the market shares of all of the players within the sector and provides a synthetic proxy for aggregate market concentration. The resulting measure ranges between 0 and 10,000. Despite the increase in the concentration level and in the share commanded by the top five banks in most of the markets (the second sub exhibit), concentration remains relatively reduced in Spain, with a HHI measure of 896, in line with the eurozone average of 722.

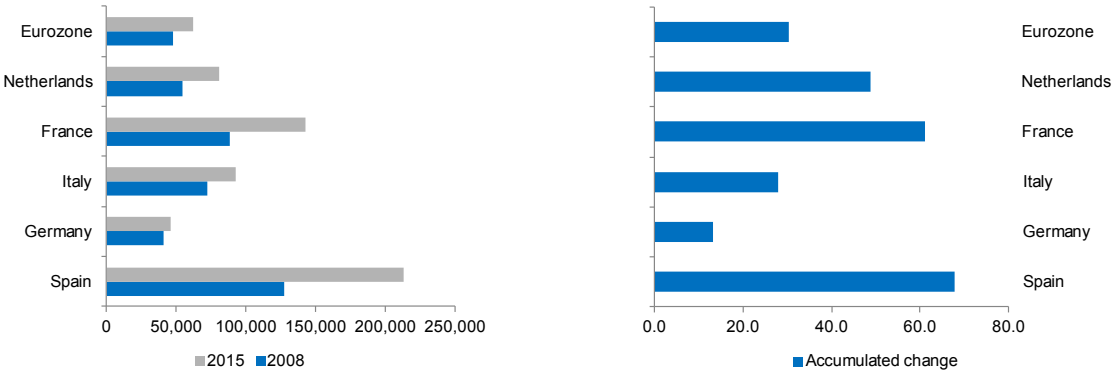
Exhibit 3

Structural indicators, European banking sectors

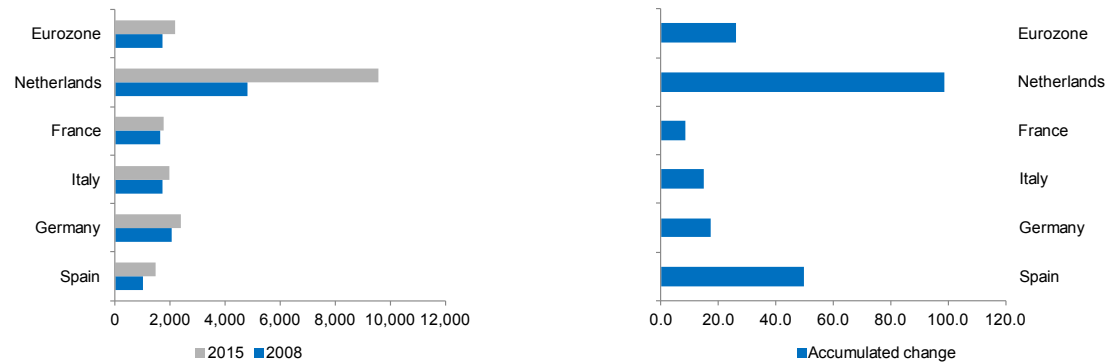
A. Number of credit institutions



B. Population per credit institution



C. Population per branch

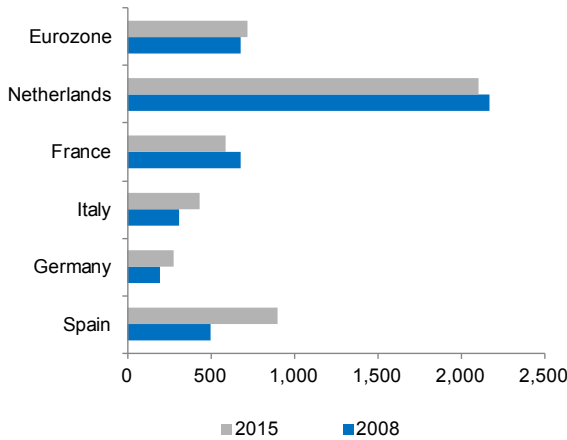


Source: European Central Bank: Report on Financial Structures (October 2016) and authors' own elaboration.

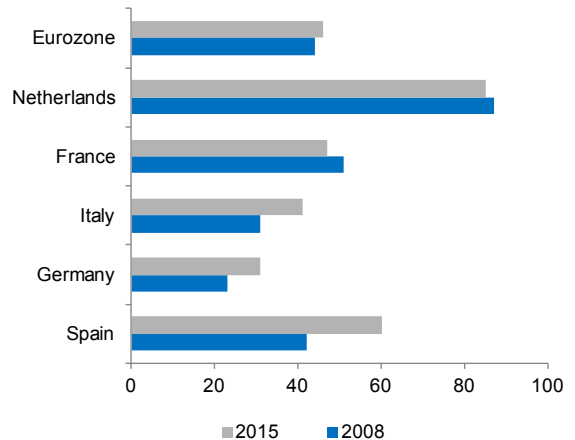
Exhibit 4

Concentration of banking business in Europe (2015)

A. HHI for all credit institutions (0-10,000)



B. Market share (% of total assets) of the five largest credit institutions



Note: This index is obtained by summing the squares of the market shares of all of the players within the sector and provides a synthetic proxy for aggregate market concentration.

Source: European Central Bank: Report on Financial Structures (October 2016) and authors' own elaboration.

Credit, debt and financing alternatives

As for new business generation, the overall balance of credit extended to 'other resident sectors' continues to fall. As already noted, this trend is due mainly to intensifying debt repayment, offsetting growth in new loans to corporates and households.

Exhibit 5 depicts the trend in total outstanding and non-performing private sector credit (5A) and compares the trend in the non-performing loan ratio and the unemployment rate (5B). By June 2016, the NPL ratio had dipped below 10% and by August it had reached 9.44%. It is likely that the reduction in the NPL ratio will gather pace in 2017 and beyond for two reasons: i) the unemployment rate is expected to continue to decline significantly; and, ii) the balance of outstanding bank credit is set to

increase which, as the denominator in this ratio, will drive an even greater reduction.

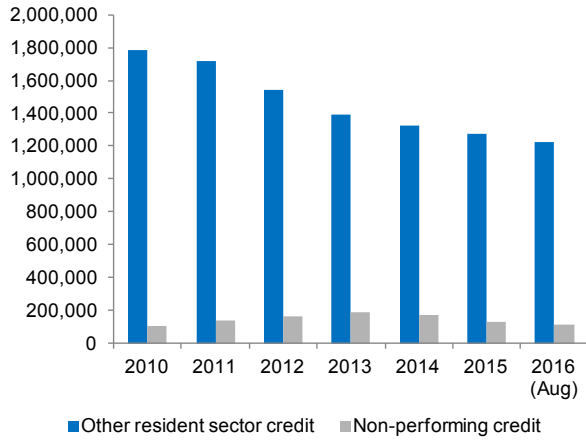
The reduction in the NPL ratio will likely gather pace in 2017 and beyond given that: i) the unemployment rate is expected to continue to decline significantly; and, ii) the balance of outstanding bank credit is set to increase which, as the denominator in this ratio, will drive an even greater reduction.

The latest private sector financing figures reveal that outstanding credit is already rising in the corporate lending segment (+0.5% YoY in September); in the household segment, while improving, the overall balance continues to decline (-1.6% YoY in September).

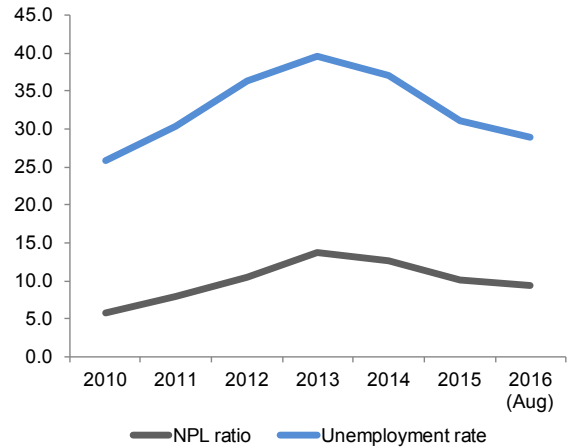
Exhibit 5

Credit extended to other resident sectors, non-performing loans and unemployment rate

A. Credit extended to other resident sectors (€ millions)



B. Non-performing loan ratio vs. unemployment rate (%)

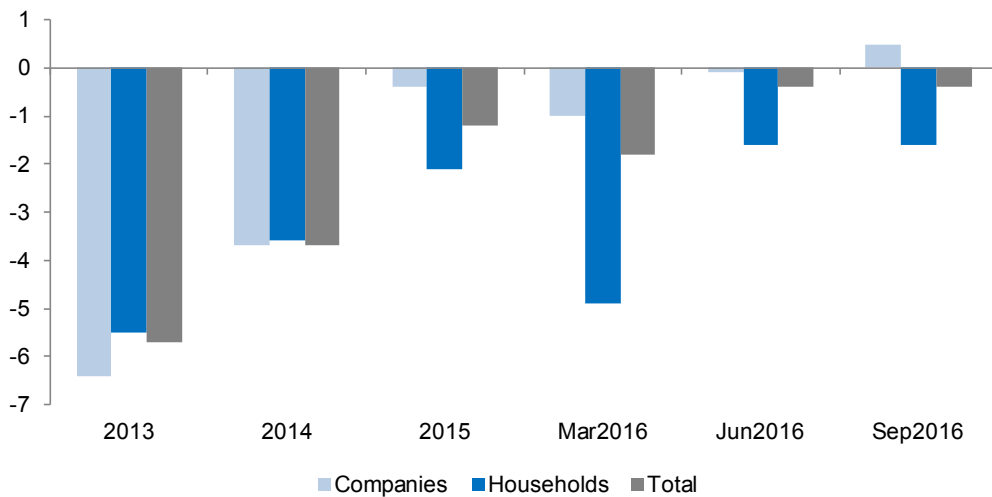


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Note: August 2016 unemployment: taken from the third-quarter economically-active survey report.
Sources: Bank of Spain, INE and authors' own elaboration.

Exhibit 6

Private sector financing. YoY rate (%)



SEFO - Spanish Economic and Financial Outlook

Source: Bank of Spain and authors' own elaboration.

As already noted, part of the still-persistent decline in the overall balance on loans to the private sector is attributable to the accelerating

Spain's households and companies have repaid 480 billion euros of debt in just six years.

pace of deleveraging. The leverage ratio presented by households and corporates on aggregate (Exhibit 7) had declined from 215.7% of GDP in 2010 to 169% by June 2016. This means that Spain's households and companies have repaid 480 billion euros of debt in just six years.

Turning to 2017 and the possible shift in monetary policy in the medium and longer term (albeit set to remain expansionary for a considerable period of time), it is important to assess to what extent the Spanish banks have reduced their reliance on the Eurosystem

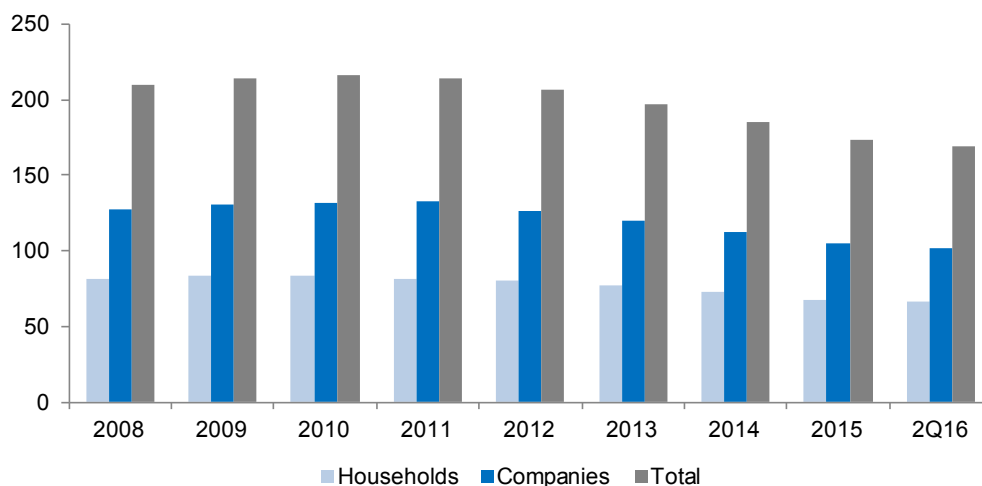
for funding. Exhibit 8 shows how, in line with other European countries, the asset purchase programmes (including the public sector purchase programme) have gradually garnered the bulk of the banks' demand for funding. Spain had availed of 188.4 billion euros of funding under these programmes as of September 2016. Use of longer-term refinancing operations (LTROs) had diminished to 134.5 billion euros

Spanish banks have reduced their reliance on Eurosystem liquidity relative to the eurozone as a whole, particularly in the last year.

and use of main refinancing operations (MROs) was negligible. Notwithstanding this trend, as illustrated by 8B within Exhibit 8, Spanish banks have reduced their reliance on the Eurosystem's liquidity mechanisms relative to the eurozone as a whole, particularly in the last year.

Exhibit 7

Private sector borrowings as a percentage of GDP (2008-2016)



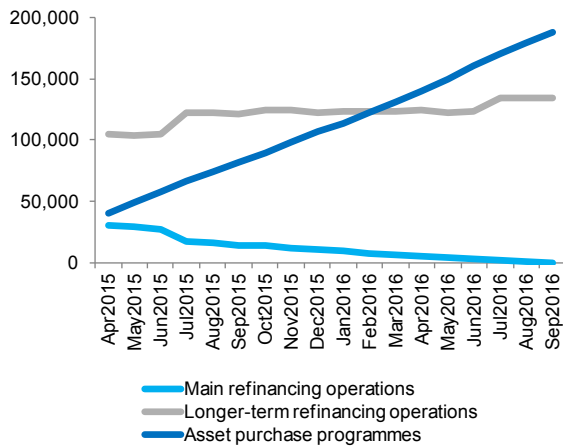
Source: Bank of Spain and authors' own elaboration.

In conclusion, although market conditions, profitability and asset management related challenges remain real risks for Spanish banks, the extra effort made in these areas by Spanish institutions places them in a position of relative strength compared to their Eurozone peers. Foreseeably, assuming the solvency and transparency issues affecting other European

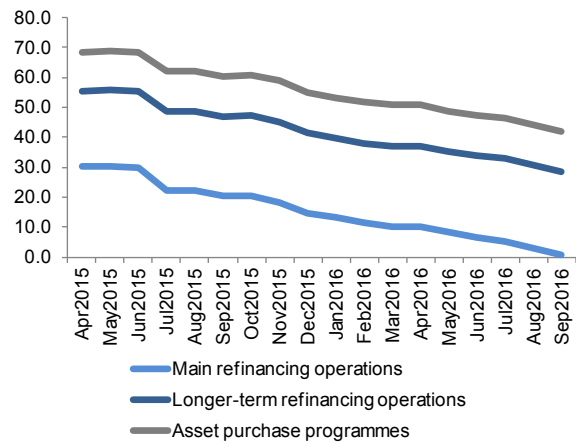
countries are resolved, 2017 should bring a more benign market environment for Spanish banks which could translate into value creation for shareholders. It is also possible that the sector will achieve private sector credit growth and, as a whole, a relative improvement in profitability, although this remains the biggest challenge facing the sector in the medium term.

Exhibit 8
Spanish banks' reliance on Eurosystem funding

A. Total funding (€ million)



B. Spanish banks' share of overall Eurosystem funding



Source: Bank of Spain and authors' own elaboration

Bank margins and interest rates: Spain in the context of the euro area

Joaquín Maudos¹

Although the expansionary monetary policy of the ECB initially had a positive impact on profitability, maintaining low interest rates over a prolonged period of time may increase negative pressure on financial stability. Reducing banks' unproductive assets and increasing efficiency may be the path to higher profitability in the future.

Low profitability is a common trait today for many European and Spanish banks. This challenge has been magnified by the progressive adaptation of the ECB's expansionary monetary policies to counteract the crisis. Although these policies initially had a positive impact on increasing loan volumes and demand, it seems that maintaining low interest rates over a prolonged period of time may increase negative pressure on financial stability. The fall in the official interest rate is squeezing bank margins to unprecedented low levels, but also in different ways across European banking sectors. In the case of Spain, banks continue to set higher margins on corporate loans, but lower margins on loans for households for home purchases. The net result has been a decrease in the average income obtained by the outstanding loan portfolio, influenced by the high proportion of floating rate loans. Increasing Spanish banks' profitability in the future will require increased efficiency and a further reduction in the still high volume of unproductive assets.

In response to the crisis, the European Central Bank (ECB) has been progressively adopting expansionary monetary policy measures. The potential impact of a prolonged period of such policies on bank margins and thus, on profitability, has been a cause for concern. Although the fall in the official interest rate and the resulting improvement in the access to financing have a positive impact on the reactivation of credit (and, thus, on banks' profitability) and on the increase in demand (which improves bank asset quality, reducing NPLs), they also squeeze bank

margins when rates are low, especially when they are negative. This is due to the existence of a floor for the deposit rate and, therefore, as rates fall, the repricing of assets is more intense than that of liabilities, eroding the net interest margin. Also, as the IMF notes (2016a), the greater the weighting of floating-rate loans (a fall in the reference interest rate automatically leads to a reduction in finance income) and of deposits (impacted by the above-mentioned interest rate floor), the greater the negative impact of a fall in the official interest rates.

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In this regard, the aim of this article is to analyse the recent performance of Spain's bank margins in the context of the euro area, taking advantage of the data provided by the ECB regarding margins on loans to companies, on the one hand, and to households, on the other, and regarding the evolution of interest rates on loans and deposits. The information offered by the ECB relates to margins on new loans, but the comparison of interest rates on said new loans with average interest rates (outstanding balances) enriches the analysis. Therefore, although in terms of the evolution of profitability, the analysis of average margins is more important, the analysis of the margins on new loans is also important, since the changes therein (upwards or downwards) help foresee future changes in average margins. The period analysed is 2012-2016 so as to have at least two years before and after the ECB introduced negative interest rates for the marginal deposit facility in June 2014.²

As well as analysing the evolution of margins and interest rates, this article simulates the effect of fluctuations in Euribor (the main reference rate in Spain) on the net interest margin for various Euribor levels. The evidence is in line with the results obtained in recent studies showing the existence of a non-linear link between margins and interest rates, so that a fall in Euribor squeezes margins more when interest rates are lower. Consequently, despite some of the initial positive impacts of expansionary monetary policy, the warnings made by some analysts, academics and institutions regarding the negative effect on the current financial stability of such low interest rates over a long period also require careful consideration and, therefore, it would be counterproductive of the ECB to cut interest rates any further.

With this objective, this article is structured in the following manner. The first section analyses the recent performance of bank margins on new loans, drawing a distinction between loans

to companies and loans to households. Once margins have been analysed, the article then takes the analysis further, studying interest rates on loans and deposits, the two components of the net interest margin. Finally, it simulates the impact of fluctuations of Euribor on banks' net interest income for various interest levels, which permits an analysis of the beneficial effect in the current climate of an interest rate rise on banks' profitability and, conversely, the negative effect of the ECB raising the excess liquidity penalty even further.

Bank lending margins in new business

Exhibit 1 shows the performance of interest margins on new loan transactions with companies and households, in the latter case for the purchase of housing. In the case of companies, while the margin applied by Spanish banks is below the average applied by the euro-area banks until 2013, since then it has been higher, with an average spread of 21 bp from January to August 2016 (the latest data available at the time this article was published). As for loans to households for the purchase of housing, Spanish banks always apply narrower margins, with a spread of 24 bp with respect to the euro-area banks in 2016. However, the spread has shrunk considerably since 2012 and it is currently almost four times less than back then.

The combined picture of the evolution of the two banking margins and of Euribor (which has been negative since February 2016 and below 0.5% since July 2014) shows that the fall in rates has been accompanied by a drop in margins on new loans since 2014 but a rise from 2012 to 2014. Therefore, although initially the fall in Euribor allowed margins to recover (since the rates fell more sharply on deposits than on loans), once Euribor hit very low levels (below 0.5%) any further decline hurt margins, exacerbated by the floor on interest rates on deposits. Nevertheless, it should

² The rate was set at -0.1% in June 2014 and it fell to -0.2% in September 2014, to -0.3% in December 2015 and to -0.4% in March 2016, where it has remained to date. Bank reserves in excess of the reserve requirement are also penalized.

be noted that margins do not only respond to fluctuations in interest rates, but also to variables

Although initially the fall in Euribor allowed margins to recover (since the rates fell more sharply on deposits than on loans), once Euribor hit very low levels (below 0.5%) any further decline hurt margins.

such as credit risk, risk aversion, market power, management efficiency, etc. In fact, in Spain margins are currently much higher than they were in 2012, when interest rates were higher.

A common trait in Spain and the euro area in the evolution of the net interest margin applied to loans to households and to companies is that it also rose from 2012 to 2014 in the EMU and has fallen since then too. In Spain, the evolution is similar to that of NPLs, which reached highs of 20.3% at the end of 2013 in loans to companies and 6.3% in March 2014 in loans for the purchase of housing, and subsequently fell to 14% and 4.7%, respectively,

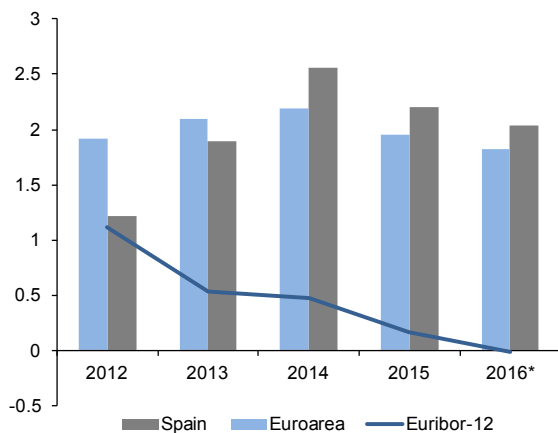
in June 2016. Consequently, the evidence seems to show that banks raised their net interest margin in order to tackle the provisions required relating to the increase in NPLs (charging the resulting risk premium in the interest rate applied), and that once NPLs started to drop, the margin fell again. However, as mentioned above, the narrowing of the margin since 2014 might also be influenced by the very low interest rates, because 12-month Euribor has been below 0.5% since mid-2014 and it has been negative since February 2016.

In relation to the main European banking sectors (Exhibit 2), Spanish banks currently stand out because they operate with higher margins on loans to companies, with spreads to date in 2016 (through August) of 72 bp with respect to Germany, 80 bp with respect to France and 127 bp with respect to Italy, with Greece and Portugal having the widest margins of the euro area. As for loans for the purchase of housing, although the margin is below the euro area average, it exceeds that of the major countries, with a spread of 56 bp with respect to Italy, which is the country operating with one of the lowest. Ireland, in contrast, is the country with the highest bank margin on loans for the purchase of housing (316 bp).

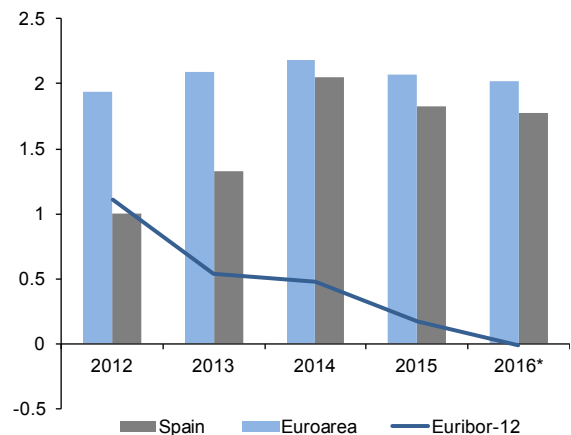
Exhibit 1

**Bank lending margins (new business)
(Percentages)**

a) Loans to non-financial corporations



b) Loans to households for house purchase



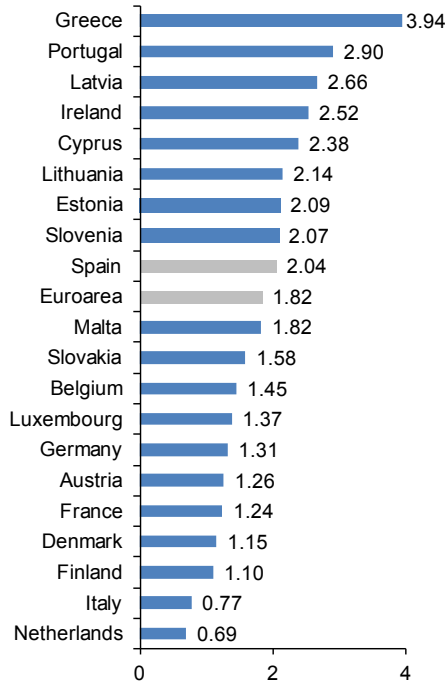
Note: * 2016 average January-August.

Source: ECB.

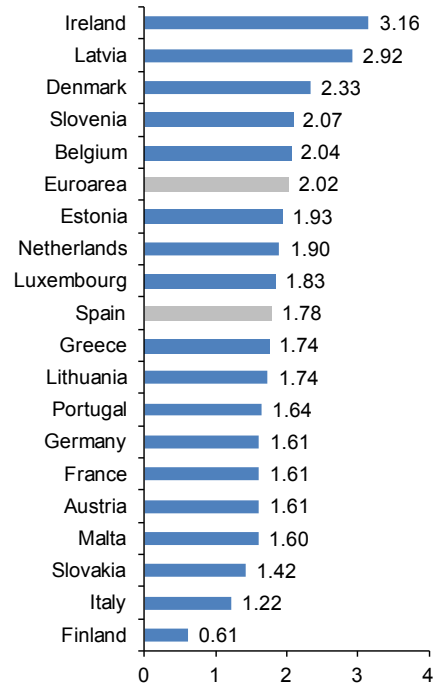
Exhibit 2

Bank lending margins (new business) in the Euro area countries, 2016*
(Percentages)

a) Loans to non-financial corporations



b) Loans to households for house purchase



Note: * 2016 average January-August.

Source: ECB.

Loan interest rates: New business vs. outstanding amounts

The sharp fall in interest rates in the EMU as a result of the expansionary monetary policy implemented to combat the crisis has impacted both the interest rates on new business and average finance income due to asset repricing. Also, the high weighting of floating-rate loans granted in the past automatically brings down average income, and average rates are currently very low in the countries in which the intensity of competition in the past meant that loans were granted with very narrow spreads with respect to the reference rates. This is in fact the case

of Spain, where during the expansionary years and the credit bubble the spread with respect to 12-month Euribor was very narrow, which has

The sharp fall in interest rates in the EMU as a result of the ECB's expansionary monetary policy implemented to combat the crisis has impacted both the interest rates on new business and average finance income due to asset repricing.

taken its toll on some banks with big floating-rate mortgage portfolios.

As for deposits, the average financing cost drops with the fall in rates, since new deposits are attracted at ever lower rates, and in this context, the average finance cost being borne by the bank is higher than the marginal cost of the new deposits attracted.

obtain wider margins given the cost of financing), the average income on the loan portfolio is lower due to the greater weighting of floating-rate loans in Spain, the average income of which has fallen more sharply with the fall in Euribor.

Although as shown in Exhibit 3, Spanish banks set higher interest rates than the EMU on new loans granted to companies (and, as we have seen, they

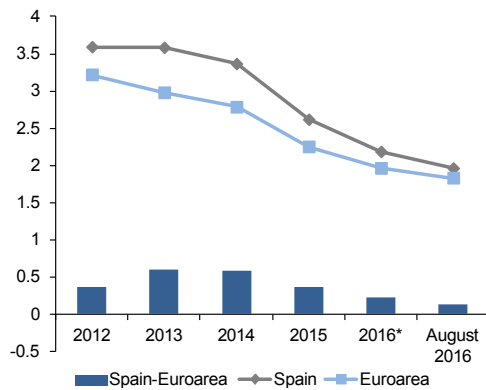
With regard to the euro-area countries (Exhibit 4), the interest rates currently (August data) charged by Spanish banks on new loans granted to companies (1.96%) are higher than those

Exhibit 3

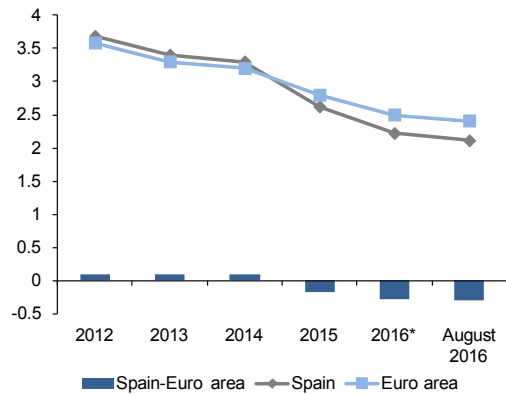
**Loan interest rates
(Percentages)**

a) Non-financial corporations

New business

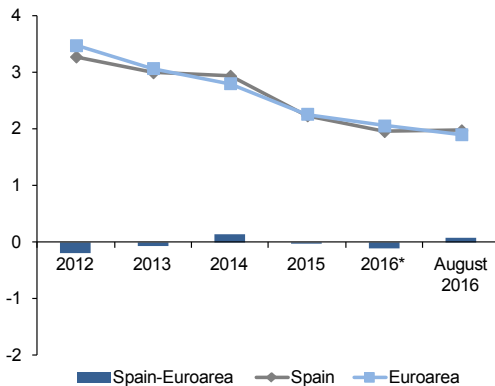


Outstanding amounts

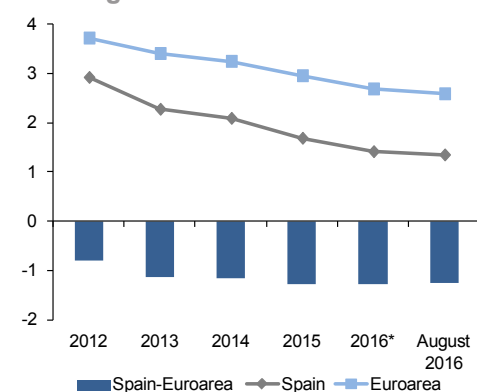


b) Households for house purchase

New business



Outstanding amounts



Note: * 2016 average January-August.

Source: ECB.

applied by, for example, German banks (1.79%), French (1.54%) and Dutch banks (1.47%), with Greece (5.05%) and Cyprus (4.16%) being the most expensive countries. Conversely, if we consider the average income obtained from the outstanding stock of loans, the average interest received by Spanish banks (2.11%) is below that of Germany (2.49%) and Italy (2.65%). The banks of the bailed-out countries have the highest average interest income.

In the case of loans for house purchase, the interest rate on new loans has been similar in recent years in Spain and in the euro area (1.97% vs 1.9% in August 2016). The latest information puts the cost of new mortgages

in Spain above that of the major European banking sectors: 1.69% in Germany and 1.72% in France (Exhibit 5).

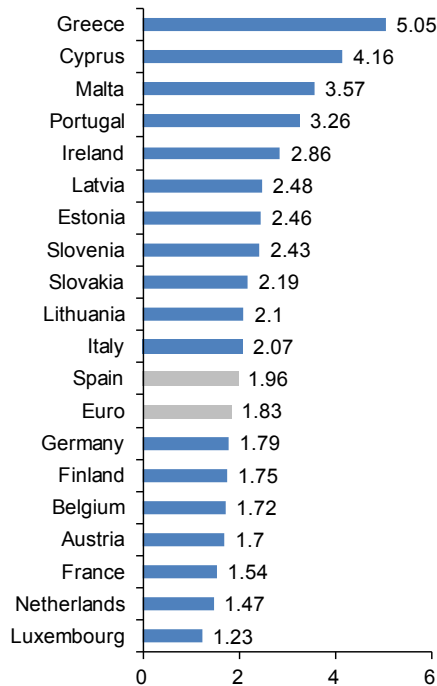
In contrast, the difference with the euro area is very significant and it remains at the starting level for average interest income, standing at 124 bp in August 2016, with an interest rate in Spain (1.35%) of almost half that of the euro area (2.59%) and the third lowest of the euro area, only ahead of Finland and Portugal.

The limited lending activity in the crisis years (with negative growth rates for new loans) means that although the interest rate for new mortgages granted approached those charged by euro-area

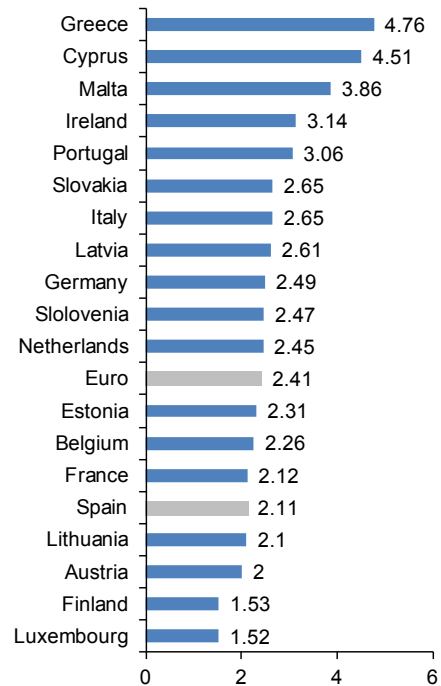
Exhibit 4

Loan interest rates to non-financial corporations. August 2016 (Percentages)

a) New business



b) Outstanding amounts

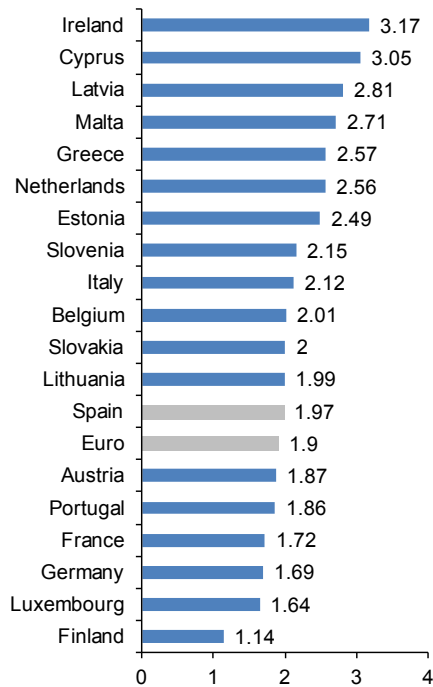


Source: ECB.

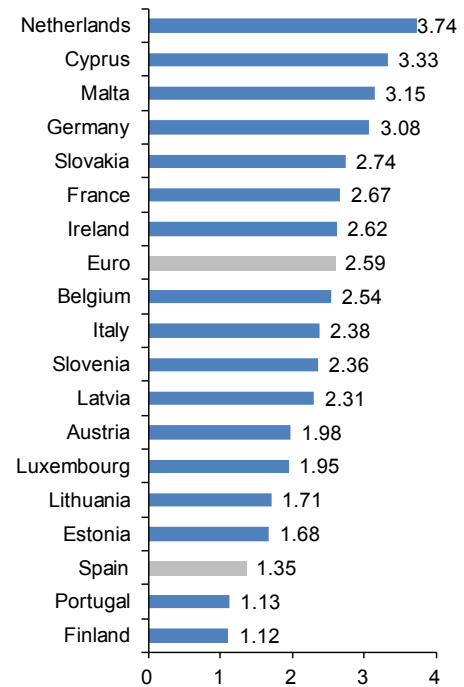
Exhibit 5

Loan interest rates to households for house purchase. August 2016 (Percentages)

a) New business



b) Outstanding amounts



Source: ECB.

banks, the difference has not been felt in terms of average income, which remains much lower in Spanish banks.

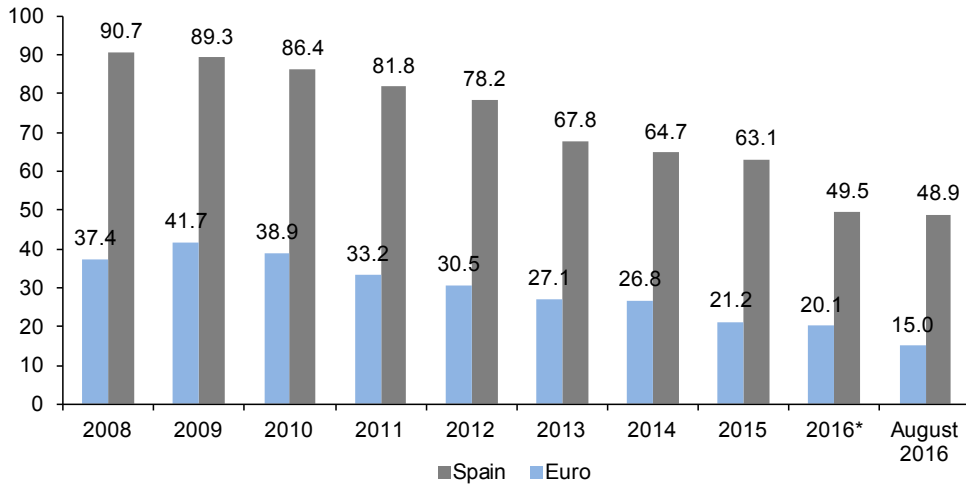
While in Spain the interest rate of new loans for house purchase is higher than the average income of the mortgage portfolio, in the euro area it is just the opposite.

It should be noted that while in Spain the interest rate of new loans for house purchase is higher than the average income of the mortgage portfolio,

in the euro area it is just the opposite. This may be partly due to the fact that in Spain there has been a greater and very high percentage of mortgages granted in the past at floating interest rates and with minimal spreads, as a result of the intensity of competition among banks in the context of the real estate bubble. Thus, as shown in Exhibit 6 for the post-crisis period, until the end of 2009 the percentage hovered around 90%, and since then it has fallen progressively, to 49% in August 2016. In contrast, in the euro area, it reached a maximum of 42% in 2009 and currently stands at 15%, 34 pp below Spain. In the major economies the weighting of variable rate mortgage loans is very low: 11% in Germany and 1.8% in France.

Exhibit 6

Weighting of floating-rate mortgages (Percentages)



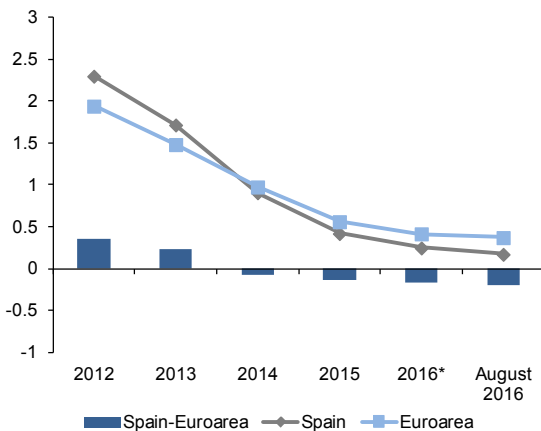
Note: * 2016 average January-August.
Source: ECB.

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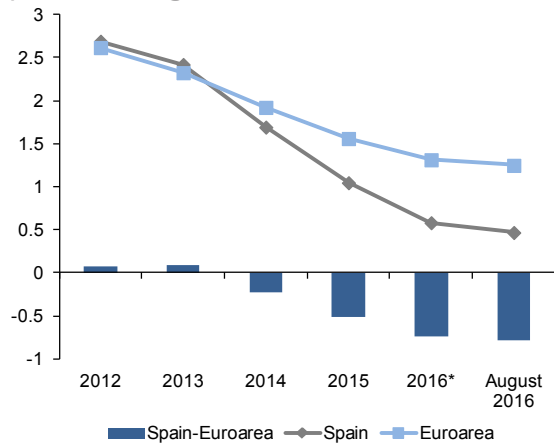
Exhibit 7

Deposit (with agreed maturity) interest rates (Percentages)

a) New business



b) Outstanding amounts



Note: * 2016 average January-August.
Source: ECB.

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Deposit interest rates: The new negative rate scenario

The evolution and level of the bank margin depends on the interest rate on both loans and

deposits. In the latter case, as shown in Exhibit 7, Spain stands out in the European context due to the low interest rates on time deposits both for new deposits and for the average interest on outstanding stock. In both cases, the divergence

from the European average has increased in the period under analysis, reaching 20 bp in August 2016 on new deposits attracted and 78 bp on stock. The greater intensity of the fall in the interest rate in Spain for new deposits attracted has created a gap with respect to the euro area in terms of average interest on deposits.

The most recent information for August 2016 (Exhibit 8) puts the interest rate of new deposits attracted in Spain at 0.17% compared with 0.37% in the euro area, making it the country with the third-lowest interest, followed only by Germany (0.16%) and Ireland (0.11%). In the case of the outstanding balance, the interest rate in Spain (0.47%) is the second lowest in the euro area (1.25%).

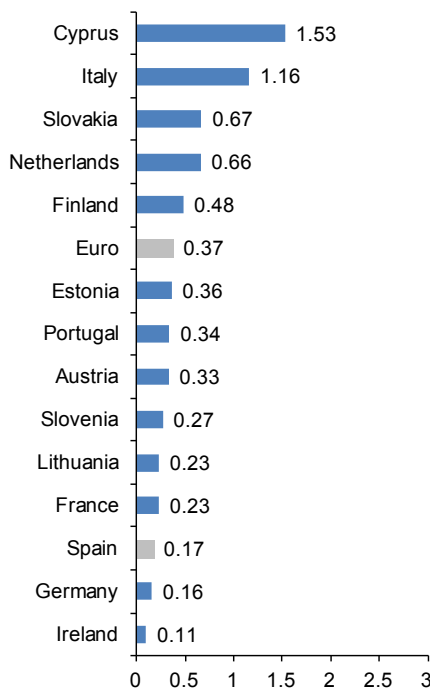
But this aggregate information for households and companies masks important differences in interest rates for time deposits (Exhibit 9). Thus, in the case of companies, there are three countries in the euro area where the interest rate is negative, as the banks have transferred to companies the 0.4% penalty applied to them by the ECB for the marginal deposit facility and for reserves in excess of the reserve requirement. This is the case of Belgium, the Netherlands and Germany. In Spain, the interest on companies' deposits attracted in August 2016 is 0.18%, almost the same as the European average (0.16%).

In the case of households, interest rates for new time deposits are higher than those of companies

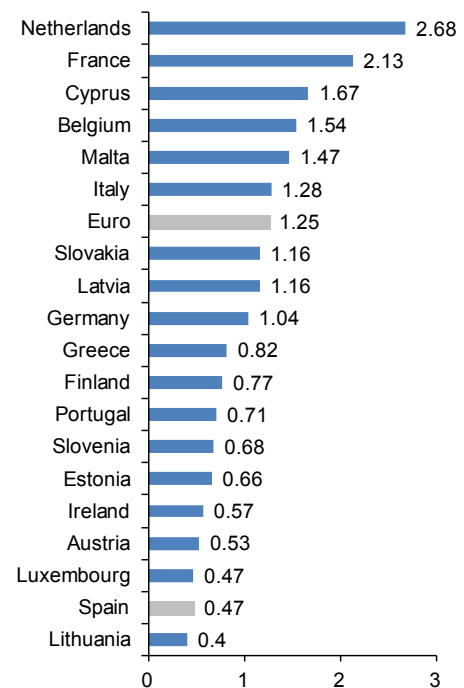
Exhibit 8

Deposit (with agreed maturity) interest rates in the Euro area countries. August 2016. (Percentages)

a) New business



b) Outstanding amounts



Source: ECB.

and in no country have they fallen below 0% (the lowest interest is 0.14% in Ireland). Thus, for the euro-area average, the rate applied in August was 0.54% on deposits of households, which is three times the average of companies (0.16%). Spain is the country in the EMU with the second lowest interest for households' deposits, with a rate of 0.17%, as compared with 0.54% in the euro area.

It should be noted that households' deposits are more important in terms of quantity³ and that there is a psychological barrier of 0% that could be hugely damaging to the main source of banks' funding if households opt to keep that wealth in

cash if the banks charge them for having deposits. If negative rates were to be applied to households' deposits, it could produce a clear disintermediation that would affect financial stability.

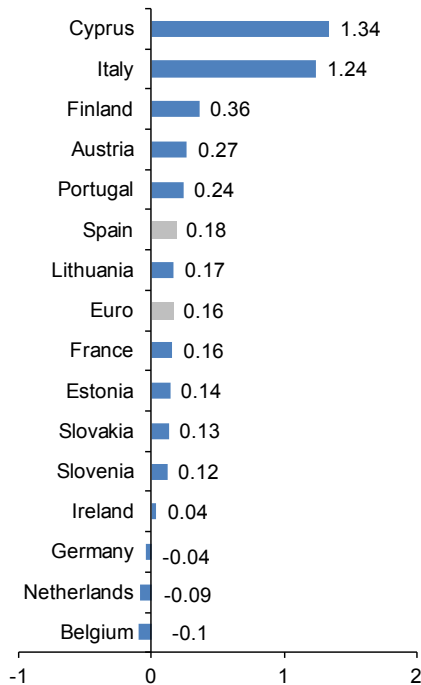
Interest rates and bank margins

As mentioned in the introduction, there is currently a debate as to the possible harmful effects that a prolonged period of low or even negative interest rates could have on financial stability. Therefore, while on one hand these low rates stimulate demand (by reducing the cost of financing), on the other hand

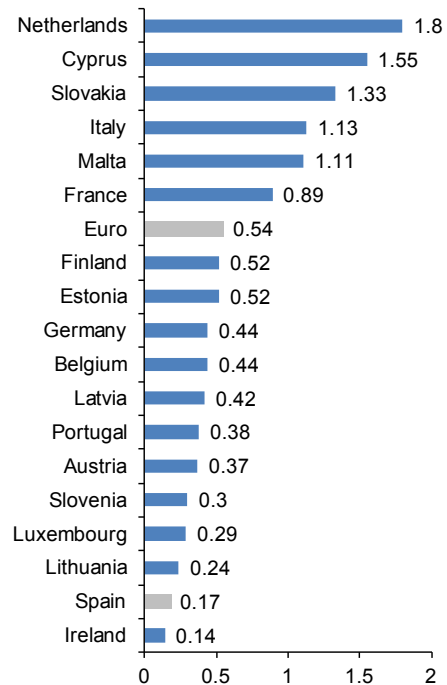
Exhibit 9

Deposit (with agreed maturity) interest rates in the Euro area countries. New business. August 2016 (Percentages)

a) Non-financial corporations



b) Households



Source: ECB.

³ For the euro-area average, deposits of the domestic economy sector account for 57.1% of the total private sector, deposits from companies 18.3%, interbank deposits 16.5% and deposits from insurance companies and pension funds 5.1%.

they might impair banks' profitability if the net interest margin decreases with the fall in interest rates.

So far, empirical evidence on this matter is limited, as the scenario of such reduced or even negative rates has appeared only very recently. Particularly noteworthy is the work of Borio *et al.* (2015), Claessens *et al.* (2016) and Cruz-García *et al.* (2016) analysing the impact of monetary policy on margins. In all three cases, the result is the same: the effect of a change in interest rates is not linear but rather there is a quadratic relationship with the net interest margin. This result implies that the impact of a change in interest rates is greater in a low rate scenario, as at present, than in a high rate situation.⁴

Using the estimates in the work of Cruz-García *et al.* (2016), Exhibit 10 shows the impact of a 100 bp change in 12-month Euribor on the net interest margin. As can be seen, an increase in Euribor increases the net interest margin to a level of around 8%-9%, and from then on the impact is negative. Moreover, the impact of the increase in the margin is much higher when the interest rate is

low. For example, an increase in Euribor from 1% to 2% means a 37 bp increase in the net interest margin, while the increase is 21 bp when Euribor rise from 4% to 5%. The fact that for high levels of Euribor the impact of a rise is negative may be because the quantity effect (the demand for credit falls with the rise in rates) dominates the price effect (higher financial revenues). Furthermore, with very high rates, the investment projects that can access these rates are riskier, which can reduce interest income if there is a rise in NPLs.

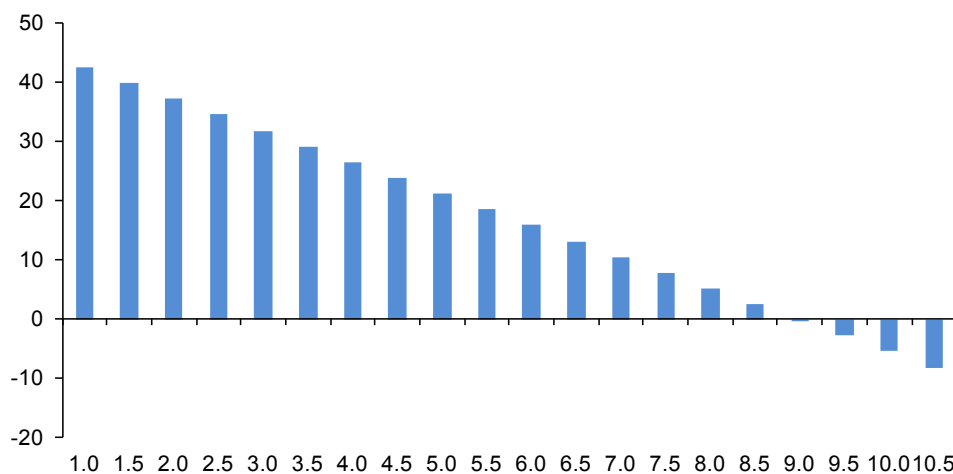
The above results show that in the current scenario of negative interest rates in the interbank market,

If the ECB were to further penalize banks' excess liquidity with negative rates, this would have a detrimental effect on banks' profitability, as the net interest margin would be reduced further.

a rise would have very beneficial effects on the margin and thus on bank profitability. Similarly, if

Exhibit 10

Effect of a 100 bp change in Euribor on the net interest margin for various interest rate levels (Percentages)



Sources: Cruz-García, Fernández and Maudos (2016) and Funcas.

⁴ In addition to those papers, the work of the Banco de España (2016) shows that the net interest margin improves when Euribor rises for low levels of Euribor but deteriorates for high levels of Euribor.

the ECB were to further penalize banks' excess liquidity with negative rates, this would have a detrimental effect on banks' profitability, as the net interest margin would be reduced further.

Conclusions and policy implications

Although the fall in interest rates seen in the euro area initially had a positive impact on bank margins applied to new loans, once interest rates reached very low levels, margins have fallen since 2014, although in Spain they are above 2012 levels. At present, the Spanish banks, when compared to European banks, set higher margins on loans to non-financial corporations but lower margins on loans to households for house purchase.

The evolution of margins obviously depends on that of the interest rates of loans and deposits. In the case of companies, Spanish banks charge higher rates on new loans, but the average income obtained by the outstanding balance of their loan portfolio is lower. In the case of households, the average rates are well below the average of the euro area, to the point that only two countries (Portugal and Finland) currently have an average interest income from mortgages lower than that of Spain. This reduced average income is influenced by the fact that a high percentage of loans have always been granted at a floating rate (therefore average income automatically decreases with the fall in Euribor) and that there are still millions of outstanding loans that were granted in the real estate/credit bubble with very narrow spreads with respect to Euribor. Thus, the greater the weighting of these mortgages in a bank, the lower its financial revenues at present and, therefore, its margin.⁵

Interest rates on time deposits in Spain have always been below the European average, both on average and on new business. Currently, the interest rate on new deposits is half that of the euro

area (0.17% vs. 0.37%), making Spain the country with the third-lowest rate. In outstanding balances, there is a greater divergence from the euro area (0.47% vs. 1.25%), with average interest on deposits higher only than Lithuania.

The sharp drop in interest rates in the markets and the growing penalty applied to banks from June 2014 by the ECB for excess liquidity explain why there are currently three countries in the euro area that charge companies for time deposits (Belgium, the Netherlands and Germany). In the case of households, in no country has the psychological barrier of 0% been crossed, which is highly unlikely to happen because of the severe consequences it would have on financial stability if households were to opt to keep their wealth in cash instead of in bank deposits.

Coinciding with the recent evidence showing the existence of a non-linear relationship between interest rates and the net interest margin, the simulation carried out in the study shows that a normalization of interest rates would have a positive effect on banks' profitability. But in the same way, this non-linear relationship means that to raise the current penalty on the euro-area banks for excess liquidity⁶ could be counterproductive for financial stability, given the negative impact on net interest income and, thus, on profitability, which is already reduced.

The latest 2016 data available show that the net interest margin in new loans is falling, which is a symptom of the consequences of Euribor being negative. The effect is already visible in banks' net interest margin in their business in Spain (affected by Euribor), which as a percentage of assets fell from 0.97% in 2015 to 0.92% in the first half of 2016. In this context, as indicated by the recent IMF financial stability report (2016b), European (and therefore Spanish) banks are facing the challenge of increasing their profitability, which

⁵ Loans for house purchase currently represent almost 20% of Spanish banks' total assets, as compared to 12.6% in the euro area.

⁶ At the end of September 2016, the euro-area banks had excess liquidity of almost one trillion euros consisting of the marginal deposit facility balance and reserves in excess of the reserve requirement.

requires improving efficiency (reducing costs and increasing income) and reducing the high volume of unproductive assets.

References

BANK OF SPAIN (2016), *Financial Stability Report*, May.

BORIO, C. E.; GAMBACORTA, L., and B. HOFMANN (2015), “The influence of monetary policy on bank profitability,” *BIS Working Papers*, 514.

CLAESSENS, S., COLEMAN, N., and M. DONNELLY (2016), “Low-for-long interest rates and net interest margins of banks in advanced foreign economies,” *IFDP Notes*.

CRUZ-GARCÍA, P.; FERNÁNDEZ DE GUEVARA, J., and J. MAUDOS (2016), “Interest rates and net interest margins: the impact of monetary policy”, paper presented at the 2016 Wolpertinger Conference of the European Association of University Teachers of Banking and Finance, Verona, Italy, 31st August - 3rd September.

EUROPEAN CENTRAL BANK (2016), *Annual Report*.

INTERNATIONAL MONETARY FUND (2016a), “Negative interest rate policy (NIRP): Implications for monetary transmission and bank profitability in the Euro Area,” in *Euro Area Policies Selected Issues*, *IMF Country Report* No. 16/220.

— (2016b), *Global financial stability report, Fostering Stability in a Low-Growth, Low-Rate Era*, October 2016.

Spain's regional economic outlook: On track for recovery amidst rising inequality

Raymond Torres and María Jesús Fernández¹

In line with the Spanish economy's overall performance, regional governments remain broadly on track to recovery. Nevertheless, growth across the regions is becoming increasingly uneven since the crisis, making it necessary for Spain's future reform agenda to launch specific measures to tackle regional imbalances.

The Spanish economy has experienced a vigorous recovery. Last year, GDP grew by 3.2%, in sharp contrast to the weak performance registered in the aftermath of the crisis. Latest available indicators suggest momentum has been maintained so far this year and growth for 2016 looks set to come in at 3.1%, close to double the European average, albeit slowing somewhat to 2.3% in 2017. At the regional level, activity indicators for the first half of 2016 confirm the recovery across all regions, although at distinct speeds. Fiscal consolidation has also broadly improved in the first eight months of 2016, stemming from increased revenues and lower spending. Despite the favourable regional outlook, however, disparities across the regions since the crisis are intensifying, with implications for productivity, ageing population, and unemployment levels. Public policy should take into consideration measures to reduce regional inequalities, such as well-designed investment and redistribution policies, as well as to correct deficiencies in some regions' education levels.

Recent developments

All regions are now on the path to recovery, albeit with some performing better than others. Catalonia, Valencia and Madrid were the fastest growing regions in 2015, while Aragon, Canary Islands, Cantabria, Castile-Leon, Navarre and La Rioja lagged behind. Andalusia, Asturias, the Balearic Islands, Castile-La Mancha, Extremadura, Galicia, Murcia and the Basque Country all grew in line with the national average.

According to Funcas' Synthetic Activity Indicators, the regional recovery held steady during the first half of the year. Valencia and Madrid look to have registered especially robust

growth. But the indicators are less positive for Asturias, Cantabria, Castile-Leon and La Rioja, all of which may have grown more slowly than the economy as a whole.

Industry, construction and market services (including tourism) were the sectors driving the recovery in nearly all regions, with agriculture generally rather weak.

Services grew fastest in the first half of the year, especially in regions with a significant tourism component to their GDP, such as Valencia, the Balearic Islands, Murcia and – to a lesser degree – the Canary Islands. Galicia also saw very positive growth in tourism.

¹ Economic Trends and Statistics Department, Funcas.

Industrial activity was strongest in Castile-Leon, followed by Murcia. Meanwhile the Basque Country led the way in construction, followed to a lesser degree by Catalonia and Navarre. Overall, residential construction activity showed signs of picking up – particularly in Madrid, Catalonia and the Basque Country – but public works contracted, most notably in Aragon.

Regional labour market developments mirrored economic growth with unemployment falling in almost all regions. The only exception was Asturias, where the unemployment rate in the first three quarters remained broadly unchanged relative to the same period last year. There was also barely any decline in unemployment in Navarre.

According to *Labour Force Survey* (LFS) data, Murcia, the Balearic Islands and the Canary Islands led the way in terms of job creation during the first half of the year. However, employment increased least rapidly in La Rioja, Madrid and Cantabria, and even fell in Navarre. The latter conflicts – as is sometimes the case – with social security

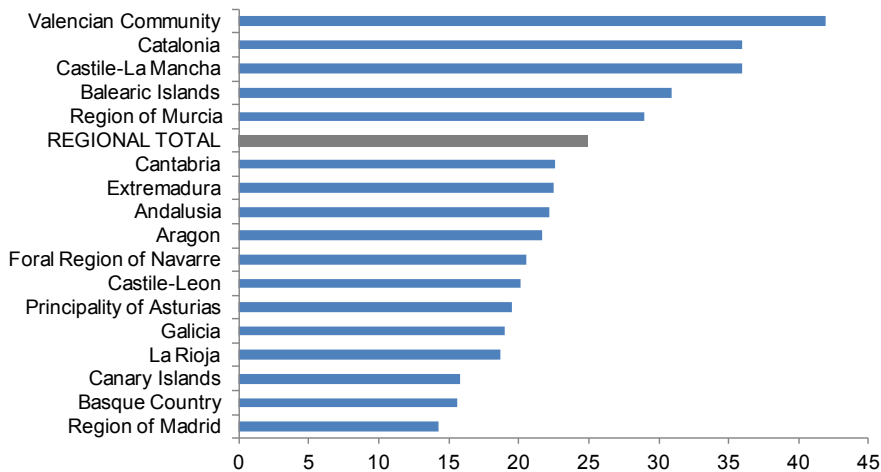
registrations data to September. These reported an increase in employment in Navarre in line with the national average and a slight outperformance in the case of Madrid.

Progress in terms of the public deficit has been more varied. The regions' overall deficit barely changed last year, remaining at 1.7% of GDP. However, the deficit declined by 0.7 percentage points during the first eight months of 2016. Andalusia, the Canary Islands and Valencia registered the largest consolidation. Only Cantabria reported an increase in its deficit. Regional deficit consolidation has stemmed from both an increase in revenues, largely due to the favourable adjustment relating to the 2014 financing round, and lower spending.

Overall, regional indebtedness rose to 24.9% of GDP (Exhibit 1) in the second quarter, representing a 1.2 percentage point increase relative to the year before. The most indebted regions are Valencia, Catalonia and Castile-La Mancha, while Madrid, the Basque Country and the Canary Islands have the lowest levels of debt. Debt rose most

Exhibit 1

Public debt in Q216
(% of GDP)



Source: Bank of Spain.

sharply in Catalonia and Extremadura during the first six months of the year, while the Canary Islands was the best performer, managing to keep debt levels unchanged in contrast to all other

Overall, regional indebtedness rose to 24.9% of GDP in the second quarter of 2016, representing a 1.2 percentage point increase relative to the year before, with nearly a half of regional debt owed to the State.

regions. Nearly a half of all regional debt is owed to the State. Murcia and Valencia owe 71% of their total debt to the state, compared to Madrid which has just 6.6% of its debt with the state.

Forecasts for 2016 and 2017

National economic growth is set to ease, with some indicators of demand, production and

employment already pointing to deceleration. Overall, the Spanish economy could grow by 3.1% in 2016 and 2.3% in 2017. The Balearic Islands, Catalonia, Castile-La Mancha, Valencia, Galicia, Madrid, the Basque Country and to a lesser extent Aragon and Navarre should see above average growth during the forecast period (Maps 1a and 1b).

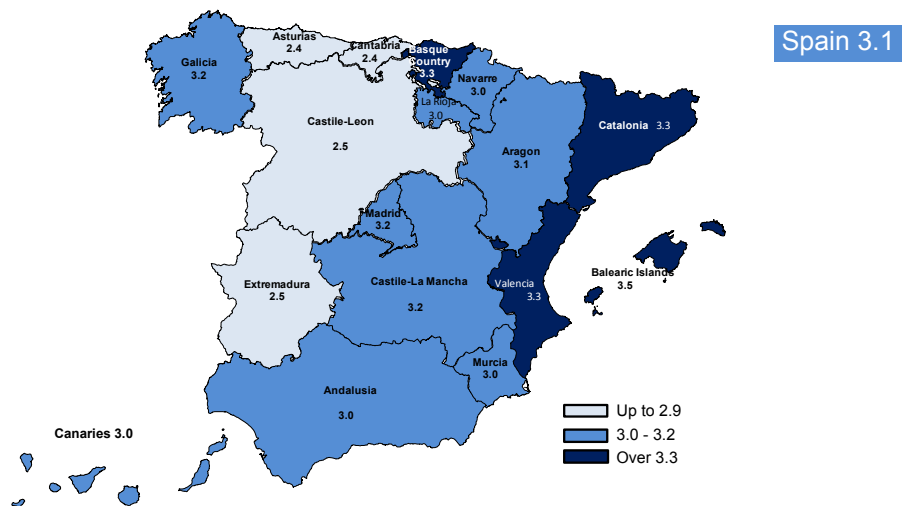
These regions are either especially benefiting from tourism (Mediterranean regions) or have successfully diversified their productive structure (Ebro axis, Madrid and neighbouring regions,

Successful diversification of productive structures is a key factor explaining persistent disparities across regions.

as well as urban areas of Galicia). Indeed, diversification is a key factor explaining the persistent disparities across regions (Exhibit 2).

Map 1a

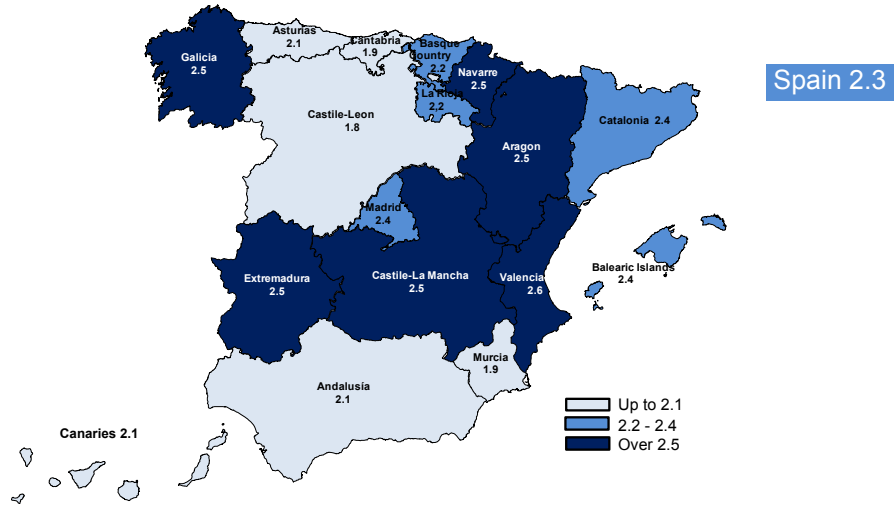
GDP forecasts for 2016 (% annual change at constant prices)



Source: Funcas.

Map 1b

GDP forecasts for 2017
(% annual change at constant prices)



Vol. 5, N.º 6 (November 2016)

Source: Funcas.

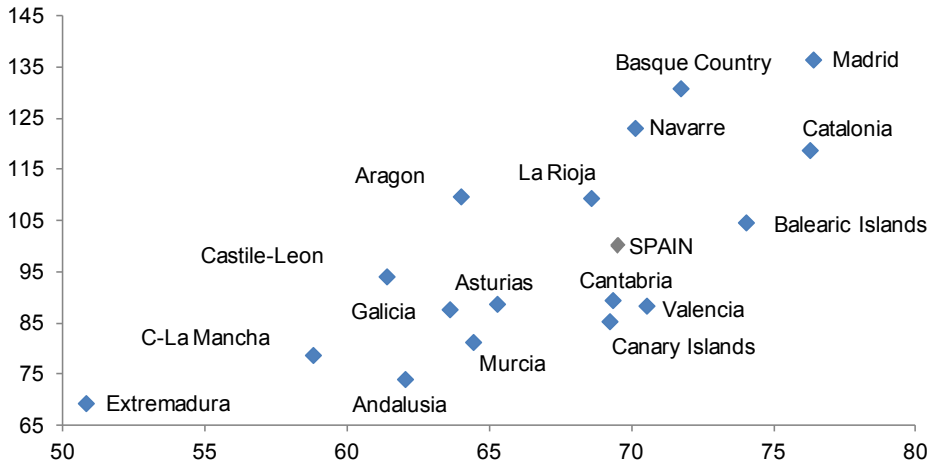
By contrast, Asturias, Cantabria, Castile-Leon and Extremadura look set to be the least dynamic.

These regions are struggling to take advantage of the upswing in exports. This is partly due to

Exhibit 2

Regional inequality is closely linked to economic diversification

GDP per capita in 2015 (Spain=100), vertical axis; Industrial and market services as a percentage share of total GDP in 2015, horizontal axis



Source: INE.

SEFO - Spanish Economic and Financial Outlook

location with some being relatively regional, or having an industrial structure particularly affected by the crisis. Moreover, these regions tend to suffer from population loss.

Finally, Andalusia, the Canary Islands and Murcia are likely to be in the middle, with slightly below national average growth rates forecast for 2016 and 2017.

LFS employment growth should be strongest over 2016-17 in the Balearic Islands, the Canary Islands and Murcia. Extremadura, Madrid and Castile-Leon will likely register the weakest rates of job creation. Navarre is set to be the only region with an average annual unemployment rate below 10% in 2017; whereas unemployment may well remain over 20% in Andalusia, the Canary Islands, Castile-La Mancha and Extremadura. Broadly speaking, the decline in the active population means unemployment will fall more rapidly than corresponding increases in employment, except in Valencia and the Balearic Islands (Maps 2a and 2b).

Regional disparities since the crisis

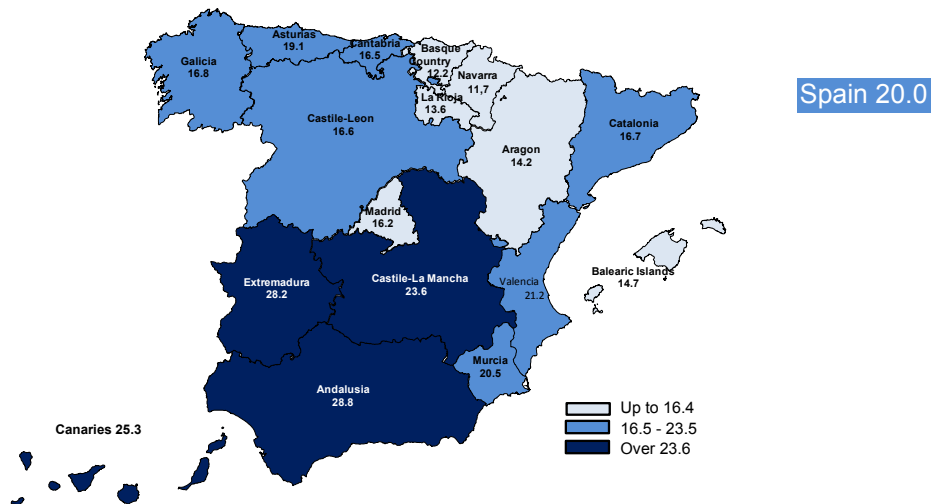
The disparities between regions are intensifying (Table 1), especially when viewed from the perspective of an entire cycle - expansion (2000-2007), recession (2008-2013) and recovery (2014 onwards).

During the upswing, average annual growth in GDP per capita of the least well off regions reached 2.1% p.a., 0.4 percentage points above more prosperous regions. However, this convergence process reversed during the core crisis years. As such, from 2008-2013, GDP per capita of deprived regions fell by half a percentage point more than more prosperous regions. And this gap has been sustained during the current recovery.

Furthermore, regions with lower income per capita are lagging behind in terms of productivity and are losing population (Exhibit 3). Since 2014 productivity growth in these regions has dropped

Map 2a

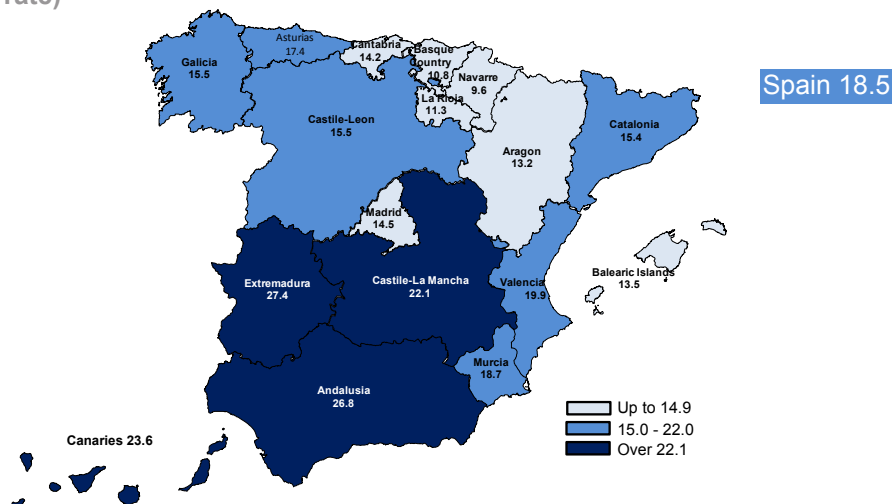
Unemployment rate forecasts for 2016 (% unemployment rate)



Source: Funcas.

Map 2b

Unemployment rate forecasts for 2017 (% unemployment rate)



Source: Funcas.

36 from above average growth rates to close to the national average. Meanwhile, their working

The significant deficiencies in education levels are probably another one of the factors behind poorer regions' lower productivity levels.

age population has shrunk in contrast to more prosperous regions where the population has held steady.

Furthermore, there is a very strong relationship between GDP per capita and the education levels of the active population (Exhibit 4). The poorest regions – Andalusia, Extremadura and Castile-La Mancha – are also those which have the largest percentage of their active population with lower than full secondary level education. The richest regions – Madrid, Basque Country and Navarre – have better educated active populations. The significant deficiencies in education levels are probably another one of the factors behind poorer regions' lower productivity levels, in addition to their less diversified productive structures.

Table 1

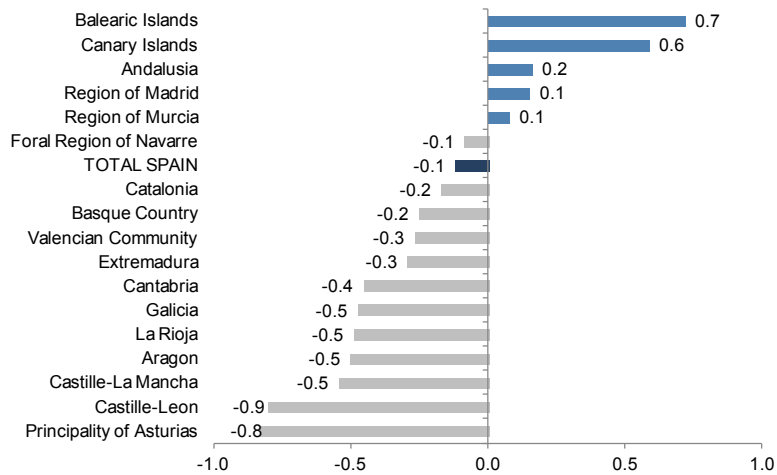
Evolution of regions by level of GDP per capita (Annual percentage change)

| | Growth in GDP per capita | | | Productivity growth | | | Working age population growth | | |
|-------------------------|--------------------------|---------|---------|---------------------|---------|---------|-------------------------------|---------|---------|
| | 2001-07 | 2008-13 | 2014-16 | 2001-07 | 2008-13 | 2014-16 | 2001-07 | 2008-13 | 2014-16 |
| Group A: Richer regions | 1.71 | -1.54 | 2.67 | 0.16 | 1.53 | 0.38 | 1.87 | 0.28 | -0.04 |
| Group B: Poorer regions | 2.11 | -2.02 | 2.67 | -0.10 | 1.79 | 0.32 | 1.66 | 0.38 | -0.19 |
| TOTAL SPAIN | 1.96 | -1.78 | 2.66 | 0.02 | 1.69 | 0.35 | 1.71 | 0.35 | -0.12 |

Note: (*) Group A: Weighted average of regions with above average GDP per capita. Group B: remaining regions.
Source: INE (Spain Regional Accounting and LFS).

Exhibit 3

Growth of working age population 2014-2016
(Annual average change)



Source: INE.

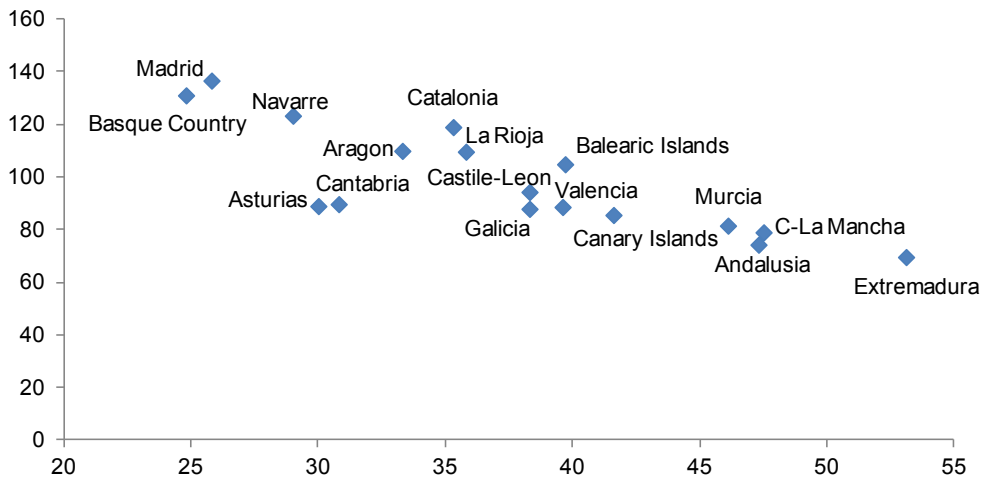
Likewise, regional differences in terms of employment have also become more notable. Prior to the start of the crisis, in 2007, the highest unemployment rate was 13% (Extremadura) and the lowest was 4.7% (Navarre) – a difference of 8.3 percentage

points. Meanwhile in 2016, five regions registered unemployment rates in excess of 25% (Andalusia, the Canary Islands, Extremadura, Ceuta y Melilla), with another five below 15% (Aragon, the Balearic Islands, Navarre, the Basque Country and La Rioja).

Exhibit 4

Close relationship between economic development and workforce training

GDP per capita (Spain=100), vertical axis; percentage of active population with education below full secondary level, horizontal axis



Source: INE.

Spain is not alone in facing increasing spatial inequality. According to the OECD, regional divergences have widened during the last two decades in the majority of developed

Spain is not alone in facing increasing spatial inequality. According to the OECD, regional divergences have widened during the last two decades in the majority of developed economies.

economies. Productivity is rising more rapidly in more prosperous areas, while deprived regions are struggling to make the same progress. Nonetheless, there are exceptions to this pattern, indicating that there is still potential for public policy to play a role in addressing these disparities.

Implications for public policy

Mitigating regional disparities is one of the most complex tasks facing public policy. Economic growth is helpful insofar as it provides resources for measures to support investment and employment, but it is not sufficient. This is underlined by the significant increase in inequality that took place in Spain and other European countries since the crisis and into the recovery period. Moreover, more recently, growth has tended to focus on regions already showing high productivity, leaving poorer regions struggling to keep up.

A strategy is required to address these imbalances without harming the progress of more dynamic regions. International experience suggests two types of action could be especially pertinent. Firstly, nuanced investment policies that promote development in less productive regions – by strengthening their business fabric – while supporting infrastructure in more dynamic regions to avoid possible bottlenecks. Investment in large scale infrastructure in poor regions usually has only a minor effect on productivity differentials.

Secondly, a properly designed redistribution policy is needed to support individuals on lower incomes, improve education and encourage labour market participation.

These results could inspire future reforms in Spain. In this regard, regional financing could make a greater distinction between income redistribution and policies aimed at promoting economic development in different regions.

Improving the design of the different mechanisms for equality and tax responsibility would also be a welcome step forward. Redistribution should involve a substantial overhaul of active labour market policies, which would require new equality criteria. The focus for economic development policy should be on stimulating investment projects that meet the demands of each individual region. Corresponding tax responsibilities could be helpful in this regard, as has shown to be the case in Federal states such as Germany or Canada.

Finally, urgent and determined action is needed in education. It is vital that policy be put in place to correct the significant deficiencies in education levels of the population in less developed regions, given the role an educated workforce plays in productivity, salary levels and the economic activities that can be developed within a region.

Overall, the increasing level of regional inequality poses a significant challenge for national cohesion. Economic growth by itself is insufficient. meaning specific action will be required to boost investment potential and employability in the most deprived regions, at the same time as maintaining dynamism in the rest of the country.

References

BARTOLINI, D.; STOSSBERG, S., and H. BLÖCHLIGER (2016), "Fiscal decentralisation and regional disparities," OECD Economics Department *Working Papers*, n° 1330, Paris.

CRISCUOLO, C. (2015), "Productivity is soaring at top firms and sluggish everywhere else," *Harvard Business Review*, August (<https://hbr.org/2015/08/productivity-is-soaring-at-top-firms-and-sluggish-everywhere-else>).

OECD (2016), *OECD Regional Outlook 2016*, Paris.

TORRES, R., and M. J. FERNÁNDEZ (2016), "The economic recovery: Short-term outlook and principal challenges," *Spanish Economic and Financial Outlook (SEFO)*, (5), September: 5-19.

The World Bank's *Doing Business in Spain 2015* report: Analysis and main conclusions

Ramon Xifré¹

The World Bank's recent report *Doing Business in Spain 2015* reveals significant differences in regional regulations affecting business activity. While there may be some limitations to estimating the impact of the reports' findings on economic variables, the study still highlights the need to further improve business regulation across all of Spain's regions.

This article presents the key results of the Doing Business in Spain 2015 report concerning the business regulations affecting SMEs and analyses them in relation to variables representative of regional economic activity in Spain. The key findings of the report reveal significant differences across the regions in terms of regulations affecting business activity. On aggregate, the best performing region is La Rioja, followed by Madrid, while the worst-and second-worst ranked regions are Galicia and Aragon, respectively. Although it is important to point out that some of the regions towards the bottom of the overall ranking still fare relatively well on certain indicators. Analysis of the reports' results, however, suggests that several of the scores achieved are not as statistically significant as anticipated as regards their impact on key economic variables. In any event, the study's limitations do not detract from the importance of making further progress on reforms aimed at improving the regulatory climate for doing business in Spain's regions as a means to facilitate business creation and development.

Regulations that affect business activity are one of the few remaining economic-policy areas over which the eurozone's governments still have discretionary power. Monetary policy falls exclusively within the European Central Bank's remit and fiscal policy has ceased to be an area over which governments have absolute decision-making power on account of the limits and constraints imposed by the eurozone's economic policy-makers. It is natural therefore for governments, at their various levels, to focus their attention on regulating businesses' activities.

In addition, in the specific case of Spain, as recently noted in SEFO (2016), the gap between the richest and poorest regions is set to widen in 2016. The widening of this gap is attributable, in part, to the fact that the best-positioned regions have economic structures dominated by specific sectors and industries that are more oriented towards servicing foreign demand (automotive, food industry and tourism, for example).

The concern prompted by this regional divergence in certain social, economic and political spheres

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can inevitably lead to questions regarding regional regulations and, in particular, their heterogeneity. To what extent are regulatory differences in Spain responsible for the fact that its regions face different economic realities and outlooks? Is Spain the victim of “regulatory races”² that are harming the general interest? Do some regional governments introduce disproportionate regulatory barriers in an attempt to protect their local markets and companies?

It is possible that questions such as these prompted the Spanish government to ask the World Bank to compile the *Doing Business* report on regional business regulations in Spain published in 2015 (World Bank, 2015; hereinafter, DBS2015). The goal of this paper is to outline the key results of that report and analyse them in relation to variables deemed representative of regional economic activity in Spain. This paper does not purport to provide answers to the questions raised above but does express certain opinions aimed at helping the reader assess to what extent the DBS2015 can do so.

Background and the *Doing Business* report’s methodology

According to the report itself, DBS2015 “analyses business regulations from the point of view of small and medium-size enterprises. The assumption is that both the regulations and business climate have a significant impact on a country’s economic activity.

If laws and regulations are clear, accessible and transparent – and enforceable in a court of law – entrepreneurs can devote more time to productive activities. They will also feel more confident doing business with people they do not know, expanding their client and supplier networks and helping their businesses grow.”

Using the methodology customarily deployed in this kind of report at the state level, business regulations are studied by choosing some of the key stages in the life of a business and asking a

According to the report itself, “If laws and regulations are clear, accessible and transparent –and enforceable in a court of law– entrepreneurs can devote more time to productive activities.... helping their businesses grow.”

series of local experts their opinion on the aspects studied. In the World Bank’s regular reports on national regulations, 10 areas are systematically studied,³ while others are analysed on an occasional basis.⁴ The DBS2015 report provides information on just four of these: starting a business, dealing with construction permits, getting electricity and registering property. These four areas of interaction with regulatory processes were selected because they cover areas of regional or local jurisdiction or practice.

The report studies business regulations in each ‘autonomous community’, using as its proxy the regulations applied in each region’s most populated city. The scope of the study therefore encompasses the 17 regional governments (represented by 17 cities) and the two ‘autonomous cities’ (Ceuta and Melilla). For each indicator, the results correspond to the concept known in the *Doing Business* studies as the ‘distance to the frontier’ (DTF). A region’s distance to the frontier is indicated on a scale from 0 to 100, where 0 represents the lowest performance and 100 the

² Processes in which, theoretically, different jurisdictions compete with each other to relax their business regulations in an attempt to attract companies to their regions.

³ The areas studied generally in reports that are national in scope are: starting a business; dealing with construction permits; getting electricity; registering property; getting credit; protecting minority investors; paying taxes; trading across borders; enforcing contracts; and, resolving insolvency.

⁴ Namely, labour market regulations and selling to the government.

best global practice, or the 'frontier', in each area of analysis (Sánchez-Bella, 2015 and Lobet, 2015).

In addition, in the case of the ports of Algeciras, Barcelona, Bilbao, Valencia and Vigo, the report studies the time, cost and number of documents needed to import or export across borders.

The DBS2015 report states that it based its findings on the individual questionnaires obtained

from over 350 local experts from the private sector (including notaries, property registrars, experts in government dealings, lawyers, architects, engineers, professional associations, customs agents, freight forwarders, logistics companies, port operators, utility providers, construction companies, consultants and independent professionals) and that more than 400 public officials from all government levels also participated in the data collection process.

The study was requested by the Ministry of

Table 1

Key results of the DBS2015 by region

| | Overall score (*) | Starting a business | Dealing with construction permits | Getting electricity | Registering property |
|-------------------------------|-------------------|---------------------|-----------------------------------|---------------------|----------------------|
| La Rioja | 72.1 | 83.1 | 79.2 | 55.1 | 71.2 |
| Madrid | 71.8 | 86.3 | 63.4 | 63.9 | 73.5 |
| Navarre | 71.6 | 77.2 | 68.6 | 67.7 | 73.1 |
| Valencian Community | 71.1 | 83.6 | 74.1 | 62.9 | 63.9 |
| Extremadura | 71.0 | 83.4 | 74.8 | 61.3 | 64.5 |
| Catalonia | 70.7 | 82.0 | 67.1 | 69.5 | 64.4 |
| Asturias | 70.3 | 83.6 | 74.8 | 58.8 | 64.1 |
| Basque Country | 69.8 | 81.2 | 62.1 | 65.1 | 70.7 |
| Castile-La Mancha | 69.3 | 81.5 | 71.8 | 55.2 | 68.7 |
| Cantabria | 69.0 | 85.9 | 67.3 | 57.3 | 65.6 |
| Castile and Leon | 69.0 | 81.2 | 72.5 | 57.4 | 64.9 |
| Canary Islands | 68.9 | 82.1 | 73.6 | 48.1 | 72.0 |
| Melilla | 68.7 | 78.9 | 69.4 | 51.4 | 75.2 |
| Andalusia | 68.3 | 86.5 | 66.1 | 54.5 | 66.1 |
| Balearic Islands | 67.9 | 81.8 | 59.4 | 64.9 | 65.6 |
| Murcia | 66.4 | 81.7 | 62.1 | 53.6 | 68.3 |
| Ceuta | 66.4 | 77.9 | 66.7 | 45.5 | 75.6 |
| Aragon | 66.1 | 81.2 | 60.0 | 52.1 | 70.9 |
| Galicia | 62.1 | 80.8 | 49.9 | 54.5 | 63.3 |
| Descriptive statistics | | | | | |
| <i>Lowest score</i> | 62.1 | 77.2 | 49.9 | 45.5 | 63.3 |
| <i>Highest score</i> | 72.1 | 86.5 | 79.2 | 69.5 | 75.6 |
| Average | 69.0 | 82.1 | 67.5 | 57.8 | 68.5 |
| Mode | 69.0 | 81.8 | 67.3 | 57.3 | 68.3 |
| Standard deviation | 2.5 | 2.5 | 7.0 | 6.6 | 4.1 |

Note (*): The overall score is not shown in the original report and is provided here as an average of the scores obtained along the four dimensions analysed.

Source: Doing Business in Spain 2015.

Economy and Competitiveness of Spain and financed by ICEX Spain Trade and Investment with funds from the European Regional Development Fund of the European Union.

Doing Business in Spain 2015: Main findings

The key findings of the DBS2015 report are presented in Table 1, in which the regions are presented in order from the highest- to the lowest-scoring regions (overall scores).

As the table shows, using the aggregate score for ease of doing business, the best-performing

region is La Rioja, followed by the Community of Madrid, while the worst- and second-worst ranked regions are Galicia and Aragon, respectively. As

Using the aggregate score for ease of doing business, the best-performing region is La Rioja, followed by the Community of Madrid, while the worst- and second-worst ranked regions are Galicia and Aragon, respectively.

illustrated by the descriptive statistics provided in Table 1, there are significant differences in regulatory

Table 2

Starting an industrial SME by region

| | Rank | Procedures (number) | Time (days) | Cost (% of income per capita) |
|---------------------|------|---------------------|-------------|-------------------------------|
| Canary Islands | 1 | 5 | 63 | 1.6 |
| Balearic Islands | 2 | 5 | 68 | 4.9 |
| Galicia | 3 | 6 | 64 | 4.0 |
| Navarre | 4 | 4 | 121 | 13.1 |
| Castile and Leon | 5 | 6 | 62 | 8.7 |
| Asturias | 6 | 6 | 119 | 4.1 |
| La Rioja | 7 | 7 | 83 | 3.0 |
| Valencian Community | 8 | 6 | 161 | 3.6 |
| Madrid | 9 | 6 | 80 | 13.2 |
| Cantabria | 10 | 6 | 190 | 3.2 |
| Extremadura | 11 | 6 | 187 | 3.7 |
| Melilla | 12 | 7 | 82 | 8.5 |
| Castile-La Mancha | 13 | 7 | 91 | 9.0 |
| Andalusia | 14 | 7 | 168 | 1.2 |
| Ceuta | 15 | 7 | 201 | 1.7 |
| Aragon | 16 | 7 | 137 | 8.6 |
| Catalonia | 17 | 6 | 118 | 20.1 |
| Basque Country | 18 | 7 | 104 | 19.0 |
| Murcia | 19 | 7 | 248 | 9.3 |

Note : As per the report: "Data for Starting an industrial SME have been collected only for Doing Business in Spain 2015. This area of research is not a standard Doing Business indicator and the data are not comparable at an international level. The aggregate ranking for Doing Business in Spain 2015 does not include this data."

Source: Doing Business in Spain 2015.

Table 3

Ease of import/export indicators for trading across the main Spanish ports

| | Exports | | | Imports | | |
|-----------|--------------------|-------------|-------------|--------------------|-------------|-------------|
| | Documents (number) | Time (days) | Cost (US\$) | Documents (number) | Time (days) | Cost (US\$) |
| Algeciras | 4 | 10 | 2,097 | 4 | 9 | 2,163 |
| Barcelona | 4 | 10 | 2,199 | 4 | 9 | 2,266 |
| Bilbao | 5 | 10 | 1,885 | 5 | 9 | 1,920 |
| Valencia | 4 | 10 | 1,369 | 4 | 9 | 1,437 |
| Vigo | 5 | 10 | 2,115 | 5 | 9 | 2,170 |

Source: *Doing Business in Spain 2015*.

efficiency, measured using standard deviations, for each of the four indicators, the differences being very pronounced in the cases of dealing with construction permits and getting electricity.

In addition, as noted by Sánchez-Bella (2015), with the exception of dealing with construction permits, all of the regions fall below the European Union average and none ranks in the top quartile in terms of its overall score. And, as noted by Lobet (2015), some of the regions towards the bottom of the overall ranking fare relatively well on certain indicators. For example,

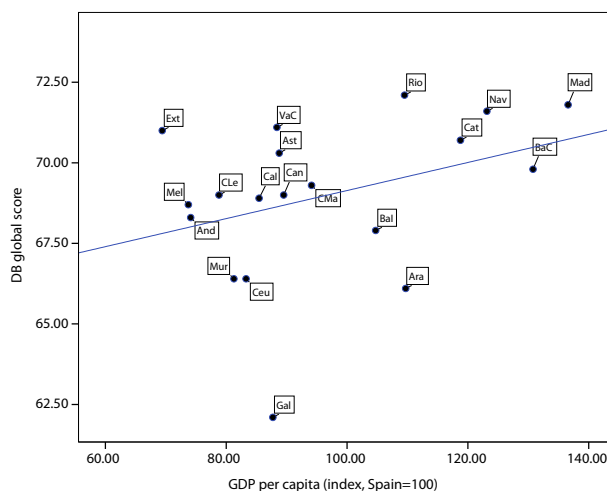
Ceuta, which ranks #15 (out of 19) on the overall ranking but number one on property registration. Similarly, Andalusia, ranked #14 overall, is the best-performing region for starting a business.

The report also provides indicators regarding the ease of starting an industrial SME, which are presented in Table 2.

The study is rounded out with a comparison of the different requirements for importing or exporting goods through Spain's five main ports; these are shown in Table 3.

Exhibit 1

Regional GDP per capita (indexed to Spanish GDP = 100) overall DBS2015 score



Sources: *Doing Business*, *INE* (Spanish Regional Accounts) and *author*.

Table 4

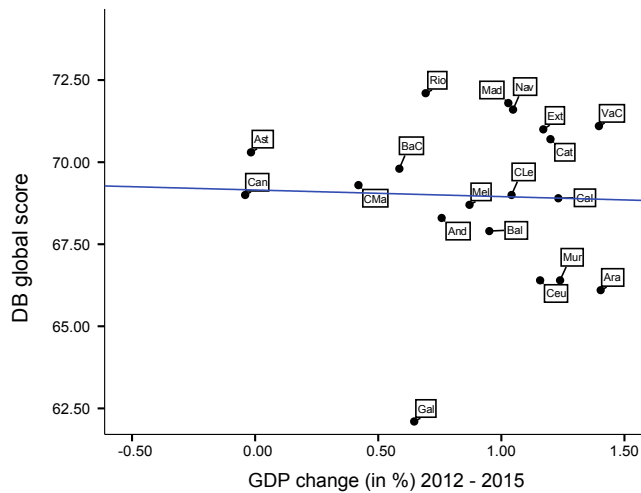
GDP per capita (in euros) and GDP variation by region (Percentage)

| | GDP per capita in 2015, euros | GDP per capita in 2015; Spanish GDP =100 | Change in GDP 2012-2013 | Change in GDP 2013-2014 | Change in GDP 2014-2015 | Average change in GDP 2012-2015 |
|---------------------|-------------------------------|--|-------------------------|-------------------------|-------------------------|---------------------------------|
| Andalusia | 17,263 | 74.1 | -1.9 | 1.0 | 3.2 | 0.8 |
| Aragon | 25,552 | 109.7 | 0.0 | 1.4 | 2.7 | 1.4 |
| Asturias | 20,675 | 88.8 | -3.6 | 0.5 | 3.1 | 0.0 |
| Balearic Islands | 24,394 | 104.7 | -1.6 | 1.2 | 3.2 | 1.0 |
| Canary Islands | 19,900 | 85.4 | -0.8 | 1.7 | 2.8 | 1.2 |
| Cantabria | 20,847 | 89.5 | -3.7 | 1.0 | 2.6 | 0.0 |
| Castile and Leon | 21,922 | 94.1 | -2.6 | 1.0 | 2.9 | 0.4 |
| Castile la Mancha | 18,354 | 78.8 | -0.4 | 0.3 | 3.2 | 1.0 |
| Catalonia | 27,663 | 118.8 | -1.4 | 1.6 | 3.3 | 1.2 |
| Valencian Community | 20,586 | 88.4 | -1.3 | 1.9 | 3.6 | 1.4 |
| Extremadura | 16,166 | 69.4 | -0.8 | 1.3 | 3.0 | 1.2 |
| Galicia | 20,431 | 87.7 | -1.6 | 0.4 | 3.2 | 0.6 |
| Madrid | 31,812 | 136.6 | -1.9 | 1.6 | 3.4 | 1.0 |
| Murcia | 18,929 | 81.3 | -1.2 | 1.8 | 3.1 | 1.2 |
| Navarre | 28,682 | 123.2 | -1.4 | 1.6 | 2.9 | 1.0 |
| Basque Country | 30,459 | 130.8 | -2.7 | 1.3 | 3.1 | 0.6 |
| La Rioja | 25,507 | 109.5 | -2.7 | 2.0 | 2.8 | 0.7 |
| Ceuta | 19,399 | 83.3 | -0.2 | 0.7 | 3.0 | 1.2 |
| Melilla | 17,173 | 73.7 | -0.6 | 0.5 | 2.7 | 0.9 |

Source: INE (Spanish Regional Accounts – Base: 2010).

Exhibit 2

Regional GDP growth between 2012 and 2015 and overall DBS2015 score (Percentage)



Sources: Doing Business, INE (Spanish Regional Accounts) and author.

Analysis of the results

This section analyses the relationship (correlation) between some of the scores provided in the *Doing Business in Spain 2015* (DBS2015) report and certain regional economic indicators. By way of summary, Table 7 reports the correlations depicted in Exhibits 1 - 6.

Firstly, the overall DBS2015 score is correlated with two measures of regional economic development. Table 4 presents GDP per capita per region in 2015 in absolute terms (in euros) and as an index (relative to overall Spanish GDP, rebased to 100). It also provides the annual regional GDP growth figures for 2013, 2014 and 2015 and the average of the three readings. Exhibit 1 shows the correlation between each region's overall

DBS2015 score (column one in Table 1) and its GDP per capita relative to the national average (column two in Table 4). Exhibit 2 shows the correlation between the DBS2015 scores and average regional GDP growth between 2012 and 2015 (column six in Table 4).

As shown in Exhibit 1, there is a slight positive correlation (0.35) between the overall DBS2015 score and regional GDP per capita but there is no clear correlation between the overall score and average regional GDP growth (-0.03). The correlations are not statistically significant in either instance (Table 7).

Secondly, an attempt was made to correlate the ease of setting up a business DBS2015 scores (column two of Table 1) with two measures of business dynamism at the regional level. Table 5

Table 5

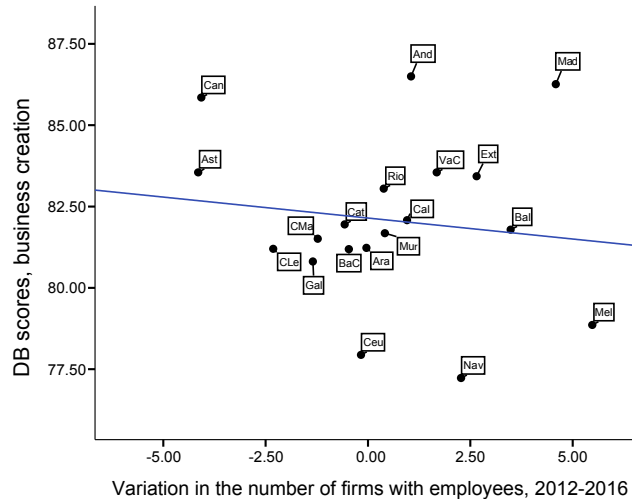
Variation in the number of companies with and without employees between 2012 and 2016 (Percentage)

| | With employees | Without employees |
|---------------------|----------------|-------------------|
| Andalusia | 1.1 | 1.8 |
| Aragon | 0.0 | 2.6 |
| Asturias | -4.1 | 0.1 |
| Balearic Islands | 3.5 | 5.6 |
| Canary Islands | 1.0 | 5.6 |
| Cantabria | -4.1 | 1.5 |
| Castile and Leon | -2.3 | -2.1 |
| Castile la Mancha | -1.2 | -0.7 |
| Catalonia | -0.6 | 1.6 |
| Valencian Community | 1.7 | -0.3 |
| Extremadura | 2.7 | 0.1 |
| Galicia | -1.3 | 4.2 |
| Madrid | 4.6 | 2.7 |
| Murcia | 0.4 | 7.0 |
| Navarre | 2.3 | 9.7 |
| Basque Country | -0.5 | -9.0 |
| La Rioja | 0.4 | 4.6 |
| Ceuta | -0.2 | 7.7 |
| Melilla | 5.5 | 23.8 |
| Total | 0.7 | 1.5 |

Source: INE (Spanish Regional Accounts – Base: 2010).

Exhibit 3

Change in the number of companies with employees between 2012 and 2016 and DBS2015 score for ease of starting a business (Percentage)



Note: The data refer to January 1st of each year.

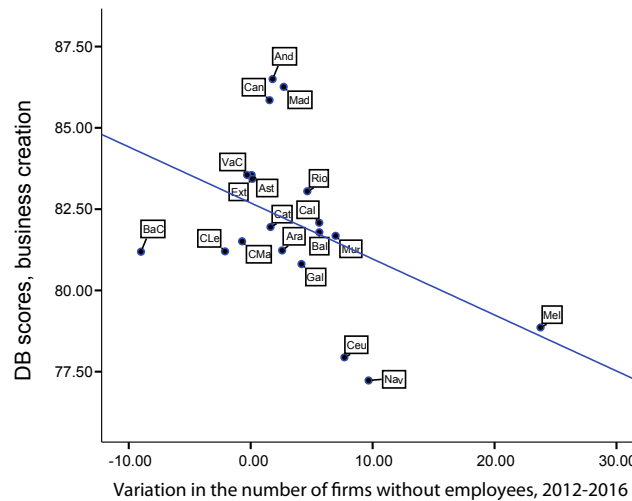
Sources: Doing Business, INE (DIRCE) and author.

shows the percentage change in the number of businesses between January 1st, 2012, and

January 1st, 2016, in each region, based on the national statistics bureau's central companies

Exhibit 4

Change in the number of companies without employees between 2012 and 2016 and DBS2015 score for ease of starting a business (Percentage)



Note: The data refer to January 1st of each year.

Sources: Doing Business, INE (DIRCE) and author.

database (INE-DIRCE), distinguishing between companies (taking any legal form) with employees and businesses without employees (*i.e.*, self-employed professionals). The correlations between the DBS2015 scores and these two variables are shown in Exhibits 3 and 4, respectively.

In both instances the correlations are negative and not significant, yielding a correlation of -0.13 with respect to the change in the number of businesses with employees and of -0.44 in the case of self-employed professionals (Table 7).

Third and last, the correlation between the DBS2015 scores measuring the ease of setting up

an industrial SME and two indicators capturing the importance of manufacturing is analysed. Column one of Table 6 provides the regional breakdown of total national manufacturing turnover using INE survey data. This measure is affected by the size of each region (the smaller regions command, irrespective of the efficiency and competitiveness of their industrial sectors, a relatively lower share of overall manufacturing turnover), which means that any potential correlation with the DBS2015 scores should be analysed more in qualitative rather than in quantitative terms in this instance.

Column two in Table 6 shows manufacturing turnover per region as a percentage of regional

Table 6

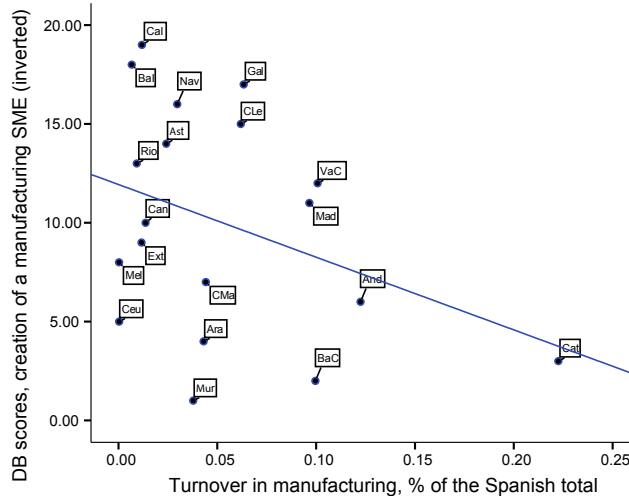
Manufacturing turnover per region (Percentage)

| | Manufacturing turnover, national breakdown | Manufacturing turnover over regional GDP |
|---------------------|--|--|
| Andalusia | 12.2 | 50.4 |
| Aragon | 4.3 | 75.1 |
| Asturias | 2.4 | 66.4 |
| Balearic Islands | 0.7 | 14.6 |
| Canary Islands | 1.2 | 16.6 |
| Cantabria | 1.4 | 66.1 |
| Castile and Leon | 6.2 | 67.6 |
| Castile la Mancha | 4.4 | 69.3 |
| Catalonia | 22.3 | 64.6 |
| Valencian Community | 10.1 | 59.1 |
| Extremadura | 1.2 | 39.5 |
| Galicia | 6.3 | 67.3 |
| Madrid | 9.7 | 28.2 |
| Murcia | 3.8 | 80.7 |
| Navarre | 3.0 | 96.5 |
| Basque Country | 10.0 | 89.9 |
| La Rioja | 0.9 | 68.3 |
| Ceuta | 0.0 | 12.3 |
| Melilla | 0.0 | 11.2 |

Sources: INE (CNAE 09 Industrial Companies Survey and Spanish Regional Accounts: Base 2010).

Exhibit 5

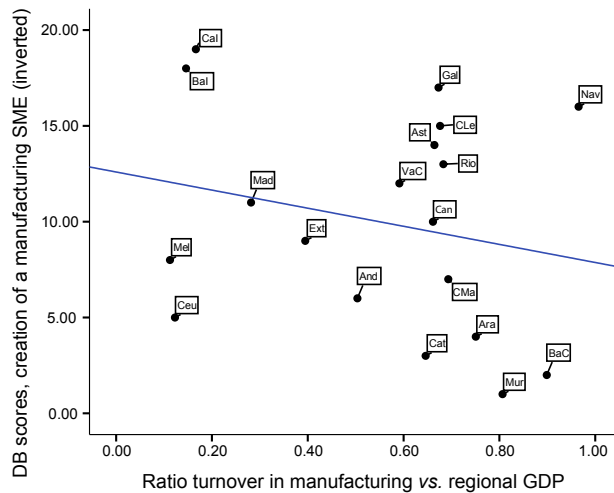
Manufacturing turnover as a percentage of the national total and inverted DBS2015 score for the ease of starting an industrial SME



Sources: Doing Business, INE (Industrial Companies Survey) and author.

Exhibit 6

Manufacturing turnover relative to regional GDP and inverted DBS2015 score for the ease of starting an industrial SME



Sources: Doing Business, INE (Industrial Companies Survey) and author.

GDP. Note that this indicator cannot be interpreted as a direct measure of the relative presence or importance of industry in a given territory as variables are different in nature (turnover

represents company revenue while regional GDP calculates the region's aggregate value added). Nevertheless, this second measure eliminates the regional size skew.

The correlations between the DBS2015 scores for ease of starting an industrial SME and these two measures of the relative importance of the manufacturing industry at the regional level are provided in Exhibits 5 and 6, respectively. For ease of interpretation, in these exhibits and in the correlation coefficient calculations, the DBS2015 scores are inverted, *i.e.*, the highest score corresponds to a 19 and the lowest to a 1.

As illustrated by both exhibits, the DBS2015 scores are negatively correlated to the variables used as proxies for the importance of the manufacturing industry in each region (with coefficients of -0.37 in respect of the national breakdown of manufacturing turnover and -0.22 in the case of turnover relative to regional GDP; moreover, the correlation is not statistically significant in either instance – Table 7).

Debate and conclusions

The above analysis suggests that several of the *Doing Business* report's scores on regulatory efficiency in Spain (DBS2015) are not correlated, within the realm of statistical significance, with the key economic variables on which the areas of regulatory interaction should have an impact. Moreover, in several instances, the scores and

the variables are inversely correlated to what one might expect (Table 7).

In short, in statistical terms, the DBS2015 scores cannot be deemed reliable predictors of, among other variables, regional GDP per capita in 2015,

The results suggest that the Doing Business scores for Spain are not strongly correlated with the key economic variables on which regulations should have an impact.

average regional GDP growth between 2012 and 2016, the change in the number of companies or the relative importance of the manufacturing industry in each region.

The reasons that these correlations do not hold may be multiple and mutually compatible.

- The analysis does not factor in regional considerations of a historic nature or related to their economic structures. These factors, such as market size (the scale of the customer and supplier network), industrial trajectory or

Table 7

Correlations between DBS2015 scores and economic variables

| Exhibit | DBS2015 variable | Economic variable | Correlation |
|---------|---------------------------------------|--|-------------|
| 1 | Overall score | GDP per capita (rebased to Spanish GDP =100) | 0.35 |
| 2 | Overall score | Change in GDP 2012 - 2015 | -0.03 |
| 3 | Starting a business | Change in the number of companies with employees, 2012 - 2016 | -0.13 |
| 4 | Starting a business | Change in the number of companies without employees, 2012 - 2016 | -0.44 |
| 5 | Starting an industrial SME (inverted) | Manufacturing turnover, national breakdown (%) | -0.37 |
| 6 | Starting an industrial SME (inverted) | Manufacturing turnover over regional GDP | -0.22 |

Note: None of the correlations are statistically significant at the 0.05 level (N=19).

Sources: Doing Business, INE and author.

the logistical positioning of each region, may belie a relative greater degree of economic development in a given region irrespective of the DBS2015 regulatory efficiency scores. Spanish companies are not set up in a given region or sector depending solely on theoretically more propitious regional regulations; rather these decisions take into account the pre-existing economic landscape. Company size is another factor omitted from this analysis and one that has a significant impact on an economy's productivity (Xifré, 2016).

- An alternative explanation for the results is that the more business activity there is in a given region, the more exhaustive or complex its regulations may become over time (implying a greater burden for its companies). Faced with a proliferation of businesses operating in a given sector and territory, the authorities may consider it necessary to tighten up the regulations governing such activities. In this instance, “more regulations” should not be viewed as a brake on economic activity but rather the public sector’s reaction to a dynamic business situation that warrants clarifying and detailing the rules under which the companies operate. This interpretation may be useful in putting the adverse consequences some have attributed to so-called “regulatory races” into perspective. As shown in a recent paper by Carruthers and Lamoreaux (2016), the conditions for regulatory races to occur hold only in rare circumstances; rather, the much more common outcome tends to be political interference in an attempt to favour specific interest, placing them before the general interest.
- Lastly, it is worth urging a note of caution regarding the methodology used in the *Doing Business* reports, in line with the independent evaluation carried out on these types of studies by the institution itself (World Bank, 2008). The independent report compiled by the World Bank about its own methodology concludes that the “the indicators [...] cannot by themselves capture

other key dimensions of a country’s business climate [and] the benefits of regulation”. Despite the fact that subsequent to this report, the World Bank has adapted some of the *Doing Business* report methodology, some of the critiques of substance put forward in the independent report remain valid. Against this backdrop, these scores can be considered partial or incomplete for the purpose of assessing the regulatory efficiency of a given territory. For this reason, it is not too surprising that the scores are not significantly correlated to certain key regional Spanish economic variables.

In some cases, more regulation should not be viewed as a brake on economic activity but rather the public sector’s reaction to a dynamic business situation that warrants clarifying and detailing the rules under which companies operate.

These report limitations do not, however, in anyway detract from the importance of the questions that prompted the study in the first place. Is there scope for the various regions to improve their business regulations in order to facilitate business creation and development? Very probably, the answer is yes and there are numerous issues that can still be tackled and extensive international case studies for guiding on this matter (Xifré, 2015).

In fact, to tackle the regulatory issue in a satisfactory manner, it would appear more promising, from the standpoint of public spending efficiency, to make progress on the line of initiative embarked on by the CORA (acronym in Spanish for the Commission for Public Administration Reform) in terms of reviewing existing public legislation to prevent overlap and enhance regulations. If further inroads are to be made in this direction it is worth cautioning, however, that progress will be limited by the ability displayed at the various levels of government to overcome the confrontational dynamic and move towards scenarios of genuine

inter-governmental cooperation to the benefit of businesses and citizens.

References

CARRUTHERS, B. G., and N. R. LAMOREAUX (2016), "Regulatory Races: The Effects of Jurisdictional Competition on Regulatory Standards," *Journal of Economic Literature*, 54(1): 52-97.

LLOBET, G. (2015), "Doing Business in Spain", *Nada es Gratis*, a blog post available at <http://nadaesgratis.es/gerard-llobet/visual-y-basico-haciendo-negocios-en-espana>

SÁNCHEZ-BELLA, P. (2015), *Trabas regulatorias y PYME en España* [Regulatory red tape and SMEs in Spain], Politikon, a blog post available at <http://politikon.es/2015/12/03/trabas-regulatorias-y-pymes-en-espana/>

SEFO (2016), *Regional Economic Forecasts*, October 2016. Available at http://www.funcas.es/Indicadores/Indicadores_img.aspx?Id=4&file=0

WORLD BANK (2008), *Doing Business: An independent Evaluation*. Taking the Measure of the World Bank-IFC Doing Business Indicators.

— (2015). *Doing Business in Spain 2015*, available at <http://espanol.doingbusiness.org/reports/subnational-reports/spain>

XIFRÉ, R. (2015). Recent reforms in Spain's business climate: Assessment and pending issues, *Spanish Economic and Financial Outlook*, 245: 63-72.

— (2016). Spain's business landscape: Structure, recent developments and remaining challenges, *Spanish Economic and Financial Outlook*, 252, 21-29.

The strength of Spain's external sector: Beyond tourism flows

Daniel Fuentes Castro¹

Spain's trade balance has notably improved since before the crisis. Even in the context of existing challenges, and a recent slowdown in line with the deterioration in global trade, the performance of Spanish exports remains remarkably solid.

The Spanish trade balance is holding up in the midst of a competitive environment characterised by increased flows of goods at notably lower prices, together with low oil prices. Aside from maintaining price competitiveness, the Spanish export sector faces various challenges in the short and medium term. These include Sterling depreciation and weaker growth in some key trading partners, especially the Euro Area. The increase in non-tourism exports may well represent the most significant structural change in the Spanish economy during the last decade, adding a strong boost to the services surplus.

Spanish external trade: Withstanding global deceleration

WTO international trade data for the first half of 2016 bears witness to the strong momentum enjoyed by the Spanish external sector. Whilst global exports contracted by 6.2% during the first half of the year in current value terms,

Spanish exports increased by 2.3% in value terms in the first half of the year, in contrast to a 6.2% decline in global exports.

Spanish exports rose by 2.3%. Among developed economies, only Germany – with an increase of 1.6% – is able to boast of a similar performance (Exhibit 1).

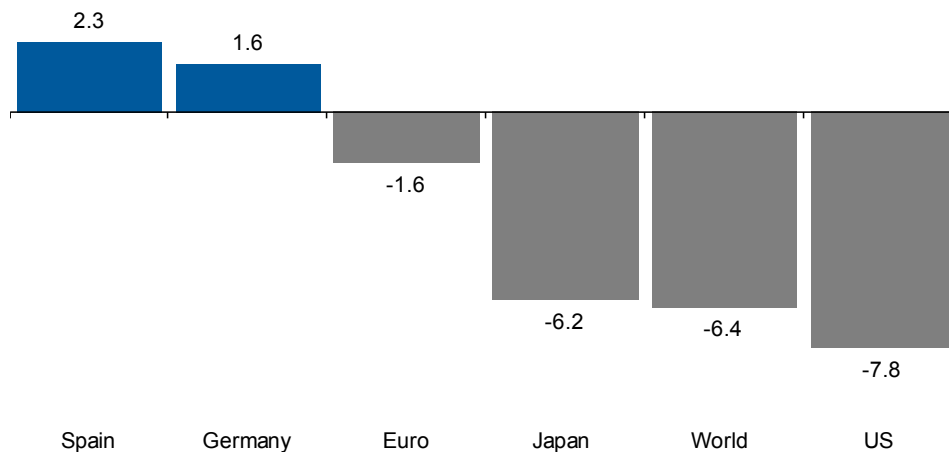
According to the Ministry of Economy, the Spanish economy registered a trade deficit to August of 2.6 billion euros, down from 3.2 billion euros the year before. This adjustment took place following an 8.9% year-on-year increase in exports in August, outpacing a 4.2% rise in imports.

- **Momentum.** Spanish exports registered a modest decline during the last three months, contracting by 0.4% year-on-year – principally due to weak demand in the rest of the EU. Meanwhile, imports fell by 3.5%. Following negative growth in exports in June and July, it seems likely that exports will moderate in line with deteriorating global trade in Q316, rather than maintain the strong rates of growth seen during the first half of the year.
- **Deficit figures.** Over the last twelve months, exports have expanded by 1.9%, compared to a

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Exhibit 1

Growth in goods exports in the first six months of 2016 by country (% YoY)



Source: WTO, AFI.

0.1% reduction in imports. The trade deficit now stands at 19.1 billion euros, its lowest level since the start of the recovery, and an improvement of about 5 billion euros relative to August last year. While the trade deficit still remains above the record low of 15.1 billion euros recorded in October 2013 (1.5% of GDP), it is a far cry from the heady deficits of over 104.2 billion euros registered in June 2008 (9.4% of GDP).

Changes in the export-import coverage and trade openness ratios

Overall, the trade deficit looks to have stabilised since the start of the recovery (Exhibit 2) at around 20 billion euros on an annual basis. This equates to 1.8 percentage points of current GDP, with an export-import coverage ratio of over 90% and a trade openness ratio of close to 50% of GDP.

- *Export/import coverage ratio (X/M)*. The export-import coverage ratio for goods has increased by around 30 percentage points from the 65% registered in the years immediately following

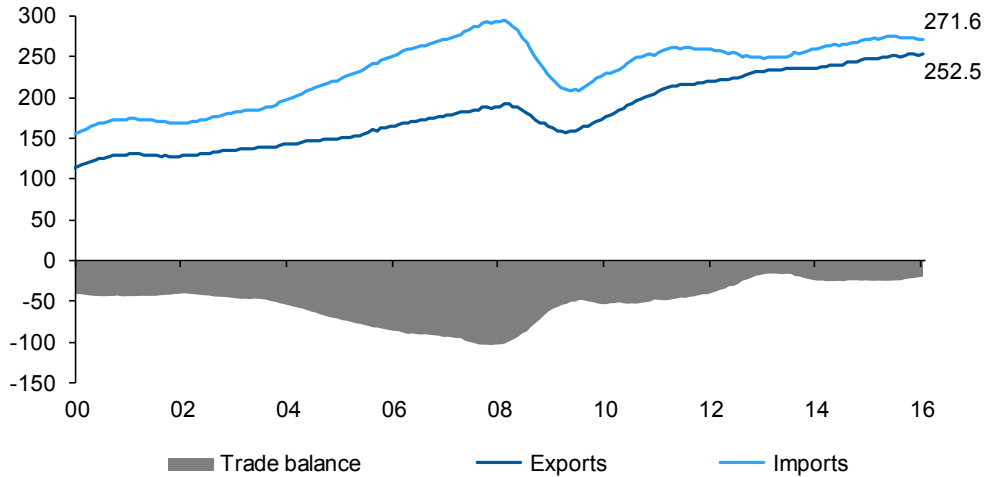
the 2008 crisis. The improvement has occurred in phases (Exhibit 3), albeit with the bulk of the adjustment taking place from 2008 to 2014. During this period, dynamic export growth outpaced a more subdued recovery in imports, as the latter remained below pre-crisis levels. Since 2014, both exports and imports have grown at a similar rate in cumulative terms (Exhibit 2).

During the years immediately following the 2008 crisis, Spanish external trade declined precipitously. However, imports were more adversely affected than exports, as domestic consumption declined at a faster pace than demand in important neighbouring economies. This led to a rapid contraction of the trade deficit in the space of two years – from around 100 billion euros in mid-2008 to close to 50 billion euros in mid-2010. As a consequence, the coverage rate increased by 10 percentage points to over 75%.

This was then followed by a gradual recovery of trade flows with growth in exports outpacing

Exhibit 2

Evolution of annualised trade balance (€ bn)



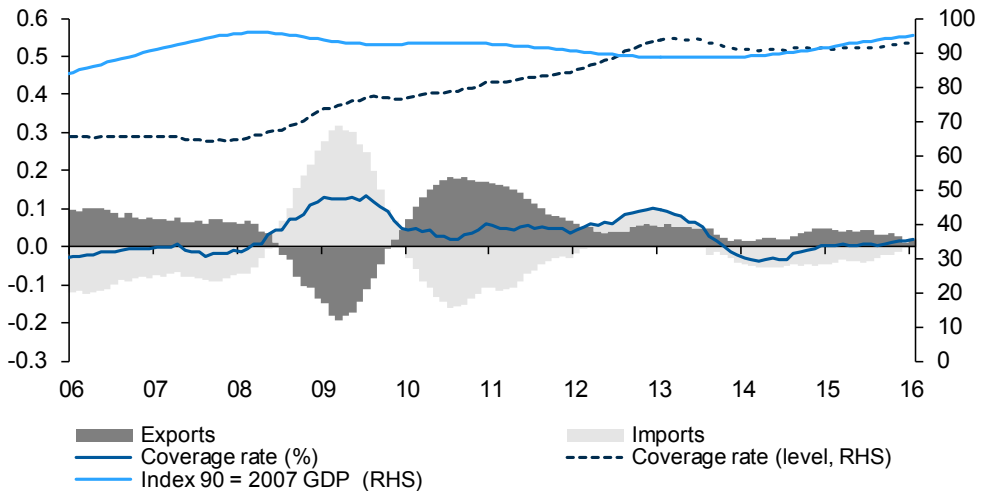
Source: MINECO, AFI.

imports. The coverage ratio increased by a further 10 percentage points from mid-2010 to mid-2012, reaching 85%. While imports once

again lost ground during the second recession, exports were barely affected. The coverage ratio reached a maximum of 94%.

Exhibit 3

Changes in, and contributions to, export-import coverage rate (% YoY)



Source: MINECO, AFI.

■ **Trade openness ratio $[(X+M)/GDP]$.** Goods trade openness also increased, from 42% at the start of the crisis to its current level of 47%. The rise is primarily associated with increased trade flows rather than declining GDP, which has only had a modest impact via the denominator (Exhibit 4).

Spain's share of world goods exports has remained remarkably steady, slipping only slightly from 1.8% of global exports in 2007 to 1.7% in 2015. According to European Commission forecasts, this proportion is on track to rise to 1.8% in 2016 and 1.9% in 2017. In an environment of ever increasing globalisation, the Spanish economy's ability to maintain its overall export share is no small accomplishment. In fact, all major European economies have lost weight in global trade in recent years. The share for the Euro Area as a whole has shrunk from 30.4% in 2007 to 25.3% in 2015.

Spain's trade openness ratio was initially very badly affected by the fallout from the collapse

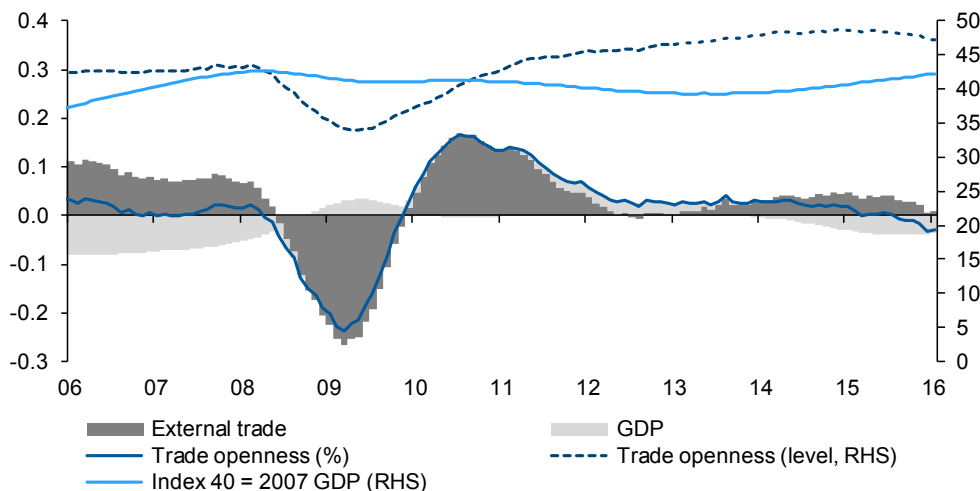
in global trade in 2008, falling to an all-time low of 34%, despite the compensating effect of declining GDP on the denominator. However, trade openness gradually recovered thereafter, managing to weather the 2010-2013 recession. More recently, the trade openness ratio has slowed and deteriorated modestly, as recent GDP growth has outpaced trade flows.

The impact of oil on the trade balance

Spain's trade balance is distorted by the burden of a high external dependence on hydrocarbons. Demand for hydrocarbons has oscillated between 30-35 billion euros in volume (2015) terms in recent years, reaching a maximum of 40 billion euros in 2008. As such, while the energy balance in volumes has remained broadly stable, the total trade balance has been primarily driven by movements in non-energy goods and oil price fluctuations (Exhibit 5).

The non-energy trade balance has benefitted from a form of automatic stabiliser effect thanks to the weakness of domestic demand during the last

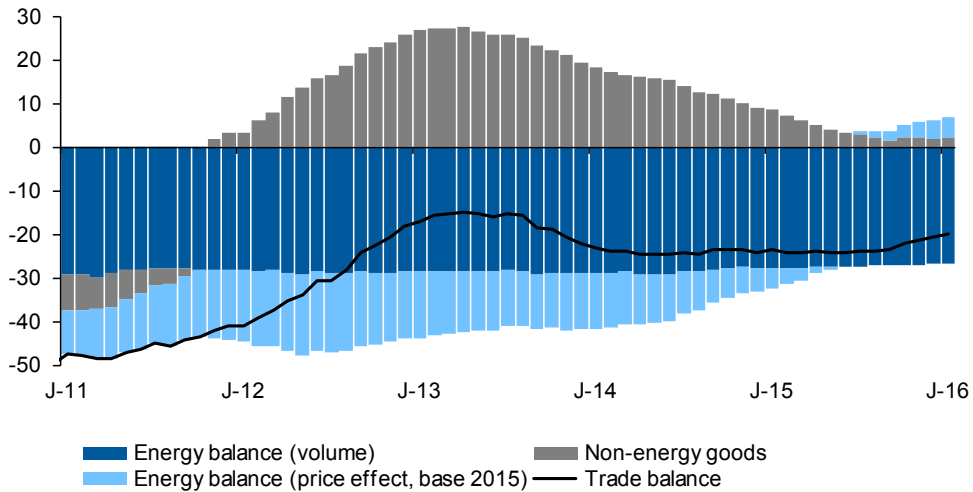
Exhibit 4
Changes in, and contributions to, trade openness ratio
 (% YoY)



Source: MINECO, AFI.

Exhibit 5

**Impact of oil prices on trade balance
(Billions)**



Sources: MINECO, Bloomberg, AFI.

two recessions and the outstanding performance of some export sectors, such as automotives and food. In fact, the non-energy trade balance has adjusted exceedingly rapidly, swinging from an annual deficit of 65.2 billion euros in February 2008 to a surplus of 27.5 billion euros in October 2013. While the current domestic demand led recovery is now beginning to unwind the non-energy trade balance through increased imports, the economy continued to register a surplus of 2.2 billion euros in the twelve months to August 2016.

Exhibit 5 illustrates how fluctuations in oil prices have contributed both positively and negatively to movements in the overall trade balance during the last five years (taking as a reference point, average prices of Brent at the close of 2015).

Indeed, aside from the increase in exports of non-energy goods, the trade balance so far this year has clearly benefited from oil price developments. With average Brent prices to August of 48.6 dollars per barrel (39.6 euros factoring in currency movements), the Spanish economy has saved around 5 billion euros on its overall energy bill

relative to the average price of Brent in 2015. This 5 billion euros broadly corresponds to the adjustment in the trade balance between the close of 2015 and August.

Current forecasts point to average oil prices of 45.5 dollars for 2016 as a whole and 54.7 dollars for 2017. On these estimates, the scope for further savings on the energy bill looks to be relatively limited.

The role of prices in exports

The overall trade balance figure – distorted by the significant dependence on hydrocarbons – should not distract from the strong performance of Spanish goods exports, which has been all the more remarkable given the current global environment.

- **Volume.** Growth in world trade has slowed significantly from rates that nearly doubled global GDP growth in the 1990s to broadly tracking growth in world GDP. In the face of

this slowdown, Spanish exports have continued to hold up remarkably well. Since the end of the recession in 2010, Spanish exports have consistently outpaced average global export growth (Exhibit 6). In 2015, Spanish exports grew by 3.7%, compared to a 2.7% increase in global exports.

■ **Prices.** Prices have played a particularly important role in recent trends in global trade. Global exports contracted by 14% last year in current price terms. Taking into account the

The internal devaluation undertaken during the toughest years of the crisis has helped to sustain an inflation differential which continues to bear fruit in terms of the competitiveness of Spanish exports.

2.7% increase in global exports in volume terms, this implies that global export prices declined by 15% (Exhibit 6). By contrast, Spanish export

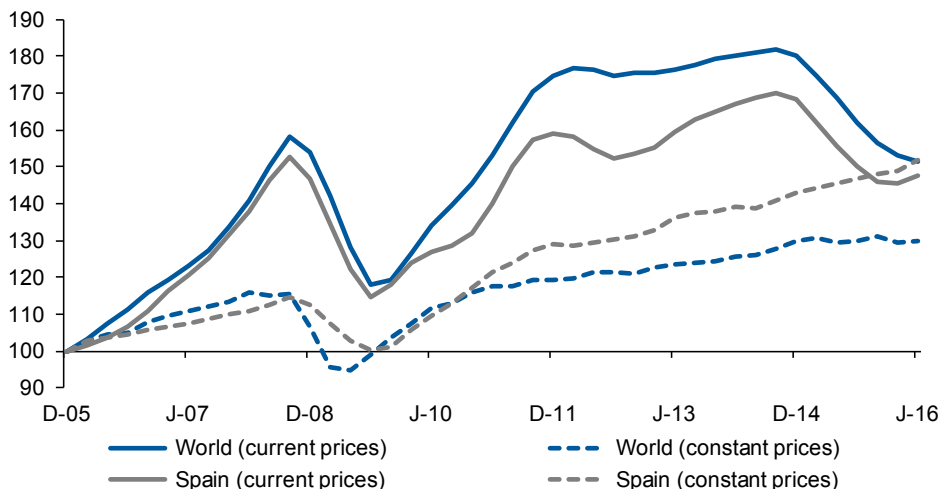
prices fell by a more modest 2.4%, compared to a 4.9% decline in import prices.

As a consequence, recent price movements are facilitating an increase in Spanish export volumes of a much greater magnitude than is reflected in the wider international context.

Going back further in time, Exhibit 6 shows that from around 2010, while Spanish exports significantly outpaced the global average in volume terms, the difference in performance was much less pronounced on a nominal basis. Indeed, the pattern of growth in Spanish and world exports on a nominal basis is broadly aligned, aside from the more noticeable decline in the former during the 2011-2013 recession. The clear implication is that export prices of Spanish goods have been significantly more contained than in the rest of the world. Seen from this perspective the internal devaluation undertaken during the toughest years of the crisis has helped to sustain an inflation differential which continues to bear fruit in terms of the competitiveness of Spanish exports.

Exhibit 6

Evolution of global goods exports (Index 100 = 2005)



Sources: WTO, Bloomberg, AFI.

Services exports: It's not all tourism

Provisional balance of payments data for Q216 show a combined current and capital account balance of close to 26 billion euros, representing an all-time record. This improved financing capacity is primarily due to the stabilisation of the trade balance and an increase in the services surplus.

The latter reached 13.4 billion euros in Q216, compared to 12.2 billion euros in Q215. This significant improvement is not only due to the continued robust performance of tourism (9.6 billion euros of the service surplus) but has also been driven by strong growth in non-tourism services exports. The latter increased its overall surplus from 3.2 billion euros in Q215 to 3.8 billion euros in Q216.

Tourism related activity

Social Security registrations associated with activity directly related to tourism (air transport,

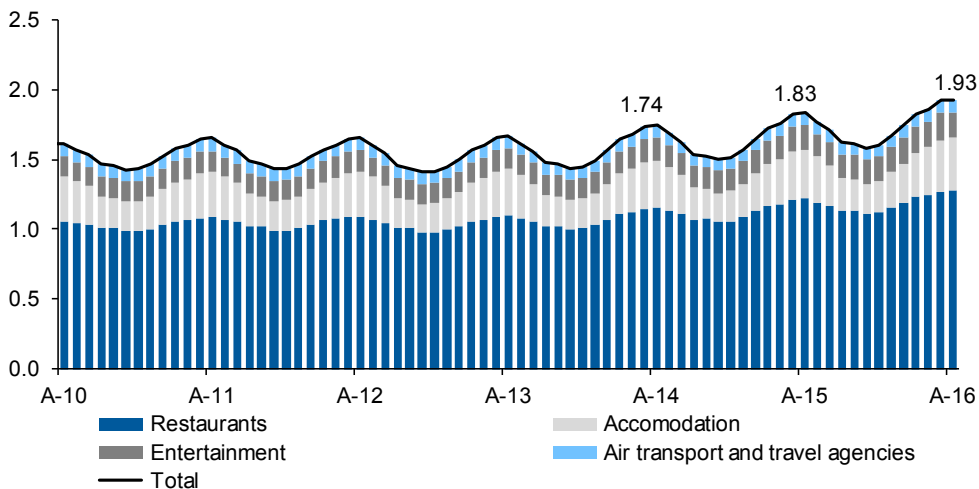
travel agencies, accommodation, catering and entertainment) accounted for around 100,000 of the year-on-year increase in employment in the last three Augusts. Approximately 60% of tourism activity is related to catering and a further 25% to accommodation (Exhibit 7). All-in-all tourism related employment explains around 20% of all employment generated during the last twelve months.

During recent quarters, attention has shifted towards the gradual deterioration in the political stability of competitor Mediterranean countries (Turkey, France, Egypt, Tunisia) and, to a lesser degree, Brexit related uncertainty.

■ **Political instability in the Mediterranean.** Turkey is Spain's main competitor for tourism in the Mediterranean. In 2015, Turkey received 36 million tourist visits. However, as a result of political uncertainty, it is estimated that Turkey, Tunisia and Egypt together lost between 4 and 5 million tourist visits during the first five months of the year, compared to the same period last year (EXCELTUR, 2016).

Exhibit 7

Evolution of social security affiliations in tourism related activities (Millions)



Source: WTO, Bloomberg, AFI.

Meanwhile, during the same period, foreign tourist arrivals into Spain have risen by 2.7 million with respect to the previous year (INE, 2016). A significant proportion of this is likely to reflect straight substitution effects between competitors.

- *Brexit impact.* Tourists from Britain account for 23% of all tourist visits to Spain, making the UK the number one market for Spanish tourism.

Given that reservations are typically made two to three months in advance, the possible reduction in inflows of British tourists due to Sterling depreciation has so far been limited. Nonetheless, Brexit related uncertainty represents a potential threat to the Spanish tourism sector for future tourist seasons.

In additional, while demand for overnight stays has increased significantly, revenues have not grown as quickly. Latest data suggest that a decline in

Social Security registrations directly related to tourism account for an annual increase in employment of around 100,000 or 20% of total employment generated in the Spanish economy.

average length of stay is the main factor behind the fall in average revenue per tourist. Reduced spending per person and per day – a source of concern for the industry since 2012 – may also have played a small part.

Afi's tourism forecasts use a combination of Social Security registrations, foreign tourist arrivals from Frontur, the index of Tourism Business Confidence (ICTUR) and other sources to project tourism flows in the coming quarters. These forecasts foreshadow a gradual deceleration in year-on-year growth in tourism

related GVA from peak levels registered this summer. Even so, tourism is forecast to continue to grow at year-on-year rates significantly in excess of the wider economy. Specifically, the tourist sector could expand by 4.5% in 2016 and 3.8% in 2017, compared to projected GDP growth of 3.2% and 2.3% respectively.

Other sources, such as EXCELTUR (2016), put growth in tourism GVA at 4.4% in 2016. Two-thirds of this is explained by forecasted consumption by Spanish and European households, with the remaining third attributable to substitution effects related to instability in competitor countries.

Non-tourism related services

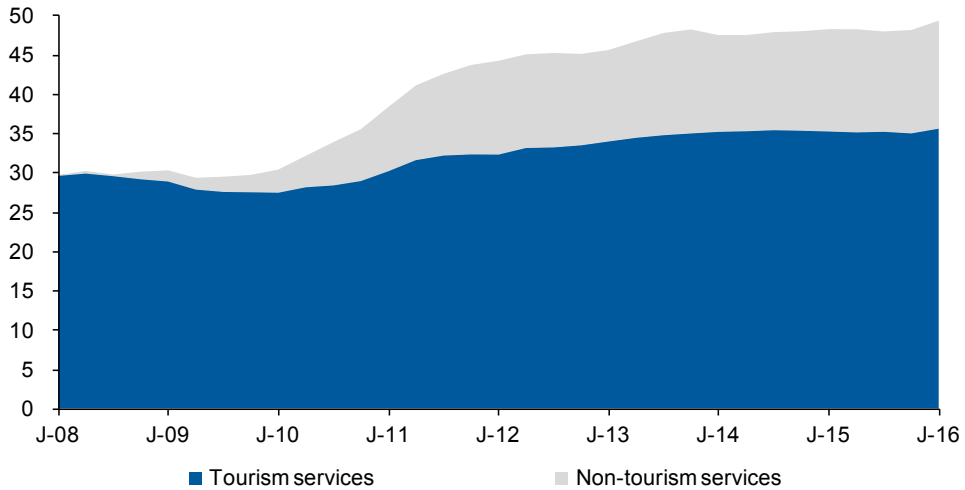
The growing importance of non-tourism services represents one of the most important structural changes in the Spanish economy since the 2008 crisis. In Q208, non-tourism services barely made a dent in the overall external sector balance. However, during the last twelve months, non-tourism services contributed 13.7 billion euros (Exhibit 8), representing around 27% of the total services surplus.

Indeed, non-tourism services alone are now able to offset around 70% of the trade balance deficit (Exhibit 9). What is more, growth in non-tourism services has been sustained since 2008 and is showing few signs of abating. Together with the adjustment in the construction sector, the increase in exports of non-tourism services probably represents the biggest structural change in the Spanish economy during the last decade.

INE's *International Trade in Services Survey* (ITSS), available from Q114 and consistent with Bank of Spain Balance of Payments data, provides information on the destinations and type of activities incorporated in non-tourism exports.

Exhibit 8

**Annual change in services balance
(Billions)**



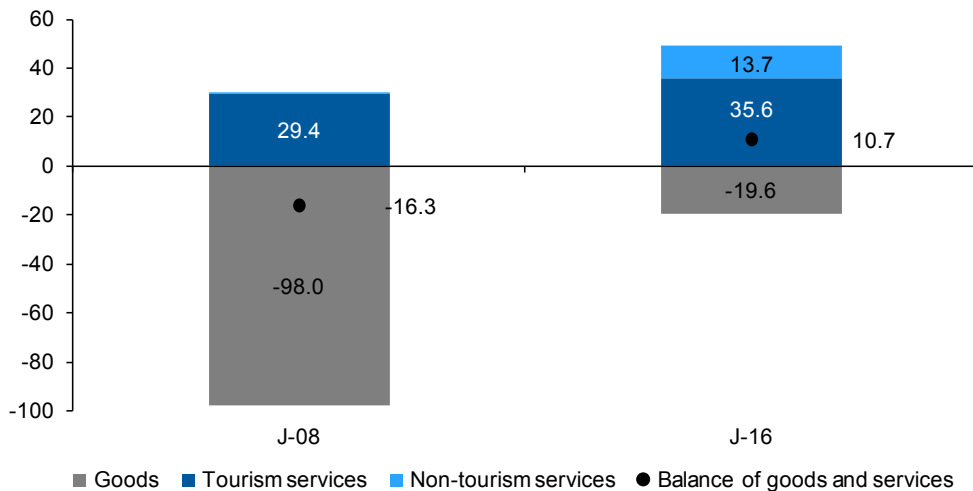
Source: Bank of Spain, AFI.

■ **By destination.** The Euro Area is the main destination for Spanish non-tourism services exports, accounting for 38% of demand. Europe

as a whole represents more than 60% of demand, while America accounts for 23% and Asia a further 11%. On a country basis, Europe's three

Exhibit 9

**Annual change in trade and services balance
(Billions)**



Source: Bank of Spain, AFI.

heavyweights – Germany, France and the UK – each amount to 9% of demand (Exhibit 10).

- **By activity type.** Business services account for nearly a third of total non-tourism services exports, led by technical services – related to engineering activity – but also retail (22%), management and professional consultancy (9%) and R&D (2%).

Transport services, maintenance and repair represent 29% of non-tourism service exports; telecommunications and ICT 17%, financial services, insurance and pensions 11%. Various other services, including those related to construction, account for the remaining 10% (Exhibit 11).

Conclusions

WTO international trade data for the first half of 2016 provides evidence of the strong momentum enjoyed by the Spanish external sector. Whilst global exports contracted by 6.2% during the first

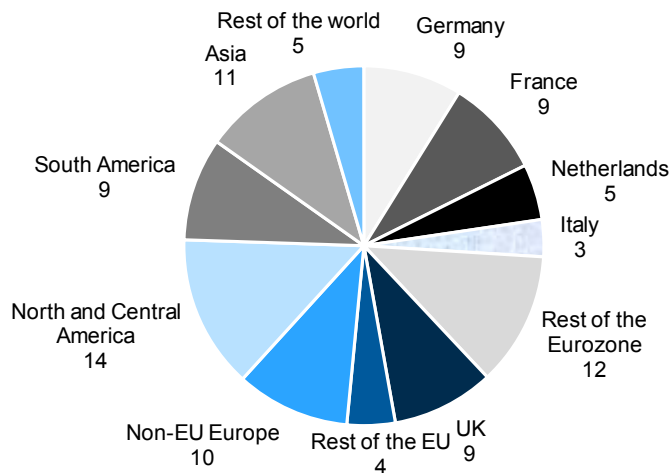
half of the year in current value terms, Spanish exports rose by 2.3%.

The trade balance looks to have stabilised since the start of the crisis at around 20 billion euros p.a., equivalent to 1.8 percentage points of current GDP and consistent with an export-import coverage rate of over 90% and a trade openness ratio of close to 50% of GDP.

Since around 2010, while Spanish exports significantly outpaced the global average in volume terms, the difference in performance was much less pronounced on a nominal basis. Indeed, the pattern of growth in Spanish and world exports on a nominal basis is broadly similar, aside from the more noticeable decline in the former during the 2011-2013 recession. The clear implication is that export prices of Spanish goods have been significantly more contained than in the rest of the world. Seen from this perspective the internal devaluation undertaken during the toughest years of the crisis has helped to sustain an inflation differential which continues to bear fruit in terms of the competitiveness of Spanish exports.

Exhibit 10

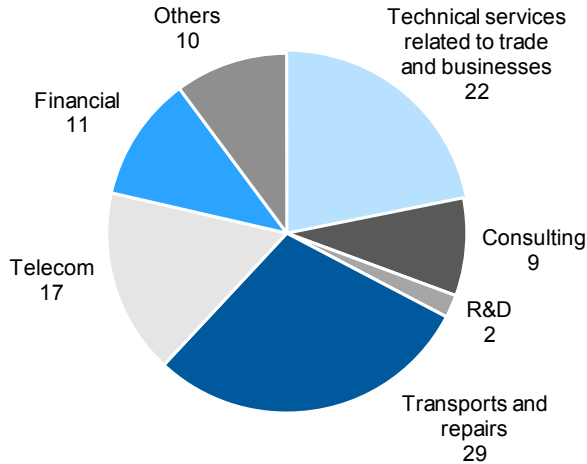
Annual exports of non-tourism services by destination (% total, Q216)



Source: INE, AFI.

Exhibit 11

Annual exports of non-tourism services by activity type
(% total, Q216)



Source: INE, AFI.

The growing importance of non-tourism services represents one of the most important structural changes in the Spanish economy since the 2008 crisis. In Q208, non-tourism services barely made a dent in the overall external sector balance. However, during the last twelve months, non-tourism services contributed 13.7 billion euros, representing around 27% of the total services surplus and equivalent to 70% of the trade balance deficit.

Business services (technical, engineering, consultancy) account for nearly one third of total non-tourism services exports, followed by exports of transport, telecommunications, insurance and construction services.

References

BANK OF SPAIN (2016), *Balance of payments of Spanish economy*, Madrid.

EXCELTUR (2016), *Report on tourism outlook no. 58*, Madrid.

INE (2016), *International Trade in Services Survey*, Madrid.

MINECO (2016), *Spanish economy trade balance*, Ministry of Economy, Madrid.

WTO (2016), *Global trade in merchandise statistics*.

Introducing the right incentives for regulations on commercial debt payment terms

Pablo I. Hernández¹

Available results on the impact of recently introduced regulation on late payment of trade debt show they have had a limited impact on reducing late payments. Lessons learned and new incentives could be incorporated into a new regulatory push focused beyond just legally capping payment terms.

Since January 2013, Spanish regulations dictate that trade debt must be settled within a legally-binding, maximum term of 60 days. The regulations came about in an attempt to curb the impact of non-performance on SMEs. However, the regulations are deemed to have had a scant impact on shortening average payment periods, reviving an old argument about the substance of the problem pursued by the regulations. Are the payment deferral and non-payment phenomena a result of imbalanced bargaining power? Or, to the contrary, are they a sort of safeguard for resolving an asymmetric information issue? Is the payment term the variable the regulator should attempt to control in order to prevent commercial debt non-performance? Recent experience supports the notion that there exists room to introduce productive changes under a new regulatory push directed not at legally capping payment terms, but rather at supervising and overseeing compliance with the agreed-upon terms, vigorously upholding free competition and the effectiveness of the courts to impose justice and of the mediation mechanisms in the event of conflict. Moreover, efforts should also be dedicated to gathering far-reaching official statistics on this issue, as today's data appear insufficient for the formulation of effective, economic policy measures to better combat late trade payments.

Payment deferral has traditionally been underpinned by the commercial and financial benefits that doing so provides suppliers and customers in their everyday operations. On the one hand, it allows debtors to replace access to external financing, while giving them the ability to control the quality of the product or service exchanged before definitively paying for it. For creditors, on the other hand, it constitutes a strategic alternative to traditional price and quantity variables for

competing in the marketplace or generating customer loyalty. Nevertheless, insofar as most of the goods and services purchase and sale flows are covered by agreements that postpone the payment or collection of these everyday business transactions, the credit risk² intrinsic to this modus operandi is naturally a source of concern for the affected companies. Most particularly for small-sized enterprises whose solvency depends crucially on liquidity at hand to fund their business

¹ A.F.I. - Analistas Financieros Internacionales, S.A. (This paper also includes collaboration by Elena Montesinos, Jaime Lazareno, and Jose Antonio Herce).

² Risk of breach of the payment term and attendant non-performance.

activities. Moreover, non-performance requires them to have resources³ in order evaluate their exposure to debtor non-payment and to protect themselves against such circumstances. Such resources imply an additional business cost.

The direct impact of payment deferral and non-performance on companies and, by extension, the competitiveness of the productive landscape, prompted European regulators to establish a regulatory framework to limit the distortions that may be caused by opportunistic or abusive conduct on the part of suppliers or debtors. Directive 2011/7/EU of the European Parliament and of the Council,⁴ on combating late payment in commercial transactions (known as the Late Payment Directive), establishes a common set of rules that are applicable in all member states. The aim is to protect the viability of the more exposed or less protected undertakings (in particular, of SMEs, as specified in the Directive's scope) in the event of unjustified late payment or, in the worst cases, definitive non-payment of commercial debt. Another aim is to eliminate potential grievances in terms of corporate competitiveness as a result of the issue of drawing out payment terms in the context of cross-border transactions.⁵ Spain anticipated the European Late Payment Directive when it passed Law 15/2010, amending the measures for combating non-payment in commercial transactions, stipulating a maximum payment term of 60 days from the date of merchandise receipt or service provision. To enact this requirement, it established a staggered timeline,⁶ stipulating a reduction in the permitted payment term from 85 days in July 2010 to 60 days by early 2013. Moreover, unlike the European Directive, which allows the parties to negotiate the payment term, the Spanish regulations dictate that the term of negotiated agreements may not exceed 60 days.

While commercial debt non-performance has decreased considerably in recent years, it is hard to attribute the reduction to the impact of the regulations insofar as the Spanish economy has undergone a complex cyclical period in the interim, to say the least. However, since the economy has shaken off recession and the financial markets have gradually stabilised, payment terms have stagnated at a 'stationary' level that is far from that targeted in the legal framework. This has revived the theoretical and empirical debate about the effectiveness of the regulations and the need to introduce design improvements.

With the aim of contributing to the debate about commercial transaction payment term regulations, this paper attempts to assess the impact of the Late Payment Directive in Spain based on an analysis of non-performance in respect of inter-company commercial debt in Spain in recent years and provide a succinct review of the academic effort to decipher the nature of commercial debt deferral and non-payment. Despite the fact that the lack of statistical information prevents more robust cross-checking, the evidence gathered is not promising as far as effectiveness of the late payment regulations are concerned. To the contrary, it warrants the revisiting of the debate about the true causes of the late payment phenomenon, and particularly whether or not the establishment of a maximum payment term, uniformly applicable across all sectors, is the most appropriate way to combat late payment.

Late payment: Bargaining power or efficiency mechanism?

There is broad debate regarding the drivers behind the length of payment terms agreed upon in commercial transactions and the potential breach

³ These capabilities tend to be scarcer at companies with relatively reduced financial muscle, generally SMEs.

⁴ www.boe.es/doue/2011/048/L00001-00010.pdf

⁵ According to the Directive, "Undertakings should be able to trade throughout the internal market under conditions which ensure that transborder operations do not entail greater risks than domestic sales."

⁶ The schedule established was as follows: from July 7th, 2010, until December 31st, 2011, the maximum term was 85 days; from January 1st, 2012, until December 31st, 2012: 75 days; from January 1st, 2013, on: 60 days.

thereof.⁷ The explanation most widely given – and the one most accepted in the European Directive – relates to the strategies adopted by companies as a function of their bargaining power. According to this line of thinking – which stems from monopoly theory – the causes of late payment terms or unjustified non-performance (relative to the legally-stipulated terms or those agreed between the parties) lie with the size or intensity of competition in the markets in which the suppliers or customers pursue their business activities. This theory holds that the party less burdened by competitive pressure or of greater size has an upfront advantage, namely relatively greater power to impose beneficial terms when negotiating commercial transactions. Among other reasons, on account of the scant incentive on the part of suppliers to penalise customer late payment for “fear of reprisal”. The lower the transaction costs a company with market power (a monopsonist in the extreme) will incur to switch supplier, the lower the suppliers’ incentive to curtail agreement terms and conditions. Therefore, in industries in which there is greater competitive pressure, suppliers will be more inclined to accept higher volumes of trade credit or less favourable collection terms when their commercial counterpart is a customer⁸ of relatively greater size or one active in a less competitive environment.

On the empirical research front, a relatively recent study (Fabbri and Klapper, 2016) finds evidence in support of this line of reasoning. These researchers conclude that suppliers with weak bargaining positions were more likely to extend credit to their customers, carry larger trade receivables balances and offer longer payment terms without demanding late payment interest. Preferred

customers then took advantage of this weakness by tending to delay their supplier payments. In the case of Spain, despite the limitations affecting the statistics compiled by the Bank of Spain to track supplier payment and customer collection terms,⁹ the figures available support the thesis that the larger companies are advantageously positioned in terms of commercial transaction payments and collections. The gap between the payment term negotiated with their suppliers and collection from customers stood at 18 days in 2014. However, this gap is shorter in the case

The explanation most widely given is that the party less burdened by competitive pressure or of greater size has an upfront advantage, namely relatively greater power to impose beneficial terms in commercial transactions.

of SMEs (10 days). Elsewhere, both indicator levels are manifestly shorter in the case of large companies. Large companies collect 16 days sooner than SMEs, while the payment period is also shorter, at 63 days.

Other interpretations, underpinned by modern contract theory, draw conclusions that are not related to the presumed exercise of bargaining power. In contrast, these theories hold that late payment and non-performance with respect to agreed-upon terms represent a form of “safeguard” in relations between suppliers and customers, efficiently resolving an asymmetric information problem that is intrinsic to commercial

⁷ Late payment or breach of the payment terms as distinct from definitive non-payment.

⁸ Alternatively, when the market power swings in favour of the suppliers, late payments can in practice constitute a price discrimination strategy vis-a-vis customers (Meltzer, 1960). If a supplier offers uniform prices and payment terms, it is implicitly paying lower prices to customers with relatively reduced means for payment. If, on the other hand, it modifies payment terms depending on its customers, it can apply an explicitly uniform sales price while selling at lower real prices to the customers it grants longer payment terms, net of the implicit financial costs.

⁹ The series are compiled using year-end balances from the Bank of Spain’s Central Balance Sheet Data Office and Companies Register. These terms do not relate exclusively to business-to-business (B2B) transactions, but rather include all commercial transactions, including business-to-government (B2G) and business-to-consumer (B2C) transactions.

transactions. Specifically, the possibility of opportunistic conduct¹⁰ underpinned by privileged access to information in a commercial transaction. As noted by Arruñada (1999), “the special utility afforded by payment deferral is to impose discipline on relations between manufacturers and distributors”. In other words, late payments allow debtors to evaluate compliance with the terms of contract (product/service quality).

If, on the other hand, there are clear incentives between suppliers and their customers to maintain commercial relations over a dynamic time horizon, the ‘repeat’ nature of the transactions reduces the probability of opportunistic conduct on the part of either party. Said another way, strategies which tend towards abuse of contract terms are disincentivised once there is scope for penalisation thereof in the form of withdrawal of the supplier-customer relations. However, when

Other theories hold that payment term extension and non-performance are more of a safeguard or disciplinary mechanism that prevents opportunistic conduct in situations of asymmetric information. Strategies which tend towards abuse of contract terms are disincentivised once there is scope for penalisation thereof in the form of withdrawal of the supplier-customer relations.

transactions are more occasional, suppliers may be more tempted to skimp on their efforts to maintain product quality standards or other

contract terms. In this manner, payment deferral results in a sort of ‘second best’ in which both parties to the contract maximise the advantages accruing from the transaction deriving from specialisation (efficiency mechanism). Using this line of reasoning, late payment with respect to the legally-stipulated term relates to conflicts arising from non-performance of one or another dimension of the contract rather than to term-setting power on the part of the company better positioned at the negotiation table.

These arguments have been used to criticise the monopolistic thesis. Specifically, by arguing the fact that if the debtor has sufficient market power – at the extreme, a monopsonist – it is not so incentivised to defer payment as in reality it can force suppliers to set a lower price, either directly or indirectly (prompt payment discounts, for example).¹¹ Nor is it rational for such a buyer to establish a payment term and then systematically breach it if it has the power to set the term in order to maximise its profits without having to risk reputational fallout in the process.

One of the empirical indicators which helps support this criticism, and reinforce the commercial efficiency mechanism thesis, is the fact that supplier payment terms in the distribution sector (retail and wholesale) are inversely correlated with the sector players’ margins. If the monopolistic thesis were to hold, one would expect a correlation, either positive or at least not inverse, given that the terms should be set independently of the price negotiated. In reality, the longer the payment term, the lower distribution margins tend to be, and this might be attributable to the payment of higher prices to suppliers when that price is negotiated with the latter, reducing the margin obtained by

¹⁰ “Adverse selection” arises when one party to a contract can make use of an information advantage available to it before entering into the contract. For example, a distributor may fear that an offer received from a specific unknown supplier may be due to a hidden product defect. And so, in the absence of due guarantees, it will tend to imagine the worst if it is not able to verify the quality ex-ante. Elsewhere, moral hazard arises in respect of compliance with the obligations governing the exchange after entering into the contract. For example, after the contract has been signed, the supplier’s incentive to respect the product quality terms may be lower, particularly if the transaction is more of an *ad-hoc* one.

¹¹ One of the most common practices in the distribution sector is, precisely, for the distributor to impose prompt payment in exchange for a price discount.

the distributor. This thesis cannot be ruled out for most of the European nations; however when the countries comprising the ‘Mediterranean variable’ are factored in to the empirical analysis, the results cease to be statistically significant. However, the fact that these countries have undergone severe liquidity issues may have fostered longer payment terms without having represented an abuse of

position. Although the lack of statistics prevents further analysis in this respect, it does suggest a more than anecdotal link.

However, there are also a few arguments against this line of thinking. From the theoretical standpoint, if negotiations regarding the price to be paid by the customer and the payment term

Table 1

Correlation between gross margin and the effective payment term in the European distribution sector 2014

| | All countries | All countries except Italy, Spain and Portugal |
|------------------------|------------------------|--|
| Variable | Gross profit / revenue | Gross profit / revenue |
| Effective payment term | 0.005 (0.6) | -0.05* (0.09) |
| Constant | 4.2** (0.00) | 5.79** (0.00) |
| Adjusted R-squared | -0.04 | 0.14 |
| F | 0.24 | 3.37 |
| N | 15 | 12 |

Notes: The estimation method used is the ordinary least squares (OLS) method. Standard deviations in brackets.

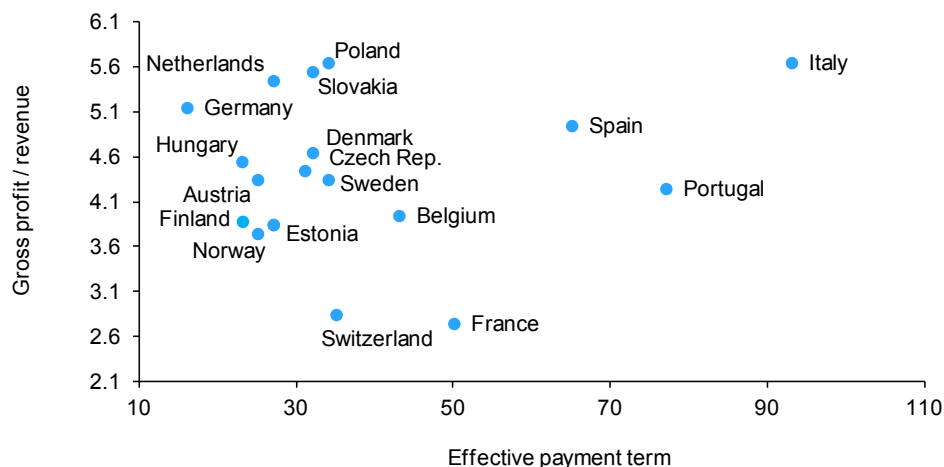
* Statistically significant at a confidence interval of 90%.

** Statistically significant at a confidence interval of 99%.

Source: Intrum Justitia and Eurostat (2014).

Exhibit 1

Correlation between gross profit and the effective payment term across European countries



Note: The regression line represented corresponds to the estimate excluding Spain, Italy and Portugal.

Sources: Intrum Justitia and Eurostat (2014).

functioned as substitutes, the large companies subject to financial market scrutiny, particularly that of the rating agencies which assign grades to their corporate bonds as a function of their balance-sheet financial position, might be tempted to present lower financial borrowings at the cost of a higher trade payables balance. This could imply longer payment terms not attributable to commercial or financial benefits. In this context, the exercise of bargaining power – potentially on a recurring basis – in order to present a healthy credit picture at the cost of suppliers is a legitimate line of argument worth considering.

Business-to-business commercial debt: Recent trends in non-performance in Spain

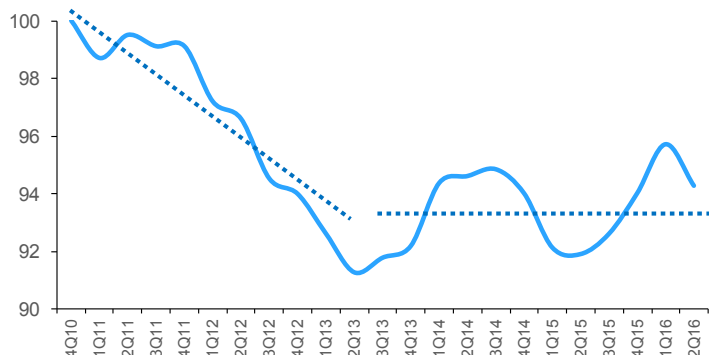
According to the Non-Performance and Corporate Financing News Bulletin compiled by CEPYME,¹² Spain's SME confederation, the average term of payment on commercial transactions between SMEs currently stands at around 80 days. A

level at which this metric appears stuck, despite successive ups and downs since the Spanish economy shook off recession and financing conditions returned to 'normal.' The sharp credit crunch and drop in demand put strong pressure on corporate liquidity during the crisis years. This forced companies to lengthen supplier payment periods in order to generate working capital (for funding payroll, etc.). Elsewhere, the percentage of commercial debt in arrears with respect to the legally-mandated term oscillates at around 70% of all trade debt, judging by the trend in both indicators and the so-called Synthetic Index of Corporate Non-Performance (Exhibit 2 and 3).

The circular trajectory traced out by the percentage of non-performing debt and average payment period evidence stagnation in non-performance around a 'stationary' level, as is seen in other phenomena. This prompts several readings. Firstly, stripping out the effects of normalisation in economic and financial activity, the effect of the 60-day requirement and elimination of the scope of parties to negotiate different terms have not triggered rapid adaptation

Exhibit 2

Synthetic Index of Corporate Non-Performance (ISME for its acronym in Spanish*) (3Q12 2Q16)



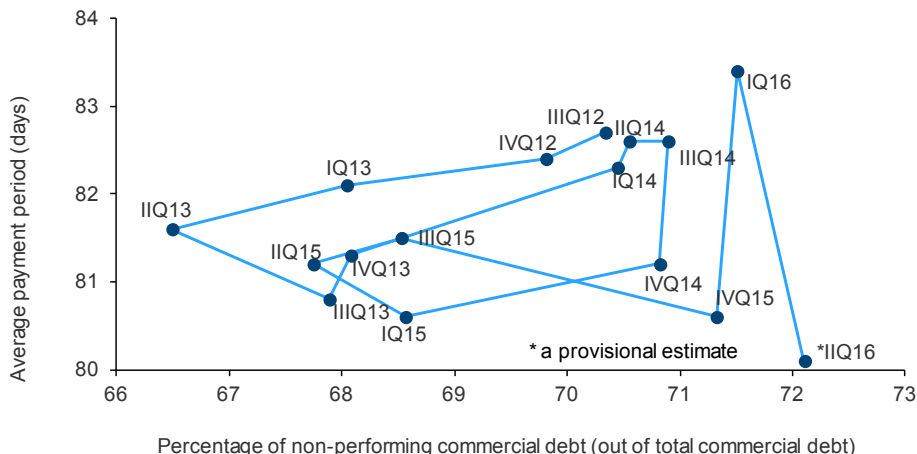
Note: * A synthetic index based on the 'average payment period' and 'non-performing commercial debt' indicators as a percentage of total commercial debt, both comprising arithmetic averages and weighted equally.

Sources: Author, based on CESCE and Informa figures.

¹² www.cepyme.es

Exhibit 3

Non-performance: Incidence and duration (3Q12-2Q16)



Sources: Author, based on CESCE and Informa figures.

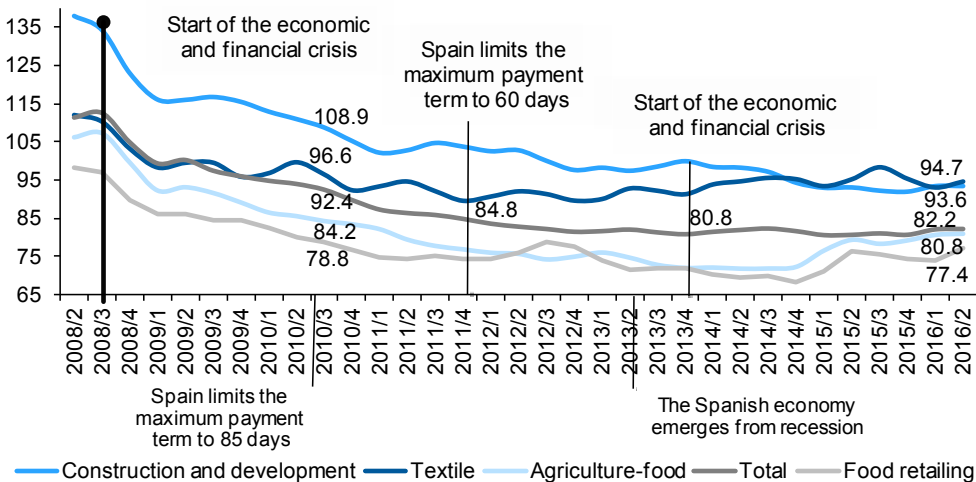
by the parties to the objectives pursued by the regulations. Indeed, the average payment term has been stuck at around 81 days since 2013.

differences. The textile and construction sectors are settling their trade debt well in excess of the legal deadline, whereas payments in the food retail sector are far closer to this threshold, albeit still north of the 60-day mark.¹³ In the textile sector, the average payment term has

Analysing the trend in the average payment term by line of business reveals considerable

Exhibit 4

Trend in average payment term by sector (days), 2008-2016.



Source: Author, based on CESCE figures.

¹³ Recall that the regulations establish a term of 60 days from receipt of the merchandise and not the invoice, which means that the figures may be skewed upwards in this respect.

barely changed since the regulations took effect (at close to 90 days), whereas in other sectors, such as the distribution sector, the ability to fall

The average supplier payment terms has been around 81 days since 2013. In the textile sector, the average term has barely changed since the regulations took effect (at close to 90 days), whereas in other sectors, such as the distribution sector, the ability to fall in line with the legally-stipulated term has been far more significant. However, the degree of concentration in the former is far lower than in the latter.

in line with the legally-stipulated term has been far more significant. The fact that the business cycle is possibly longer in the textile sector than in others such as the food industry is one possible explanation for this difference. These descriptive differences lead us to three underlying questions: (i) whether the current payment term, 'late' by around 20 days, is effectively its 'natural' level; (ii) whether the late payment phenomenon is a consequence of relative bargaining power as the regulations assume or whether current levels represent the minimum term needed by debtors to corroborate whether the supplier has satisfactorily met its contractual undertakings; and (iii) whether the payment term is the right variable to regulate in the effort to eliminate the late/non-performance issue.

Assessment of the impact of the European Directive on late payments in Spain

The goal in this section is to perform an econometric assessment to determine whether the regulations have been effective in Spain and have thereby contributed to correcting the alleged

'market flaw' arising from imbalanced bargaining power and, specifically, abuse of market position by companies in setting payment terms.

To this end, an attempt has been made to isolate the impact of the regulations on effective payment terms with respect to other drivers such as economic growth or the companies' financial position. Unfortunately, the lack of information at the company level precludes more incisive analysis of this phenomenon.

The results of this statistical exercise are presented in Table 2. Both the sign and significance of the parameters are as expected. Economic activity, measured as the quarterly change in GDP with a lag,¹⁴ is positively correlated with average payment periods, insofar as an improvement in the economic climate leads to more relaxed liquidity requirements and prompts creditors to allow debtors to finance themselves to a greater extent (financial advantage). The companies' financial position, meanwhile, for which their leverage ratio is the proxy used, is also positively correlated, suggesting that the more leveraged a company, the more it will tend to stretch out payment terms, trade debt constituting a substitute for external borrowings.

In line with the conclusions drawn by the European Commission itself, the estimated impact of the Directive on average payment terms in 2012-2016 is negligible.

In terms of the impact of the late payment regulations, three fictitious control variables, or dummies, have been introduced to enable distinction between the various staggered deadlines for ultimately complying with the 60-day term. The results show that although the regulations had a clear and significant impact on

¹⁴ Using the hypothesis that past information about the economy influences payment terms in the present, as expectations are recalibrated over time.

Table 2

Econometric assessment of the impact of the late payment regulations on the effective payment term, 2010-2014

| Variable | Average payment period (APP _t) |
|-----------------------------------|--|
| GDP _{t-1} | 3.50* (0.00) |
| Financial leverage _{t-1} | 0.83* (0.00) |
| Dummy 1 ¹ (85 days) | -12.90* (0.00) |
| Dummy 2 ¹ (75 days) | -0.35 (0.88) |
| Dummy 3 ¹ (60 days) | 2.88 (0.24) |
| Adjusted R-squared | 0.84 |
| Durbin Watson | 1.63 |
| N | 32 |

Notes: The estimation method uses is the ordinary least squares (OLS) method. P-values in brackets.

* Statistically significant at a confidence interval of 99%.

Sources: The Bank of Spain's Central Balance Sheet Data Office, CESCE, Spain's national statistics bureau - the INE, and the European Commission.

reducing the payment term during the first period (when the term had to be reduced to 85 days between July 2010 and December 2011), the impact of the additional reforms is not statistically significant in the rest of the period analysed.

These findings tally with the conclusions drawn by the European Commission itself. Literally, the Commission's Report on the implementation of the Directive¹⁵ concludes that *the improvements in average payment periods remain modest to date*. And not only in Spain but right across the EU. Among the factors identified as preventing effective application of the Directive, the lack of a common monitoring system, lack of clarity on some key concepts of the Directive and the market imbalance between bigger and smaller companies are identified as the biggest contributing factors.

Conclusions

The European Commission's Late Payment Directive has had a very limited impact on

compliance with average payment terms, as manifested by the Commission itself in its report on the Directive's implementation. This is corroborated by the evidence compiled in this article, which fails to establish a positive correlation between the regulations and reduction in payment periods. In fact, the econometric exercise performed in this article reveals a negligible impact between 2012 and 2016.

That being said, these findings do not and are not intended to constitute the last word on the subject. Unfortunately, the lack of available public statistics has considerably limited empirical research in this field, as well as hindering the ability to rigorously check the hypotheses put forward in the academic literature. The information available is scant and, often, biased. What's more, it is often aggregated which complicates, or rather impedes, the ability to factor in the tremendous heterogeneity characterising B2B commercial transactions and analyse the real drivers underpinning these and their terms. Among other reasons, because the companies are not motivated to disclose

¹⁵ <https://ec.europa.eu/transparency/regdoc/rep/1/2016/ES/1-2016-534-ES-F1-1.PDF>

information about their daily dealings on the invoicing front. These limitations do not, however, mean that the findings are not valid justification for questioning whether the regulations in place are the best means to the end pursued.

The principles around which the regulations are articulated assume systematic abuse of bargaining power by large companies relative to their smaller counterparts. Without dismissing the possibility of finding evidence to support this theory, as certain academics have done, there are several indicators to suggest that this interpretation is at the very least overstated. Average payment periods in B2B commercial transactions in Spain have been stuck at around 81 days since early 2013, roughly 20 days beyond the legally-stipulated maximum term. The fact that the average term varies considerably by sector corroborates the advisability of reviewing the regulations to factor in the nature of the product or service exchanged.

Against this backdrop, if the safeguard mechanism theory is correct, as several studies suggest, payment terms should be tied to customers' ability to verify the quality of the product exchanged. In this context, it doesn't make sense to establish a single, identical and cross-sector payment term. By extension, the parties' freedom to negotiate payment terms should be the principle guiding any regulations in this arena. This is not to imply, however, that abusive or opportunistic conduct does not take place or should not be corrected. The regulatory thrust should not, therefore, be directed at legally capping payment terms but rather at supervising and overseeing compliance with the agreed-upon terms, vigorously upholding free competition and the effectiveness of the courts to impose justice and of the mediation mechanisms in the event of conflict. Erroneous interpretation of the late payment phenomenon by the regulatory authorities when it comes to establishing the rules that govern trade relations can have high costs in terms of the competitiveness of the productive sectors across the various economies. Specifically, too short a mandatory payment term

could distort efficiency, systematically favouring suppliers and fostering opportunistic conduct, just as too long a period could unfairly benefit buyers.

For late payment regulations to introduce the right incentives, policy needs to start to compile far-reaching statistics that enable more in-depth analysis of the late payment phenomenon. The official statistics available, despite providing good signals, are not up to the task of generating sufficiently robust results using conventional analyses of policy effectiveness or of serving as the basis for implementing, on the basis of such results, efficient and effective economic policy measures to better combat late trade payments.

References

- ARRUÑADA, B. (1999), *Aplazamiento de pago y morosidad en las transacciones comerciales [Late payment and non-performance in commercial transactions]*, Instituto de Estudios del Libre Comercio (IDELCO), Madrid.
- (1999), *La Directiva sobre morosidad: Una mala solución para un falso problema [The Late Payment Directive: A bad solution to the wrong problem]*, Instituto de Estudios del Libre Comercio (IDELCO), Madrid.
- BARBACEIA, A. (2016), *Three Essays on Trade Credit and Market Power*.
- CEPYME (2016), *Boletín de Morosidad y Financiación Empresarial [Non-Performance and Corporate Financing News Bulletin]*.
- FABBRI, D., and L. F. KLAPPER (2008), *Trade credit supply, market power and the matching of trade credit terms*, CFO.
- , (2016), Bargaining power and trade credit, *Journal of Corporate Finance* 41: 66–80.
- HERNÁNDEZ DE COS, P., and I. HERNÁNDEZ (1998), "El crédito comercial en las empresas manufactureras españolas" [Trade credit at Spanish manufacturing companies], Bank of Spain's Economic Research Department, *Working Document No. 9810*.

HOWORTH, C., and B. REBER (2003), "Habitual Late Payment of Trade Credit: An Empirical Examination of UK Small Firms," *Managerial and Decision Economics* Vol. 24, No. 6/7, The Economics of Credit Management: 471-482.

MELTZER, A. H. (1960), "Mercantile credit, monetary policy, and size of firms," *The Review of Economics and Statistics* XLII: 429-438.

PIKE, R.; SANG CHENG, N., CRAVENS, K., and D. LAMMINMAKI (2005), "Trade Credit Terms: Asymmetric Information and Price Discrimination. Evidence From Three Continents," *Journal of Business Finance and Accounting*.

SMITH, J. (1987), "Trade Credit and Informational Asymmetry," *Journal of Finance*, Vol. 42: 863-872.

Just one business cycle in Europe¹

María Dolores Gadea², Ana Gómez-Loscos³ and Eduardo Bandrés⁴

Recent global events have renewed interest in assessing the pattern of European business cycles. Results show increased comovements during periods of European convergence as well as during the Great Recession. The analysis identifies the existence of just one cluster among the business cycles of European countries.

Large contractionary shocks, such as the Great Recession and the European sovereign debt crisis, have renewed interest in analysing business cycle patterns. In Europe, this interest is more pronounced, as such analyses may help shed some light as to whether or not the construction of the European project, in particular, the creation of the euro (and the subsequent institutional framework designed to support it) have helped increase synchronisation across European Monetary Union (EMU) countries. In this paper, we first examine business cycle comovements among EU countries, and then we obtain a dating of the different business cycles that allows us to identify clusters among them. We observe that spatial correlation increased during the convergence process towards the introduction of the euro and has taken a big leap with the Great Recession. In fact, comovements among countries have mainly increased during the last decade. Finally, we find evidence of just one cluster amongst the European countries.

The severity of the Great Recession, along with the subsequent slow pace of recovery, has renewed interest in business cycle analysis. In the EMU, the adoption of a single currency raised many concerns about the ability of common policies to deal with country specific shocks, and more recently, the Great Recession seems to have produced significant changes in the overall patterns of business cycle synchronisation. The aim of our paper is to analyse the business cycles of European countries and the comovements among them, obtaining a dating of the business

cycle that allows us to identify possible groups (clusters) among the countries.

Much effort has already been devoted in the existing literature to country analysis in the study of European business cycles since the creation of the euro. Numerous studies have analysed the business cycles and the synchronisation among the countries that make up the European Monetary Union (EMU). However, as far as we know, the impact of the recent crisis and the subsequent slow recovery has not yet been assessed.

¹ We are grateful to Silvia Kaufmann for sharing her codes. The views expressed in this paper are the responsibility of the authors and do not represent those of the Banco de España or the Eurosystem.

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By examining business cycles' comovements, we observe that the spatial correlation has been increasing since the beginning of the EMU period (1999), and received a new impulse with the Great Recession. We identify some similarities in the business cycles of European countries studied, such as the huge impact of the Great Recession in 2008-2009, a deceleration at the beginning of the nineties and the slowdown in 2001, although each business cycle presents an idiosyncratic behaviour. Using Finite Mixture Markov Models, we also find evidence of just one cluster, *i.e.*, a common cycle, at this geographical level.

The remainder of the paper is organized as follows. In the next section, we conduct a comprehensive literature review on European business cycles. We then provide a section explaining the methodology used in this paper, the Finite Mixture Markov Models, as well as describe the data. Next, we detail the main results on our paper. The final section presents the conclusion.

Literature review

There are numerous studies which describe the characteristics of business cycles within the euro area (EA) or the European Union (EU) countries. Camacho *et al.* (2008), Giannone *et al.* (2010) and De Haan *et al.* (2008) provide a comprehensive survey of this literature. However,

Some authors have investigated the role played by important milestones in Europe such as the Maastricht Treaty or the introduction of the single currency. However, the importance of institutional changes is not clear.

there is a lack of consensus in the available results. Differences in results could be due to differences in geographical coverage, in the temporal

dimension, in the methodologies used or even in the economic variables chosen. Hence, it is quite difficult to synthesise results in a meaningful way. Nevertheless, in the following paragraphs, we summarize some of the main findings.

A question commonly addressed in the literature was whether the introduction of the euro would contribute to the synchronisation of business cycles or, whether, on the contrary, it would reinforce the divergence of business cycles. Many studies have focused on countries' heterogeneity and look at synchronisation to identify the degree of comovement. Some authors have investigated the role played by important milestones in Europe such as the Maastricht Treaty or the introduction of the single currency. However, the importance of institutional changes is not clear. A popular approach has been to identify whether business cycles in European countries have a global and/or a European component, allowing one or more separate European business cycles to exist.

The results in the literature about the existence of a single European business cycle over a long sample are not conclusive. For instance, some studies identify the emergence of a European cycle in the nineties, some date it back to the seventies, while others do not support its existence at all. Among the papers that find a single European cycle, Artis and Zhang (1997), in an article prior to the adoption of the euro (their sample spans from 1961 to 1993), show that there is a core group made up of France, Belgium, Austria and the Netherlands, and two peripheral groups comprising northern and southern countries of the EU, respectively.⁵ They also find evidence of increased synchronicity after 1979 for countries belonging to the Exchange Rate Mechanism (ERM). Lumsdaine and Prasad (2003) examine industrial production indexes for seventeen OECD economies over the period 1963-1994 and identify a clear European business cycle from 1973 to

⁵ Their sample includes the US, Canada, the UK, Finland, Norway, Sweden, Germany, France, Italy, Netherlands, Belgium, Spain, Portugal and Ireland.

1994.⁶ Artis, Krolzig and Toro (2004) conclude that there is clear evidence of comovement in output growth among nine EA countries, suggesting the existence of a common business cycle. Canova *et al.* (2007) study the G7 cycle using a multi-country Bayesian panel VAR model with time variation, unit-specific dynamics and cross-country interdependences for the period 1979-2002 and show no European cycle prior to the mid-80s, while a single EU cycle emerges in the 1990s that is common to EA and non-EA countries. Giannone *et al.* (2010) document the pattern of business cycle correlations by analyzing business cycles for EA12 from 1970-2006 and they identify two groups: core countries (Austria, Belgium, France, Germany, Italy and the Netherlands) and non core countries (Finland, Greece, Ireland, Luxembourg, Portugal and Spain).⁷ Kaufmann (2003) finds that, for the period 1978-2001, there is a common growth cycle for EA countries and, when the analysis includes Australia, Canada and the US, she observes that, under a long-term perspective, these three countries form one group, while most European countries fall into the other group. Finland and Ireland follow more closely the first rather than the European cycle, while the UK and Japan clearly fall into the group of European countries. Nevertheless, this classification varies in shorter term horizons.⁸

With respect to the papers that do not identify a European business cycle, Artis (2003) uses data from 1970 to 2001 and concludes there is no European cycle with a sample of twenty three countries (fifteen of the total are European countries). With a wider focus, Helbling and Bayoumi (2003) find little synchronisation across the G7 countries from 1973 to 2001, although there were strong cross-country correlations during recessions. They notice that Germany was more synchronised with Anglo-Saxon countries than with France. In the same line, Camacho *et al.*

(2006) study more than thirty countries [including most European countries and four industrialized economies (Canada, US, Norway and Japan)] for the period 1962-2003 and they reveal that there is no evidence of a European attractor that brings European cycles together. Del Negro and Otrok (2008) examine the evolution of the business cycle for nineteen countries with data from 1970 to 2005 and find no change in average cross-country correlation of EA business cycles for a large set of European countries.

Some papers have also tried to characterize the EA business cycle with a focus on the dating of recessions and expansions of levels of economic activity or on the growth cycle. Kaufmann (2003) gets a dating of the grouped EA countries based on Finite Mixture Markov Switching modes. Altissimo *et al.* (2001) also provide a business cycle chronology based on the cyclical components. Artis, Krolzig and Toro (2004) propose a dating of the business cycle, both for an index of industrial production and GDP, and both chronologies appear to be consistent. Artis *et al.* (2005) date EA turning points with data from 1970 to 2003 and find that the timing of EA cyclical phases is similar to that of the US, as reflected in the National Bureau of Economic Research (NBER) chronology. However, Giannone and Reichlin (2005) show that EA turning points lag behind US ones.

Finally, some papers assess the propagation of shocks across countries on the basis of structural or semi-structural models. Bayoumi and Eichengreen (1992) identify demand and supply shocks, through VAR models, on output growth and inflation for the twelve EA countries from 1960 to 1988. On the basis of these results, they identify a core group (Germany, France, Belgium, the Netherlands and Denmark) whose supply shocks are both smaller and more correlated across neighboring countries and a periphery group (the

⁶ However, they show that all countries have a strong positive correlation with the common component in international fluctuations, confirming the existence of a world business cycle after 1973.

⁷ They also identify that, in neither of the two groups, were business cycle characteristics altered by the inception of the single currency in 1999.

⁸ She also shows an increase in synchronisation over time in the European countries.

UK, Italy, Spain, Portugal, Ireland and Greece) with large and weakly correlated shocks. Giannone and Reichlin (2006) study the response of the output growth of EA countries to an EA-wide shock for the 1970-2005 period and find that a large part of business cycles is due to common shocks while idiosyncratic fluctuations are limited, but persistent.

To sum up, this review shows that the literature on the main facts of European business cycles is far from having reached a consensus. Results depend on samples, variables of analysis or methodologies.

Methodology and data

The methodological strategy used in this paper, called Finite Mixture Markov Models (Frühwirth-Schnatter, 2006), has an advantage over the previous literature in that it not only allows us to obtain a dating of the turning points of the business cycle of the countries, but also to investigate a broad set of issues. For instance, to find out whether there is a common growth cycle for the European countries or if, on the contrary, there are several different growth cycles and to identify which countries belong to each group. We can also determine whether the degree of synchronisation within each group has changed over time.⁹

The Finite Markov Mixture Models combine clustering techniques, finite mixtures and Bayesian estimation techniques. The idea underlying this approach is that we can model a random variable as a mixture of autoregressive processes. Each of these processes represents the characteristics and distribution of the business cycle that underlies the GDP growth. Furthermore, these processes include an unobservable latent indicator that follows a two-state Markov chain that allows capturing the switch between the two cyclical phases (expansion and recession).

We apply clustering based on finite mixtures of dynamic regression models. The idea is to pool time series to obtain posterior inferences but without overall pooling within clusters being necessary. Hence, this methodology benefits from the robustness of time series techniques in the panel when estimating the coefficient of an individual time series. This means that, within a panel of time series, only those that display similar dynamic properties are pooled to estimate the parameters of the data generating process. That is, the appropriate grouping is estimated along with the model parameters, rather than forming groups before estimation. This is achieved within the Bayesian framework by applying Markov Chain Monte Carlo (MCMC) and data augmentation methods to estimate the posterior probabilities.¹⁰

To analyse the synchronisation of regional business cycles we employ annual real GDP data. It has to be acknowledged that annual data could be even more reliable to establish robust facts on real economic activity in spite of the loss of information on short-term dynamics.

In this study we consider 16 European countries, namely, the 12 Euro area (EA12) member states [Austria (AT), Belgium (BE), Finland (FI), France (FR), Germany (DE), Ireland (IE), Italy (IT), Luxembourg (LU), the Netherlands (NL), Portugal (PT), Spain (ES) and Greece (EL)], three EU member states [Denmark (DK), Sweden (SE) and the UK (UK)] and Norway (NO), which is not a member state of the EU. Regarding Germany, prior to 1991, the data do not include the eastern Landers and Berlin. However, from 1991 onwards, they are included and incorporated into the national total.

The series cover a period of 34 years, from 1980 to 2014. As far as we know, this is one of the few papers that incorporates the period of the Great Recession. Thus, we analyse the possible effect of the Great Recession on the business cycle of the European countries. The source

⁹ See Bandrés, Gadea and Gómez-Loscos (2016) for a detailed discussion of this methodology as well as on the advantages and drawbacks of the different approaches for dating the business cycle.

¹⁰ We have followed the approach of Frühwirth-Schnatter and Kaufmann (2008).

of the data is the Cambridge Econometrics database, supplemented with data from AMECO, a dataset provided by the European Commission's Directorate General of Economic and Financial Affairs (DG EcFin).

An analysis of European business cycles

We analyse the national cycles to see whether some general patterns can be identified. We first examine the evolution of country GDP growth rates. Data of the growth rates, calculated as the first logarithmic difference, are displayed in Exhibit 1. We observe some similarities in the business cycles of the European countries, such as the huge impact of the Great Recession, a deceleration at the beginning of the nineties or the slowdown in 2001. However, all countries exhibit some idiosyncratic

Some similarities exist in the business cycles of the European countries, such as the huge impact of the Great Recession, a deceleration at the beginning of the nineties or the slowdown in 2001. However, all countries exhibit some idiosyncratic behaviour, with differences in the duration and depth of recession phases and also in the duration and speed of growth of recoveries.

behaviour, with differences in the duration and depth of recession phases and also in the duration and speed of growth of recoveries.

The boxplot of these growth rates is displayed in Exhibit 2, which divide the dataset into quartiles and offer information about the minimum and maximum value of each series, as well as their outliers. We find that Ireland (IE) and Luxembourg (LU) are the countries that have registered the highest growth rates during the whole period considered, followed by Finland (FI) and Spain (ES). On the contrary,

the countries with the lowest growth rates were Italy (IT) and Denmark (DK). Regarding volatility, Greece (EL), Luxembourg (LU) and Ireland (IE) show the highest variances, although the former presents a lower growth rate. Meanwhile, the UK and France (FR) stand out because of their low variability. The UK is the country that presents the highest number of outliers whereas, in most of the remaining countries only one outlier is detected.

The analysis of comovements completes this preliminary description section. The top of Exhibit 3 displays GDP growth rates for each country (blue lines) together with the median and quantiles 25 and 75 of the sample (grey lines). Although the inter-country dispersion of business cycles is high, when we focus on the grey lines, we are able to distinguish quite a common cyclical pattern. Two cyclical events are observed. On the one hand, the deceleration of the beginning of the nineties and, on the other hand, and more clearly, the huge decline in the median output growth rates at the time of the Great Recession.

In order to analyse how the series move together over the sample and, specifically, if comovements have intensified during the Great Recession, we compute Moran's modified statistic, following Stock and Watson (2010), which summarizes the possible time-varying comovements among GDP growth rates. The outcome is plotted at the bottom of Exhibit 3. We observe that synchronisation of comovements is around 0.5, on average, and quite volatile throughout the period. Comovements increased after the mid-nineties and sharply decreased in 1999. This index also confirms that spatial correlation has been increasing since the beginning of the European Monetary Union period (1999). This trend continued during the Great Recession, when it received a new impulse. However, as the worst of the recession ended, the synchronisation smoothly began to decrease. We also observe an increase in synchronisation near the end of the sample associated with a slowdown in the output growth after 2010. Finally, the improvement in the European economies meant a new decline in comovements at the very end of the sample.

Exhibit 1

GDP growth rates. Countries

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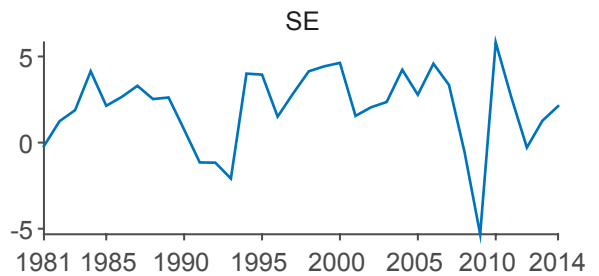
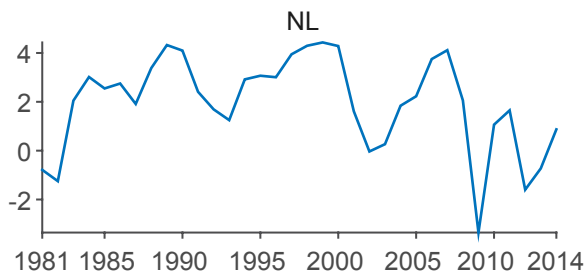
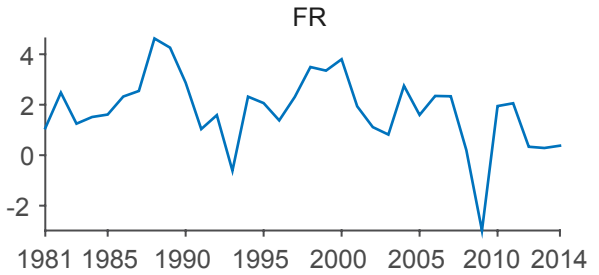
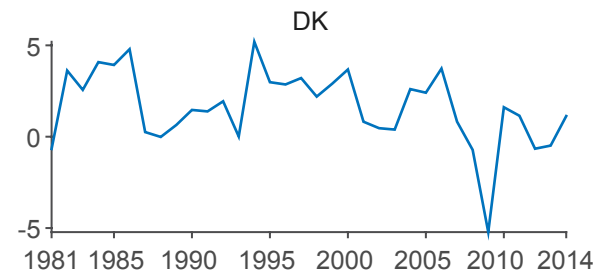
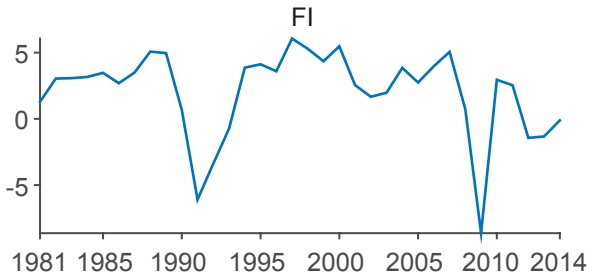
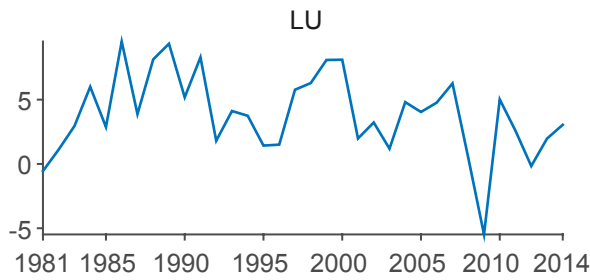
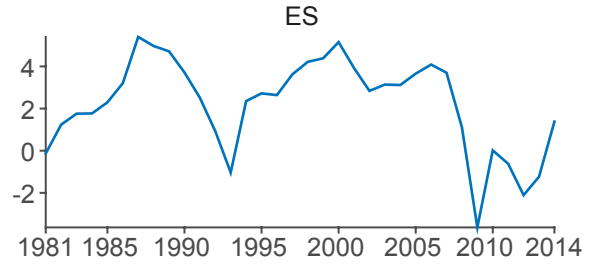
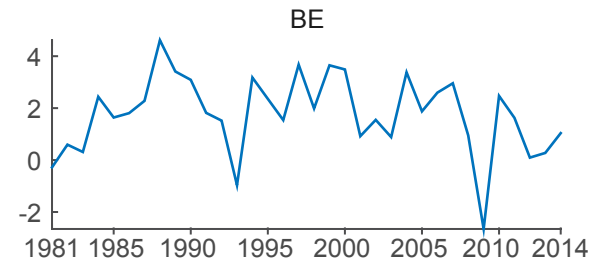
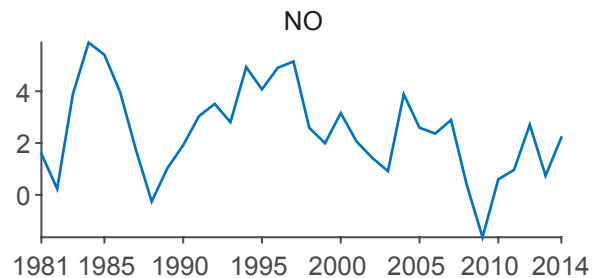
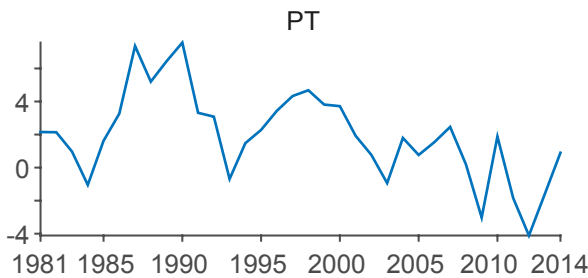
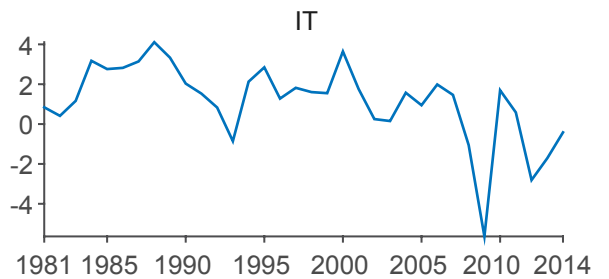
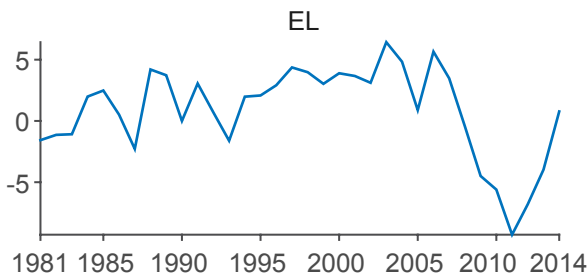
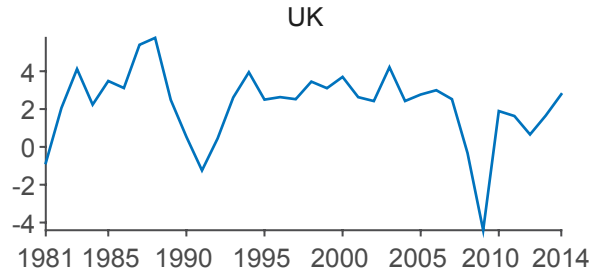
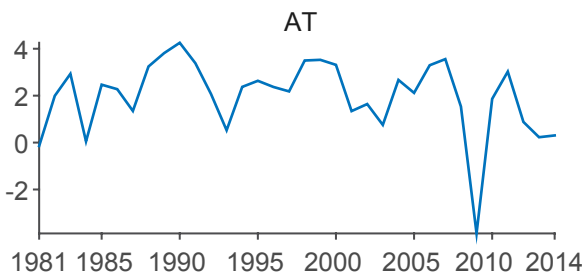
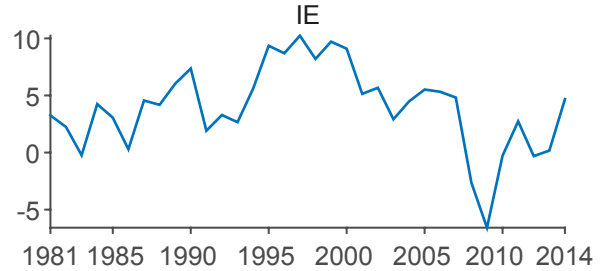
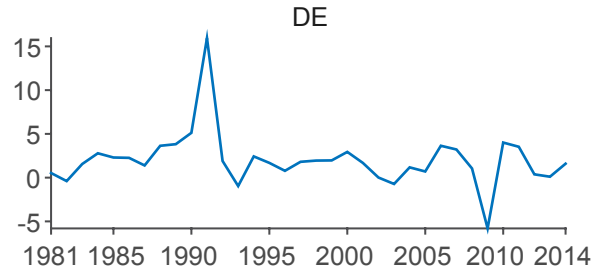


Exhibit 1 (continued)

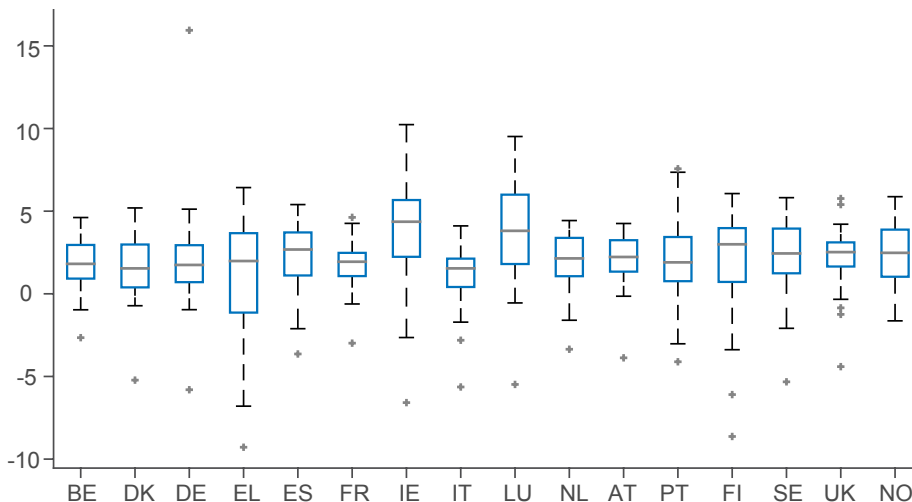
GDP growth rates. Countries



Source: Authors' own elaboration.

Exhibit 2

Boxplot of country growth rates

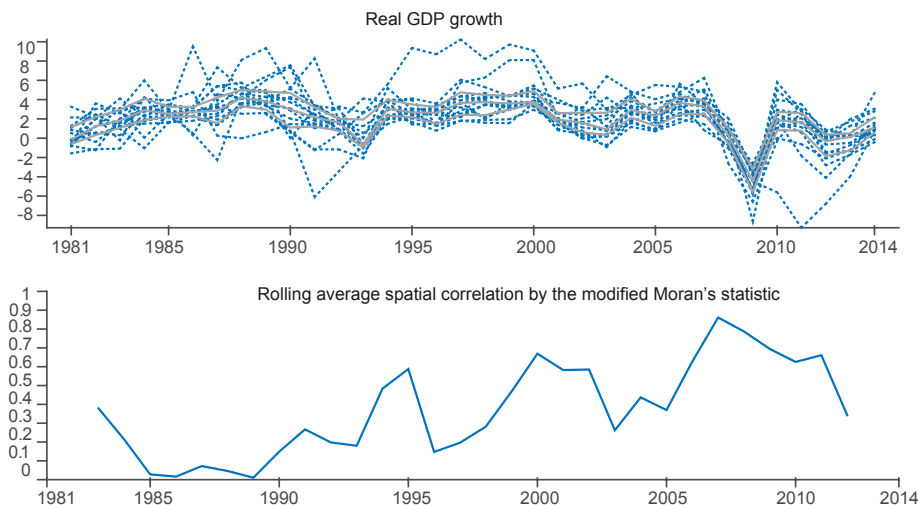


Notes: The body of the boxplot is represented by a blue box, which goes from the first quartile (25% of the data below this value) to the third quartile (25% of the data above this value) and the grey line inside the box represents the median (50% of the data is greater than that value, that is, it is the middle of the dataset). Two horizontal lines, in dotted lines, named whiskers, extend from the upper side and the lower side of the box. The upper whisker goes from the first quartile to the smallest non-outlier in the dataset (the minimum value excluding outliers) and the lower whisker goes from the third quartile to the largest non-outlier of the sample (the maximum value excluding outliers). Outliers are plotted separately as grey crosses on the exhibit.

Source: Authors' own elaboration.

Exhibit 3

Evolution and comovements between national growth rates



Source: Authors' own elaboration.

Finally, we apply the Finite Mixture Markov Models methodology, in order to identify the business cycle dating of European countries and to find out into how many clusters these cycles can be classified. To select the best model, we estimate the likelihood function applying three different criteria: importance sampling, bridge sampling and reciprocal sampling. We contemplate various specifications with one, two, three and four possible groups of countries and one, two, three, and four lags to capture the dynamics of the time series processes.

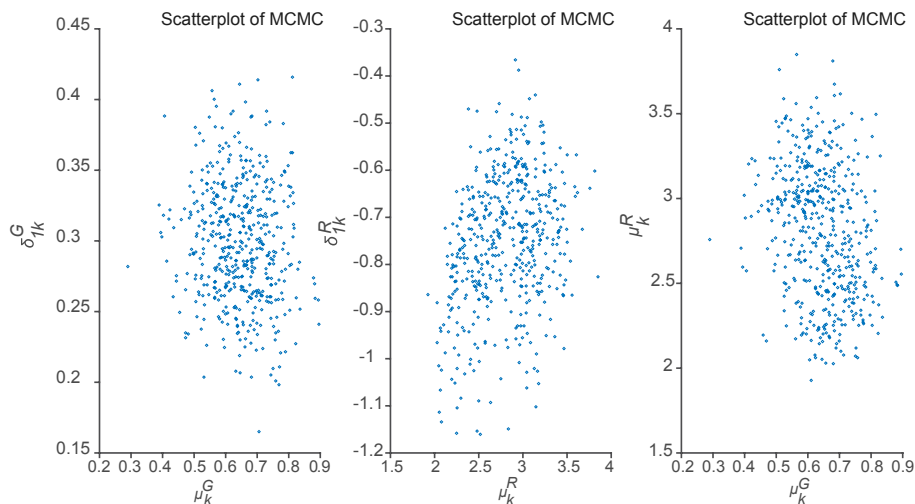
Results show that the likelihood using the three criteria is maximum for the model with only one group of countries and four lags (*i.e.*, Table 1). If we observe the scatterplots of the Markov Chain Monte Carlo draws for one group and four lags (Exhibit 4), we can prove that the observations of the different simulated parameters simulated do not reflect distinct groups. This means that there is just one single business cycle across the sixteen European

countries under analysis. The details of the posterior estimation of the model parameters are available in Table 2. We observe that the two states specification is significant as the corresponding coefficients of the growth rates in the expansionary phase and the recessionary phase of the cycle are significantly different from zero. It should be noted that, due to the standardization, the coefficients and are not directly interpretable as yearly growth rates. They represent above-average and below-average periods with respect to the mean. We distinguish an above-average cycle, with a mean growth of 0.64%, and a below-average cycle with a mean contraction of -2.16%. Considering these figures and taking into account probabilities of each business cycle phase, the average growth would be 2.69% during expansion and -0.52% during recession.

The chronology of cyclical phases appears in Exhibit 5. In particular, it allows us to identify several recessionary periods, namely, the crisis

Exhibit 4

Scatterplot of simulated parameters, K=1, p=4



Notes: From left to right, scatterplot of simulated group-specific parameters μ_k^G against $\delta_{1,k}^G$, scatterplot of simulated state-group specific effects μ_k^R against $\delta_{1,k}^R$ and scatterplot of simulated group-specific parameters μ_k^G against μ_k^R . The scatterplots display values for $K=1$.

Source: Authors' own elaboration.

Table 1

Log-marginal likelihood of different Markov switching model specifications with group-specific autoregressive coefficients

| Model K,p | Importance sampling | Bridge Sampling | Reciprocal Sampling |
|-----------|---------------------|-----------------|---------------------|
| 1,1 | -944.20 | -943.42 | -944.17 |
| 1,2 | -907.82 | -907.05 | -907.79 |
| 1,3 | -882.33 | -882.54 | -882.35 |
| 1,4 | -843.79 | -843.01 | -843.77 |
| 2,1 | -907.82 | -907.05 | -907.79 |
| 2,2 | -843.79 | -843.01 | -843.77 |
| 2,3 | -907.66 | -909.59 | -909.24 |
| 2,4 | -846.96 | -842.85 | -845.27 |
| 3,1 | -882.33 | -882.54 | -882.35 |
| 3,2 | -907.66 | -909.59 | -909.24 |
| 3,3 | -949.49 | -943.72 | -947.12 |
| 3,4 | -850.22 | -843.14 | -847.44 |
| 4,1 | -843.79 | -843.01 | -843.77 |
| 4,2 | -846.96 | -842.85 | -845.27 |
| 4,3 | -850.22 | -843.14 | -847.44 |
| 4,4 | -853.66 | -842.05 | -849.35 |

Notes: The highest values are indicated in bold. For a detailed description of the different methods of estimating conditional likelihood see Frühwirth-Schnatter, S. (2006).

Source: Authors' own elaboration.

at the beginning of the nineties, the deceleration of 2001 and Great Recession, in chronological order. To be precise, we observe that 1993, 2001, 2008-2009 and 2011-2013 are identified as recessionary phases in the top exhibit. The expansionary periods are displayed in the bottom exhibit. The Euro Area Business Cycle (EABC) Dating Committee of the Centre for Economic Policy Research (CEPR)¹¹ identifies just two recessions in this sample: 1992.2-1993.2 and

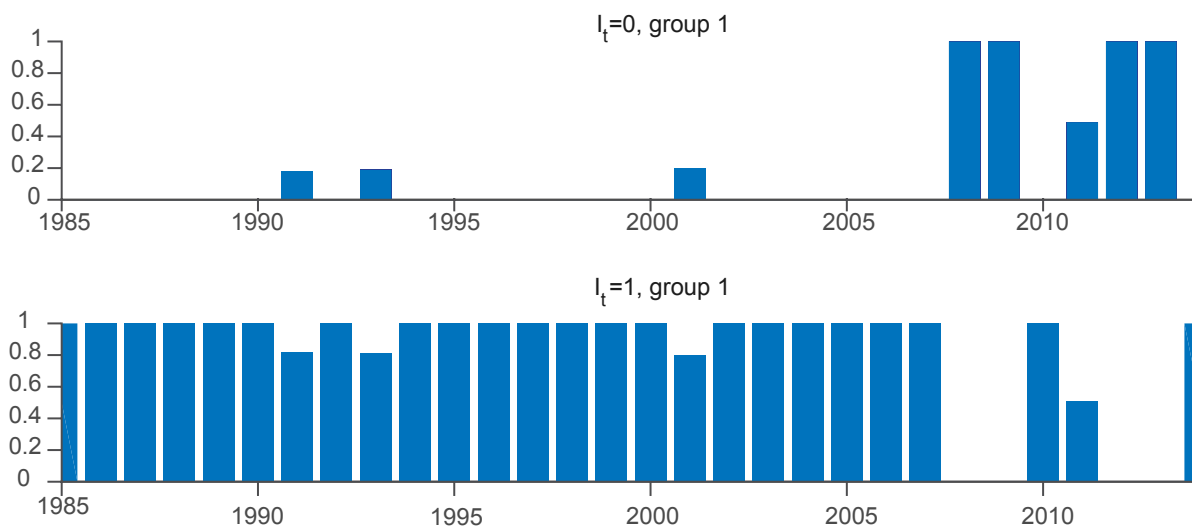
2008.2-2009.2.¹² Both chronologies are quite close. Nevertheless, we identify a deceleration at the beginning of the nineties which does not appear in the official dating. In any case, this episode and the one in 2001 were not so clear, as shown by the probability of being in recession, which is slightly below 0.5.¹³ Furthermore, it should be noted that we do not only deal with a different sample of countries but also with a different frequency and temporal dimension.

¹¹ <http://cepr.org/content/euro-area-business-cycle-dating-committee>

¹² It has to be borne in mind that our dating begins in 1985 because our selected model has four lags. Hence, we do not capture the recession of 1980.2-1983.3 that is identified by the EABC Dating Committee.

¹³ This is due to the fact that the enlargement of the sample including the most recent years, which cover the Great Recession and its subsequent recovery, characterized by the sharp decline in output growth, make difficult the identification of previous phases of recession. Previous recessionary phases are very smooth when compared with the Great Recession.

Exhibit 5

Business cycle, $K=1$, $p=4$ 

Source: Authors' own elaboration.

The regime switches are quite distinct and also present a different persistence for periods of recovery and slowdown. The persistence is interpreted as the probability of remaining in expansion or recession after an expansionary or recessionary cyclical phase, respectively. Table 2 documents that the mean persistence of the states is 0.84 and 0.58, respectively. Hence, the persistence of remaining in expansions is higher than that for recessions. On average, above-average growth periods are expected to last more than nine years, whereas the expected duration of below-average growth periods is around two years.

The distribution for each country according to its relative mean growth in recession and expansion is shown in Exhibit 6.¹⁴ For each cyclical phase and country, we compute the average of the demeaned real GDP growth rates. We observe that there have been

important differences in the growth performance of the different countries, but two extreme cases deserve comment. First, Ireland (IE) stands out for having both the most dynamic GDP growth rates during expansion phases and the hardest declines during recession periods. Second, Norway (NO) has less variability in its business cycle, the growth rates being very low during recoveries and experiencing small negative growth rates during recessions. Finally, Exhibit 7 displays for each country, the average growth in the phases of expansion and recession. Ireland, Luxembourg and, to a lesser extent, Spain show the largest growth rates during expansionary phases (on the contrary, Italy, Greece, France, and Denmark are those that grew the least). Furthermore, Norway, Austria, Luxembourg and Germany are those that exhibit the smoothest declines in recessionary phases (with Greece, Italy, Finland and Portugal experiencing the deepest decreases).

¹⁴ The average state-dependent mean can be computed for each country based on the estimate of the state indicator (cyclical phase), which is common for all the countries in the same cluster.

Table 2

Posterior estimates, K=1, p=4

| S_i | $I_{S_i,t} = 1$ | | | | | | $I_{S_i,t} = 0$ | | | | | | num. countries |
|-------|-----------------|--------------------|--------------------|--------------------|--------------------|---------------------|-----------------------------|--------------------|--------------------|--------------------|--------------------|---------------------|----------------|
| | $\mu_{S_i}^G$ | δ_{1,S_i}^G | δ_{2,S_i}^G | δ_{3,S_i}^G | δ_{4,S_i}^G | $\xi_{11}^{S_i}$ | $\mu_{S_i}^G - \mu_{S_i}^R$ | δ_{1,S_i}^R | δ_{2,S_i}^R | δ_{3,S_i}^R | δ_{4,S_i}^R | $\xi_{00}^{S_i}$ | |
| 1 | 0.64 (0.09) | 0.30 (0.04) | 0.09 (0.06) | -0.04 (0.06) | -0.15 (0.06) | 0.84 (0.67 0.98) | -2.16 (0.42) | 1.05 (0.14) | -0.43 (0.13) | 0.08 (0.07) | -0.35 (0.09) | 0.58 (0.27 0.89) | 16 |

Notes: The model is specified as follows:

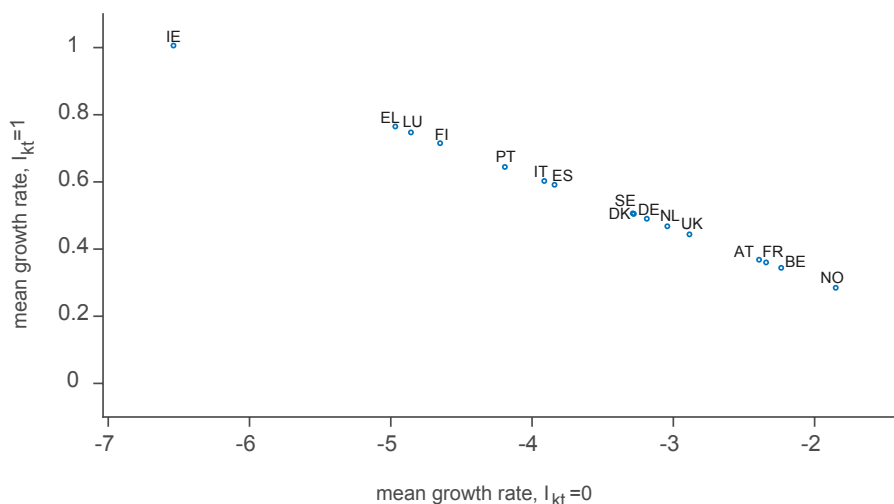
$$y_{it} = \mu_k^G + \delta_{1,k}^G y_{i,t-1} + \dots + \delta_{p,k}^G y_{i,t-p} + (I_{kt} - 1) (\mu_k^R + \delta_{1,k}^R y_{i,t-1} + \dots + \delta_{p,k}^R y_{i,t-p}) + \varepsilon_{it} \quad (1)$$

where y_{it} represents the GDP growth rate of country i in time t , k is the state and p the order of autoregressive dynamics. Therefore, μ_k^G and $\delta_{j,k}^G$ for $j=1\dots p$ are the group-specific effects and μ_k^R and $\delta_{j,k}^R$ the state-specific-effects. The group indicator is dened as $S_i = k$ with $k = 1\dots K$. Periods of expansion (also called above-average growth periods) are denoted by $I_{kt} = 1$ with conditional growth rate μ_k^G and periods of recession (also called below-average growth periods) are denoted by $I_{kt} = 0$ with conditional growth rate $\mu_k^G - \mu_k^R$. We consider that the autoregressive dynamics is different for each group, thus $\delta_{j,k}^G$ and $\delta_{j,k}^R - \delta_{j,k}^G$, $j = 1, \dots, p$. Denoting the full set of parameters by θ , we estimate K , the number of states of the hidden Markov chain, the state-specific and group-specific parameters, the transition matrix $\xi_{k,j}$ and the size of each group: $\varphi = (\phi, \eta, \xi)$. Disturbance terms have unit-specific variances $\xi_{it} \sim N(0, \sigma_i)$. Define a latent group indicator S_i for each time series y_{it} , which takes a value out of the discrete set $1, \dots, K$, indicating the group to which the time series belongs and defining the unit-specific parameters $p(y_{it} | \varphi - S_i)$. We also assume that $P(S_i = k)$ is equal to the relative size η_k of group k . In brackets we display standard errors for coefficients and confidence intervals for persistence.

Source: Authors' own elaboration.

Exhibit 6

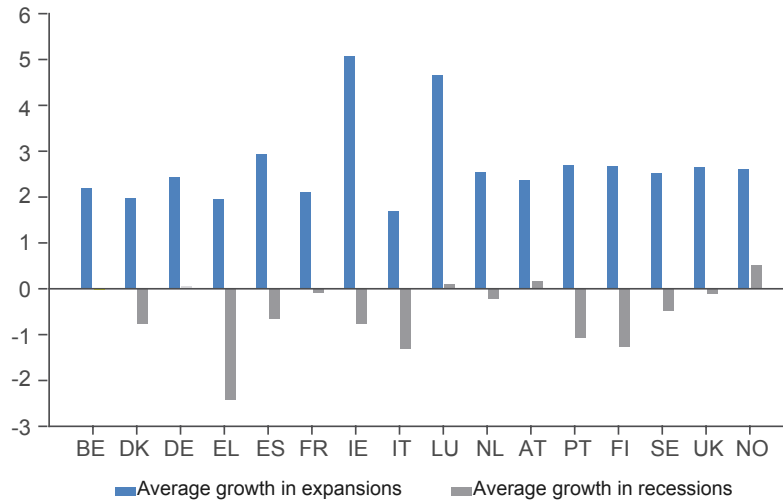
Distribution of countries, K=1, p=4



Notes: The numbers represent the average of the demeaned real GDP growth rates in each cyclical phase and country. Note that demeaning growth rates in each country yields linear correlations between high and low growth rate averages.

Source: Authors' own elaboration.

Exhibit 7

Distribution of countries, $K=1$, $p=4$ 

Notes: The numbers represent the average of the real GDP growth rates in each cyclical phase and country.

Source: Authors' own elaboration.

Concluding remarks

In this paper, we show the results of a robust methodology that allows us both to date and cluster the business cycles of European countries, that is, the Finite Mixture Markov Models. Considering an autoregressive panel framework, the GDP growth rate in a country is allowed to switch between expansionary and recessionary periods according to a latent indicator that captures the two unobservable cyclical states of the economy. We also estimate the most suitable grouping of countries according to their similarity in business cycle dynamics along with the model parameters. This means that we do not set an a priori grouping on the basis of some unit-specific features, but rather use our statistical model in order to assign each unit to a group defined in terms of business cycle features.

We observe some similarities in the business cycles of the European countries, such as the huge impact of the Great Recession, a deceleration at the beginning of the nineties and the slowdown in 2001, although each business

cycle presents idiosyncratic behaviours in terms of average growth rate, variability and the presence of outliers. We also analyse the time-varying comovements in the GDP series, using an index proposed by Stock and Watson (2010), finding that spatial correlation has been increasing since the beginning of the Monetary Union period with a new impulse coinciding with the Great Recession. Applying the Finite Mixture Markov Models, we find evidence of a unique cluster, *i.e.*, a common cycle in the European countries in which the two-state specification is significant and the persistence of expansions, *i.e.*, the probability of remaining in that cyclical phase, is higher than that of recessions. Our methodology identifies 1993, 2001 and 2008-2009 and 2011-2013 as periods of recession.

References

ALTISSIMO, F.; BASSANETTI, A.; CRISTADORO, R.; FORNI, M.; HALLIN, M.; LIPPI, M., and L. REICHLIN (2001), "EuroCOIN: A Real Time Coincident Indicator of the Euro Area Business Cycle," *CEPR Discussion Papers*, 3108.

ARTIS, M. (2003), "Is there a European Business Cycle?," *CESifo Working Paper Series*, 1053.

ARTIS, M. J.; KROLZIG, H. M., and J. TORO (2004), "The European business cycle," *Oxford Economic Papers*, 56: 1–44.

ARTIS, M. J.; MARCELLINO, M., and T. PROIETTI (2005), *Dating the Euro Area Business Cycle, in Euro Area Business Cycle: Stylized Facts and Measurement Issues*, ed. by L. Reichlin, 83–93, CEPR.

ARTIS, M. J., and W. ZHANG (1997), "International Business Cycles and the ERM: Is There a European Business Cycle?," *International Journal of Finance and Economics*, 2(1): 1–16.

BANDRÉS, E.; GADEA-RIVAS, M. D., and A. GÓMEZ-LOSCOS (2016), Regional business cycles across Europe, *Documento de Trabajo*, Funcas, 785

BAYOUMI, T., and B. EICHENGREEN (1992), "Shocking Aspects of European Monetary Unification," *NBER Working Papers*, 3949.

CAMACHO, M.; PEREZ-QUIROS G., and L. SAIZ (2006), "Are European business cycles close enough to be just one?," *Journal of Economic Dynamics and Control*, 30: 1687–1706.

— (2008), "Do European business cycles look like one?," *Journal of Economic Dynamics and Control*, 32: 2165–2190.

CANOVA, F.; CICCARELLI, M., and E. ORTEGA (2007), "Similarities and Convergence in G-7 Cycles," *Journal of Monetary Economics*, 54: 85–878.

DE HAAN, J.; INKLAAR, R., and J. RICHARD (2008), "Will business cycles in the Euro Area converge: a critical survey of empirical research," *Journal of Economic Surveys*, 22(2):234–273.

DEL NEGRO, M., and C. OTROK (2008), "Dynamic Factor Models with Time-Varying Parameters: Measuring Changes in International Business Cycles," *Federal Reserve Bank of New York Staff Reports*, 326.

FRÜHWIRTH-SCHNATTER, S. (2006), *Finite Mixture and Markov Switching Models*, 1st ed., Springer-Verlag, New York.

FRÜHWIRTH-SCHNATTER, S., and S. KAUFMANN (2008), "Model-based clustering of multiple time series," *Journal of Business and Economic Statistics*, 26: 78–89.

GIANNONE, D., and L. REICHLIN (2005), Euro Area and US Recessions, 1970-2003, in *Euro Area Business Cycle: Stylized Facts and Measurement Issues*, ed. by L. Reichlin, CEPR: 83–93.

— (2006), "Trends and cycles in the Euro Area: how much heterogeneity and should we worry about it?," *ECB Working Papers*, 595.

GIANNONE, D.; LENZA, M., and L. REICHLIN (2010), *Business Cycles in the Euro Area in Europe and the Euro*, Ed. Alesina, A. and F. Giavazzi, The University of Chicago Press:141–167.

HELBLING, T., and T. BAYOUMI (2003), "Are they all in the same boat? The 2000-2001 growth slowdown and the G-7 business cycle linkages," *IMF working paper*, 03–46.

KAUFMANN, S. (2003), "The business cycle of European countries Bayesian clustering of country-individual," *IP growth series, Working Papers*, 83, Oesterreichische Nationalbank (Austrian Central Bank).

LUMSDAINE, R. L., and E. S. PRASAD (2003), "Identifying the Common Component of International Economic Fluctuations: A New Approach," *Economic Journal*, 113(484): 101–127.

STOCK, J., and M. WATSON (2010), "Dynamic factor models," in CLEMENTS M. P. and D. F. HENDRY (eds), *Oxford handbook of economic forecasting*, Oxford University Press.

Spanish economic forecasts panel: November 2016¹

Funcas Economic Trends and Statistics Department

The growth forecast for 2016 has increased to 3.2%, up from the last Panel forecast of 3.1%

Spanish GDP registered growth of 0.7% in the third quarter according to the provisional numbers released by the national statistics bureau, the INE, 10 basis points above the consensus forecast as per the last Forecasts Panel. Meanwhile, the INE has revised the second-quarter year-on-year rate upwards, from 3.2% to 3.4%. Combined, these circumstances mean that growth in the first three quarters of the year was higher than had been estimated.

As a result of this better than forecast performance, the average forecast for GDP growth in 2016 has been revised upwards from 3.1% to 3.2%. Underlying this revision is a higher expected contribution to growth by national demand - 3.1 percentage points - derived in turn from higher estimated growth in private and public consumption.

The forecast for 2017 has also been raised by 10 basis points

The consensus growth forecast for 2017 has also been raised by 10 basis points. However, the estimated quarterly growth rates remain unchanged (in fact the fourth quarter rate has been cut slightly); the upward revision to the annual rate reflects the knock-on effect of the better-than-forecast results in the last two quarters of 2016 (the

consensus forecast for growth in the fourth quarter of this year has increased from 0.5% to 0.6%).

Inflation is back in positive territory

The inflation rate was positive in September for the first time this year and in October rose to 0.7%, driven mainly by a narrower year-on-year correction in energy prices. The year-on-year rate of inflation forecast for December has increased from 0.7% to 0.9%; however, this does not affect the average annual rate estimated for all of 2016, which remains -0.3%. However, the average annual rate forecast for 2017 has been revised upwards, to 1.4%. The consensus inflation forecast for December 2017 is currently 1.2%.

Healthy job readings

Both the official job report (EPA) and social security affiliation numbers revealed accelerating growth in job creation in the third quarter of 2016, with job growth outperforming GDP growth.

The consensus forecasts for job creation in 2016 and 2017 stand at 2.8% and 2.1%, respectively, unchanged from the last Forecasts Panel even though the average rates of unemployment forecast for those years have been reduced slightly, to 19.7% and 18.2%, respectively. Using the consensus forecasts for growth in GDP, job creation and wage compensation yields implied forecasts for growth in labour productivity and unit

¹ The Spanish Economic Forecasts Panel is a survey run by Funcas which consults the 17 research departments listed in Table 1. The survey, which dates back to 1999, is published bi-monthly in the first fortnights of January, March, May, July, September and November. The responses to the survey are used to produce a "consensus" forecast, which is calculated as the arithmetic mean of the 17 individual contributions. The forecasts of the Spanish Government, the Bank of Spain, and the main international organisations are also included for comparison, but do not form part of the consensus forecast.

labour costs: for productivity, the numbers point to growth of around 0.4% in 2016 and 0.2% in 2017, and for ULCs, growth of 0.2% and 0.9% in 2016 and 2017, respectively.

Current account surplus set to rise in 2016

The current account surplus to August stood at 12.5 billion euros, twice the surplus in the same period of 2015. The improvement has been driven by a strong trade surplus in goods and services coupled with a narrower income deficit.

The current consensus forecast is for a surplus of 1.8% of GDP in 2016 as a whole and a surplus of 1.6% in 2017, in both cases unchanged with respect to the last Panel forecasts.

On track for delivery of the public deficit target this year

In the first eight months of the year, the deficit at all levels of government except for the local corporations stood at 36.8 billion euros, up 635 million euros year-on-year. The deterioration is attributable to a higher deficits at the central government level – due to a drop in personal income tax and, more particularly, corporate income tax receipts – and in the social security regime. The regional governments have reined in their deficit by 7.7 billion euros thanks to growth in revenue from the regional financing system.

The panellists have revised their forecast for the overall government deficit in 2016 slightly higher to 4.6% of GDP, leaving their forecast for 2017 unchanged at 3.6%. This means that the consensus is that Spain will meet its deficit target this year but not in 2017.

No major changes in the outlook for global growth

The forecasts reflected in this Panel were compiled the day before the US presidential elections so

that their outcome does not reflect the panellists' most up to date appraisal of the international situation. The US economy registered higher than forecast growth in the third quarter, while the European economy continues to grow slowly, albeit in line with expectations. Chinese growth remains steady at 6.7%, while Brazil and Russia are showing signs of recovery.

When asked for their view on the international context, including the EU and the rest of the world, most panellists continue to view the situation as neutral and the number seeing it as negative has fallen. The expectation is that the external context will remain neutral over the next six months. The number of panellists expecting it to deteriorate has declined.

Low long-term rates

Short-term rates (3-month Euribor) continue to trend lower, trading at -0.31% in recent weeks. The panellists continue to believe that rates are and will remain low over the coming months in relation to the state of the Spanish economy.

Long-term bond yields (10-year Spanish bonds) have been widening across the board in recent weeks. The Spanish bond yield is currently at around 1.23%, above the 1% registered in September. Most panellists continue to view this level as very low for prevailing economic conditions in Spain and expect long-term rates to remain stable at current levels.

The euro weakens

The euro has weakened further against the dollar, depreciating from an average rate of 1.12 in September to 1.10 in October and weakening further in early November. As a result, the number of panellists who believe that the euro is undervalued has increased, although most continue to think it is at its equilibrium level. The outlook is for stability in the coming months.

Fiscal policy remains expansionary

The view is that fiscal policy is expansionary. Most panellists believe it should be shifted to restrictive, although the sum of panellists who believe it should be neutral and those who believe it should be expansionary outnumber those who believe it should be restrictive. As for monetary policy, there is virtual consensus that it is expansionary and that this is as it should be.

Uncertainty regarding the direction Donald Trump’s public policies will take

The forecasts presented in this Panel were prepared before the results of the US presidential elections were known. During his campaign, the president-elect, Donald Trump, announced a series of measures which, if implemented, would affect the outlook for the Spanish economy.

Risk of protectionism

Any questioning of the multilateral trading system and/or the introduction of protectionist measures would be particularly harmful for exports, the engine of Spain’s economic recovery. Before

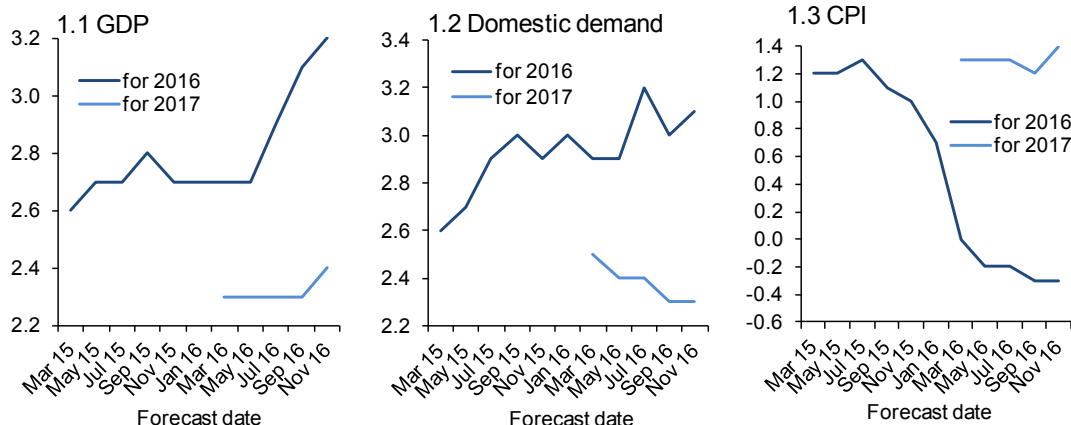
the elections, the expectation was that the international context would not change over the next six months. The IMF’s October forecasts, meanwhile, foreshadowed accelerating growth in international trade. This international organisation was forecasting growth in the world trade volume of 3.8% in 2017, *i.e.*, 1.5 points higher than the estimate for this year. In his most recent statements, the president-elect has adopted a more conciliatory tone, particularly regarding trade relations with Europe. Either way, there now lies ahead a period of uncertainty and this could undermine certain international investment projects.

Fiscal and monetary policy tension

On the domestic front, he has promised to cut taxes for top earners and corporations, and to spend more on infrastructure and job creation programmes. These measures could affect the public deficit and debt to GDP ratios, which are already at 4.1% and 108.2% of GDP, respectively, according to the IMF’s estimates for 2016. The impact on growth and prices remains to be seen. If inflation were to move higher, the Federal Reserve would be forced to roll back its quantitative easing measures faster than initially contemplated, which would have a significant impact on interest rates,

Exhibit 1

Change in forecasts (Consensus values) Percentage annual change



Source: Funcas Panel of forecasts.

the dollar, risk premiums and financial market volatility in general.

Uncertainty in Europe

In sum, global political uncertainty has increased and we would not rule out fresh turbulence ahead of the elections scheduled for next year in France and Germany. The European Union could help

to contain these risks. However, Europe's weak reaction to Brexit does not bode well for greater activism in this respect.

We will have to wait to see precisely what measures the US government ultimately takes. In the meantime, the global economy is facing a new challenge which could have adverse repercussions for the outlook for the Spanish economy over both the short and the medium term.

Table 1

Economic Forecasts for Spain – November 2016 Average year-on-year change, as a percentage, unless otherwise stated

| | GDP | | Household consumption | | Public consumption | | Gross fixed capital formation | | GFCF machinery and capital goods | | GFCF Construction | | Domestic demand | |
|--|------------|------------|-----------------------|------------|--------------------|------------|-------------------------------|------------|----------------------------------|--------------------|-------------------|------------|-----------------|------------|
| | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 |
| Analistas Financieros Internacionales (AFI) | 3.2 | 2.3 | 3.5 | 2.5 | 1.1 | 0.8 | 4.1 | 3.7 | 7.4 | 5.6 | 2.7 | 3.1 | 3.0 | 2.2 |
| Axesor | 3.2 | 2.6 | 3.3 | 2.1 | 0.3 | -0.4 | 4.2 | 5.2 | 7.4 | 5.2 | 2.8 | 6.4 | 3.0 | 2.3 |
| Banco Bilbao Vizcaya Argentaria (BBVA) | 3.3 | 2.5 | 3.3 | 2.3 | 1.2 | 1.8 | 4.1 | 3.4 | 6.3 | 3.8 | 2.6 | 2.7 | 3.0 | 2.3 |
| Bankia | 3.2 | 2.5 | 3.4 | 2.5 | 1.5 | 1.2 | 4.4 | 4.6 | 8.1 | 7.6 | 2.7 | 3.3 | 3.3 | 2.7 |
| CaixaBank | 3.2 | 2.4 | 3.3 | 2.3 | 1.2 | 1.0 | 3.9 | 3.1 | 6.8 | 3.0 | 2.5 | 3.2 | 3.1 | 2.1 |
| Cemex | 3.2 | 2.5 | 3.4 | 2.6 | 1.6 | 0.9 | 4.1 | 4.3 | 6.8 | 4.8 | 2.1 | 4.0 | 3.2 | 2.5 |
| Centro de Estudios Económica de Madrid (CEEM-URJC) | 3.2 | 2.3 | 3.3 | 2.3 | 1.9 | 1.2 | 4.6 | 3.9 | 5.9 | 4.4 | 3.6 | 3.5 | 3.2 | 2.3 |
| Centro de Predicción Económica (CEPREDE-UAM) | 3.1 | 2.1 | 3.1 | 2.0 | 1.2 | 1.4 | 3.9 | 3.5 | 6.1 | 3.5 | 2.5 | 3.1 | 2.9 | 2.1 |
| CEOE | 3.1 | 2.3 | 3.4 | 2.4 | 0.9 | 0.8 | 4.2 | 3.1 | 7.5 | 4.9 | 2.5 | 2.2 | 3.1 | 2.1 |
| Funcas | 3.1 | 2.3 | 3.3 | 2.2 | 0.6 | 0.6 | 4.2 | 4.8 | 7.7 | 7.1 | 2.4 | 3.7 | 3.1 | 2.4 |
| Instituto Complutense de Análisis Económico (ICAE-UCM) | 3.2 | 2.5 | 3.4 | 3.2 | 0.9 | 1.1 | 4.2 | 4.0 | 6.7 | 6.3 | 3.6 | 3.2 | 3.1 | 2.4 |
| Instituto de Estudios Económicos (IEE) | 3.2 | 2.4 | 3.4 | 2.3 | 0.8 | 1.5 | 4.1 | 4.0 | 7.7 | 6.6 | 2.3 | 2.7 | 2.9 | 2.4 |
| Instituto Flores de Lemus (IFL-UC3M) | 3.1 | 2.1 | 3.4 | 3.0 | 1.0 | -1.5 | 3.9 | 3.4 | 7.2 | 6.3 | 2.1 | 1.8 | 3.0 | 2.1 |
| Intermoney | 3.2 | 2.2 | 3.3 | 2.2 | 1.3 | 1.3 | 3.9 | 3.4 | 6.3 | 4.5 | 2.2 | 2.2 | 3.1 | 2.3 |
| Repsol | 3.2 | 2.6 | 3.4 | 2.6 | 0.5 | 1.0 | 4.2 | 5.0 | 7.6 | 6.6 | 2.5 | 4.2 | 3.1 | 2.8 |
| Santander | 3.1 | 2.2 | 3.4 | 2.5 | 0.5 | 0.7 | 4.2 | 4.0 | 7.5 | 3.2 | 2.4 | 4.8 | 3.1 | 2.5 |
| Solchaga Recio & asociados | 3.2 | 2.2 | 3.5 | 2.3 | 1.2 | 0.8 | 4.4 | 3.6 | 7.6 | 5.2 | 2.9 | 3.5 | 3.2 | 2.3 |
| CONSENSUS (AVERAGE) | 3.2 | 2.4 | 3.4 | 2.4 | 1.0 | 0.8 | 4.2 | 3.9 | 7.1 | 5.2 | 2.6 | 3.4 | 3.1 | 2.3 |
| Maximum | 3.3 | 2.6 | 3.5 | 3.2 | 1.9 | 1.8 | 4.6 | 5.2 | 8.1 | 7.6 | 3.6 | 6.4 | 3.3 | 2.8 |
| Minimum | 3.1 | 2.1 | 3.1 | 2.0 | 0.3 | -1.5 | 3.9 | 3.1 | 5.9 | 3.0 | 2.1 | 1.8 | 2.9 | 2.1 |
| Change on 2 months earlier ¹ | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.2 | 0.0 | -0.1 | -0.1 | 0.0 | 0.1 | -0.1 | 0.1 | 0.0 |
| - Rise ² | 9 | 6 | 5 | 5 | 6 | 5 | 5 | 4 | 1 | 5 | 6 | 2 | 7 | 4 |
| - Drop ² | 0 | 0 | 1 | 5 | 2 | 3 | 2 | 5 | 7 | 3 | 2 | 5 | 0 | 3 |
| Change on 6 months earlier ¹ | 0.5 | 0.1 | 0.5 | 0.2 | -0.4 | -0.3 | -0.5 | -0.3 | 0.6 | 0.2 | -1.1 | -0.5 | 0.2 | -0.1 |
| Memorandum Items: | | | | | | | | | | | | | | |
| Government (October 2016) | 2.9 | 2.3 | 3.3 | 2.6 | 1.0 | 0.9 | 5.4 | 4.2 | 8.0 | 5.2 | 4.3 | 3.9 | -- | -- |
| Bank of Spain (September 2016) | 3.2 | 2.3 | 3.4 | 2.0 | 1.0 | 0.8 | 4.0 | 4.8 | 7.9 ⁽³⁾ | 6.6 ⁽³⁾ | 2.1 | 4.2 | -- | -- |
| EC (November 2016) | 3.2 | 2.3 | 3.2 | 2.1 | 0.9 | 0.8 | 4.2 | 3.6 | 6.7 ⁽³⁾ | 4.5 ⁽³⁾ | 2.5 | 3.1 | 3.0 | 2.1 |
| IMF (October 2016) | 3.1 | 2.2 | 3.3 | 2.3 | 0.9 | 0.4 | 4.2 | 3.0 | -- | -- | -- | -- | 3.0 | 2.1 |
| OECD (June 2016) | 2.8 | 2.3 | 3.1 | 2.1 | 1.5 | 1.2 | 4.6 | 3.8 | -- | -- | -- | -- | 3.1 | 2.3 |

¹ Difference in percentage points between the current month's average and that of two months earlier (or six months earlier).

² Number of panelists revising their forecast upwards (or downwards) since two months earlier.

³ Investment in capital goods.

Table 1 (Continued)

Economic Forecasts for Spain – November 2016

Average year-on-year change, as a percentage, unless otherwise stated

| | Exports of goods & services | | Imports of goods & services | | CPI (annual av.) | | Core CPI (annual av.) | | Labour costs ³ | | Jobs ⁴ | | Unempl. (% labour force) | | C/A bal. of payments (% of GDP) ⁵ | | Gen. gov. bal. (% of GDP) ⁷ | |
|--|-----------------------------|------------|-----------------------------|------------|------------------|------------|-----------------------|------------|---------------------------|------------|-------------------|------------|--------------------------|-------------|--|--------------------|--|-------------|
| | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 |
| Analistas Financieros Internacionales (AFI) | 5.4 | 4.2 | 5.5 | 4.5 | -0.3 | 1.3 | 0.8 | 0.9 | 0.9 | 1.3 | 2.9 | 2.1 | 19.6 | 17.8 | 1.9 | 1.8 | -4.8 | -3.8 |
| Axesor | 5.3 | 4.1 | 4.8 | 3.2 | -0.2 | 1.5 | 1.0 | 1.4 | 0.4 | 0.8 | 2.6 | 2.0 | 20.1 | 18.4 | 1.9 | 1.5 | -4.5 | -3.8 |
| Banco Bilbao Vizcaya Argentaria (BBVA) | 5.5 | 3.5 | 5.1 | 3.1 | -0.3 | 1.7 | 0.9 | 1.1 | 0.8 | 1.2 | 2.8 | 2.2 | 19.7 | 18.1 | 1.3 | 1.7 | -4.6 | -3.6 |
| Bankia | 5.5 | 4.7 | 6.1 | 5.6 | -0.3 | 1.4 | 0.8 | 1.0 | 0.7 | 1.1 | 2.8 | 2.2 | 19.7 | 18.2 | 2.0 | 1.8 | -- | -- |
| CaixaBank | 6.0 | 5.0 | 5.7 | 4.4 | -0.3 | 1.8 | 0.8 | 1.0 | 0.2 | 0.8 | 2.8 | 2.1 | 19.7 | 18.2 | 2.0 | 1.8 | -4.6 | -3.8 |
| Cemex | 5.4 | 4.5 | 5.7 | 5.0 | -0.3 | 1.5 | 0.8 | 0.9 | -- | -- | 2.8 | 2.5 | 19.5 | 17.8 | 2.0 | 1.5 | -4.6 | -3.6 |
| Centro de Estudios Economía de Madrid (CEEM-URJC) | 5.6 | 4.9 | 5.9 | 5.4 | -0.3 | 1.5 | 0.9 | 1.2 | -- | -- | 2.7 | 2.1 | 19.7 | 18.0 | 1.6 | 1.4 | -4.6 | -3.5 |
| Centro de Predicción Económica (CEPREDE-UAM) | 6.1 | 4.8 | 5.7 | 5.2 | -0.4 | 1.2 | -- | -- | 0.6 | 1.4 | 2.6 | 1.4 | 19.8 | 19.1 | 1.5 | 0.3 | -3.9 | -3.3 |
| CEOE | 5.9 | 5.7 | 6.1 | 5.6 | -0.2 | 1.3 | 0.7 | 0.7 | 0.4 | 0.5 | 2.9 | 2.2 | 19.6 | 17.8 | 2.0 | 1.8 | -4.6 | -3.6 |
| Funcas | 5.1 | 4.2 | 5.8 | 4.9 | -0.3 | 1.5 | 0.8 | 0.9 | 0.6 | 1.1 | 2.7 | 1.9 | 20.0 | 18.5 | 2.0 | 1.9 | -4.6 | -3.6 |
| Instituto Complutense de Análisis Económico (ICAE-UCM) | 5.3 | 4.3 | 5.4 | 4.6 | -0.3 | 1.4 | 0.9 | 1.0 | -- | -- | 2.3 | 1.9 | 19.8 | 18.5 | 1.7 | 1.5 | -4.5 | -3.5 |
| Instituto de Estudios Económicos (IEE) | 5.4 | 3.7 | 5.4 | 4.4 | -0.2 | 1.5 | 0.8 | 0.9 | 0.8 | 1.1 | 2.9 | 2.2 | 19.6 | 18.0 | 1.9 | 1.8 | -4.6 | -3.9 |
| Instituto Flores de Lemus (IFL-UC3M) | 5.0 | 4.8 | 5.2 | 5.1 | -0.3 | 1.1 | 0.8 | 0.4 | -- | -- | 2.8 | 3.1 | 19.7 | 18.0 | -- | -- | -- | -- |
| Intermoney | 5.5 | 4.1 | 5.5 | 4.5 | -0.3 | 1.3 | 0.8 | 0.9 | -- | -- | 3.0 | 2.0 | 19.7 | 18.2 | 1.7 | 1.6 | -4.6 | -3.8 |
| Repsol | 7.6 | 6.6 | 7.8 | 7.6 | -0.3 | 1.2 | 0.8 | 0.9 | 0.8 | 1.0 | 3.2 | 2.7 | 19.8 | 18.0 | 1.8 | 1.7 | -4.6 | -3.1 |
| Santander | 5.5 | 3.8 | 5.5 | 4.9 | -0.3 | 1.7 | -- | -- | 0.5 | 1.5 | 2.7 | 1.8 | 19.7 | 18.1 | 1.5 | 1.2 | -4.9 | -3.1 |
| Solchaga Recio & asociados | 5.2 | 4.6 | 5.6 | 5.2 | -0.3 | 1.3 | 0.8 | 1.2 | -- | -- | 2.9 | 2.1 | 20.0 | 18.2 | 2.0 | 1.8 | -4.6 | -4.0 |
| CONSENSUS (AVERAGE) | 5.6 | 4.6 | 5.7 | 4.9 | -0.3 | 1.4 | 0.8 | 1.0 | 0.6 | 1.1 | 2.8 | 2.1 | 19.7 | 18.2 | 1.8 | 1.6 | -4.6 | -3.6 |
| Maximum | 7.6 | 6.6 | 7.8 | 7.6 | -0.2 | 1.8 | 1.0 | 1.4 | 0.9 | 1.5 | 3.2 | 3.1 | 20.1 | 19.1 | 2.0 | 1.9 | -3.9 | -3.1 |
| Minimum | 5.0 | 3.5 | 4.8 | 3.1 | -0.4 | 1.1 | 0.7 | 0.4 | 0.2 | 0.5 | 2.3 | 1.4 | 19.5 | 17.8 | 1.3 | 0.3 | -4.9 | -4.0 |
| Change on 2 months earlier ¹ | 0.0 | -0.1 | 0.0 | -0.2 | 0.0 | 0.2 | 0.0 | 0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | -0.1 | 0.0 |
| - Rise ² | 6 | 3 | 5 | 4 | 7 | 9 | 2 | 3 | 1 | 0 | 7 | 7 | 1 | 3 | 3 | 3 | 2 | 5 |
| - Drop ² | 3 | 4 | 5 | 6 | 2 | 2 | 1 | 3 | 4 | 2 | 3 | 3 | 7 | 8 | 1 | 3 | 5 | 3 |
| Change on 6 months earlier ¹ | 0.8 | -0.2 | -0.1 | -0.7 | -0.1 | 0.1 | 0.8 | -- | -0.3 | 0.0 | 0.3 | 0.1 | -0.4 | -0.5 | 0.2 | 0.2 | -0.6 | -0.4 |
| Memorandum items: | | | | | | | | | | | | | | | | | | |
| Government (October 2016) | 5.4 | 5.7 | 7.0 | 6.7 | -- | -- | -- | -- | -- | -- | 2.7 | 2.2 | 19.7 | 17.8 | 1.7 | 1.5 | -4.6 | -3.6 |
| Bank of Spain (September 2016) | 5.3 | 4.5 | 5.4 | 4.9 | -0.3 | 1.5 | 0.9 | 1.3 | -- | -- | 2.9 | 2.0 | 19.0 | 17.8 | 2.6 ⁽⁶⁾ | 2.2 ⁽⁶⁾ | -4.9 | -3.6 |
| EC (November 2016) | 6.1 | 4.5 | 5.8 | 4.3 | -0.4 | 1.6 | -- | -- | 1.2 | 1.2 | 2.8 | 2.1 | 19.7 | 18.0 | 1.7 | 1.5 | -4.6 | -3.8 |
| IMF (October 2016) | 5.9 | 4.4 | 6.1 | 4.4 | -0.3 | 1.0 | -- | -- | -- | -- | 2.9 | 1.9 | 19.4 | 18.0 | 1.9 | 1.7 | -4.5 | -3.1 |
| OECD (June 2016) | 4.8 | 5.0 | 5.5 | 5.2 | -0.5 | 1.0 | -- | -- | 0.7 | 1.1 | 2.9 | 2.1 | 19.8 | 18.4 | 1.1 | 0.9 | -3.7 | -2.7 |

¹ Difference in percentage points between the current month's average and that of two months earlier (or six months earlier).

² Number of panellists revising their forecast upwards (or downwards) since two months earlier.

³ Average earnings per full-time equivalent job.

⁴ In National Accounts terms: full-time equivalent jobs.

⁵ Current account balance, according to Bank of Spain estimates.

⁶ Net lending position vis-à-vis rest of world.

⁷ Excluding financial entities bail-out expenditures.

Table 2

Quarterly Forecasts - November 2016¹

| | Quarter-on-quarter change (percentage) | | | | | | | |
|------------------------------------|---|----------------|-----------------|----------------|---------------|----------------|-----------------|----------------|
| | 16-I Q | 16-II Q | 16-III Q | 16-IV Q | 17-I Q | 17-II Q | 17-III Q | 17-IV Q |
| GDP ² | 0.8 | 0.8 | 0.7 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 |
| Household consumption ² | 1.0 | 0.7 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 |

¹ Average of forecasts by private institutions listed in Table 1.² According to series corrected for seasonality and labour calendar.

Table 3

CPI Forecasts – November 2016¹

| Monthly change (%) | | | | Year-on-year change (%) | |
|---------------------------|---------------|---------------|---------------|--------------------------------|---------------|
| Nov-16 | Dec-16 | Jan-17 | Feb-17 | Dec-16 | Dec-17 |
| 0.4 | 0.1 | -0.6 | 0.3 | 0.9 | 1.2 |

¹ Average of forecasts by private institutions listed in Table 1.

Table 4

Opinions – November 2016
Number of responses

| | Currently | | | Trend for next six months | | |
|---|-------------------------------|---------------------------|--------------------------------|----------------------------------|------------------|---------------------|
| | Favourable | Neutral | Unfavourable | Improving | Unchanged | Worsening |
| International context: EU | 1 | 15 | 1 | 2 | 12 | 3 |
| International context: Non-EU | 0 | 17 | 0 | 1 | 14 | 2 |
| | Low¹ | Normal¹ | High¹ | Increasing | Stable | Decreasing |
| Short-term interest rate ² | 16 | 1 | 0 | 1 | 15 | 1 |
| Long-term interest rate ³ | 15 | 2 | 0 | 4 | 13 | 0 |
| | Overvalued⁴ | Normal⁴ | Undervalued⁴ | Appreciation | Stable | Depreciation |
| Euro/dollar exchange rate | 3 | 9 | 5 | 1 | 11 | 5 |
| | Is being | | | Should be | | |
| | Restrictive | Neutral | Expansionary | Restrictive | Neutral | Expansionary |
| Fiscal policy assessment ¹ | 1 | 1 | 15 | 8 | 6 | 3 |
| Monetary policy assessment ¹ | 0 | 0 | 17 | 0 | 1 | 16 |

¹ In relation to the current state of the Spanish economy.³ Yield on Spanish 10-year public debt.² Three-month Euribor.⁴ Relative to theoretical equilibrium rate.

KEY FACTS:

- ECONOMIC INDICATORS** *Page 100*
- FINANCIAL SYSTEM INDICATORS** *Page 149*

KEY FACTS: ECONOMIC INDICATORS

Table 1

National accounts: GDP and main expenditure components SWDA* (ESA 2010, Base 2010) (1)

Forecasts in blue

| | GDP | Private consumption | Public consumption | Gross fixed capital formation | | | | | Exports | Imports | Domestic Demand (a) | Net exports (a) |
|--|---------|--|--------------------|-------------------------------|-------|---------|----------------------------|--------------------|---------|---------|---------------------|-----------------|
| | | | | Construction | | | Equipment & other products | | | | | |
| | | | | Total | Total | Housing | | Other construction | | | | |
| Chain-linked volumes, annual percentage changes | | | | | | | | | | | | |
| 2009 | -3.6 | -3.6 | 4.1 | -16.9 | -16.1 | -20.3 | -11.4 | -18.3 | -11.0 | -18.3 | -6.4 | 2.8 |
| 2010 | 0.0 | 0.3 | 1.5 | -4.9 | -10.1 | -11.6 | -8.5 | 5.4 | 9.4 | 6.9 | -0.5 | 0.5 |
| 2011 | -1.0 | -2.4 | -0.3 | -6.9 | -11.7 | -13.3 | -10.2 | 0.9 | 7.4 | -0.8 | -3.1 | 2.1 |
| 2012 | -2.9 | -3.5 | -4.7 | -8.6 | -12.3 | -10.3 | -13.9 | -3.5 | 1.1 | -6.4 | -5.1 | 2.2 |
| 2013 | -1.7 | -3.1 | -2.1 | -3.4 | -8.6 | -10.2 | -7.3 | 2.8 | 4.3 | -0.5 | -3.2 | 1.5 |
| 2014 | 1.4 | 1.6 | -0.3 | 3.8 | 1.2 | 6.2 | -2.6 | 6.6 | 4.2 | 6.5 | 1.9 | -0.5 |
| 2015 | 3.2 | 2.9 | 2.0 | 6.0 | 4.9 | 3.1 | 6.4 | 7.2 | 4.9 | 5.6 | 3.3 | -0.1 |
| 2016 | 3.1 | 3.3 | 0.6 | 4.2 | 2.4 | 3.0 | 2.0 | 6.1 | 5.1 | 5.8 | 3.2 | -0.1 |
| 2017 | 2.3 | 2.2 | 0.6 | 4.8 | 3.7 | 4.1 | 3.4 | 6.0 | 4.2 | 4.9 | 2.4 | -0.1 |
| 2015 I | 2.7 | 2.4 | 1.0 | 4.7 | 4.8 | 2.0 | 7.0 | 4.6 | 4.6 | 4.8 | 2.7 | 0.1 |
| II | 3.1 | 2.5 | 1.9 | 6.3 | 4.6 | 2.7 | 6.2 | 8.1 | 5.0 | 5.5 | 3.1 | 0.0 |
| III | 3.4 | 3.3 | 2.3 | 6.7 | 5.3 | 3.6 | 6.6 | 8.2 | 4.9 | 6.2 | 3.7 | -0.3 |
| IV | 3.6 | 3.2 | 2.7 | 6.4 | 5.0 | 4.0 | 5.8 | 7.9 | 5.0 | 6.1 | 3.8 | -0.2 |
| 2016 I | 3.4 | 3.4 | 2.0 | 4.8 | 3.1 | 4.5 | 2.0 | 6.6 | 4.1 | 4.8 | 3.5 | -0.1 |
| II | 3.4 | 3.2 | 0.8 | 3.6 | 2.0 | 2.7 | 1.5 | 5.3 | 6.4 | 5.1 | 2.9 | 0.5 |
| III | 3.2 | 2.8 | 1.4 | 3.1 | 2.0 | 2.6 | 1.4 | 4.2 | 2.8 | 0.9 | 2.6 | 0.6 |
| IV | 2.6 | 2.8 | -0.2 | 3.9 | 2.4 | 3.4 | 1.6 | 5.6 | 5.0 | 6.5 | 3.0 | -0.3 |
| 2017 I | 2.4 | 2.3 | -0.7 | 4.7 | 3.4 | 3.2 | 3.6 | 6.1 | 5.6 | 6.3 | 2.5 | -0.1 |
| II | 2.1 | 2.2 | 1.2 | 4.6 | 3.5 | 4.4 | 2.7 | 5.7 | 2.4 | 4.4 | 2.6 | -0.6 |
| III | 2.3 | 2.1 | 1.0 | 4.7 | 3.7 | 4.2 | 3.2 | 5.7 | 4.2 | 4.6 | 2.3 | 0.0 |
| IV | 2.6 | 2.2 | 0.9 | 5.3 | 4.2 | 4.5 | 3.9 | 6.5 | 4.7 | 4.2 | 2.3 | 0.3 |
| Chain-linked volumes, quarter-on-quarter percentage changes, at annual rate | | | | | | | | | | | | |
| 2015 I | 3.9 | 2.2 | 4.9 | 10.0 | 11.1 | 1.2 | 19.6 | 9.0 | 5.4 | 5.4 | 3.8 | 0.1 |
| II | 3.1 | 3.6 | 2.0 | 9.5 | 6.5 | 10.9 | 3.2 | 12.6 | 3.5 | 7.2 | 4.2 | -1.0 |
| III | 3.8 | 4.2 | 1.7 | 2.7 | 1.1 | 1.2 | 1.0 | 4.4 | 9.1 | 9.5 | 3.7 | 0.1 |
| IV | 3.4 | 2.9 | 2.5 | 3.6 | 1.6 | 3.0 | 0.4 | 5.7 | 2.0 | 2.2 | 3.4 | 0.0 |
| 2016 I | 3.2 | 3.1 | 1.8 | 3.6 | 3.2 | 3.2 | 3.2 | 3.9 | 1.8 | 0.5 | 2.7 | 0.5 |
| II | 3.3 | 2.7 | -2.4 | 4.7 | 2.2 | 3.3 | 1.2 | 7.2 | 13.0 | 8.4 | 1.7 | 1.6 |
| III | 2.9 | 2.5 | 3.9 | 0.5 | 0.9 | 1.0 | 0.8 | 0.1 | -5.0 | -6.9 | 2.4 | 0.5 |
| IV | 2.1 | 2.0 | 0.5 | 4.5 | 3.1 | 4.0 | 2.5 | 5.8 | 5.0 | 7.9 | 2.4 | -0.3 |
| 2017 I | 2.0 | 2.0 | 1.0 | 4.2 | 3.4 | 4.0 | 3.0 | 5.0 | 0.8 | 0.9 | 2.1 | -0.1 |
| II | 2.1 | 2.0 | 1.5 | 4.5 | 3.9 | 4.5 | 3.5 | 5.1 | 4.8 | 3.6 | 2.2 | -0.1 |
| III | 3.1 | 2.4 | 1.0 | 5.5 | 4.2 | 4.5 | 4.0 | 6.8 | 6.2 | 6.1 | 2.7 | 0.4 |
| IV | 3.3 | 2.4 | 0.0 | 7.1 | 5.0 | 5.0 | 5.0 | 9.1 | 6.9 | 6.1 | 2.8 | 0.5 |
| Current prices (EUR billions) | | Percentage of GDP at current prices | | | | | | | | | | |
| 2009 | 1,079.0 | 56.1 | 20.5 | 24.3 | 16.2 | 8.1 | 8.1 | 8.2 | 22.7 | 23.8 | 101.2 | -1.2 |
| 2010 | 1,080.9 | 57.2 | 20.5 | 23.0 | 14.3 | 6.9 | 7.4 | 8.7 | 25.5 | 26.8 | 101.3 | -1.3 |
| 2011 | 1,070.4 | 57.8 | 20.5 | 21.5 | 12.5 | 5.7 | 6.8 | 9.0 | 28.9 | 29.2 | 100.2 | -0.2 |
| 2012 | 1,039.8 | 58.8 | 19.7 | 19.8 | 10.9 | 4.9 | 6.0 | 8.9 | 30.7 | 29.2 | 98.5 | 1.5 |
| 2013 | 1,025.6 | 58.4 | 19.7 | 18.8 | 9.7 | 4.1 | 5.6 | 9.0 | 32.2 | 29.0 | 96.7 | 2.2 |
| 2014 | 1,037.0 | 58.7 | 19.5 | 19.1 | 9.7 | 4.3 | 5.3 | 9.5 | 32.7 | 30.2 | 97.6 | 2.4 |
| 2015 | 1,075.6 | 58.1 | 19.4 | 19.7 | 9.9 | 4.4 | 5.4 | 9.8 | 33.2 | 30.7 | 97.6 | 2.4 |
| 2016 | 1,112.7 | 57.7 | 19.1 | 20.0 | 10.0 | 4.7 | 5.3 | 10.0 | 32.8 | 30.0 | 97.2 | 2.8 |
| 2017 | 1,149.5 | 57.8 | 19.0 | 20.5 | 10.2 | 4.9 | 5.3 | 10.3 | 33.0 | 30.6 | 97.6 | 2.4 |

*Seasonally and Working Day Adjusted.

(a) Contribution to GDP growth.

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 1.1.- GDP
Percentage change

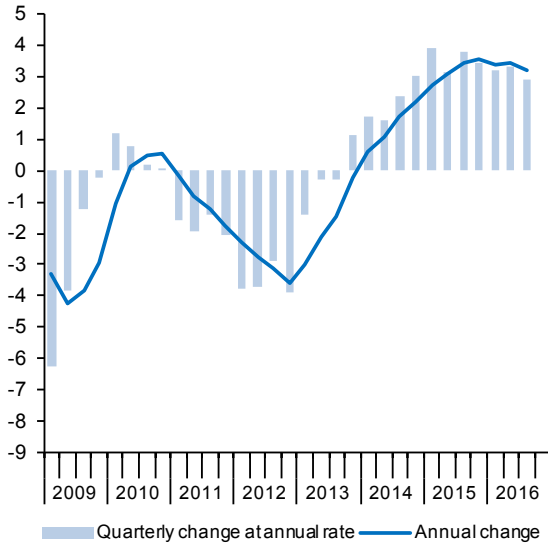


Chart 1.2.- Contribution to GDP annual growth
Per cent points

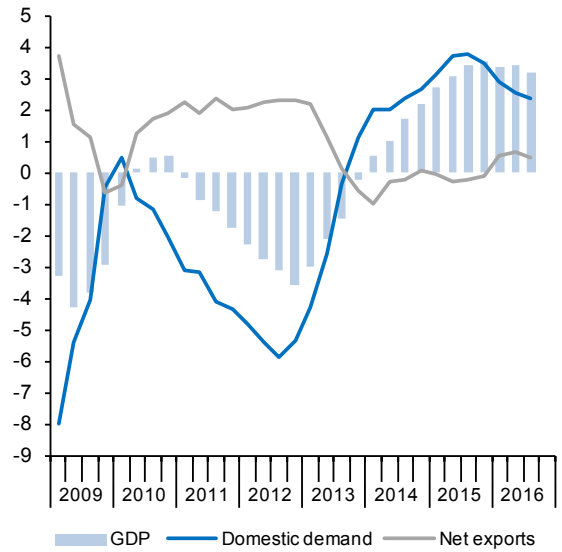


Chart 1.3.- Final consumption
Annual percentage change

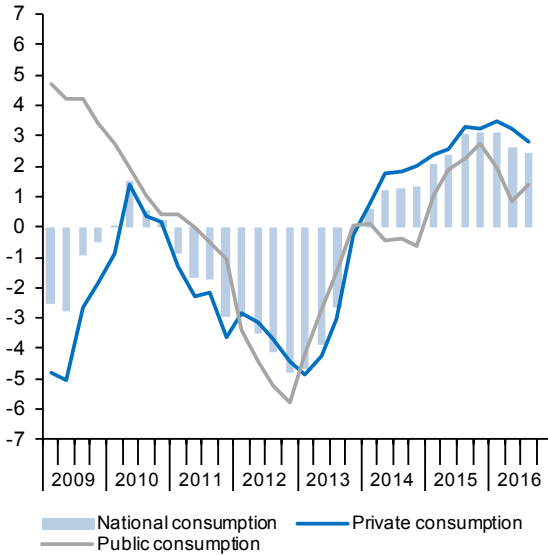


Chart 1.4.- Gross fixed capital formation
Annual percentage change

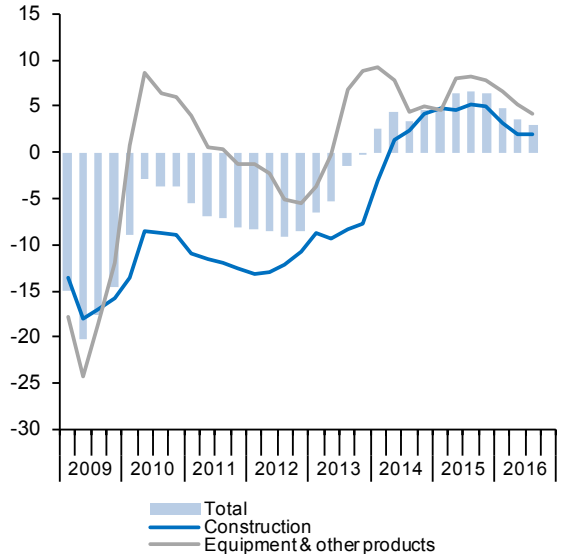


Table 2

National accounts: Gross value added by economic activity SWDA* (ESA 2010, Base 2010) (1)

Forecasts in blue

| | Gross value added at basic prices | | | | | | | | | | | | | Taxes less subsidies on products |
|--|-----------------------------------|-----------------------------------|-------------------------------------|--|----------|---|-------------------------------|-----------------------|-------------|---|--|--|------|----------------------------------|
| | Total | Agriculture, forestry and fishing | Manufacturing, energy and utilities | Construction | Services | | | | | | | | | |
| | | | | | Total | Trade, transport, accommodation and food services | Information and communication | Finance and insurance | Real estate | Professional, business and support services | Public administration, education, health and social work | Arts, entertainment and other services | | |
| Chain-linked volumes, annual percentage changes | | | | | | | | | | | | | | |
| 2009 | -3.4 | -3.6 | -10.0 | -7.6 | -1.0 | -3.7 | 0.6 | -6.1 | 3.4 | -3.7 | 2.3 | 0.7 | -5.9 | |
| 2010 | 0.0 | 2.1 | 3.6 | -14.5 | 1.3 | 1.5 | 3.9 | -3.3 | 2.0 | -1.4 | 2.4 | 1.4 | 0.1 | |
| 2011 | -0.6 | 4.4 | -0.2 | -12.8 | 0.7 | -0.1 | -0.2 | -2.4 | 2.8 | 2.3 | 0.9 | -0.2 | -5.6 | |
| 2012 | -2.8 | -9.7 | -4.9 | -8.8 | -1.5 | -1.9 | 1.6 | -5.8 | 2.4 | -3.8 | -1.8 | -3.2 | -4.0 | |
| 2013 | -1.5 | 13.6 | -3.9 | -10.5 | -0.6 | -1.7 | 3.3 | -7.1 | 1.3 | -0.7 | 0.1 | -0.2 | -4.3 | |
| 2014 | 1.2 | -1.6 | 1.8 | -1.2 | 1.4 | 1.8 | 5.7 | -3.6 | 0.3 | 7.3 | -0.5 | 0.0 | 2.9 | |
| 2015 | 2.9 | -2.9 | 5.5 | 0.2 | 2.6 | 4.6 | 5.0 | -7.5 | -1.1 | 9.7 | 1.7 | 0.6 | 6.7 | |
| 2016 | 3.0 | 2.3 | 2.7 | 1.6 | 3.2 | 4.4 | 5.0 | 0.8 | 1.1 | 6.1 | 1.8 | 3.9 | 3.3 | |
| 2017 | 2.4 | 1.6 | 2.2 | 2.5 | 2.4 | 3.4 | 2.7 | 0.8 | 1.7 | 5.1 | 0.8 | 2.2 | 2.1 | |
| 2015 I | 2.4 | -6.5 | 5.3 | -0.2 | 2.2 | 3.5 | 4.3 | -8.2 | -0.5 | 10.7 | 0.9 | 0.6 | 6.2 | |
| II | 2.8 | -4.3 | 5.6 | -0.4 | 2.6 | 4.8 | 5.3 | -6.9 | -1.5 | 10.5 | 1.1 | 0.5 | 6.6 | |
| III | 3.1 | -4.3 | 6.1 | 0.1 | 2.9 | 5.1 | 6.0 | -8.2 | -1.6 | 9.6 | 2.3 | 0.6 | 6.9 | |
| IV | 3.2 | 3.9 | 4.9 | 1.1 | 2.9 | 5.1 | 4.3 | -6.9 | -0.8 | 8.1 | 2.6 | 0.8 | 7.0 | |
| 2016 I | 3.2 | 4.3 | 3.0 | 1.7 | 3.4 | 4.5 | 5.6 | -0.5 | 0.6 | 7.6 | 2.5 | 1.2 | 4.8 | |
| II | 3.3 | 2.4 | 3.1 | 1.6 | 3.6 | 4.8 | 5.8 | -1.7 | 1.2 | 7.4 | 2.8 | 1.5 | 4.2 | |
| III | 3.1 | 2.5 | 1.9 | 2.7 | 3.4 | 4.4 | 4.4 | -0.8 | 1.8 | 6.9 | 2.7 | 0.8 | 4.5 | |
| IV | 2.4 | -0.9 | 2.9 | 0.3 | 2.6 | 3.2 | 4.2 | 0.5 | 1.5 | 6.3 | 0.8 | 2.7 | 5.1 | |
| 2017 I | 2.2 | 0.5 | 2.5 | 0.9 | 2.3 | 3.1 | 2.6 | -1.1 | 2.1 | 5.4 | 0.7 | 2.3 | 3.9 | |
| II | 1.9 | 2.0 | 1.9 | 2.4 | 1.9 | 2.0 | 2.6 | 1.1 | 1.6 | 4.7 | 0.7 | 1.9 | 3.4 | |
| III | 2.3 | 2.0 | 2.0 | 3.1 | 2.3 | 3.2 | 2.6 | 1.4 | 1.4 | 4.9 | 0.6 | 2.2 | 2.7 | |
| IV | 3.0 | 2.0 | 2.3 | 3.6 | 3.2 | 5.2 | 3.0 | 1.7 | 1.6 | 5.2 | 1.2 | 2.5 | -1.4 | |
| Chain-linked volumes, quarter-on-quarter percentage changes, at annual rate | | | | | | | | | | | | | | |
| 2015 I | 3.3 | -0.2 | 7.9 | 2.2 | 2.4 | 5.8 | 0.7 | -8.4 | -2.4 | 9.1 | 2.8 | -2.4 | 9.6 | |
| II | 2.7 | -0.5 | 3.7 | 4.7 | 2.4 | 4.4 | 5.8 | -3.8 | -2.2 | 8.1 | 1.3 | -0.5 | 8.0 | |
| III | 3.6 | 0.2 | 4.9 | -2.1 | 3.8 | 6.2 | 7.3 | -10.1 | -0.8 | 8.1 | 3.7 | 4.7 | 5.8 | |
| IV | 3.3 | 16.9 | 3.2 | -0.1 | 3.1 | 3.9 | 3.6 | -5.0 | 2.2 | 7.2 | 2.6 | 1.7 | 4.7 | |
| 2016 I | 3.4 | 1.3 | 0.3 | 4.6 | 4.2 | 3.3 | 6.0 | 19.5 | 3.4 | 7.0 | 2.4 | -0.9 | 0.9 | |
| II | 3.1 | -7.5 | 3.9 | 4.2 | 3.2 | 5.7 | 6.4 | -8.5 | 0.2 | 7.4 | 2.4 | 0.6 | 5.4 | |
| III | 2.5 | 0.7 | 0.2 | 2.0 | 3.1 | 4.8 | 1.6 | -6.9 | 1.4 | 6.1 | 3.4 | 2.0 | 7.0 | |
| IV | 0.6 | 2.0 | 1.8 | 2.5 | 0.1 | -1.6 | 2.5 | 1.0 | 1.0 | 4.5 | -1.0 | 1.5 | 17.8 | |
| 2017 I | 2.6 | 2.0 | 1.6 | 2.8 | 2.8 | 3.9 | 2.0 | 1.0 | 1.5 | 4.5 | 2.0 | 2.0 | -3.0 | |
| II | 2.7 | 2.0 | 2.2 | 3.3 | 2.8 | 4.0 | 2.8 | 1.5 | 1.6 | 5.0 | 1.5 | 2.5 | -4.0 | |
| III | 3.3 | 2.0 | 2.5 | 3.6 | 3.5 | 6.8 | 3.2 | 2.0 | 1.7 | 5.5 | 0.0 | 2.7 | 1.5 | |
| IV | 3.6 | 2.0 | 2.8 | 4.4 | 3.8 | 6.0 | 4.0 | 2.5 | 1.8 | 6.0 | 1.5 | 3.0 | 0.1 | |
| Current prices (EUR billions) | | | | Percentage of value added at basic prices | | | | | | | | | | |
| 2009 | 1006.1 | 2.3 | 16.6 | 10.6 | 70.4 | 22.0 | 4.4 | 5.7 | 8.9 | 7.3 | 18.2 | 4.0 | 7.2 | |
| 2010 | 989.9 | 2.6 | 17.2 | 8.8 | 71.4 | 22.5 | 4.4 | 4.4 | 10.2 | 7.2 | 18.7 | 4.1 | 9.2 | |
| 2011 | 983.7 | 2.5 | 17.4 | 7.5 | 72.6 | 22.9 | 4.3 | 4.2 | 10.9 | 7.4 | 18.7 | 4.2 | 8.8 | |
| 2012 | 954.0 | 2.5 | 17.4 | 6.7 | 73.5 | 23.3 | 4.4 | 4.2 | 11.6 | 7.3 | 18.5 | 4.2 | 9.0 | |
| 2013 | 935.7 | 2.8 | 17.5 | 5.8 | 74.0 | 23.2 | 4.4 | 3.8 | 12.1 | 7.4 | 19.0 | 4.2 | 9.6 | |
| 2014 | 943.8 | 2.5 | 17.6 | 5.7 | 74.2 | 23.2 | 4.3 | 4.0 | 11.9 | 7.8 | 18.8 | 4.1 | 9.9 | |
| 2015 | 975.8 | 2.6 | 18.0 | 5.6 | 73.8 | 23.2 | 4.2 | 3.9 | 11.2 | 8.4 | 18.8 | 4.1 | 10.2 | |
| 2016 | 1,009.2 | 2.5 | 17.8 | 5.6 | 74.1 | 23.2 | 4.1 | 4.0 | 11.0 | 8.8 | 19.0 | 4.0 | 10.4 | |
| 2017 | 1,039.1 | 2.6 | 17.7 | 5.6 | 74.1 | 22.7 | 4.1 | 4.3 | 10.8 | 9.3 | 18.9 | 4.0 | 10.6 | |

*Seasonally and Working Day Adjusted.

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 2.1.- GVA by sectors
Annual percentage change

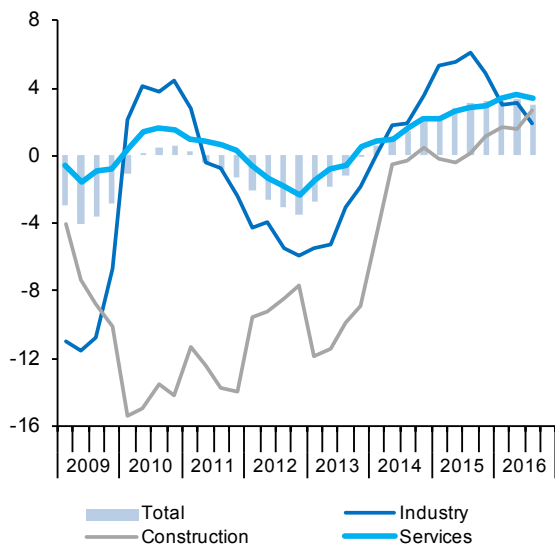


Chart 2.2.- GVA, services (I)
Annual percentage change

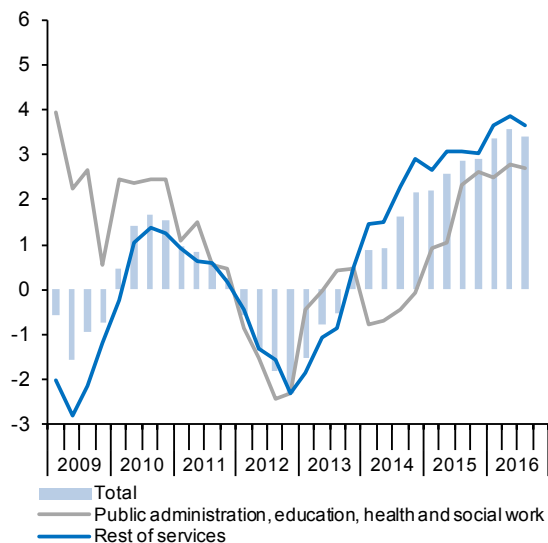


Chart 2.3.- GVA, services (II)
Annual percentage change

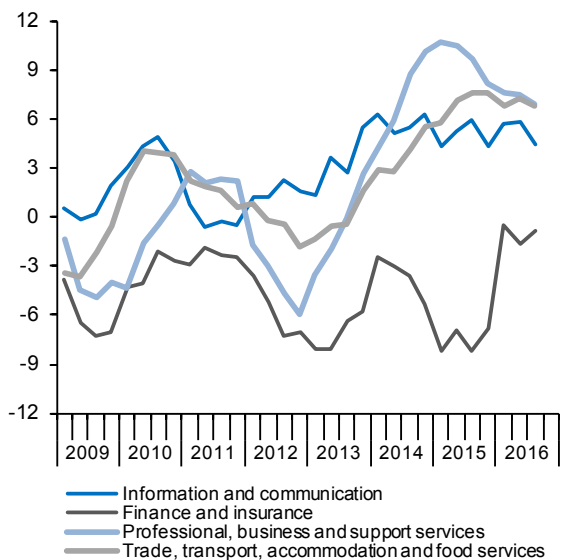


Chart 2.4.- GVA, structure by sectors
Percentage of value added at basic prices

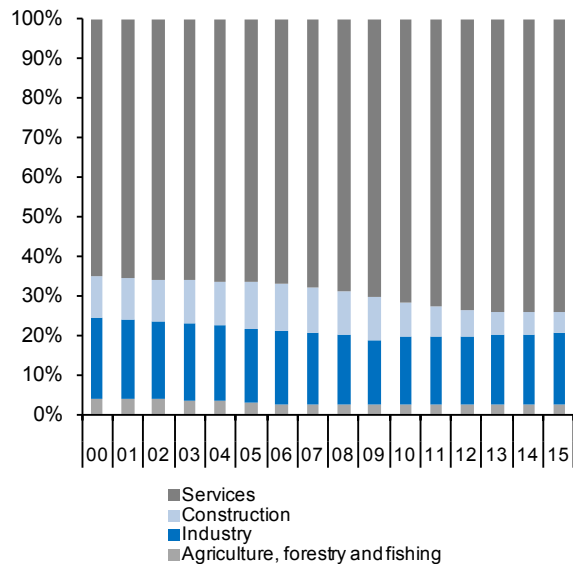


Table 3a

National accounts: Productivity and labour costs (I) (ESA 2010, Base 2010) (1)

Forecasts in blue

| | Total economy | | | | | | Manufacturing industry | | | | | | |
|----------------------------------|----------------------|---|-------------------------|----------------------|--------------------------|---------------------------|------------------------------------|---|-------------------------|----------------------|--------------------------|---------------------------|------|
| | GDP, constant prices | Employment (jobs, full time equivalent) | Employment productivity | Compensation per job | Nominal unit labour cost | Real unit labour cost (a) | Gross value added, constant prices | Employment (jobs, full time equivalent) | Employment productivity | Compensation per job | Nominal unit labour cost | Real unit labour cost (a) | |
| | 1 | 2 | 3=1/2 | 4 | 5=4/3 | 6 | 7 | 8 | 9=7/8 | 10 | 11=10/9 | 12 | |
| Indexes, 2000 = 100, SWDA | | | | | | | | | | | | | |
| 2009 | 124.5 | 117.1 | 106.4 | 144.4 | 135.7 | 101.2 | 100.1 | 82.2 | 121.8 | 152.6 | 125.3 | 99.0 | |
| 2010 | 124.5 | 114.0 | 109.3 | 145.9 | 133.5 | 99.4 | 100.1 | 78.9 | 126.9 | 155.6 | 122.6 | 97.7 | |
| 2011 | 123.3 | 110.8 | 111.3 | 147.1 | 132.2 | 98.4 | 98.8 | 75.9 | 130.1 | 159.0 | 122.1 | 95.3 | |
| 2012 | 119.7 | 105.5 | 113.5 | 146.2 | 128.9 | 95.9 | 93.7 | 70.3 | 133.2 | 161.6 | 121.4 | 94.4 | |
| 2013 | 117.6 | 101.9 | 115.5 | 148.2 | 128.4 | 95.2 | 93.5 | 67.0 | 139.6 | 164.2 | 117.6 | 91.5 | |
| 2014 | 119.3 | 103.0 | 115.8 | 148.2 | 128.0 | 95.1 | 96.4 | 66.1 | 145.8 | 164.8 | 113.1 | 87.7 | |
| 2015 | 123.1 | 106.0 | 116.1 | 148.9 | 128.2 | 94.8 | 103.1 | 67.4 | 152.9 | 163.8 | 107.1 | 83.2 | |
| 2016 | 126.8 | 108.9 | 116.5 | 149.8 | 128.6 | 94.8 | 107.0 | -- | -- | -- | -- | -- | |
| 2017 | 129.8 | 110.9 | 117.0 | 151.4 | 129.4 | 94.5 | 109.4 | -- | -- | -- | -- | -- | |
| 2015 | IV | 120.4 | 104.0 | 115.8 | 148.4 | 128.1 | 95.0 | 98.4 | 66.6 | 147.7 | 164.8 | 111.6 | 86.5 |
| 2015 | I | 121.5 | 104.7 | 116.1 | 149.0 | 128.4 | 95.1 | 100.8 | 66.8 | 150.8 | 163.7 | 108.5 | 84.0 |
| | II | 122.5 | 105.9 | 115.7 | 148.6 | 128.4 | 95.0 | 102.4 | 67.3 | 152.0 | 163.8 | 107.8 | 83.6 |
| | III | 123.6 | 106.5 | 116.1 | 148.6 | 128.0 | 94.7 | 104.1 | 67.8 | 153.7 | 163.6 | 106.4 | 82.7 |
| | IV | 124.7 | 107.1 | 116.4 | 149.2 | 128.1 | 94.6 | 105.3 | 67.9 | 155.1 | 163.9 | 105.7 | 82.3 |
| 2016 | I | 125.6 | 108.0 | 116.4 | 149.0 | 128.0 | 94.6 | 105.4 | 68.5 | 154.0 | 164.6 | 106.8 | 82.9 |
| | II | 126.7 | 108.8 | 116.5 | 149.1 | 128.0 | 94.3 | 106.7 | 68.6 | 155.6 | 164.7 | 105.9 | 82.2 |
| | III | 127.6 | 109.6 | 116.4 | 148.8 | 127.9 | 94.3 | 107.1 | 69.3 | 154.7 | 164.2 | 106.2 | 82.5 |
| Annual percentage changes | | | | | | | | | | | | | |
| 2009 | | -3.6 | -6.1 | 2.7 | 4.4 | 1.6 | 1.4 | -10.9 | -12.4 | 1.8 | 2.2 | 0.5 | 0.5 |
| 2010 | | 0.0 | -2.7 | 2.7 | 1.1 | -1.6 | -1.8 | 0.0 | -4.0 | 4.2 | 1.9 | -2.1 | -1.3 |
| 2011 | | -1.0 | -2.8 | 1.8 | 0.9 | -0.9 | -1.0 | -1.3 | -3.8 | 2.6 | 2.2 | -0.4 | -2.4 |
| 2012 | | -2.9 | -4.8 | 2.0 | -0.6 | -2.5 | -2.6 | -5.2 | -7.4 | 2.3 | 1.7 | -0.6 | -1.0 |
| 2013 | | -1.7 | -3.4 | 1.8 | 1.4 | -0.4 | -0.7 | -0.2 | -4.8 | 4.8 | 1.6 | -3.1 | -3.0 |
| 2014 | | 1.4 | 1.1 | 0.3 | 0.0 | -0.3 | 0.0 | 3.1 | -1.3 | 4.5 | 0.4 | -3.9 | -4.2 |
| 2015 | | 3.2 | 3.0 | 0.2 | 0.4 | 0.2 | -0.3 | 7.0 | 2.0 | 4.9 | -0.7 | -5.3 | -5.1 |
| 2016 | | 3.1 | 2.7 | 0.3 | 0.6 | 0.3 | -0.1 | 3.7 | -- | -- | -- | -- | -- |
| 2017 | | 2.3 | 1.9 | 0.5 | 1.1 | 0.6 | -0.3 | 2.2 | -- | -- | -- | -- | -- |
| 2015 | IV | 2.2 | 2.4 | -0.2 | 0.1 | 0.3 | 0.4 | 4.5 | 0.5 | 3.9 | 0.3 | -3.5 | -3.7 |
| 2015 | I | 2.7 | 2.8 | -0.1 | 0.8 | 0.9 | 0.4 | 6.1 | 1.6 | 4.5 | -0.5 | -4.8 | -4.8 |
| | II | 3.1 | 3.0 | 0.1 | 0.2 | 0.2 | -0.4 | 6.9 | 2.3 | 4.5 | -0.8 | -5.1 | -5.0 |
| | III | 3.4 | 3.0 | 0.4 | 0.2 | -0.3 | -0.8 | 7.9 | 2.2 | 5.6 | -0.8 | -6.0 | -5.9 |
| | IV | 3.6 | 3.0 | 0.6 | 0.6 | 0.0 | -0.4 | 7.0 | 1.9 | 5.0 | -0.5 | -5.3 | -4.9 |
| 2016 | I | 3.4 | 3.1 | 0.3 | 0.0 | -0.3 | -0.5 | 4.6 | 2.5 | 2.1 | 0.5 | -1.5 | -1.3 |
| | II | 3.4 | 2.8 | 0.6 | 0.3 | -0.3 | -0.8 | 4.3 | 1.9 | 2.4 | 0.6 | -1.8 | -1.7 |
| | III | 3.2 | 2.9 | 0.2 | 0.1 | -0.1 | -0.4 | 2.9 | 2.2 | 0.6 | 0.4 | -0.3 | -0.3 |

(a) Nominal ULC deflated by GDP/GVA deflator.

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 3a.1.- Nominal ULC, total economy
Index, 2000=100

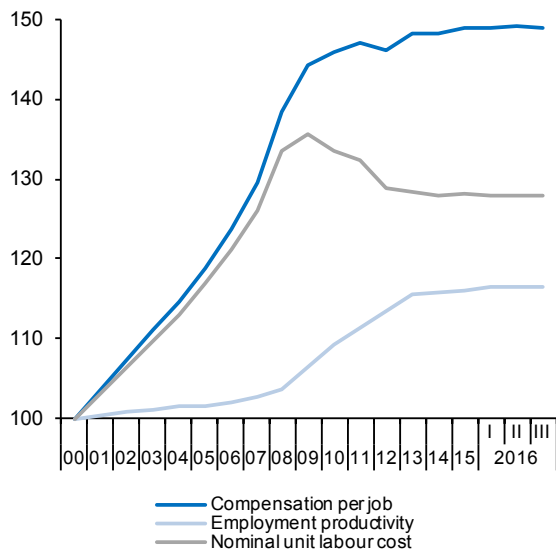


Chart 3a.2.- Real ULC, total economy
Index, 2000=100

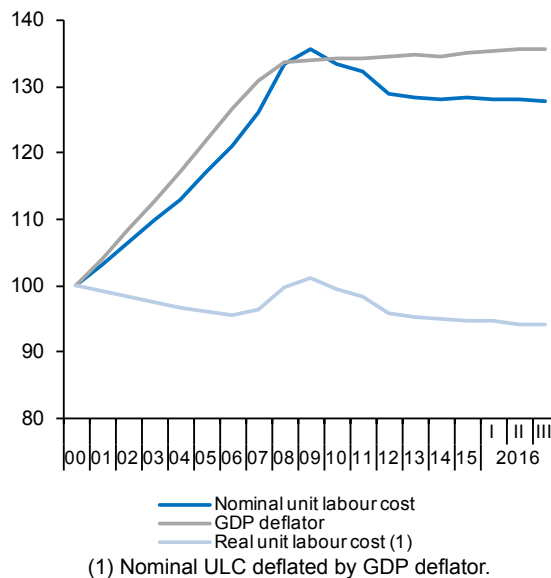


Chart 3a.3.- Nominal ULC, manufacturing industry
Index, 2000=100

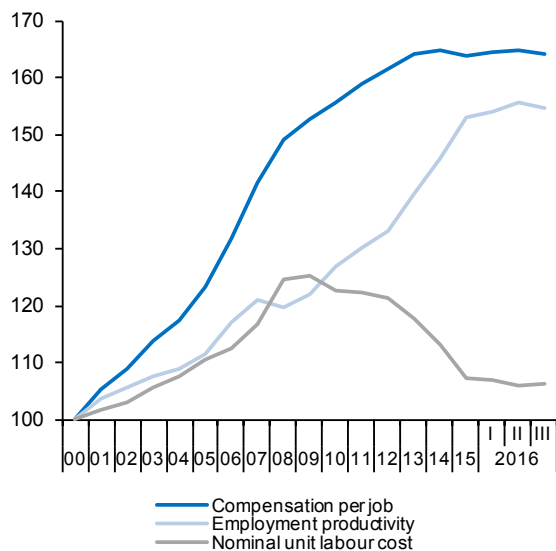


Chart 3a.4.- Real ULC, manufacturing industry
Index, 2000=100

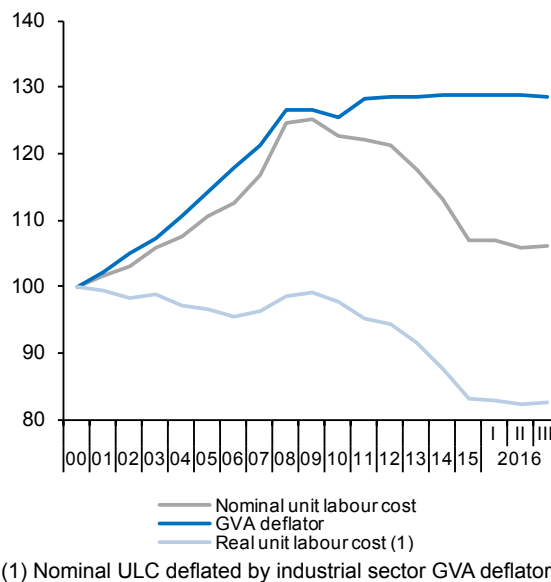


Table 3b

National accounts: Productivity and labour costs (II) (ESA 2010, Base 2010) (1)

Forecasts in blue

| | Construction | | | | | | Services | | | | | |
|----------------------------------|------------------------------------|---|-------------------------|----------------------|--------------------------|---------------------------|------------------------------------|---|-------------------------|----------------------|--------------------------|---------------------------|
| | Gross value added, constant prices | Employment (jobs, full time equivalent) | Employment productivity | Compensation per job | Nominal unit labour cost | Real unit labour cost (a) | Gross value added, constant prices | Employment (jobs, full time equivalent) | Employment productivity | Compensation per job | Nominal unit labour cost | Real unit labour cost (a) |
| | 1 | 2 | 3=1/2 | 4 | 5=4/3 | 6 | 7 | 8 | 9=7/8 | 10 | 11=10/9 | 12 |
| Indexes, 2000 = 100, SWDA | | | | | | | | | | | | |
| 2009 | 109.4 | 99.1 | 110.4 | 170.0 | 154.0 | 93.6 | 135.8 | 133.6 | 101.6 | 137.7 | 135.5 | 96.9 |
| 2010 | 93.5 | 85.2 | 109.7 | 172.1 | 156.9 | 99.2 | 137.5 | 132.0 | 104.2 | 139.1 | 133.4 | 96.7 |
| 2011 | 81.5 | 72.2 | 112.8 | 169.6 | 150.3 | 98.0 | 138.5 | 130.5 | 106.1 | 140.2 | 132.2 | 97.2 |
| 2012 | 74.4 | 59.2 | 125.6 | 170.5 | 135.8 | 94.0 | 136.4 | 126.4 | 107.9 | 138.5 | 128.3 | 96.5 |
| 2013 | 66.5 | 51.7 | 128.8 | 170.4 | 132.3 | 96.5 | 135.6 | 123.2 | 110.1 | 140.5 | 127.7 | 95.7 |
| 2014 | 65.7 | 50.1 | 131.2 | 171.1 | 130.4 | 94.7 | 137.5 | 125.4 | 109.6 | 140.5 | 128.2 | 95.6 |
| 2015 | 65.8 | 53.4 | 123.3 | 169.4 | 137.4 | 98.0 | 141.1 | 129.2 | 109.2 | 141.6 | 129.7 | 95.0 |
| 2016 | 66.8 | 54.1 | 123.5 | -- | -- | -- | 145.7 | 133.1 | 109.5 | -- | -- | -- |
| 2017 | 68.5 | 55.5 | 123.5 | -- | -- | -- | 149.2 | 135.7 | 109.9 | -- | -- | -- |
| 2014 IV | 65.1 | 51.2 | 127.2 | 172.4 | 135.5 | 96.4 | 138.7 | 126.8 | 109.4 | 140.5 | 128.4 | 95.4 |
| 2015 I | 65.4 | 52.6 | 124.3 | 170.2 | 136.9 | 97.7 | 139.6 | 127.6 | 109.4 | 141.6 | 129.5 | 95.3 |
| II | 66.2 | 53.5 | 123.8 | 169.1 | 136.6 | 98.5 | 140.4 | 128.9 | 108.9 | 141.4 | 129.8 | 95.4 |
| III | 65.8 | 53.5 | 123.0 | 170.0 | 138.3 | 98.6 | 141.7 | 129.7 | 109.2 | 141.4 | 129.5 | 95.0 |
| IV | 65.8 | 53.8 | 122.2 | 168.3 | 137.7 | 97.3 | 142.8 | 130.5 | 109.4 | 142.1 | 129.9 | 94.4 |
| 2016 I | 66.5 | 53.4 | 124.6 | 167.7 | 134.6 | 95.3 | 144.3 | 131.9 | 109.4 | 141.8 | 129.6 | 93.8 |
| II | 67.2 | 54.3 | 123.8 | 167.2 | 135.0 | 95.8 | 145.4 | 133.0 | 109.3 | 141.9 | 129.8 | 93.3 |
| III | 67.6 | 55.3 | 122.1 | 168.3 | 137.9 | 97.5 | 146.5 | 133.8 | 109.5 | 141.8 | 129.5 | 93.2 |
| Annual percentage changes | | | | | | | | | | | | |
| 2009 | -7.6 | -21.7 | 18.0 | 9.8 | -6.9 | -8.6 | -1.0 | -2.4 | 1.5 | 4.0 | 2.5 | 0.7 |
| 2010 | -14.5 | -14.0 | -0.6 | 1.3 | 1.9 | 6.0 | 1.3 | -1.2 | 2.5 | 1.0 | -1.5 | -0.2 |
| 2011 | -12.8 | -15.3 | 2.9 | -1.4 | -4.2 | -1.2 | 0.7 | -1.1 | 1.8 | 0.8 | -0.9 | 0.5 |
| 2012 | -8.8 | -18.0 | 11.3 | 0.5 | -9.7 | -4.1 | -1.5 | -3.2 | 1.7 | -1.2 | -2.9 | -0.7 |
| 2013 | -10.5 | -12.7 | 2.5 | -0.1 | -2.6 | 2.6 | -0.6 | -2.5 | 2.0 | 1.5 | -0.5 | -0.8 |
| 2014 | -1.2 | -3.1 | 1.9 | 0.5 | -1.4 | -1.9 | 1.4 | 1.8 | -0.4 | 0.0 | 0.4 | -0.1 |
| 2015 | 0.2 | 6.6 | -6.0 | -1.0 | 5.3 | 3.5 | 2.6 | 3.0 | -0.3 | 0.8 | 1.1 | -0.6 |
| 2016 | 1.6 | 1.5 | 0.1 | -- | -- | -- | 3.2 | 3.0 | 0.2 | -- | -- | -- |
| 2017 | 2.5 | 2.4 | 0.1 | -- | -- | -- | 2.4 | 2.0 | 0.4 | -- | -- | -- |
| 2014 IV | 0.4 | 2.6 | -2.1 | 0.6 | 2.7 | 1.4 | 2.2 | 3.0 | -0.8 | 0.0 | 0.7 | -0.2 |
| 2015 I | -0.2 | 7.9 | -7.5 | -0.3 | 7.8 | 5.5 | 2.2 | 3.1 | -0.9 | 0.9 | 1.8 | 0.1 |
| II | -0.4 | 7.5 | -7.3 | -0.8 | 7.1 | 4.5 | 2.6 | 3.0 | -0.4 | 0.5 | 0.9 | -0.8 |
| III | 0.1 | 5.8 | -5.3 | -0.5 | 5.1 | 3.2 | 2.9 | 3.0 | -0.1 | 0.6 | 0.6 | -0.6 |
| IV | 1.1 | 5.2 | -3.9 | -2.3 | 1.6 | 0.9 | 2.9 | 3.0 | -0.1 | 1.1 | 1.2 | -1.0 |
| 2016 I | 1.7 | 1.5 | 0.2 | -1.5 | -1.7 | -2.5 | 3.4 | 3.3 | 0.0 | 0.1 | 0.1 | -1.6 |
| II | 1.6 | 1.5 | 0.1 | -1.1 | -1.2 | -2.7 | 3.6 | 3.2 | 0.4 | 0.4 | 0.0 | -2.3 |
| III | 2.7 | 3.4 | -0.7 | -1.0 | -0.3 | -1.1 | 3.4 | 3.1 | 0.2 | 0.2 | 0.0 | -1.8 |

(a) Nominal ULC deflated by GVA deflator.

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 3b.1.- Nominal ULC, construction
Index, 2000=100

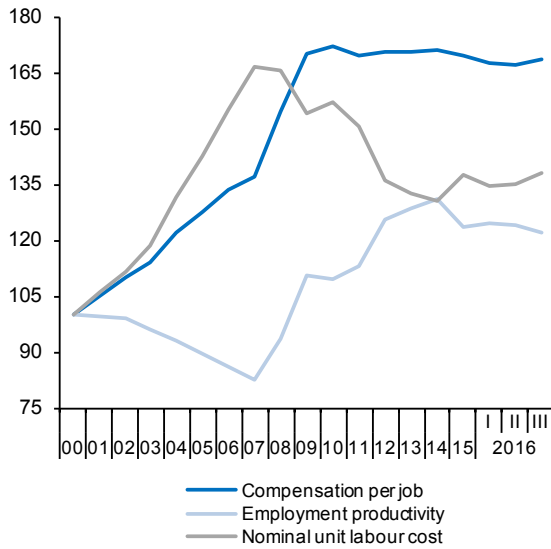
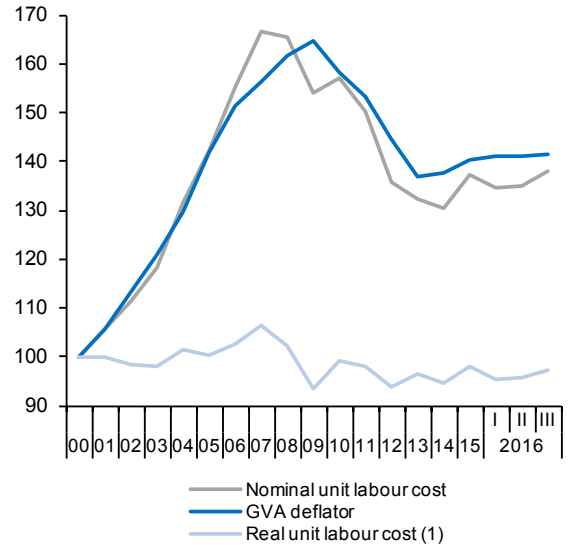


Chart 3b.2.- Real ULC, construction
Index, 2000=100



(1) Nominal ULC deflated by construction sector GVA deflator.

Chart 3b.3.- Nominal ULC, services
Index, 2000=100

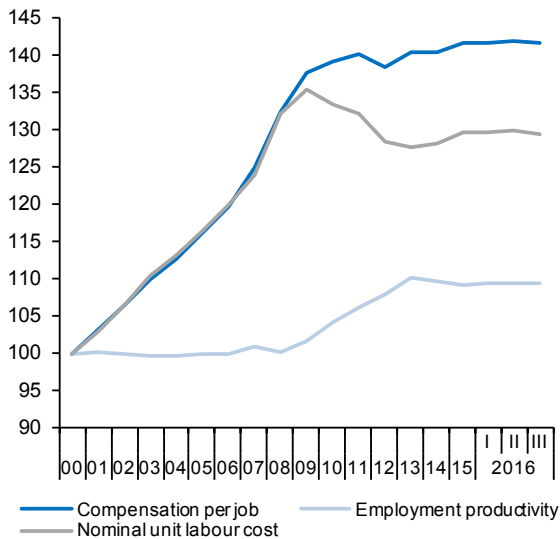
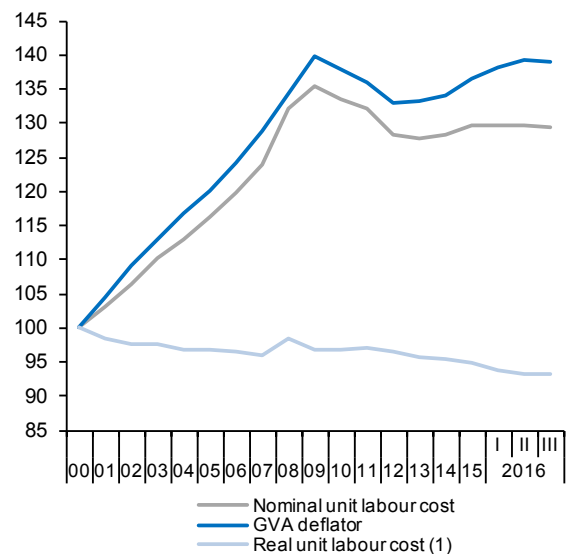


Chart 3b.4.- Real ULC, services
Index, 2000=100



(1) Nominal ULC deflated by services sector GVA deflator.

Table 4

National accounts: National income, distribution and disposition (ESA 2010, Base 2010) (1)

Forecasts in blue

| | Gross domestic product | Compensation of employees | Gross operating surplus | Taxes on production and imports less subsidies | Income payments to the rest of the world, net | Gross national product | Current transfers to the rest of the world, net | Gross national income | Final national consumption | Gross national saving (a) | Compensation of employees | Gross operating surplus | Taxes on production and imports less subsidies |
|---|------------------------|---------------------------|-------------------------|--|---|------------------------|---|-----------------------|----------------------------|---------------------------|-------------------------------------|-------------------------|--|
| | 1=2+3+4 | 2 | 3 | 4 | 5 | 6=1+5 | 7 | 8=6+7 | 9 | 10=8-9 | 11 | 12 | 13 |
| EUR Billions, 4-quarter cumulated transactions | | | | | | | | | | | Percentage of GDP | | |
| 2009 | 1,079.0 | 549.2 | 455.2 | 74.7 | -19.8 | 1,059.2 | -14.3 | 1,045.0 | 826.4 | 218.6 | 50.9 | 42.2 | 6.9 |
| 2010 | 1,080.9 | 541.5 | 445.9 | 93.6 | -15.2 | 1,065.8 | -12.7 | 1,053.0 | 840.5 | 212.6 | 50.1 | 41.3 | 8.7 |
| 2011 | 1,070.4 | 531.0 | 449.4 | 90.0 | -18.6 | 1,051.9 | -14.1 | 1,037.7 | 838.5 | 199.2 | 49.6 | 42.0 | 8.4 |
| 2012 | 1,039.8 | 498.8 | 446.7 | 94.2 | -7.3 | 1,032.4 | -12.6 | 1,019.9 | 816.6 | 203.3 | 48.0 | 43.0 | 9.1 |
| 2013 | 1,025.6 | 485.3 | 440.4 | 99.9 | -5.3 | 1,020.3 | -13.1 | 1,007.2 | 800.3 | 206.9 | 47.3 | 42.9 | 9.7 |
| 2014 | 1,037.0 | 491.8 | 441.0 | 104.2 | -3.3 | 1,033.7 | -11.4 | 1,022.3 | 810.9 | 211.4 | 47.4 | 42.5 | 10.1 |
| 2015 | 1,075.6 | 510.3 | 453.0 | 112.3 | -0.8 | 1,074.9 | -11.3 | 1,063.6 | 833.5 | 230.0 | 47.4 | 42.1 | 10.4 |
| 2016 | 1,112.7 | 528.7 | 467.2 | 116.8 | 4.5 | 1,117.7 | -11.5 | 1,106.2 | 853.7 | 252.0 | 47.5 | 42.0 | 10.5 |
| 2017 | 1,149.7 | 545.1 | 482.1 | 122.5 | 8.0 | 1,158.5 | -11.6 | 1,146.9 | 878.9 | 267.2 | 47.4 | 41.9 | 10.7 |
| 2014 IV | 1,037.0 | 491.8 | 441.0 | 104.2 | -3.3 | 1,033.7 | -11.4 | 1,022.3 | 810.9 | 211.4 | 47.4 | 42.5 | 10.1 |
| 2015 I | 1,044.7 | 496.2 | 443.3 | 105.3 | -2.8 | 1,041.9 | -11.4 | 1,030.5 | 814.9 | 215.6 | 47.5 | 42.4 | 10.1 |
| II | 1,054.6 | 500.5 | 446.0 | 108.0 | -0.1 | 1,054.4 | -11.2 | 1,043.2 | 820.6 | 222.6 | 47.5 | 42.3 | 10.2 |
| III | 1,064.9 | 504.9 | 450.2 | 109.8 | -0.1 | 1,064.8 | -11.1 | 1,053.6 | 827.0 | 226.7 | 47.4 | 42.3 | 10.3 |
| IV | 1,075.6 | 510.3 | 453.0 | 112.3 | -0.8 | 1,074.9 | -11.3 | 1,063.6 | 833.5 | 230.0 | 47.4 | 42.1 | 10.4 |
| 2016 I | 1,084.0 | 514.0 | 457.5 | 112.6 | 0.0 | 1,084.0 | -10.9 | 1,073.0 | 838.3 | 234.7 | 47.4 | 42.2 | 10.4 |
| II | 1,095.3 | 518.3 | 463.4 | 113.6 | -0.4 | 1,094.9 | -10.1 | 1,084.7 | 842.8 | 241.9 | 47.3 | 42.3 | 10.4 |
| III | 1,104.3 | 522.3 | 466.9 | 115.1 | -- | -- | -- | -- | 848.0 | -- | 47.3 | 42.3 | 10.4 |
| Annual percentage changes | | | | | | | | | | | Difference from one year ago | | |
| 2009 | -3.3 | -1.9 | -2.2 | -18.1 | -33.9 | -2.5 | -9.1 | -2.4 | -2.0 | -3.9 | 0.7 | 0.5 | -1.3 |
| 2010 | 0.2 | -1.4 | -2.0 | 25.3 | -23.4 | 0.6 | -10.9 | 0.8 | 1.7 | -2.8 | -0.8 | -0.9 | 1.7 |
| 2011 | -1.0 | -1.9 | 0.8 | -3.8 | 22.5 | -1.3 | 11.2 | -1.5 | -0.2 | -6.3 | -0.5 | 0.7 | -0.2 |
| 2012 | -2.9 | -6.1 | -0.6 | 4.7 | -60.5 | -1.8 | -11.0 | -1.7 | -2.6 | 2.1 | -1.6 | 1.0 | 0.7 |
| 2013 | -1.4 | -2.7 | -1.4 | 6.0 | -27.3 | -1.2 | 3.9 | -1.2 | -2.0 | 1.8 | -0.7 | 0.0 | 0.7 |
| 2014 | 1.1 | 1.3 | 0.1 | 4.3 | -37.4 | 1.3 | -13.1 | 1.5 | 1.3 | 2.2 | 0.1 | -0.4 | 0.3 |
| 2015 | 3.7 | 3.8 | 2.7 | 7.7 | -76.6 | 4.0 | -0.7 | 4.0 | 2.8 | 8.8 | 0.0 | -0.4 | 0.4 |
| 2016 | 3.4 | 3.6 | 3.1 | 4.1 | -679.6 | 4.0 | 1.5 | 4.0 | 2.4 | 9.6 | 0.1 | -0.1 | 0.1 |
| 2017 | 3.3 | 3.1 | 3.2 | 4.9 | 77.1 | 3.7 | 1.5 | 3.7 | 3.0 | 6.0 | -0.1 | -0.1 | 0.2 |
| 2014 IV | 1.1 | 1.3 | 0.1 | 4.3 | -37.4 | 1.3 | -13.1 | 1.5 | 1.3 | 2.2 | 0.1 | -0.4 | 0.3 |
| 2015 I | 1.8 | 2.5 | 0.4 | 4.4 | -20.2 | 1.8 | -15.9 | 2.1 | 1.6 | 4.0 | 0.3 | -0.6 | 0.3 |
| II | 2.5 | 3.0 | 1.1 | 6.7 | -97.7 | 3.1 | -13.6 | 3.4 | 1.8 | 9.3 | 0.2 | -0.6 | 0.4 |
| III | 3.2 | 3.3 | 2.2 | 7.1 | -97.2 | 3.8 | -6.1 | 3.9 | 2.2 | 10.3 | 0.1 | -0.4 | 0.4 |
| IV | 3.7 | 3.8 | 2.7 | 7.7 | -76.6 | 4.0 | -0.7 | 4.0 | 2.8 | 8.8 | 0.0 | -0.4 | 0.4 |
| 2016 I | 3.8 | 3.6 | 3.2 | 6.9 | -98.8 | 4.0 | -4.0 | 4.1 | 2.9 | 8.8 | -0.1 | -0.2 | 0.3 |
| II | 3.9 | 3.5 | 3.9 | 5.2 | 178.4 | 3.8 | -9.9 | 4.0 | 2.7 | 8.7 | -0.1 | 0.0 | 0.1 |
| III | 3.7 | 3.4 | 3.7 | 4.8 | -- | -- | -- | -- | 2.5 | -- | -0.1 | 0.0 | 0.1 |

(a) Including change in net equity in pension funds reserves.

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 4.1.- National income, consumption and saving
EUR Billions, 4-quarter cumulated

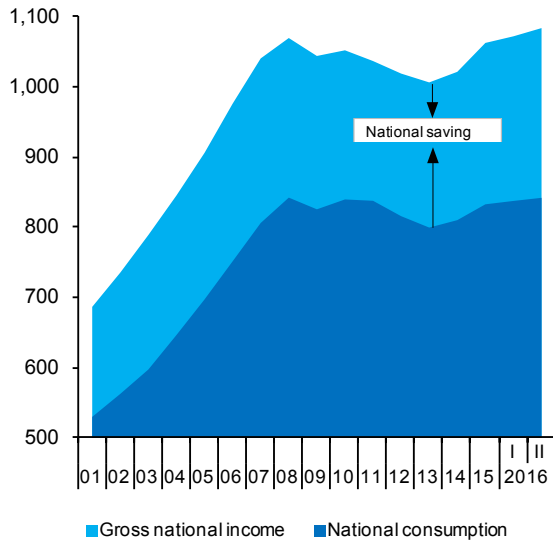


Chart 4.2.- National income, consumption and saving rate
Annual percentage change and percentage of GDP, 4-quarter moving averages

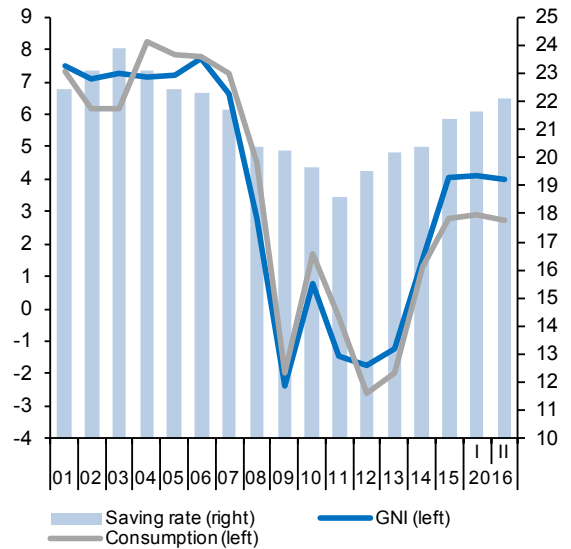


Chart 4.3.- Components of National income
Annual percentage change

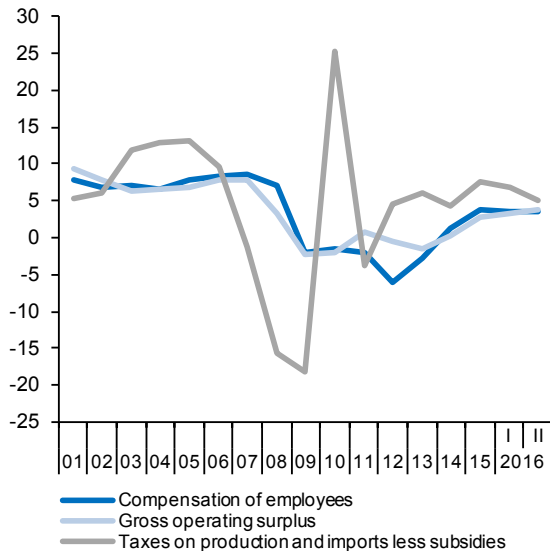


Chart 4.4.- Functional distribution of income
Percentage of GDP, 4-quarter moving averages

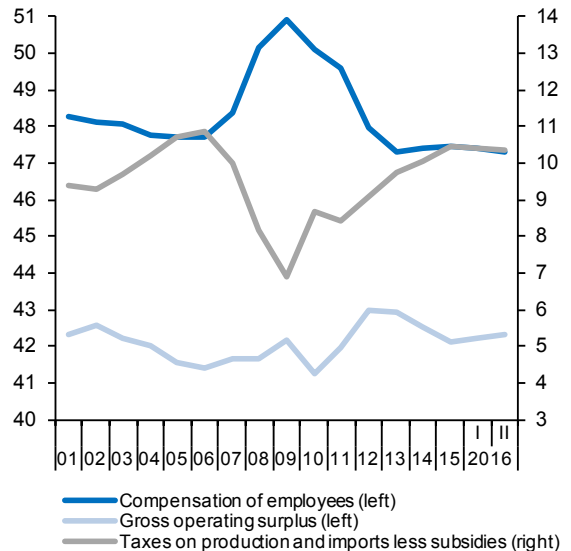


Table 5

National accounts: Net transactions with the rest of the world (ESA 2010, Base 2010) (1)

Forecasts in blue

| | Goods and services | | | | Income | Current transfers | Current account | Capital transfers | Net lending/ borrowing with rest of the world | Saving-Investment-Deficit | | | |
|--|--------------------|-------|------------------|----------------------|--------|-------------------|-----------------|-------------------|---|---------------------------|-------------------------|-------------------------|------|
| | Total | Goods | Tourist services | Non-tourist services | | | | | | Gross national saving | Gross capital formation | Current account deficit | |
| | 1=2+3+4 | 2 | 3 | 4 | | | | | | 5 | 6 | 7=1+5+6 | 8 |
| EUR Billions, 4-quarter cumulated transactions | | | | | | | | | | | | | |
| 2009 | -12.4 | -41.5 | 22.4 | 6.6 | -19.8 | -14.3 | -46.5 | 4.5 | -42.0 | 218.6 | 265.1 | -46.5 | |
| 2010 | -14.1 | -47.8 | 23.0 | 10.7 | -15.2 | -12.7 | -42.0 | 5.9 | -36.1 | 212.6 | 254.5 | -42.0 | |
| 2011 | -2.6 | -44.5 | 26.2 | 15.6 | -18.6 | -14.1 | -35.3 | 4.4 | -30.9 | 199.2 | 234.5 | -35.3 | |
| 2012 | 15.3 | -29.2 | 27.1 | 17.5 | -7.3 | -12.6 | -4.6 | 5.4 | 0.8 | 203.3 | 207.9 | -4.6 | |
| 2013 | 33.4 | -14.0 | 28.3 | 19.1 | -5.3 | -13.1 | 15.0 | 6.6 | 21.6 | 206.9 | 191.9 | 15.0 | |
| 2014 | 25.1 | -22.4 | 28.7 | 18.8 | -3.3 | -11.4 | 10.4 | 5.0 | 15.4 | 211.4 | 201.0 | 10.4 | |
| 2015 | 26.3 | -21.7 | 28.5 | 19.6 | -0.8 | -11.3 | 14.3 | 7.0 | 21.3 | 230.0 | 215.8 | 14.3 | |
| 2016 | 29.3 | -23.8 | 30.2 | 22.9 | 5.0 | -11.0 | 23.2 | 7.1 | 30.3 | 259.9 | 236.8 | 23.2 | |
| 2017 | 26.0 | -30.1 | 32.2 | 23.9 | 8.8 | -11.2 | 23.6 | 7.2 | 30.9 | 275.5 | 251.9 | 23.6 | |
| 2014 | IV | 25.1 | -22.4 | 28.7 | 18.8 | -3.3 | -11.4 | 10.4 | 5.0 | 15.4 | 211.4 | 201.0 | 10.4 |
| 2015 | I | 26.4 | -21.3 | 28.6 | 19.1 | -2.8 | -11.4 | 12.1 | 4.9 | 17.0 | 215.6 | 203.5 | 12.1 |
| | II | 26.6 | -21.5 | 28.5 | 19.6 | -0.1 | -11.2 | 15.2 | 5.2 | 20.4 | 222.6 | 207.4 | 15.2 |
| | III | 26.7 | -21.5 | 28.4 | 19.8 | -0.1 | -11.1 | 15.5 | 6.1 | 21.5 | 226.7 | 211.2 | 15.5 |
| | IV | 26.3 | -21.7 | 28.5 | 19.6 | -0.8 | -11.3 | 14.3 | 7.0 | 21.3 | 230.0 | 215.8 | 14.3 |
| 2016 | I | 26.1 | -22.1 | 28.5 | 19.8 | 0.0 | -10.9 | 15.2 | 6.8 | 22.0 | 234.7 | 219.5 | 15.2 |
| | II | 29.8 | -19.6 | 29.1 | 20.3 | -0.4 | -10.1 | 19.3 | 6.4 | 25.8 | 241.9 | 222.6 | 19.3 |
| | III | 31.6 | -17.2 | 29.3 | 19.5 | -- | -- | -- | -- | -- | 224.7 | -- | -- |
| Percentage of GDP, 4-quarter cumulated transactions | | | | | | | | | | | | | |
| 2009 | -1.2 | -3.8 | 2.1 | 0.6 | -1.8 | -1.3 | -4.3 | 0.4 | -3.9 | 20.3 | 24.6 | -4.3 | |
| 2010 | -1.3 | -4.4 | 2.1 | 1.0 | -1.4 | -1.2 | -3.9 | 0.5 | -3.3 | 19.7 | 23.5 | -3.9 | |
| 2011 | -0.2 | -4.2 | 2.4 | 1.5 | -1.7 | -1.3 | -3.3 | 0.4 | -2.9 | 18.6 | 21.9 | -3.3 | |
| 2012 | 1.5 | -2.8 | 2.6 | 1.7 | -0.7 | -1.2 | -0.4 | 0.5 | 0.1 | 19.5 | 20.0 | -0.4 | |
| 2013 | 3.3 | -1.4 | 2.8 | 1.9 | -0.5 | -1.3 | 1.5 | 0.6 | 2.1 | 20.2 | 18.7 | 1.5 | |
| 2014 | 2.4 | -2.2 | 2.8 | 1.8 | -0.3 | -1.1 | 1.0 | 0.5 | 1.5 | 20.4 | 19.4 | 1.0 | |
| 2015 | 2.4 | -2.0 | 2.7 | 1.8 | -0.1 | -1.0 | 1.3 | 0.7 | 2.0 | 21.4 | 20.1 | 1.3 | |
| 2016 | 2.6 | -2.1 | 2.7 | 2.1 | 0.4 | -1.0 | 2.1 | 0.6 | 2.7 | 23.4 | 21.3 | 2.1 | |
| 2017 | 2.3 | -2.6 | 2.8 | 2.1 | 0.8 | -1.0 | 2.1 | 0.6 | 2.7 | 24.0 | 21.9 | 2.1 | |
| 2014 | IV | 2.4 | -2.2 | 2.8 | 1.8 | -0.3 | -1.1 | 1.0 | 0.5 | 1.5 | 19.4 | 1.0 | |
| 2015 | I | 2.5 | -2.0 | 2.7 | 1.8 | -0.3 | -1.1 | 1.2 | 0.5 | 1.6 | 19.5 | 1.2 | |
| | II | 2.5 | -2.0 | 2.7 | 1.9 | 0.0 | -1.1 | 1.4 | 0.5 | 1.9 | 19.7 | 1.4 | |
| | III | 2.5 | -2.0 | 2.7 | 1.9 | 0.0 | -1.0 | 1.5 | 0.6 | 2.0 | 19.8 | 1.5 | |
| | IV | 2.4 | -2.0 | 2.7 | 1.8 | -0.1 | -1.0 | 1.3 | 0.7 | 2.0 | 20.1 | 1.3 | |
| 2016 | I | 2.4 | -2.0 | 2.6 | 1.8 | 0.0 | -1.0 | 1.4 | 0.6 | 2.0 | 20.3 | 1.4 | |
| | II | 2.7 | -1.8 | 2.7 | 1.9 | 0.0 | -0.9 | 1.8 | 0.6 | 2.4 | 20.3 | 1.8 | |
| | III | 2.9 | -1.6 | 2.7 | 1.8 | -- | -- | -- | -- | -- | 20.3 | -- | |

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 5.1.- Balance of goods and services
Percentage of GDP, 4-quarter moving averages

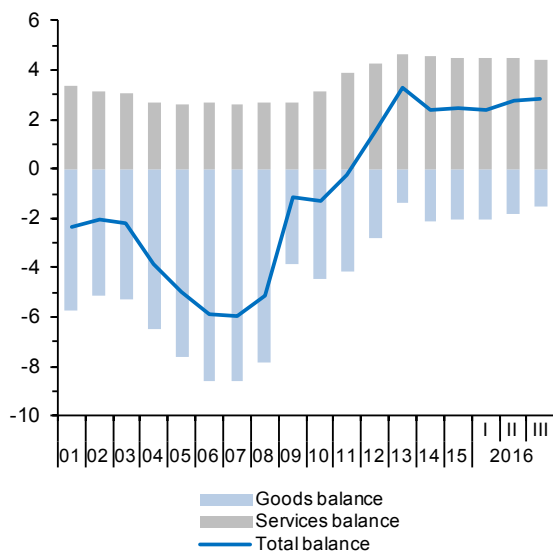


Chart 5.2.- Services balance
Percentage of GDP, 4-quarter moving averages

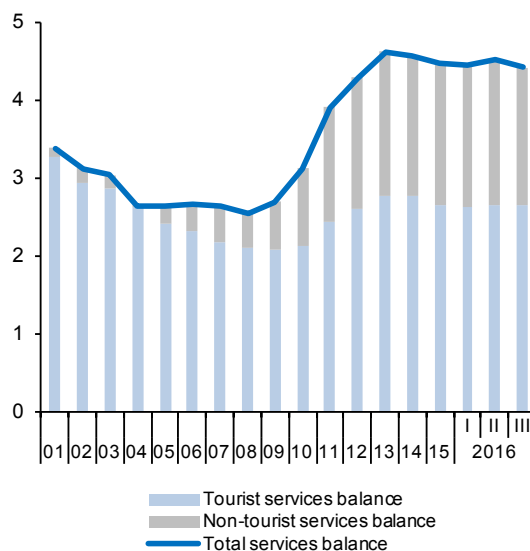


Chart 5.3.- Net lending or borrowing
Percentage of GDP, 4-quarter moving averages

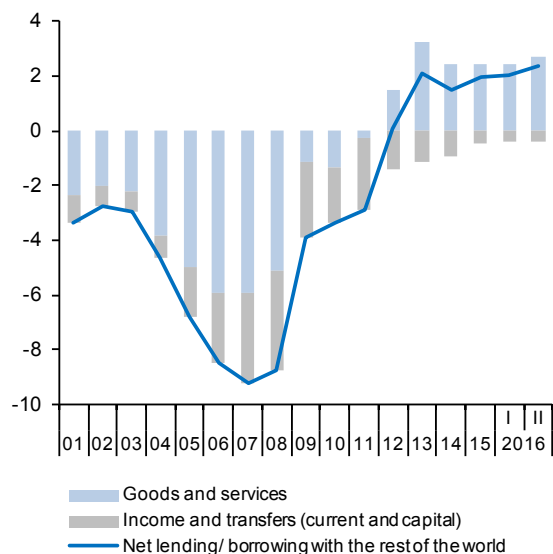


Chart 5.4.- Saving, investment and current account balance
Percentage of GDP, 4-quarter moving averages

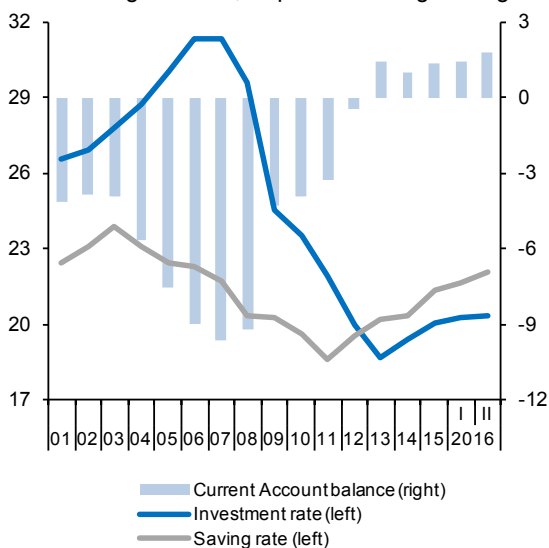


Table 6

National accounts: Household income and its disposition (ESA 2010, Base 2010) (1)

Forecasts in blue

| | Gross disposable income (GDI) | | | | | | Final consumption expenditure | Gross saving (a) | Saving rate (gross saving as a percentage of GDI) | Net capital transfers | Gross capital formation | Net lending (+) or borrowing (-) | Net lending or borrowing as a percentage of GDP | |
|--|-------------------------------|--------------------------------------|--------------------------------------|--|---|-----------------------|-------------------------------|------------------|---|--|-------------------------|----------------------------------|---|------|
| | Total | Compensation of employees (received) | Mixed income and net property income | Social benefits and other current transfers (received) | Social contributions and other current transfers (paid) | Personal income taxes | | | | | | | | |
| | 1=2+3+4-5-6 | 2 | 3 | 4 | 5 | 6 | 7 | 8=1-7 | 9=8/1 | 10 | 11 | 12=8+10-11 | 13 | |
| EUR Billions, 4-quarter cumulated operations | | | | | | | | | | | | | | |
| 2009 | 698.9 | 549.9 | 199.1 | 235.9 | 209.8 | 76.2 | 605.3 | 93.6 | 13.4 | 6.7 | 69.0 | 31.3 | 2.9 | |
| 2010 | 688.4 | 542.3 | 196.3 | 239.3 | 209.7 | 79.9 | 618.8 | 69.5 | 10.1 | 7.6 | 63.0 | 14.2 | 1.3 | |
| 2011 | 694.2 | 531.9 | 212.1 | 242.9 | 210.3 | 82.4 | 618.9 | 74.7 | 10.8 | 5.2 | 52.2 | 27.6 | 2.6 | |
| 2012 | 670.5 | 500.1 | 208.6 | 244.7 | 199.3 | 83.6 | 611.3 | 57.2 | 8.5 | 4.8 | 38.8 | 23.2 | 2.2 | |
| 2013 | 664.4 | 487.3 | 209.6 | 246.1 | 195.1 | 83.6 | 598.5 | 63.9 | 9.6 | 2.8 | 25.7 | 41.1 | 4.0 | |
| 2014 | 670.0 | 493.8 | 213.2 | 241.6 | 194.4 | 84.2 | 608.9 | 60.0 | 9.0 | 1.3 | 27.7 | 33.6 | 3.2 | |
| 2015 | 682.4 | 512.4 | 211.2 | 240.2 | 197.8 | 83.6 | 625.0 | 55.8 | 8.2 | 1.8 | 30.5 | 27.2 | 2.5 | |
| 2016 | 701.1 | 530.8 | 213.6 | 242.5 | 201.6 | 84.1 | 642.7 | 56.9 | 8.1 | 1.6 | 31.7 | 26.8 | 2.4 | |
| 2017 | 723.8 | 547.3 | 221.8 | 248.9 | 207.3 | 86.8 | 664.7 | 57.7 | 8.0 | 1.5 | 33.9 | 25.3 | 2.2 | |
| 2014 | III | 659.7 | 490.7 | 206.2 | 241.1 | 194.0 | 84.3 | 606.4 | 52.0 | 7.9 | 1.3 | 26.4 | 26.9 | 2.6 |
| | IV | 670.0 | 493.8 | 213.2 | 241.6 | 194.4 | 84.2 | 608.9 | 60.0 | 9.0 | 1.3 | 27.7 | 33.6 | 3.2 |
| 2015 | I | 675.0 | 498.2 | 213.7 | 241.6 | 194.5 | 83.9 | 611.6 | 61.9 | 9.2 | 1.1 | 27.8 | 35.1 | 3.4 |
| | II | 680.4 | 502.6 | 216.7 | 241.1 | 195.7 | 84.3 | 615.4 | 63.5 | 9.3 | 1.4 | 29.2 | 35.7 | 3.4 |
| | III | 683.7 | 506.9 | 217.2 | 240.7 | 196.8 | 84.3 | 620.8 | 61.4 | 9.0 | 1.8 | 29.4 | 33.8 | 3.2 |
| | IV | 682.4 | 512.4 | 211.2 | 240.2 | 197.8 | 83.6 | 625.0 | 55.8 | 8.2 | 1.8 | 30.5 | 27.2 | 2.5 |
| 2016 | I | 687.0 | 516.4 | 212.1 | 239.9 | 198.2 | 83.2 | 629.6 | 55.8 | 8.1 | 1.6 | 30.6 | 26.8 | 2.5 |
| | II | 691.9 | 520.9 | 213.4 | 242.0 | 201.0 | 83.2 | 633.3 | 57.1 | 8.3 | 0.9 | 30.6 | 27.5 | 2.5 |
| Annual percentage changes, 4-quarter cumulated operations | | | | | | | | | Difference from one year ago | Annual percentage changes, 4-quarter cumulated operations | | | Difference from one year ago | |
| | | | | | | | | | | | | | | |
| 2009 | | 1.9 | -1.9 | -6.6 | 8.7 | -4.6 | -10.1 | -4.5 | 64.4 | 5.1 | 8.3 | -23.5 | -- | 5.3 |
| 2010 | | -1.5 | -1.4 | -1.4 | 1.4 | -0.1 | 4.8 | 2.2 | -25.8 | -3.3 | 13.8 | -8.7 | -- | -1.6 |
| 2011 | | 0.8 | -1.9 | 8.0 | 1.5 | 0.3 | 3.2 | 0.0 | 7.5 | 0.7 | -32.3 | -17.1 | -- | 1.3 |
| 2012 | | -3.4 | -6.0 | -1.6 | 0.7 | -5.2 | 1.5 | -1.2 | -23.4 | -2.2 | -6.3 | -25.6 | -- | -0.3 |
| 2013 | | -0.9 | -2.6 | 0.5 | 0.6 | -2.1 | -0.1 | -2.1 | 11.7 | 1.1 | -41.4 | -33.9 | -- | 1.8 |
| 2014 | | 0.9 | 1.3 | 1.7 | -1.9 | -0.4 | 0.7 | 1.7 | -6.1 | -0.7 | -55.3 | 7.7 | -- | -0.8 |
| 2015 | | 1.9 | 3.8 | -0.9 | -0.6 | 1.7 | -0.6 | 2.6 | -7.0 | -0.8 | 42.9 | 10.1 | -- | -0.7 |
| 2016 | | 2.7 | 3.6 | 1.1 | 1.0 | 1.9 | 0.6 | 2.8 | 1.9 | -0.1 | -11.0 | 4.1 | -- | -0.1 |
| 2017 | | 3.2 | 3.1 | 3.9 | 2.6 | 2.8 | 3.2 | 3.4 | 1.4 | -0.1 | -8.0 | 6.8 | -- | -0.2 |
| 2014 | III | -0.6 | 1.0 | -1.7 | -2.6 | -1.0 | 1.3 | 1.2 | -17.0 | -1.6 | -57.5 | -18.8 | -- | -0.6 |
| | IV | 0.9 | 1.3 | 1.7 | -1.9 | -0.4 | 0.7 | 1.7 | -6.1 | -0.7 | -55.3 | 7.7 | -- | -0.8 |
| 2015 | I | 2.3 | 2.4 | 2.7 | -0.9 | -0.2 | 0.1 | 2.0 | 6.2 | 0.3 | -55.9 | 2.9 | -- | 0.1 |
| | II | 3.2 | 3.0 | 5.2 | -0.9 | 0.7 | 0.9 | 2.0 | 16.2 | 1.1 | -20.6 | 8.4 | -- | 0.5 |
| | III | 3.6 | 3.3 | 5.4 | -0.2 | 1.5 | 0.0 | 2.4 | 18.0 | 1.1 | 31.2 | 11.1 | -- | 0.6 |
| | IV | 1.9 | 3.8 | -0.9 | -0.6 | 1.7 | -0.6 | 2.6 | -7.0 | -0.8 | 42.9 | 10.1 | -- | -0.7 |
| 2016 | I | 1.8 | 3.7 | -0.7 | -0.7 | 1.9 | -0.8 | 3.0 | -9.7 | -1.0 | 47.7 | 10.0 | -- | -0.9 |
| | II | 1.7 | 3.6 | -1.6 | 0.4 | 2.7 | -1.3 | 2.9 | -10.1 | -1.1 | -30.7 | 4.7 | -- | -0.9 |

(a) Including change in net equity of households in pension funds reserves.

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 6.1.- Households: Gross disposable income
EUR Billions, 4-quarter cummulated

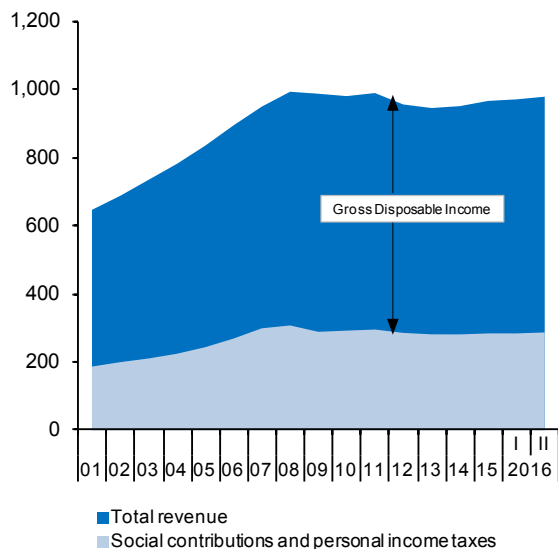
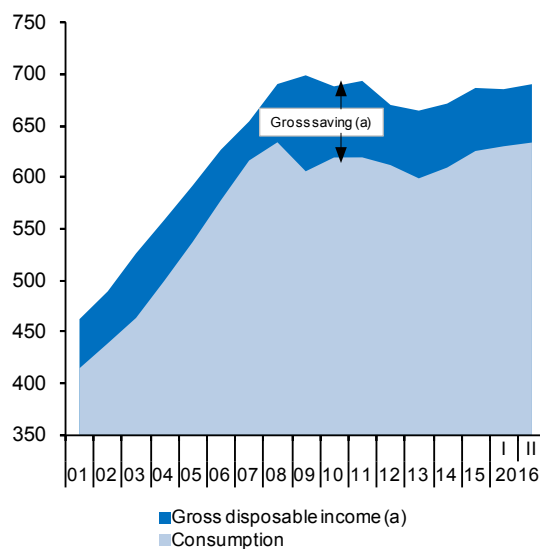


Chart 6.2.- Households: Gross saving
EUR Billions, 4-quarter cummulated



(a) Including change in net equity of households in pension funds reserves.

Chart 6.3.- Households: Income, consumption and saving
Annual percentage change and percentage of GDI, 4-quarter moving averages

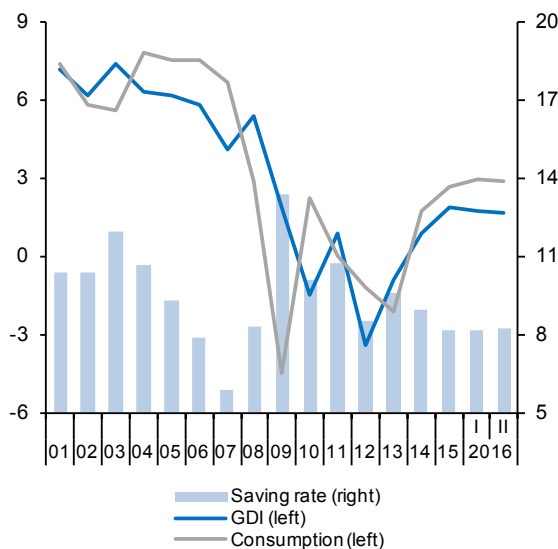
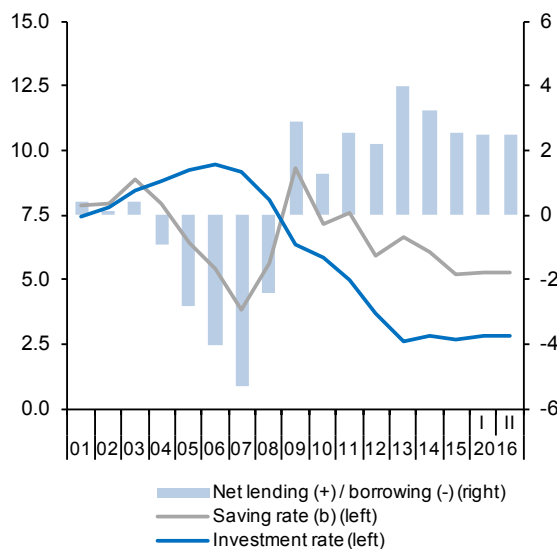


Chart 6.4.- Households: Saving, investment and deficit
Percentage of GDP, 4-quarter moving averages



(b) Including net capital transfers.

Table 7

National accounts: Non-financial corporations income and its disposition (ESA 2010, Base 2010) (1)
Forecasts in blue

| | Gross value added | Compensation of employees and net taxes on production (paid) | Gross operating surplus | Net property income | Net current transfers | Income taxes | Gross saving | Net capital transfers | Gross capital formation | Net lending (+) or borrowing (-) | Net lending or borrowing as a percentage of GDP | Profit share (percentage) | Investment rate (percentage) |
|--|-------------------|--|-------------------------|---------------------|-----------------------|--------------|--------------|-----------------------|-------------------------|----------------------------------|---|---------------------------|------------------------------|
| | 1 | 2 | 3=1-2 | 4 | 5 | 6 | 7=3+4+5-6 | 8 | 9 | 10=7+8-9 | 11 | 12=3/1 | 13=9/1 |
| EUR Billions, 4-quarter cumulated operations | | | | | | | | | | | | | |
| 2009 | 590.7 | 354.4 | 236.3 | -59.9 | -13.3 | 19.0 | 144.2 | 11.4 | 130.1 | 25.4 | 2.4 | 40.0 | 22.0 |
| 2010 | 581.8 | 346.0 | 235.8 | -49.2 | -8.6 | 16.2 | 161.8 | 10.2 | 132.0 | 40.0 | 3.7 | 40.5 | 22.7 |
| 2011 | 573.0 | 340.2 | 232.8 | -63.4 | -8.8 | 15.8 | 144.9 | 8.9 | 131.7 | 22.0 | 2.1 | 40.6 | 23.0 |
| 2012 | 555.6 | 320.9 | 234.7 | -59.9 | -10.2 | 19.8 | 144.8 | 6.6 | 136.5 | 14.9 | 1.4 | 42.2 | 24.6 |
| 2013 | 543.0 | 308.0 | 235.0 | -46.9 | -9.4 | 18.0 | 160.8 | 5.0 | 136.3 | 29.5 | 2.9 | 43.3 | 25.1 |
| 2014 | 553.6 | 317.2 | 236.4 | -50.5 | -8.0 | 17.7 | 160.2 | 6.9 | 147.1 | 20.1 | 1.9 | 42.7 | 26.6 |
| 2015 | 574.3 | 329.4 | 244.9 | -40.7 | -6.0 | 20.4 | 177.9 | 6.0 | 153.3 | 30.6 | 2.8 | 42.6 | 26.7 |
| 2016 | 595.8 | 344.2 | 251.7 | -33.5 | -6.2 | 15.5 | 196.3 | 6.0 | 167.6 | 34.7 | 3.1 | 42.2 | 28.2 |
| 2017 | 615.5 | 357.4 | 258.1 | -28.3 | -6.5 | 18.9 | 203.9 | 6.0 | 179.3 | 30.6 | 2.6 | 41.9 | 29.3 |
| 2014 | III 549.4 | 313.5 | 235.9 | -46.0 | -8.2 | 18.3 | 163.3 | 5.9 | 141.1 | 28.1 | 2.7 | 42.9 | 25.7 |
| | IV 553.6 | 317.2 | 236.4 | -50.5 | -8.0 | 17.7 | 160.2 | 6.9 | 147.1 | 20.1 | 1.9 | 42.7 | 26.6 |
| 2015 | I 557.7 | 320.0 | 237.7 | -48.1 | -7.7 | 17.0 | 165.0 | 6.8 | 148.9 | 22.8 | 2.2 | 42.6 | 26.7 |
| | II 562.5 | 322.3 | 240.2 | -47.7 | -7.2 | 18.4 | 167.0 | 6.6 | 153.6 | 20.0 | 1.9 | 42.7 | 27.3 |
| | III 568.8 | 325.6 | 243.2 | -46.9 | -6.5 | 19.5 | 170.3 | 6.6 | 153.1 | 23.8 | 2.2 | 42.8 | 26.9 |
| | IV 574.3 | 329.4 | 244.9 | -40.7 | -6.0 | 20.4 | 177.9 | 6.0 | 153.3 | 30.6 | 2.8 | 42.6 | 26.7 |
| 2016 | I 579.9 | 332.9 | 247.0 | -40.2 | -5.6 | 19.9 | 181.3 | 6.2 | 157.1 | 30.5 | 2.8 | 42.6 | 27.1 |
| | II 587.7 | 335.7 | 252.0 | -40.1 | -5.3 | 17.5 | 189.0 | 6.4 | 157.9 | 37.5 | 3.4 | 42.9 | 26.9 |
| Annual percentage changes, 4-quarter cumulated operations | | | | | | | | | | | Difference from one year ago | | |
| 2009 | -2.4 | -4.1 | 0.4 | -23.9 | 50.6 | -25.4 | 17.8 | -5.3 | -27.2 | -- | 6.3 | 1.1 | -7.5 |
| 2010 | -1.5 | -2.4 | -0.2 | -17.9 | -34.9 | -15.0 | 12.2 | -9.8 | 1.5 | -- | 1.3 | 0.5 | 0.7 |
| 2011 | -1.5 | -1.7 | -1.2 | 29.0 | 1.4 | -2.4 | -10.5 | -12.9 | -0.2 | -- | -1.6 | 0.1 | 0.3 |
| 2012 | -3.0 | -5.7 | 0.8 | -5.5 | 16.5 | 25.3 | 0.0 | -26.1 | 3.6 | -- | -0.6 | 1.6 | 1.6 |
| 2013 | -2.3 | -4.0 | 0.1 | -21.8 | -8.1 | -9.0 | 11.0 | -24.1 | -0.1 | -- | 1.4 | 1.0 | 0.5 |
| 2014 | 2.0 | 3.0 | 0.6 | 7.7 | -14.7 | -1.9 | -0.3 | 37.4 | 7.9 | -- | -0.9 | -0.6 | 1.5 |
| 2015 | 3.8 | 3.8 | 3.6 | -19.5 | -24.8 | 15.5 | 11.0 | -12.1 | 4.2 | -- | 0.9 | -0.1 | 0.1 |
| 2016 | 3.7 | 4.5 | 2.7 | -17.6 | 3.5 | -24.2 | 10.3 | 0.0 | 9.3 | -- | 0.2 | -0.4 | 1.5 |
| 2017 | 3.3 | 3.8 | 2.6 | -15.6 | 4.0 | 22.4 | 3.9 | 0.0 | 7.0 | -- | -0.5 | -0.3 | 1.1 |
| 2014 | III 0.6 | 1.2 | -0.1 | -4.7 | -13.7 | -1.4 | 2.3 | 10.6 | 3.7 | -- | -0.1 | -0.3 | 0.7 |
| | IV 2.0 | 3.0 | 0.6 | 7.7 | -14.7 | -1.9 | -0.3 | 37.4 | 7.9 | -- | -0.9 | -0.6 | 1.5 |
| 2015 | I 2.4 | 3.9 | 0.6 | 8.0 | -12.7 | -5.9 | 0.0 | 30.0 | 7.9 | -- | -1.0 | -0.8 | 1.4 |
| | II 2.8 | 3.7 | 1.6 | -0.4 | -13.9 | -2.4 | 3.4 | 14.2 | 11.3 | -- | -0.9 | -0.5 | 2.1 |
| | III 3.5 | 3.8 | 3.1 | 1.8 | -21.2 | 6.2 | 4.3 | 12.8 | 8.6 | -- | -0.5 | -0.2 | 1.3 |
| | IV 3.8 | 3.8 | 3.6 | -19.5 | -24.8 | 15.5 | 11.0 | -12.1 | 4.2 | -- | 0.9 | -0.1 | 0.1 |
| 2016 | I 4.0 | 4.0 | 3.9 | -16.5 | -27.3 | 17.6 | 9.9 | -8.0 | 5.5 | -- | 0.6 | 0.0 | 0.4 |
| | II 4.5 | 4.2 | 4.9 | -15.8 | -25.4 | -4.7 | 13.2 | -3.9 | 2.8 | -- | 1.5 | 0.2 | -0.4 |

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 7.1.- Non-financial corporations: Gross operating surplus

EUR Billions, 4-quarter cummulated

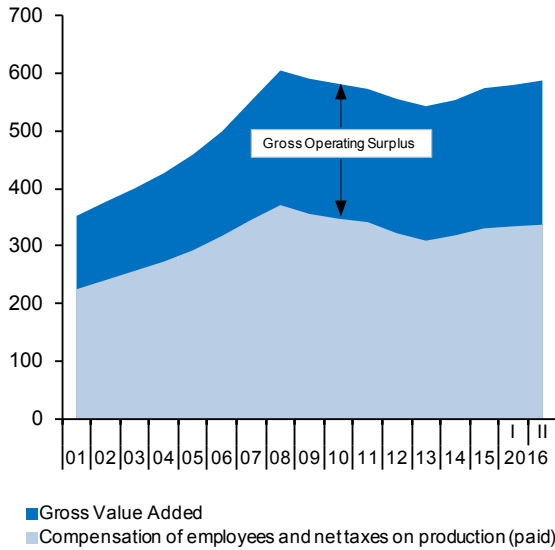


Chart 7.2.- Non-financial corporations: GVA, GOS and saving

Annual percentage change, 4-quarter moving averages

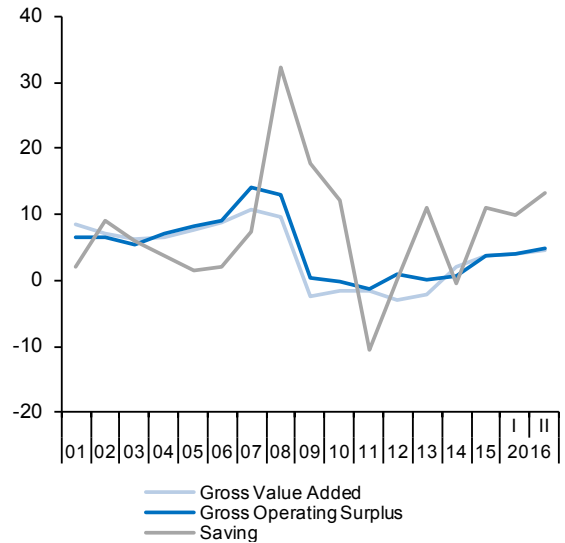


Chart 7.3.- Non-financial corporations: Saving, investment and deficit

Percentage of GDP, 4-quarter moving averages

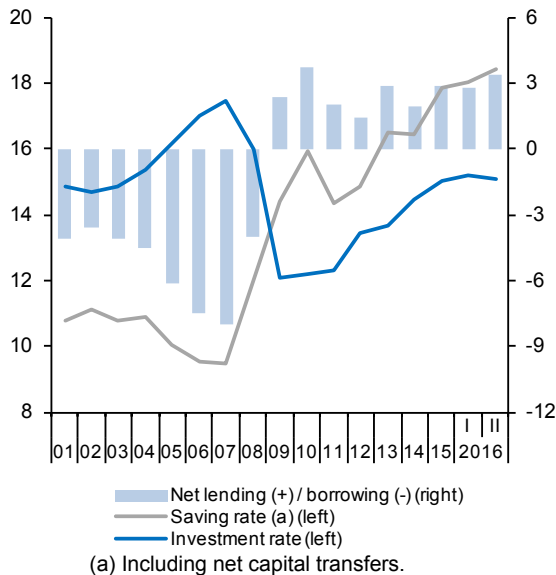


Chart 7.4.- Non-financial corporations: Profit share and investment rate

Percentage of non-financial corporations GVA, 4-quarter moving averages

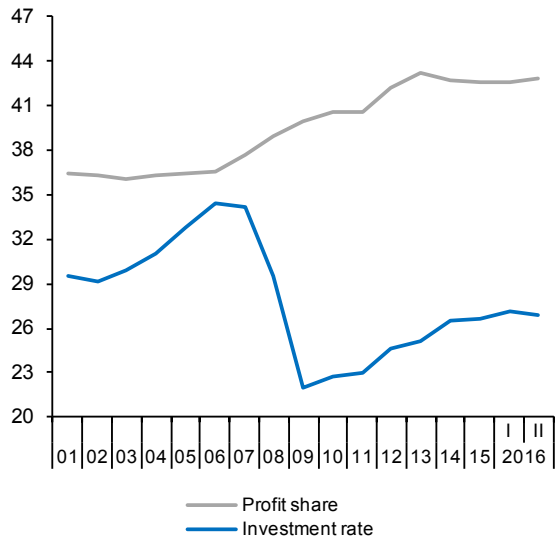


Table 8

National accounts: Public revenue, expenditure and deficit (ESA 2010, Base 2010) (1)

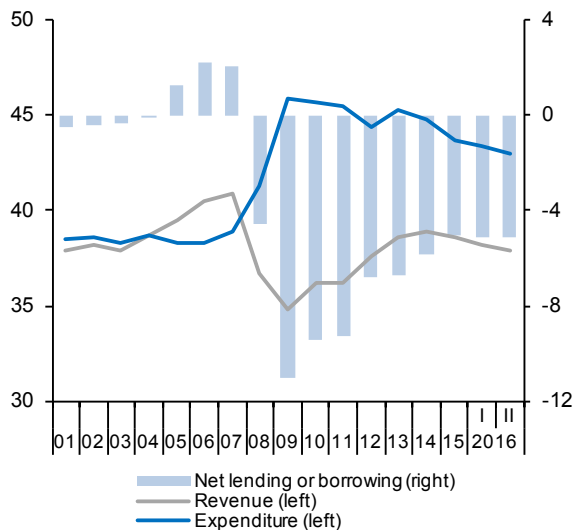
Forecasts in blue

| | Gross value added | Taxes on production and imports receivable | Taxes on income and wealth receivable | Social contributions receivable | Compensation of employees | Interests and other capital incomes payable (net) | Social benefits payable | Subsidies and net current transfers payable | Gross disposable income | Final consumption expenditure | Gross saving | Net capital expenditure | Net lending(+)/net borrowing(-) | Net lending(+)/net borrowing(-) excluding financial entities bail-out |
|--|-------------------|--|---------------------------------------|---------------------------------|---------------------------|---|-------------------------|---|-------------------------|-------------------------------|--------------|-------------------------|---------------------------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9=1+2+3+4-5-6-7-8 | 10 | 11=9-10 | 12 | 13=11-12 | 14 |
| EUR Billions, 4-quarter cumulated operations | | | | | | | | | | | | | | |
| 2009 | 151.0 | 91.9 | 101.6 | 139.7 | 125.6 | 8.0 | 155.1 | 23.9 | 171.7 | 221.0 | -49.3 | 68.9 | -118.2 | -118.9 |
| 2010 | 152.0 | 110.1 | 100.6 | 138.6 | 124.9 | 10.8 | 162.7 | 21.4 | 181.5 | 221.7 | -40.2 | 61.3 | -101.4 | -102.2 |
| 2011 | 150.3 | 106.2 | 102.0 | 137.8 | 122.6 | 16.2 | 164.2 | 22.6 | 170.7 | 219.7 | -49.0 | 53.9 | -102.9 | -99.4 |
| 2012 | 142.2 | 108.2 | 106.3 | 131.9 | 113.9 | 20.3 | 168.5 | 18.7 | 167.1 | 205.2 | -38.1 | 70.8 | -108.9 | -70.6 |
| 2013 | 142.9 | 114.6 | 105.2 | 128.2 | 114.7 | 24.1 | 170.8 | 20.9 | 160.5 | 201.8 | -41.3 | 30.5 | -71.9 | -68.6 |
| 2014 | 143.4 | 119.2 | 105.6 | 130.1 | 115.2 | 25.7 | 171.1 | 20.9 | 165.4 | 202.0 | -36.6 | 25.6 | -62.2 | -60.8 |
| 2015 | 147.2 | 127.1 | 109.1 | 132.3 | 119.1 | 24.5 | 170.4 | 21.7 | 179.9 | 208.5 | -28.6 | 26.6 | -55.2 | -54.6 |
| 2016 | 149.0 | 130.1 | 103.9 | 134.6 | 120.2 | 24.3 | 171.1 | 21.8 | 180.2 | 210.1 | -29.9 | 21.6 | -51.5 | -51.5 |
| 2017 | 151.4 | 135.9 | 111.1 | 138.6 | 122.0 | 23.3 | 175.3 | 22.1 | 194.3 | 213.3 | -18.9 | 22.0 | -40.9 | -40.9 |
| 2014 III | 143.2 | 118.1 | 106.4 | 129.2 | 115.0 | 24.9 | 169.4 | 21.9 | 165.8 | 202.6 | -36.8 | 24.6 | -61.4 | -60.1 |
| IV | 143.4 | 119.2 | 105.6 | 130.1 | 115.2 | 25.7 | 171.1 | 20.9 | 165.4 | 202.0 | -36.6 | 25.6 | -62.2 | -60.8 |
| 2015 I | 144.4 | 120.9 | 106.3 | 130.2 | 116.2 | 26.0 | 170.9 | 22.0 | 166.7 | 203.3 | -36.6 | 25.9 | -62.5 | -61.0 |
| II | 145.2 | 123.4 | 107.9 | 131.0 | 117.1 | 25.7 | 171.0 | 21.3 | 172.5 | 205.1 | -32.7 | 24.9 | -57.6 | -56.1 |
| III | 145.6 | 125.6 | 109.0 | 131.4 | 117.5 | 25.2 | 170.8 | 21.4 | 176.6 | 206.2 | -29.5 | 26.8 | -56.4 | -55.6 |
| IV | 147.2 | 127.1 | 109.1 | 132.3 | 119.1 | 24.5 | 170.4 | 21.7 | 179.9 | 208.5 | -28.6 | 26.6 | -55.2 | -54.6 |
| 2016 I | 147.2 | 127.0 | 106.9 | 132.9 | 119.2 | 23.9 | 171.0 | 20.5 | 179.4 | 209.0 | -29.6 | 26.3 | -56.0 | -55.6 |
| II | 148.2 | 127.9 | 104.6 | 134.2 | 120.2 | 23.4 | 171.9 | 19.7 | 179.6 | 210.1 | -30.5 | 27.7 | -58.2 | -56.2 |
| Percentage of GDP, 4-quarter cumulated operations | | | | | | | | | | | | | | |
| 2009 | 14.0 | 8.5 | 9.4 | 12.9 | 11.6 | 0.7 | 14.4 | 2.2 | 15.9 | 20.5 | -4.6 | 6.4 | -11.0 | -11.0 |
| 2010 | 14.1 | 10.2 | 9.3 | 12.8 | 11.6 | 1.0 | 15.1 | 2.0 | 16.8 | 20.5 | -3.7 | 5.7 | -9.4 | -9.5 |
| 2011 | 14.0 | 9.9 | 9.5 | 12.9 | 11.5 | 1.5 | 15.3 | 2.1 | 15.9 | 20.5 | -4.6 | 5.0 | -9.6 | -9.3 |
| 2012 | 13.7 | 10.4 | 10.2 | 12.7 | 11.0 | 2.0 | 16.2 | 1.8 | 16.1 | 19.7 | -3.7 | 6.8 | -10.5 | -6.8 |
| 2013 | 13.9 | 11.2 | 10.3 | 12.5 | 11.2 | 2.3 | 16.6 | 2.0 | 15.6 | 19.7 | -4.0 | 3.0 | -7.0 | -6.7 |
| 2014 | 13.8 | 11.5 | 10.2 | 12.5 | 11.1 | 2.5 | 16.5 | 2.0 | 15.9 | 19.5 | -3.5 | 2.5 | -6.0 | -5.9 |
| 2015 | 13.7 | 11.8 | 10.1 | 12.3 | 11.1 | 2.3 | 15.8 | 2.0 | 16.7 | 19.4 | -2.7 | 2.5 | -5.1 | -5.1 |
| 2016 | 13.4 | 11.7 | 9.3 | 12.1 | 10.8 | 2.2 | 15.4 | 2.0 | 16.2 | 18.9 | -2.7 | 1.9 | -4.6 | -4.6 |
| 2017 | 13.2 | 11.8 | 9.7 | 12.1 | 10.6 | 2.0 | 15.3 | 1.9 | 16.9 | 18.6 | -1.6 | 1.9 | -3.6 | -3.6 |
| 2014 III | 13.9 | 11.5 | 10.3 | 12.5 | 11.1 | 2.4 | 16.4 | 2.1 | 16.1 | 19.6 | -3.6 | 2.4 | -5.9 | -5.8 |
| IV | 13.8 | 11.5 | 10.2 | 12.5 | 11.1 | 2.5 | 16.5 | 2.0 | 15.9 | 19.5 | -3.5 | 2.5 | -6.0 | -5.9 |
| 2015 I | 13.8 | 11.6 | 10.2 | 12.5 | 11.1 | 2.5 | 16.4 | 2.1 | 16.0 | 19.5 | -3.5 | 2.5 | -6.0 | -5.8 |
| II | 13.8 | 11.7 | 10.2 | 12.4 | 11.1 | 2.4 | 16.2 | 2.0 | 16.4 | 19.5 | -3.1 | 2.4 | -5.5 | -5.3 |
| III | 13.7 | 11.8 | 10.2 | 12.3 | 11.0 | 2.4 | 16.0 | 2.0 | 16.6 | 19.4 | -2.8 | 2.5 | -5.3 | -5.2 |
| IV | 13.7 | 11.8 | 10.1 | 12.3 | 11.1 | 2.3 | 15.8 | 2.0 | 16.7 | 19.4 | -2.7 | 2.5 | -5.1 | -5.1 |
| 2016 I | 13.6 | 11.7 | 9.9 | 12.3 | 11.0 | 2.2 | 15.8 | 1.9 | 16.5 | 19.3 | -2.7 | 2.4 | -5.2 | -5.1 |
| II | 13.5 | 11.7 | 9.5 | 12.2 | 11.0 | 2.1 | 15.7 | 1.8 | 16.4 | 19.2 | -2.8 | 2.5 | -5.3 | -5.1 |

(1) Forecasts have not been actualized to take into account new revised figures of National Accounts.

Sources: INE (Quarterly National Accounts) and Funcas (Forecasts).

Chart 8.1.- Public sector: Revenue, expenditure and deficit (a)
Percentage of GDP, 4-quarter moving averages



(a) Excluding financial entities bail-out expenditures.

Chart 8.2.- Public sector: Main revenues
Percentage of GDP, 4-quarter moving averages

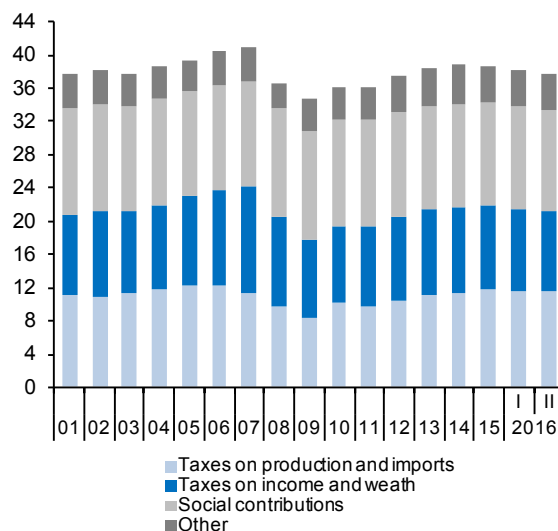


Chart 8.3.- Public sector: Main expenditures
Percentage of GDP, 4-quarter moving averages

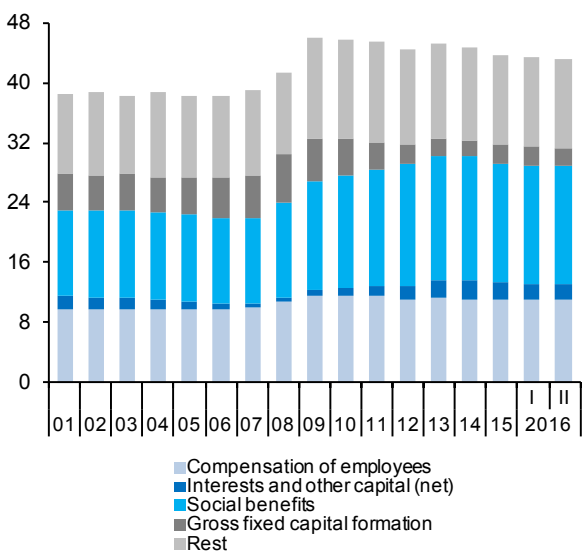
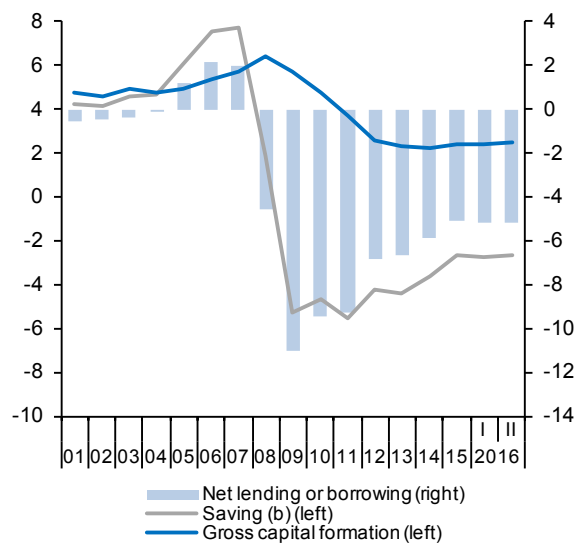


Chart 8.4.- Public sector: Saving, investment and deficit (a)
Percentage of GDP, 4-quarter moving averages



(a) Excluding financial entities bail-out expenditures.

(b) Including net capital transfers.

Table 9

Public sector balances, by level of Government

Forecasts in blue

| | Deficit | | | | | Debt | | | | | |
|------|---|--|-------------------|-----------------|----------------------|------------------------------------|----------------------|-------------------|-----------------|---------------------------------|---------|
| | Central Government (a) | Regional Governments | Local Governments | Social Security | TOTAL Government (a) | Central Government | Regional Governments | Local Governments | Social Security | TOTAL Government (consolidated) | |
| | EUR Billions, 4-quarter cumulated operations | | | | | EUR Billions, end of period | | | | | |
| 2009 | -99.1 | -21.7 | -5.9 | 7.8 | -118.9 | 487.7 | 92.4 | 34.7 | 17.2 | 568.7 | |
| 2010 | -52.5 | -40.2 | -7.1 | -2.4 | -102.2 | 551.6 | 123.4 | 35.5 | 17.2 | 649.3 | |
| 2011 | -35.0 | -54.8 | -8.5 | -1.1 | -99.4 | 624.2 | 145.1 | 36.8 | 17.2 | 743.5 | |
| 2012 | -44.3 | -19.4 | 3.3 | -10.2 | -70.6 | 761.9 | 188.4 | 44.0 | 17.2 | 890.7 | |
| 2013 | -46.5 | -16.2 | 5.7 | -11.5 | -68.6 | 850.2 | 209.8 | 42.1 | 17.2 | 978.3 | |
| 2014 | -37.0 | -18.5 | 5.5 | -10.8 | -60.8 | 902.5 | 237.2 | 38.3 | 17.2 | 1,040.9 | |
| 2015 | -27.9 | -18.7 | 5.1 | -13.2 | -54.6 | 940.4 | 262.5 | 35.1 | 17.2 | 1,073.2 | |
| 2016 | -30.3 | -8.9 | 3.3 | -15.7 | -51.5 | -- | -- | -- | -- | 1,126.3 | |
| 2017 | -22.9 | -6.9 | 2.9 | -14.0 | -40.9 | -- | -- | -- | -- | 1,174.7 | |
| 2014 | III | -39.5 | -18.1 | 5.8 | -8.2 | -60.1 | 899.7 | 232.1 | 40.8 | 17.2 | 1,028.1 |
| | IV | -37.0 | -18.5 | 5.5 | -10.8 | -60.8 | 902.5 | 237.2 | 38.3 | 17.2 | 1,040.9 |
| 2015 | I | -38.1 | -17.6 | 6.0 | -11.4 | -61.0 | 912.8 | 240.7 | 38.3 | 17.2 | 1,052.1 |
| | II | -31.8 | -17.1 | 6.4 | -13.6 | -56.1 | 922.7 | 250.3 | 37.7 | 17.2 | 1,057.6 |
| | III | -28.7 | -18.5 | 5.0 | -13.5 | -55.6 | 938.8 | 253.6 | 36.9 | 17.2 | 1,067.6 |
| | IV | -27.9 | -18.7 | 5.1 | -13.2 | -54.6 | 940.4 | 262.5 | 35.1 | 17.2 | 1,073.2 |
| 2016 | I | -28.1 | -18.1 | 4.6 | -14.1 | -55.6 | 962.1 | 265.3 | 35.1 | 17.2 | 1,096.2 |
| | II | -28.2 | -17.0 | 4.5 | -15.5 | -56.2 | 964.7 | 273.2 | 35.1 | 17.2 | 1,106.7 |
| | | Percentage of GDP, 4-quarter cumulated operations | | | | Percentage of GDP | | | | | |
| 2009 | -9.2 | -2.0 | -0.5 | 0.7 | -11.0 | 45.2 | 8.6 | 3.2 | 1.6 | 52.7 | |
| 2010 | -4.9 | -3.7 | -0.7 | -0.2 | -9.5 | 51.0 | 11.4 | 3.3 | 1.6 | 60.1 | |
| 2011 | -3.3 | -5.1 | -0.8 | -0.1 | -9.3 | 58.3 | 13.6 | 3.4 | 1.6 | 69.5 | |
| 2012 | -4.3 | -1.9 | 0.3 | -1.0 | -6.8 | 73.3 | 18.1 | 4.2 | 1.7 | 85.7 | |
| 2013 | -4.5 | -1.6 | 0.6 | -1.1 | -6.7 | 82.9 | 20.5 | 4.1 | 1.7 | 95.4 | |
| 2014 | -3.6 | -1.8 | 0.5 | -1.0 | -5.9 | 87.0 | 22.9 | 3.7 | 1.7 | 100.4 | |
| 2015 | -2.6 | -1.7 | 0.5 | -1.2 | -5.1 | 87.4 | 24.4 | 3.3 | 1.6 | 99.8 | |
| 2016 | -2.7 | -0.8 | 0.3 | -1.4 | -4.6 | -- | -- | -- | -- | 101.2 | |
| 2017 | -2.0 | -0.6 | 0.3 | -1.2 | -3.6 | -- | -- | -- | -- | 102.2 | |
| 2014 | III | -3.8 | -1.8 | 0.6 | -0.8 | -5.8 | 87.2 | 22.5 | 4.0 | 1.7 | 99.7 |
| | IV | -3.6 | -1.8 | 0.5 | -1.0 | -5.9 | 87.0 | 22.9 | 3.7 | 1.7 | 100.4 |
| 2015 | I | -3.6 | -1.7 | 0.6 | -1.1 | -5.8 | 87.4 | 23.0 | 3.7 | 1.6 | 100.7 |
| | II | -3.0 | -1.6 | 0.6 | -1.3 | -5.3 | 87.5 | 23.7 | 3.6 | 1.6 | 100.3 |
| | III | -2.7 | -1.7 | 0.5 | -1.3 | -5.2 | 88.2 | 23.8 | 3.5 | 1.6 | 100.3 |
| | IV | -2.6 | -1.7 | 0.5 | -1.2 | -5.1 | 87.4 | 24.4 | 3.3 | 1.6 | 99.8 |
| 2016 | I | -2.6 | -1.7 | 0.4 | -1.3 | -5.1 | 88.8 | 24.5 | 3.2 | 1.6 | 101.1 |
| | II | -2.6 | -1.6 | 0.4 | -1.4 | -5.1 | 88.0 | 24.9 | 3.2 | 1.6 | 101.0 |

(a) Excluding financial entities bail-out expenditures.

Sources: National Statistics Institute, Bank of Spain (Financial Accounts of the Spanish Economy) and Funcas (Forecasts).

Chart 9.1.- Government deficit
Percent of GDP, 4-quarter cumulated operations

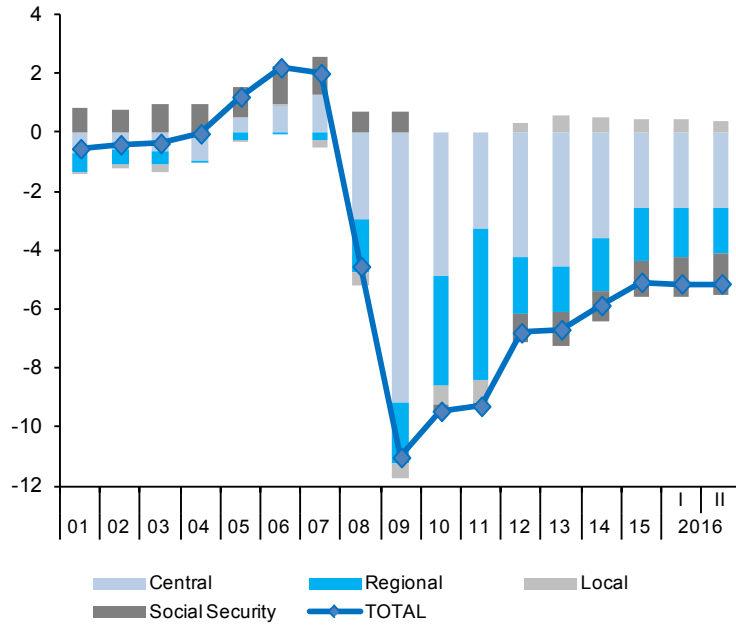


Chart 9.2.- Government debt
Percent of GDP

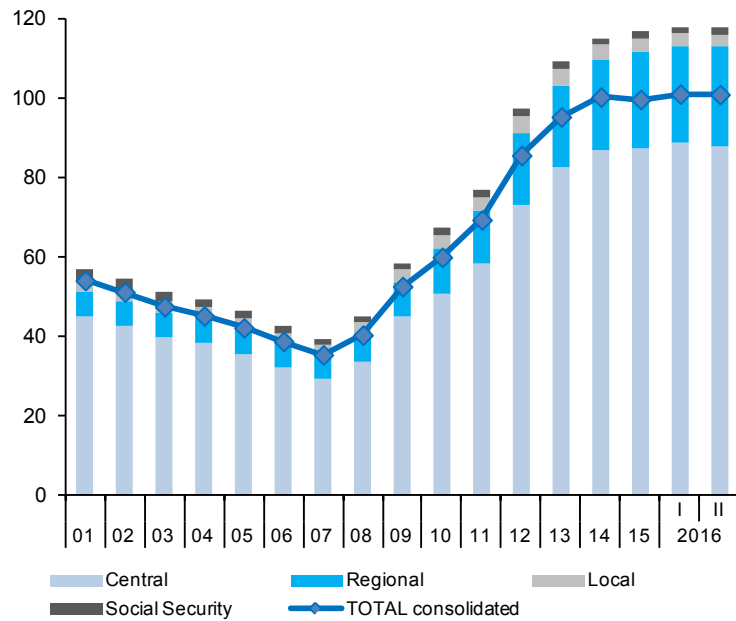


Table 10

General activity and industrial sector indicators (a)

| | General activity indicators | | | | | Industrial sector indicators | | | | | |
|-------------------------------|-----------------------------|---------------------|--------------------------------|--|-----------------------------|--|-------------------------|-----------------------------|-------------------------|----------------------|-------|
| | Economic Sentiment Index | Composite PMI index | Social Security affiliates (f) | Electricity consumption (temperature adjusted) | Industrial production index | Social Security affiliates in industry | Manufacturing PMI index | Industrial confidence index | Turnover index deflated | Industrial orders | |
| | Index | Index | Thousands | 1000 GWH (smoothed) | 2010=100 | Thousands | Index | Balance of responses | 2010=100 (smoothed) | Balance of responses | |
| 2009 | 82.6 | 40.9 | 17,657 | 256.9 | 99.2 | 2,411 | 40.9 | -30.8 | 96.5 | -55.1 | |
| 2010 | 93.1 | 50.0 | 17,244 | 263.8 | 100.0 | 2,295 | 50.6 | -13.8 | 100.0 | -36.7 | |
| 2011 | 93.1 | 46.6 | 16,970 | 261.3 | 98.4 | 2,232 | 47.3 | -12.5 | 101.1 | -30.8 | |
| 2012 | 88.4 | 43.1 | 16,335 | 255.7 | 91.9 | 2,114 | 43.8 | -17.5 | 97.0 | -37.1 | |
| 2013 | 92.5 | 48.3 | 15,855 | 250.2 | 90.5 | 2,022 | 48.5 | -13.9 | 93.8 | -30.7 | |
| 2014 | 102.4 | 55.1 | 16,111 | 249.7 | 91.6 | 2,023 | 53.2 | -7.1 | 95.1 | -16.3 | |
| 2015 | 108.8 | 56.7 | 16,642 | 253.7 | 94.7 | 2,067 | 53.6 | -0.3 | 96.5 | -5.4 | |
| 2016 (b) | 106.3 | 54.8 | 17,114 | 209.3 | 96.4 | 2,120 | 52.8 | -2.6 | 96.3 | -5.8 | |
| 2015 | I | 107.3 | 56.6 | 16,431 | 62.9 | 93.2 | 2,045 | 54.4 | -3.2 | 95.8 | -12.6 |
| | II | 109.3 | 57.7 | 16,602 | 63.2 | 94.8 | 2,061 | 54.9 | 0.9 | 96.4 | 0.2 |
| | III | 109.1 | 57.2 | 16,708 | 63.4 | 95.1 | 2,075 | 52.9 | 0.7 | 96.6 | -4.0 |
| | IV | 109.6 | 55.4 | 16,820 | 63.4 | 95.7 | 2,088 | 52.5 | 0.3 | 96.7 | -5.3 |
| 2016 | I | 107.3 | 55.0 | 16,934 | 63.3 | 95.8 | 2,103 | 54.3 | -1.9 | 96.6 | -7.6 |
| | II | 106.1 | 55.3 | 17,070 | 63.5 | 96.2 | 2,116 | 52.5 | -2.8 | 96.7 | -2.9 |
| | III | 105.2 | 54.2 | 17,249 | 63.9 | 96.8 | 2,134 | 51.4 | -3.8 | 96.9 | -6.7 |
| | IV (b) | 107.6 | 54.4 | 17,388 | 21.4 | -- | 2,147 | 53.3 | -0.1 | -- | -6.5 |
| 2016 | Aug | 104.5 | 54.8 | 17,246 | 21.3 | 75.6 | 2,134 | 51.0 | -5.2 | 96.9 | -6.2 |
| | Sep | 105.0 | 54.1 | 17,306 | 21.3 | 98.9 | 2,140 | 52.3 | -3.0 | 97.0 | -8.4 |
| | Oct | 107.6 | 54.4 | 17,388 | 21.4 | -- | 2,147 | 53.3 | -0.1 | -- | -6.5 |
| Percentage changes (c) | | | | | | | | | | | |
| 2009 | -- | -- | -6.2 | -4.7 | -15.8 | -10.6 | -- | -- | -19.6 | -- | |
| 2010 | -- | -- | -2.3 | 2.7 | 0.8 | -4.8 | -- | -- | 3.6 | -- | |
| 2011 | -- | -- | -1.6 | -0.9 | -1.6 | -2.7 | -- | -- | 1.2 | -- | |
| 2012 | -- | -- | -3.7 | -2.2 | -6.7 | -5.3 | -- | -- | -4.1 | -- | |
| 2013 | -- | -- | -2.9 | -2.2 | -1.6 | -4.4 | -- | -- | -3.3 | -- | |
| 2014 | -- | -- | 1.6 | -0.2 | 1.3 | 0.1 | -- | -- | 1.4 | -- | |
| 2015 | -- | -- | 3.3 | 1.6 | 3.4 | 2.2 | -- | -- | 1.5 | -- | |
| 2016 (d) | -- | -- | 3.1 | 0.1 | 1.9 | 2.8 | -- | -- | 0.2 | -- | |
| 2015 | I | -- | 3.6 | 1.8 | 6.2 | 2.4 | -- | -- | 1.9 | -- | |
| | II | -- | 4.2 | 2.0 | 6.8 | 3.1 | -- | -- | 2.5 | -- | |
| | III | -- | 2.6 | 1.1 | 1.6 | 2.7 | -- | -- | 0.9 | -- | |
| | IV | -- | 2.7 | -0.4 | 2.4 | 2.7 | -- | -- | 0.3 | -- | |
| 2016 | I | -- | 2.7 | -0.1 | 0.4 | 2.8 | -- | -- | 0.0 | -- | |
| | II | -- | 3.2 | 1.0 | 1.6 | 2.7 | -- | -- | 0.2 | -- | |
| | III | -- | 4.3 | 2.3 | 2.8 | 3.3 | -- | -- | 0.9 | -- | |
| | IV (e) | -- | 3.3 | 2.2 | -- | 2.4 | -- | -- | -- | -- | |
| 2016 | Aug | -- | 0.3 | 0.2 | 1.6 | 0.3 | -- | -- | 0.1 | -- | |
| | Sep | -- | 0.3 | 0.3 | -1.4 | 0.3 | -- | -- | 0.1 | -- | |
| | Oct | -- | 0.5 | 0.3 | -- | 0.3 | -- | -- | -- | -- | |

(a) Seasonally adjusted, except for annual data. (b) Period with available data. (c) Annualized percent change from the previous quarter for quarterly data, non-annualized percent change from the previous month for monthly data, unless otherwise indicated. (d) Growth of available period over the same period of the previous year. (e) Annualized growth of the average of available months over the monthly average of the previous quarter. (f) Excluding domestic service workers and non-professional caregivers.

Sources: European Commission, Markit Economics Ltd., M. of Labour, M. of Industry, National Statistics Institute, REE and Funcas.

Chart 10.1.- General activity indicators (I)
Annualized percent change from previous period

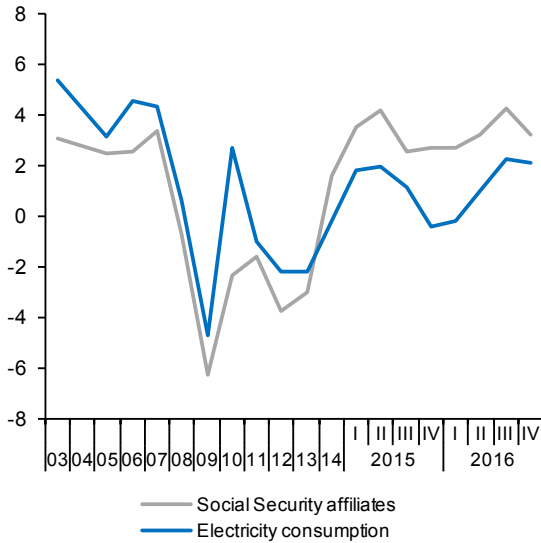


Chart 10.2.- General activity indicators (II)
Index

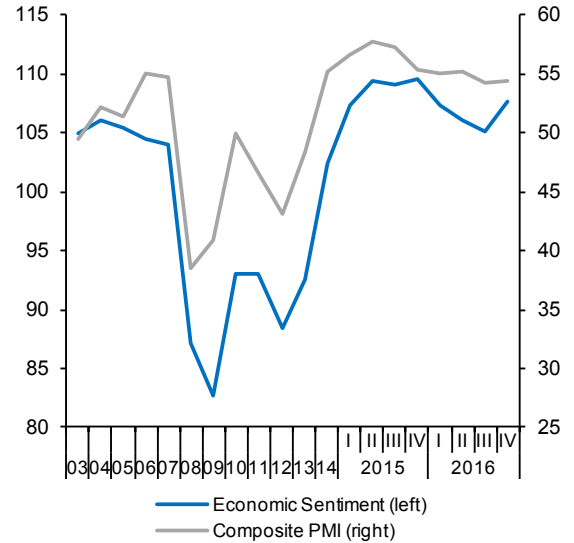


Chart 10.3.- Industrial sector indicators (I)
Annualized percent change from previous period

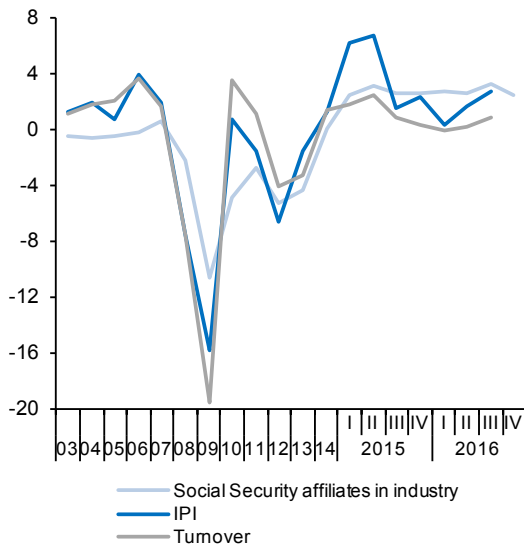


Chart 10.4.- Industrial sector indicators (II)
Index

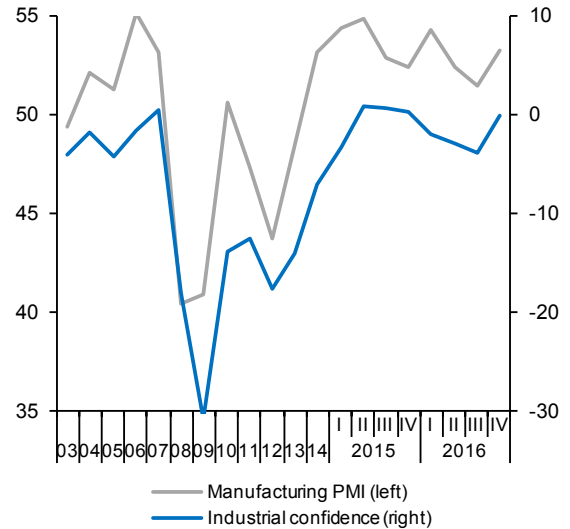


Table 11
Construction and services sector indicators (a)

| | Construction indicators | | | | | | Service sector indicators | | | | | |
|-------------------------------|--|-----------------------|--|-------------------------------|-------------------------|------------------------|--|--------------------------|--------------------|-----------------------|-------------------------|---------------------------|
| | Social Security affiliates in construction | Consumption of cement | Industrial production index construction materials | Construction confidence index | Official tenders (f) | Housing permits (f) | Social Security affiliates in services (g) | Turnover index (nominal) | Services PMI index | Hotel overnight stays | Passenger air transport | Services confidence index |
| | Thousands | Million Tons | 2010=100 (smoothed) | Balance of responses | EUR Billions (smoothed) | Million m ² | Thousands | 2010=100 (smoothed) | Index | Million (smoothed) | Million (smoothed) | Balance of responses |
| 2009 | 1,800 | 28.9 | 115.9 | -32.3 | 39.6 | 19.4 | 12,247 | 99.2 | 41.0 | 251.0 | 186.3 | -29.6 |
| 2010 | 1,559 | 24.5 | 100.0 | -29.7 | 26.2 | 16.3 | 12,186 | 100.0 | 49.3 | 267.2 | 191.7 | -22.4 |
| 2011 | 1,369 | 20.4 | 91.6 | -55.4 | 13.7 | 14.1 | 12,176 | 98.9 | 46.5 | 286.8 | 203.3 | -20.8 |
| 2012 | 1,136 | 13.6 | 66.9 | -54.9 | 7.4 | 8.5 | 11,907 | 92.8 | 43.1 | 280.7 | 193.2 | -21.5 |
| 2013 | 997 | 10.7 | 63.1 | -55.6 | 9.2 | 6.8 | 11,728 | 91.0 | 48.3 | 286.0 | 186.5 | -15.3 |
| 2014 | 980 | 10.8 | 62.1 | -41.4 | 13.1 | 6.9 | 11,995 | 93.3 | 55.2 | 295.3 | 194.9 | 9.9 |
| 2015 | 1,027 | 11.5 | 66.9 | -25.3 | 9.4 | 9.9 | 12,432 | 97.8 | 57.3 | 308.2 | 206.6 | 19.4 |
| 2016 (b) | 1,050 | 8.4 | 68.8 | -39.5 | 7.0 | 8.5 | 12,821 | 100.0 | 55.0 | 297.6 | 177.9 | 17.5 |
| 2015 I | 1,015 | 2.8 | 63.9 | -23.3 | 2.8 | 2.0 | 12,277 | 95.9 | 56.7 | 75.2 | 49.9 | 17.5 |
| II | 1,027 | 2.9 | 66.2 | -27.7 | 2.5 | 2.3 | 12,392 | 97.2 | 58.3 | 76.3 | 50.9 | 20.1 |
| III | 1,029 | 2.8 | 68.0 | -28.5 | 2.2 | 2.6 | 12,482 | 98.2 | 58.1 | 77.7 | 52.1 | 19.7 |
| IV | 1,036 | 2.9 | 68.9 | -21.7 | 2.0 | 2.9 | 12,574 | 99.0 | 55.9 | 79.5 | 53.6 | 20.2 |
| 2016 I | 1,041 | 2.8 | 68.9 | -31.7 | 2.2 | 3.2 | 12,671 | 99.9 | 54.6 | 81.1 | 55.1 | 18.8 |
| II | 1,048 | 2.7 | 68.4 | -40.4 | 2.4 | 3.2 | 12,781 | 101.1 | 55.5 | 82.2 | 56.3 | 17.5 |
| III | 1,058 | 2.7 | 68.1 | -44.3 | 2.4 | 2.0 | 12,923 | 102.3 | 54.9 | 82.7 | 57.3 | 16.0 |
| IV (b) | 1,068 | -- | -- | -45.4 | -- | -- | 13,027 | -- | 54.6 | 27.7 | -- | 17.7 |
| 2016 Aug | 1,057 | 0.9 | 68.1 | -45.6 | 0.8 | 0.6 | 12,920 | 102.3 | 56.0 | 27.6 | 19.1 | 14.9 |
| Sep | 1,062 | 0.9 | 67.9 | -46.9 | 0.8 | -- | 12,971 | 102.8 | 54.7 | 27.6 | 19.2 | 14.3 |
| Oct | 1,068 | -- | -- | -45.4 | -- | -- | 13,027 | -- | 54.6 | 27.7 | -- | 17.7 |
| Percentage changes (c) | | | | | | | | | | | | |
| 2009 | -23.1 | -32.3 | -25.2 | -- | -0.4 | -56.8 | -3.1 | -13.4 | -- | -6.5 | -7.9 | -- |
| 2010 | -13.4 | -15.4 | -13.7 | -- | -33.9 | -16.1 | -0.5 | 0.8 | -- | 6.4 | 2.9 | -- |
| 2011 | -12.2 | -16.4 | -8.4 | -- | -47.9 | -13.2 | -0.1 | -1.1 | -- | 7.3 | 6.0 | -- |
| 2012 | -17.0 | -33.6 | -27.0 | -- | -45.5 | -39.9 | -2.2 | -6.1 | -- | -2.1 | -5.0 | -- |
| 2013 | -12.2 | -20.9 | -5.7 | -- | 23.2 | -20.3 | -1.5 | -2.0 | -- | 1.9 | -3.5 | -- |
| 2014 | -1.7 | 0.8 | -1.4 | -- | 42.6 | 2.2 | 2.3 | 2.6 | -- | 3.2 | 4.6 | -- |
| 2015 | 4.7 | 6.3 | 7.7 | -- | -28.2 | 42.6 | 3.6 | 4.8 | -- | 4.4 | 6.0 | -- |
| 2016 (d) | 2.5 | -2.9 | 3.1 | -- | -5.2 | 35.8 | 3.3 | 3.9 | -- | 7.3 | 10.8 | -- |
| 2015 I | 8.3 | 6.0 | 14.3 | -- | -16.7 | 23.6 | 4.3 | 5.3 | -- | 3.8 | 5.2 | -- |
| II | 5.0 | 11.2 | 15.2 | -- | -25.8 | 37.3 | 3.8 | 5.2 | -- | 5.5 | 7.6 | -- |
| III | 0.8 | -8.7 | 11.3 | -- | -33.1 | 31.9 | 2.9 | 4.3 | -- | 8.0 | 10.1 | -- |
| IV | 2.4 | 16.9 | 5.6 | -- | -31.9 | 85.9 | 3.0 | 3.6 | -- | 9.3 | 12.0 | -- |
| 2016 I | 2.0 | -14.1 | -0.1 | -- | -21.8 | 60.4 | 3.1 | 3.7 | -- | 8.4 | 11.6 | -- |
| II | 2.9 | -14.5 | -2.8 | -- | -6.9 | 28.4 | 3.5 | 4.5 | -- | 5.4 | 9.1 | -- |
| III | 3.8 | 0.1 | -2.2 | -- | 9.9 | 15.3 | 4.5 | 5.1 | -- | 2.8 | 7.4 | -- |
| IV (e) | 3.7 | -- | -- | -- | -- | -- | 3.2 | -- | -- | 1.7 | -- | -- |
| 2016 Aug | 0.3 | 2.3 | -0.2 | -- | 10.7 | 15.5 | 0.3 | 0.4 | -- | 0.2 | 0.6 | -- |
| Sep | 0.4 | 0.3 | -0.2 | -- | 13.7 | -- | 0.4 | 0.4 | -- | 0.2 | 0.6 | -- |
| Oct | 0.6 | -- | -- | -- | -- | -- | 0.4 | -- | -- | 0.2 | -- | -- |

(a) Seasonally adjusted, except for annual data and (f). (b) Period with available data. (c) Annualized percent change from the previous quarter for quarterly data, non-annualized percent change from the previous month for monthly data, unless otherwise indicated. (d) Growth of available period over the same period of the previous year. (e) Annualized growth of the average of available months over the monthly average of the previous quarter. (f) Percent changes are over the same period of the previous year. (g) Excluding domestic service workers and non-professional caregivers.

Sources: European Commission, Markit Economics Ltd., M. of Labour, M. of Public Works, National Statistics Institute, AENA, OFICEMEN, SEOPAN and Funcas.

Chart 11.1.- Construction indicators (I)
Annualized percentage changes from previous period and index

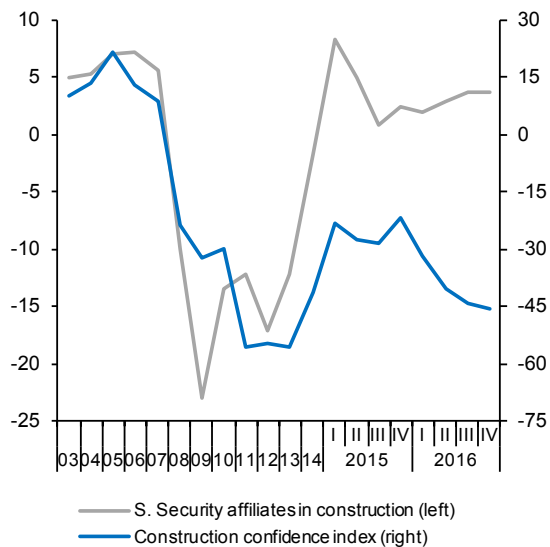


Chart 11.2.- Construction indicators (II)
Annualized percentage changes from previous period

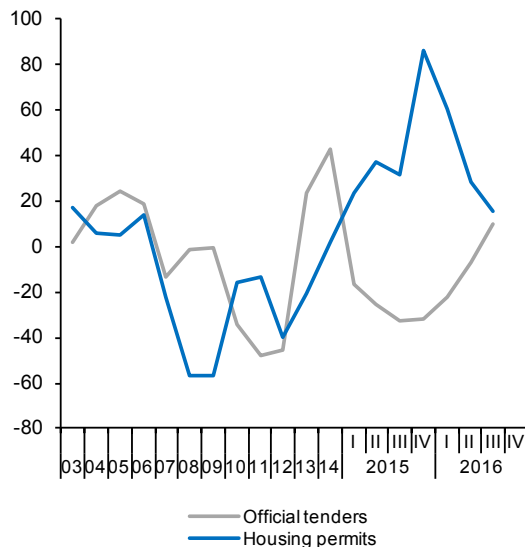


Chart 11.3.- Services indicators (I)
Percentage changes from previous period

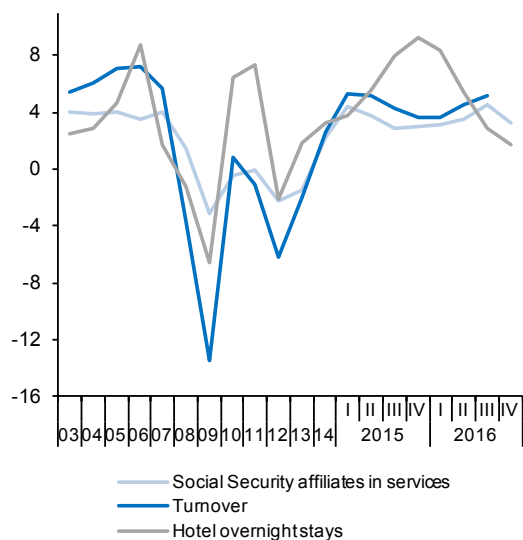


Chart 11.4.- Services indicators (II)
Index

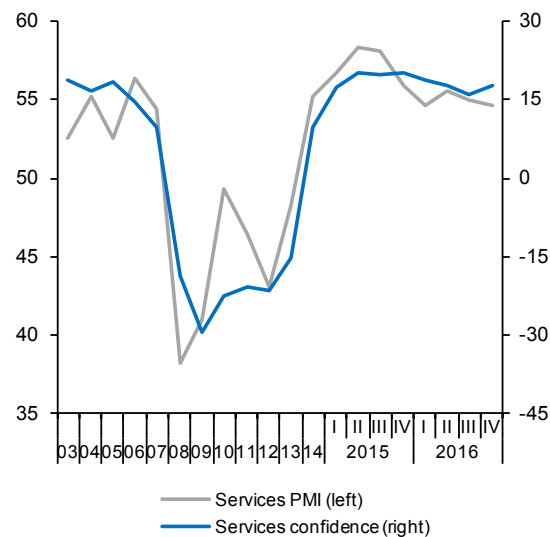


Table 12

Consumption and investment indicators (a)

| | Consumption indicators | | | | | Investment in equipment indicators | | |
|-------------------------------|----------------------------|-----------------------------|-----------------------------|---|--------------------------------------|------------------------------------|--|----------------------------------|
| | Retail sales deflated | Car registrations | Consumer confidence index | Hotel overnight stays by residents in Spain | Industrial orders for consumer goods | Cargo vehicles registrations | Industrial orders for investment goods | Import of capital goods (volume) |
| | 2010=100 (smoothed) | Thousands (smoothed) | Balance of responses | Million (smoothed) | Balance of responses | Thousands (smoothed) | Balance of responses | 2005=100 (smoothed) |
| 2009 | 101.8 | 971.2 | -28.2 | 109.8 | -40.2 | 142.1 | -50.8 | 66.2 |
| 2010 | 100.0 | 1,000.1 | -20.9 | 113.2 | -26.7 | 152.1 | -31.1 | 70.3 |
| 2011 | 94.4 | 808.3 | -17.1 | 111.5 | -21.7 | 142.0 | -23.0 | 68.0 |
| 2012 | 87.4 | 710.6 | -31.7 | 102.1 | -24.2 | 107.7 | -38.6 | 60.6 |
| 2013 | 84.0 | 742.3 | -25.3 | 100.6 | -21.8 | 107.6 | -33.5 | 68.9 |
| 2014 | 84.9 | 890.1 | -8.9 | 104.7 | -9.2 | 137.5 | -16.5 | 81.6 |
| 2015 | 87.9 | 1,094.0 | 0.3 | 110.3 | -3.1 | 180.3 | 0.2 | 93.3 |
| 2016 (b) | 89.6 | 1,025.7 | -4.0 | 101.2 | -1.6 | 155.7 | -0.1 | 93.0 |
| 2015 I | 86.7 | 253.8 | -0.6 | 27.0 | -4.9 | 41.3 | -9.1 | 90.0 |
| II | 87.4 | 264.8 | 1.6 | 27.3 | -5.1 | 44.2 | 5.7 | 93.0 |
| III | 88.3 | 276.0 | -1.3 | 27.6 | -3.3 | 45.7 | -0.7 | 94.1 |
| IV | 89.2 | 286.9 | 1.6 | 27.8 | 0.9 | 46.1 | 4.9 | 94.3 |
| 2016 I | 90.1 | 295.4 | -2.5 | 28.1 | 0.7 | 46.2 | -2.3 | 95.7 |
| II | 90.9 | 301.7 | -3.2 | 28.3 | -4.2 | 47.2 | 1.9 | 97.9 |
| III | 91.7 | 306.2 | -6.1 | 28.3 | -1.9 | 49.0 | 2.3 | 99.5 |
| IV (b) | -- | 103.0 | -4.8 | 9.4 | -0.4 | 16.7 | -6.4 | -- |
| 2016 Aug | 91.7 | 102.1 | -5.2 | 9.4 | -3.4 | 16.3 | 10.6 | 99.8 |
| Sep | 92.0 | 102.5 | -7.3 | 9.4 | -0.7 | 16.5 | -7.2 | -- |
| Oct | -- | 103.0 | -4.8 | 9.4 | -0.4 | 16.7 | -6.4 | -- |
| Percentage changes (c) | | | | | | | | |
| 2009 | -5.4 | -18.1 | -- | -3.0 | -- | -40.0 | -- | -26.4 |
| 2010 | -1.7 | 3.0 | -- | 3.2 | -- | 7.0 | -- | 6.1 |
| 2011 | -5.6 | -19.2 | -- | -1.5 | -- | -6.6 | -- | -3.2 |
| 2012 | -7.4 | -12.1 | -- | -8.4 | -- | -24.2 | -- | -10.9 |
| 2013 | -3.9 | 4.5 | -- | -1.4 | -- | -0.1 | -- | 13.7 |
| 2014 | 1.1 | 19.9 | -- | 4.1 | -- | 27.8 | -- | 18.4 |
| 2015 | 3.6 | 22.9 | -- | 5.3 | -- | 31.1 | -- | 14.4 |
| 2016 (d) | 4.0 | 12.5 | -- | 3.3 | -- | 5.1 | -- | 4.9 |
| 2015 I | 3.8 | 24.0 | -- | 5.5 | -- | 42.6 | -- | 21.5 |
| II | 3.7 | 18.4 | -- | 5.2 | -- | 30.6 | -- | 13.7 |
| III | 4.0 | 18.0 | -- | 3.9 | -- | 14.5 | -- | 4.9 |
| IV | 4.1 | 16.9 | -- | 3.5 | -- | 3.9 | -- | 1.0 |
| 2016 I | 3.9 | 12.3 | -- | 4.1 | -- | 0.8 | -- | 6.1 |
| II | 3.8 | 8.7 | -- | 2.0 | -- | 8.4 | -- | 9.4 |
| III | 3.6 | 6.1 | -- | 0.3 | -- | 16.1 | -- | 6.7 |
| IV (e) | -- | 3.8 | -- | 0.2 | -- | 10.6 | -- | -- |
| 2016 Aug | 0.3 | 0.5 | -- | 0.0 | -- | 1.4 | -- | 0.6 |
| Sep | 0.3 | 0.5 | -- | 0.0 | -- | 1.3 | -- | -- |
| Oct | -- | 0.4 | -- | 0.0 | -- | 1.2 | -- | -- |

(a) Seasonally adjusted, except for annual data. (b) Period with available data. (c) Annualized percent change from the previous quarter for quarterly data, non-annualized percent change from the previous month for monthly data, unless otherwise indicated. (d) Growth of available period over the same period of the previous year. (e) Annualized growth of the average of available months over the monthly average of the previous quarter.

Sources: European Commission, M. of Economy, M. of Industry, National Statistics Institute, DGT, ANFAC and Funcas.

Chart 12.1.- Consumption indicators
Percent change from previous period and balance of responses

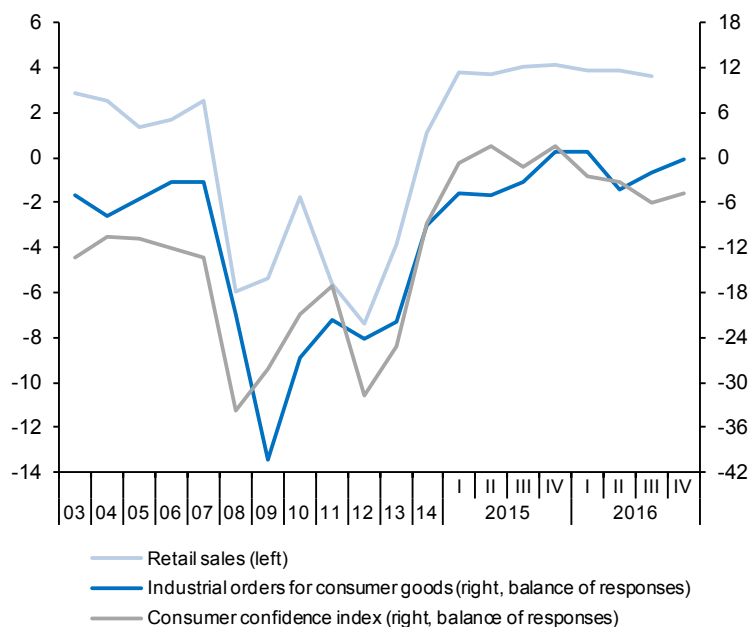


Chart 12.2.- Investment indicators
Percent change from previous period and balance of responses

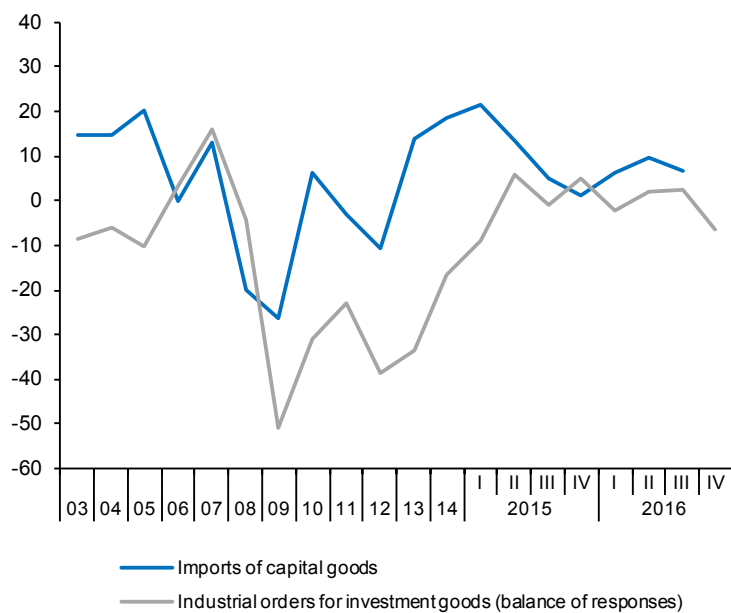


Table 13a

Labour market (I)

Forecasts in blue

| | Population aged 16-64 | Labour force | | Employment | | Unemployment | | Participation rate 16-64 (a) | Employment rate 16-64 (b) | Unemployment rate (c) | | | | |
|-------------------------------|-----------------------|--------------|---------------------|------------|---------------------|--------------|---------------------|-------------------------------------|---------------------------|-----------------------|------------|---------|---------|---------------------|
| | | Original | Seasonally adjusted | Original | Seasonally adjusted | Original | Seasonally adjusted | | | Total | Aged 16-24 | Spanish | Foreign | |
| | | | | | | | | | | | | | | Seasonally adjusted |
| | | 1 | 2=4+6 | 3=5+7 | 4 | 5 | 6 | | | 7 | 8 | 9 | 10=7/3 | 11 |
| Million | | | | | | | | Percentage | | | | | | |
| 2009 | 31.2 | 23.3 | -- | 19.1 | -- | 4.2 | -- | 74.1 | 60.8 | 17.9 | 37.7 | 16.0 | 28.2 | |
| 2010 | 31.1 | 23.4 | -- | 18.7 | -- | 4.6 | -- | 74.6 | 59.7 | 19.9 | 41.5 | 18.1 | 29.9 | |
| 2011 | 31.1 | 23.4 | -- | 18.4 | -- | 5.0 | -- | 74.9 | 58.8 | 21.4 | 46.2 | 19.5 | 32.6 | |
| 2012 | 30.9 | 23.4 | -- | 17.6 | -- | 5.8 | -- | 75.3 | 56.5 | 24.8 | 52.9 | 23.0 | 35.9 | |
| 2013 | 30.6 | 23.2 | -- | 17.1 | -- | 6.1 | -- | 75.3 | 55.6 | 26.1 | 55.5 | 24.4 | 37.0 | |
| 2014 | 30.3 | 23.0 | -- | 17.3 | -- | 5.6 | -- | 75.3 | 56.8 | 24.4 | 53.2 | 23.0 | 34.5 | |
| 2015 | 30.2 | 22.9 | -- | 17.9 | -- | 5.1 | -- | 75.5 | 58.7 | 22.1 | 48.3 | 20.9 | 30.5 | |
| 2016 | 30.1 | 22.9 | -- | 18.4 | -- | 4.5 | -- | 75.5 | 60.5 | 19.7 | -- | -- | -- | |
| 2017 | 30.0 | 22.8 | -- | 18.8 | -- | 4.0 | -- | 75.6 | 62.2 | 17.5 | -- | -- | -- | |
| 2014 | IV | 30.3 | 23.0 | 23.0 | 17.6 | 17.5 | 5.5 | 5.5 | 75.5 | 57.6 | 23.7 | 51.8 | 22.4 | 33.3 |
| 2015 | I | 30.2 | 22.9 | 22.9 | 17.5 | 17.6 | 5.4 | 5.3 | 75.4 | 57.3 | 23.1 | 50.3 | 21.9 | 32.1 |
| | II | 30.2 | 23.0 | 23.0 | 17.9 | 17.8 | 5.1 | 5.1 | 75.6 | 58.7 | 22.3 | 48.7 | 21.2 | 31.0 |
| | III | 30.2 | 22.9 | 22.9 | 18.0 | 17.9 | 4.9 | 4.9 | 75.4 | 59.4 | 21.6 | 47.7 | 20.5 | 29.9 |
| | IV | 30.1 | 22.9 | 22.8 | 18.1 | 18.1 | 4.8 | 4.8 | 75.3 | 59.5 | 20.9 | 46.4 | 19.9 | 28.5 |
| 2016 | I | 30.1 | 22.8 | 22.9 | 18.0 | 18.2 | 4.8 | 4.7 | 75.4 | 59.4 | 20.4 | 45.6 | 19.3 | 28.2 |
| | II | 30.1 | 22.9 | 22.8 | 18.3 | 18.3 | 4.6 | 4.6 | 75.4 | 60.3 | 19.9 | 45.8 | 18.9 | 27.4 |
| | III | 30.1 | 22.8 | 22.8 | 18.5 | 18.4 | 4.3 | 4.4 | 75.4 | 61.1 | 19.3 | 44.7 | 18.5 | 25.7 |
| Percentage changes (d) | | | | | | | | Difference from one year ago | | | | | | |
| 2009 | | 0.4 | 0.8 | -- | -6.7 | -- | 60.0 | -- | 0.3 | -4.6 | 6.6 | 13.3 | 5.8 | 10.8 |
| 2010 | | -0.1 | 0.4 | -- | -2.0 | -- | 11.7 | -- | 0.4 | -1.2 | 2.0 | 3.8 | 2.1 | 1.7 |
| 2011 | | -0.2 | 0.3 | -- | -1.6 | -- | 8.0 | -- | 0.4 | -0.9 | 1.5 | 4.7 | 1.4 | 2.7 |
| 2012 | | -0.5 | 0.0 | -- | -4.3 | -- | 15.9 | -- | 0.4 | -2.3 | 3.4 | 6.7 | 3.5 | 3.3 |
| 2013 | | -1.1 | -1.1 | -- | -2.8 | -- | 4.1 | -- | 0.0 | -0.9 | 1.3 | 2.6 | 1.5 | 1.1 |
| 2014 | | -0.9 | -1.0 | -- | 1.2 | -- | -7.3 | -- | 0.0 | 1.2 | -1.7 | -2.3 | -1.4 | -2.5 |
| 2015 | | -0.5 | -0.1 | -- | 3.0 | -- | -9.9 | -- | 0.2 | 1.9 | -2.4 | -4.9 | -2.1 | -4.0 |
| 2016 | | -0.4 | -0.3 | -- | 2.7 | -- | -11.0 | -- | 0.0 | 1.8 | -2.4 | -- | -- | -- |
| 2017 | | -0.3 | -0.1 | -- | 2.6 | -- | -11.0 | -- | 0.1 | 1.7 | -2.2 | -- | -- | -- |
| 2014 | IV | -0.6 | -0.2 | 1.4 | 2.5 | 3.4 | -8.1 | -4.8 | 0.3 | 1.7 | -2.0 | -3.1 | -1.8 | -3.2 |
| 2015 | I | -0.4 | 0.1 | -1.1 | 3.0 | 2.0 | -8.2 | -10.6 | 0.3 | 1.8 | -2.2 | -4.1 | -1.8 | -4.1 |
| | II | -0.5 | 0.2 | 0.8 | 3.0 | 4.9 | -8.4 | -12.0 | 0.4 | 1.9 | -2.1 | -3.9 | -1.9 | -3.3 |
| | III | -0.5 | -0.1 | -1.5 | 3.1 | 2.3 | -10.6 | -13.8 | 0.2 | 2.1 | -2.5 | -5.8 | -2.2 | -3.9 |
| | IV | -0.5 | -0.7 | -0.7 | 3.0 | 2.8 | -12.4 | -12.8 | -0.2 | 1.9 | -2.8 | -5.5 | -2.5 | -4.8 |
| 2016 | I | -0.5 | -0.3 | 0.2 | 3.3 | 3.1 | -12.0 | -10.3 | 0.1 | 2.1 | -2.8 | -4.8 | -2.6 | -3.9 |
| | II | -0.4 | -0.6 | -0.5 | 2.4 | 1.6 | -11.2 | -8.2 | -0.2 | 1.6 | -2.4 | -2.9 | -2.2 | -3.6 |
| | III | -0.3 | -0.2 | 0.1 | 2.7 | 3.1 | -10.9 | -11.6 | 0.0 | 1.8 | -2.3 | -3.0 | -2.0 | -4.2 |

(a) Labour force aged 16-64 over population aged 16-64. (b) Employed aged 16-64 over population aged 16-64. (c) Unemployed in each group over labour force in that group. (d) Annual percentage changes for original data; annualized quarterly percentage changes for S.A. data.

Sources: INE (Labour Force Survey) and Funcas.

Chart 13a.1.- Labour force, Employment and Unemployment, SA
Annual / annualized quarterly growth rates and percentage of active population

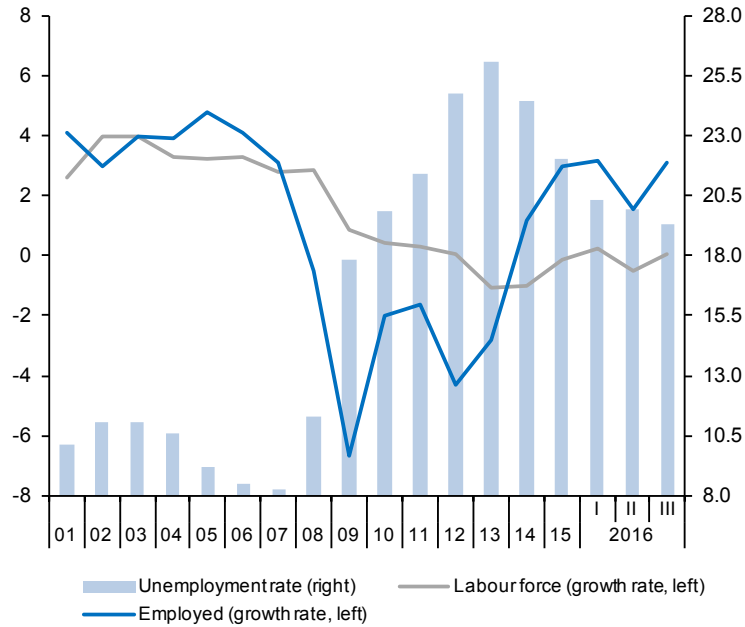


Chart 13a.2.- Unemployment rates, SA
Percentage

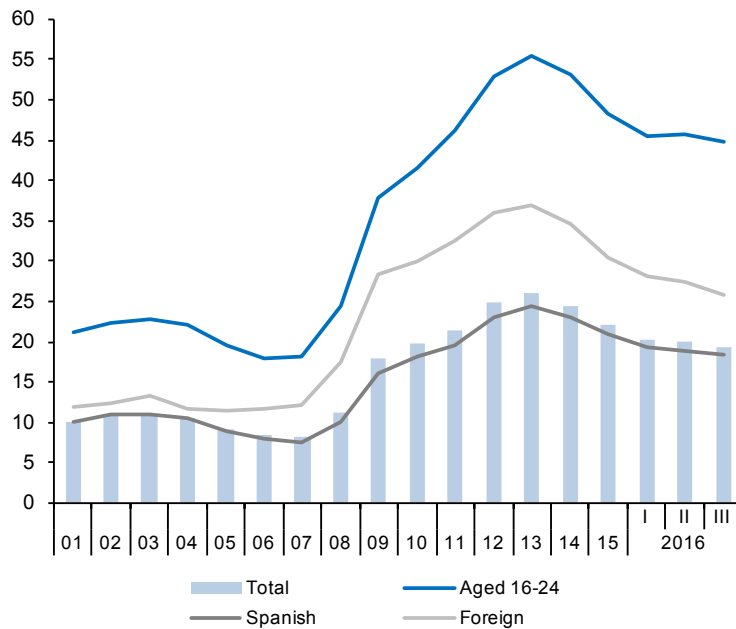


Table 13b
Labour market (II)

| | Employed by sector | | | | Employed by professional situation | | | | | Employed by duration of the working-day | | | |
|--------------------------------|--------------------|----------------------------------|--------------|----------|------------------------------------|---------------------|------------|---------------|-------------------------------------|---|-------------------------------|-------------------------------|-------------------------------------|
| | Agriculture | Industry | Construction | Services | Employees | | | Self-employed | Full-time | Part-time | Part-time employment rate (b) | | |
| | | | | | Total | By type of contract | | | | | | | |
| | | | | | | Temporary | Indefinite | | | | | Temporary employment rate (a) | |
| 1 | 2 | 3 | 4 | 5=6+7 | 6 | 7 | 8=6/5 | 9 | 10 | 11 | 12 | | |
| Million (original data) | | | | | | | | | | | | | |
| 2009 | 0.79 | 2.81 | 1.89 | 13.62 | 15.88 | 4.00 | 11.88 | 25.2 | 3.23 | 16.71 | 2.40 | 12.5 | |
| 2010 | 0.79 | 2.65 | 1.65 | 13.64 | 15.59 | 3.86 | 11.73 | 24.7 | 3.13 | 16.29 | 2.44 | 13.0 | |
| 2011 | 0.76 | 2.60 | 1.40 | 13.66 | 15.39 | 3.87 | 11.52 | 25.1 | 3.03 | 15.92 | 2.50 | 13.6 | |
| 2012 | 0.74 | 2.48 | 1.16 | 13.24 | 14.57 | 3.41 | 11.16 | 23.4 | 3.06 | 15.08 | 2.55 | 14.5 | |
| 2013 | 0.74 | 2.36 | 1.03 | 13.02 | 14.07 | 3.26 | 10.81 | 23.1 | 3.07 | 14.43 | 2.71 | 15.8 | |
| 2014 | 0.74 | 2.38 | 0.99 | 13.23 | 14.29 | 3.43 | 10.86 | 24.0 | 3.06 | 14.59 | 2.76 | 15.9 | |
| 2015 | 0.74 | 2.48 | 1.07 | 13.57 | 14.77 | 3.71 | 11.06 | 25.1 | 3.09 | 15.05 | 2.81 | 15.7 | |
| 2016 (c) | 0.76 | 2.50 | 1.07 | 13.95 | 15.18 | 3.93 | 11.24 | 25.9 | 3.11 | 15.51 | 2.78 | 15.2 | |
| 2014 | IV | 0.73 | 2.44 | 1.03 | 13.37 | 14.48 | 3.51 | 10.97 | 24.2 | 3.09 | 14.75 | 2.82 | 16.1 |
| 2015 | I | 0.72 | 2.44 | 1.06 | 13.24 | 14.39 | 3.40 | 11.00 | 23.6 | 3.06 | 14.62 | 2.84 | 16.3 |
| | II | 0.74 | 2.51 | 1.09 | 13.53 | 14.76 | 3.70 | 11.06 | 25.1 | 3.10 | 15.05 | 2.82 | 15.8 |
| | III | 0.71 | 2.52 | 1.08 | 13.74 | 14.95 | 3.91 | 11.04 | 26.2 | 3.10 | 15.30 | 2.75 | 15.2 |
| | IV | 0.78 | 2.46 | 1.06 | 13.79 | 14.99 | 3.85 | 11.14 | 25.7 | 3.11 | 15.25 | 2.84 | 15.7 |
| 2016 | I | 0.78 | 2.48 | 1.03 | 13.74 | 14.94 | 3.74 | 11.19 | 25.0 | 3.09 | 15.20 | 2.83 | 15.7 |
| | II | 0.76 | 2.50 | 1.08 | 13.97 | 15.19 | 3.91 | 11.28 | 25.7 | 3.11 | 15.50 | 2.80 | 15.3 |
| | III | 0.74 | 2.53 | 1.11 | 14.15 | 15.40 | 4.15 | 11.25 | 27.0 | 3.12 | 15.83 | 2.70 | 14.6 |
| | | Annual percentage changes | | | | | | | Difference from one year ago | Annual percentage changes | | | Difference from one year ago |
| 2009 | | -4.8 | -13.3 | -23.2 | -2.3 | -5.8 | -18.4 | -0.6 | -3.9 | -10.6 | -7.5 | -0.4 | 0.8 |
| 2010 | | -0.3 | -5.6 | -12.6 | 0.1 | -1.8 | -3.6 | -1.2 | -0.5 | -2.9 | -2.5 | 1.7 | 0.5 |
| 2011 | | -3.9 | -1.7 | -15.0 | 0.2 | -1.3 | 0.3 | -1.8 | 0.4 | -3.3 | -2.2 | 2.5 | 0.5 |
| 2012 | | -1.6 | -4.6 | -17.3 | -3.0 | -5.3 | -11.8 | -3.1 | -1.7 | 1.1 | -5.3 | 2.3 | 0.9 |
| 2013 | | -0.9 | -5.2 | -11.4 | -1.7 | -3.5 | -4.6 | -3.1 | -0.3 | 0.4 | -4.3 | 6.0 | 1.3 |
| 2014 | | -0.1 | 1.0 | -3.5 | 1.7 | 1.5 | 5.3 | 0.4 | 0.9 | -0.4 | 1.1 | 1.9 | 0.1 |
| 2015 | | 0.1 | 4.3 | 8.1 | 2.6 | 3.4 | 8.3 | 1.9 | 1.1 | 1.1 | 3.2 | 1.9 | -0.2 |
| 2016 (d) | | 5.3 | 0.6 | -0.6 | 3.3 | 3.2 | 7.2 | 1.9 | 1.0 | 0.7 | 3.5 | -0.9 | -0.6 |
| 2014 | IV | -6.2 | 4.2 | 4.0 | 2.6 | 2.8 | 5.3 | 2.0 | 0.6 | 1.4 | 2.6 | 2.4 | 0.0 |
| | I | -11.3 | 6.2 | 12.6 | 2.6 | 3.3 | 5.4 | 2.7 | 0.5 | 1.3 | 2.9 | 3.3 | 0.1 |
| | II | 0.1 | 6.4 | 11.6 | 1.9 | 3.1 | 8.0 | 1.6 | 1.1 | 2.3 | 3.7 | -0.9 | -0.6 |
| | III | 6.5 | 3.8 | 5.9 | 2.6 | 3.7 | 10.1 | 1.6 | 1.5 | 0.3 | 2.8 | 4.8 | 0.2 |
| 2016 | IV | 7.0 | 1.0 | 2.7 | 3.2 | 3.5 | 9.5 | 1.6 | 1.4 | 0.6 | 3.4 | 0.8 | -0.3 |
| | I | 8.4 | 1.7 | -2.7 | 3.8 | 3.8 | 10.1 | 1.8 | 1.4 | 1.1 | 4.0 | -0.2 | -0.6 |
| | II | 2.7 | -0.4 | -1.4 | 3.2 | 2.9 | 5.5 | 2.0 | 0.6 | 0.3 | 3.0 | -0.6 | -0.5 |
| | III | 4.8 | 0.5 | 2.3 | 3.0 | 3.0 | 6.2 | 1.9 | 0.8 | 0.7 | 3.5 | -1.9 | -0.7 |

(a) Percentage of employees with temporary contract over total employees. (b) Percentage of part-time employed over total employed. (c) Period with available data. (d) Growth of available period over the same period of the previous year.

Source: INE (Labour Force Survey).

Chart 13b.1.- Employment by sector
Annual percentage changes

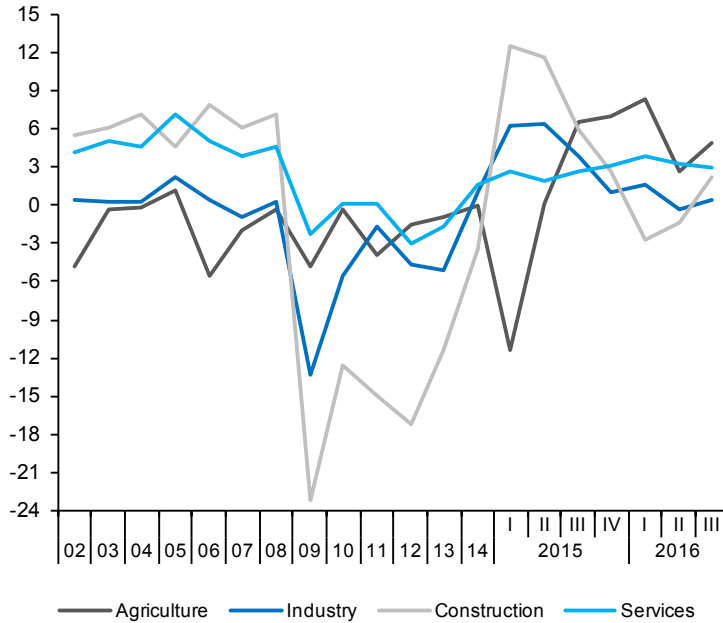


Chart 13b.2.- Employment by type of contract
Annual percentage changes and percentage over total employees

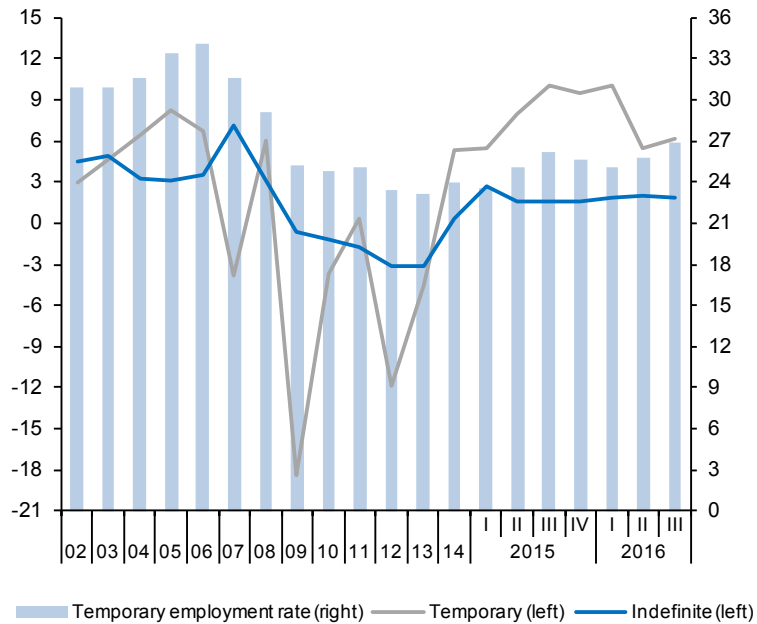


Table 14

Index of Consumer Prices

Forecasts in blue

| | Total | Total excluding food and energy | Excluding unprocessed food and energy | | | | Unprocessed food | Energy | Food | |
|----------------------------------|-------|---------------------------------|---------------------------------------|-----------------------------|----------|----------------|------------------|--------|-------|-----|
| | | | Total | Non-energy industrial goods | Services | Processed food | | | | |
| % of total in 2016 | 100.0 | 67.06 | 82.12 | 26.94 | 40.13 | 15.06 | 6.45 | 11.42 | 21.50 | |
| Indexes, 2011 = 100 | | | | | | | | | | |
| 2011 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |
| 2012 | 102.4 | 101.3 | 101.6 | 100.8 | 101.5 | 103.1 | 102.3 | 108.9 | 102.8 | |
| 2013 | 103.9 | 102.4 | 103.0 | 101.4 | 102.9 | 106.2 | 105.9 | 108.9 | 106.1 | |
| 2014 | 103.7 | 102.3 | 103.1 | 101.0 | 103.1 | 106.6 | 104.6 | 108.0 | 106.0 | |
| 2015 | 103.2 | 102.9 | 103.7 | 101.3 | 103.8 | 107.6 | 106.4 | 98.3 | 107.3 | |
| 2016 | 103.0 | 103.7 | 104.5 | 101.8 | 104.9 | 108.6 | 109.0 | 89.7 | 108.7 | |
| 2017 | 104.4 | 104.6 | 105.5 | 102.5 | 106.0 | 109.6 | 111.2 | 94.0 | 110.1 | |
| Annual percentage changes | | | | | | | | | | |
| 2011 | 3.2 | 1.3 | 1.7 | 0.6 | 1.8 | 3.8 | 1.8 | 15.7 | 3.2 | |
| 2012 | 2.4 | 1.3 | 1.6 | 0.8 | 1.5 | 3.1 | 2.3 | 8.9 | 2.8 | |
| 2013 | 1.4 | 1.1 | 1.4 | 0.6 | 1.4 | 3.1 | 3.6 | 0.0 | 3.2 | |
| 2014 | -0.2 | 0.0 | 0.0 | -0.4 | 0.1 | 0.4 | -1.2 | -0.8 | -0.1 | |
| 2015 | -0.5 | 0.5 | 0.6 | 0.3 | 0.7 | 0.9 | 1.8 | -9.0 | 1.2 | |
| 2016 | -0.3 | 0.8 | 0.8 | 0.5 | 1.0 | 0.8 | 2.4 | -8.7 | 1.3 | |
| 2017 | 1.4 | 0.9 | 0.9 | 0.6 | 1.1 | 1.0 | 2.0 | 4.8 | 1.3 | |
| 2016 | Jan | -0.3 | 0.8 | 0.9 | 0.5 | 1.0 | 1.4 | 3.3 | -10.3 | 1.9 |
| | Feb | -0.8 | 1.0 | 1.0 | 0.5 | 1.3 | 1.3 | 0.8 | -14.1 | 1.2 |
| | Mar | -0.8 | 1.0 | 1.1 | 0.5 | 1.4 | 1.3 | 2.2 | -14.8 | 1.5 |
| | Apr | -1.1 | 0.7 | 0.7 | 0.5 | 0.8 | 1.2 | 3.2 | -15.1 | 1.8 |
| | May | -1.0 | 0.6 | 0.7 | 0.4 | 0.8 | 1.1 | 2.6 | -14.0 | 1.6 |
| | Jun | -0.8 | 0.6 | 0.6 | 0.3 | 0.7 | 1.0 | 2.3 | -11.7 | 1.4 |
| | Jul | -0.6 | 0.6 | 0.7 | 0.4 | 0.9 | 0.8 | 5.7 | -12.0 | 2.3 |
| | Aug | -0.1 | 0.9 | 0.9 | 0.7 | 1.1 | 0.7 | 3.7 | -9.1 | 1.6 |
| | Sep | 0.2 | 0.9 | 0.8 | 0.7 | 1.0 | 0.5 | 1.2 | -4.8 | 0.7 |
| | Oct | 0.7 | 0.9 | 0.8 | 0.6 | 1.1 | 0.4 | 0.2 | 0.1 | 0.3 |
| | Nov | 0.7 | 0.9 | 0.8 | 0.6 | 1.1 | 0.3 | 1.4 | 0.0 | 0.6 |
| | Dec | 0.9 | 0.9 | 0.8 | 0.6 | 1.1 | 0.3 | 2.6 | 1.0 | 1.0 |
| 2017 | Jan | 1.7 | 0.9 | 0.8 | 0.7 | 1.1 | 0.4 | 2.0 | 7.7 | 0.9 |
| | Feb | 2.0 | 0.9 | 0.9 | 0.7 | 1.1 | 0.6 | 2.6 | 10.9 | 1.2 |
| | Mar | 1.8 | 0.8 | 0.8 | 0.7 | 0.8 | 0.6 | 2.6 | 9.0 | 1.2 |
| | Apr | 1.9 | 1.1 | 1.0 | 0.7 | 1.4 | 0.7 | 2.3 | 8.8 | 1.2 |
| | May | 1.6 | 1.0 | 0.9 | 0.7 | 1.1 | 0.7 | 1.8 | 6.4 | 1.0 |
| | Jun | 1.2 | 0.9 | 0.9 | 0.7 | 1.1 | 0.9 | 1.4 | 2.8 | 1.0 |
| | Jul | 1.2 | 0.9 | 1.0 | 0.7 | 1.1 | 1.0 | -0.4 | 3.9 | 0.6 |
| | Aug | 1.3 | 0.8 | 0.9 | 0.4 | 1.0 | 1.1 | 0.7 | 5.0 | 1.0 |
| | Sep | 1.4 | 0.9 | 0.9 | 0.5 | 1.1 | 1.2 | 3.4 | 3.5 | 1.9 |
| | Oct | 0.9 | 0.9 | 1.0 | 0.5 | 1.1 | 1.4 | 3.0 | -0.3 | 1.9 |
| | Nov | 0.9 | 0.9 | 1.0 | 0.5 | 1.1 | 1.5 | 2.6 | -0.8 | 1.8 |
| | Dec | 1.0 | 0.9 | 1.0 | 0.5 | 1.1 | 1.5 | 2.2 | 0.4 | 1.7 |

Sources: INE and Funcas (Forecasts).

Chart 14.1.- Inflation rate (I)
Annual percentage changes

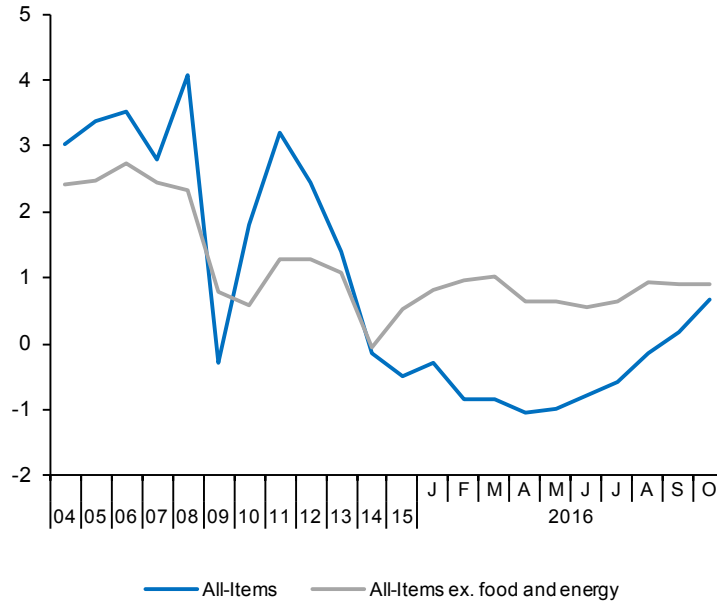


Chart 14.2.- Inflation rate (II)
Annual percentage changes

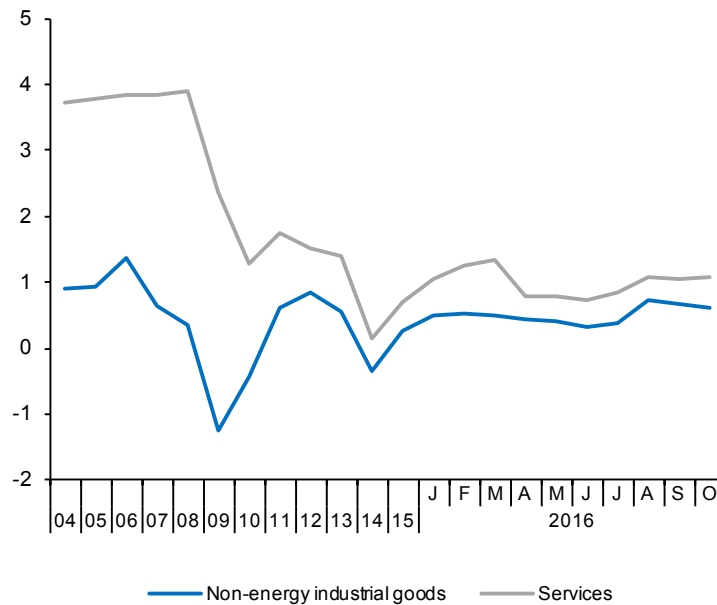


Table 15

Other prices and costs indicators

| | GDP deflator (a) | Industrial producer prices | | Housing prices | | Urban land prices (M. Public Works) | Labour Costs Survey | | | | Wage increases agreed in collective bargaining | |
|-----------------------------------|------------------|----------------------------|------------------|---------------------------|--|-------------------------------------|-------------------------------|-----------------------|-----------------------|------------------------------------|--|-----|
| | | Total | Excluding energy | Housing Price Index (INE) | M ² average price (M. Public Works) | | Total labour costs per worker | Wage costs per worker | Other cost per worker | Total labour costs per hour worked | | |
| | 2010=100 | 2010=100 | | 2007=100 | | | 2000=100 | | | | | |
| 2009 | 99.8 | 96.4 | 98.2 | 91.9 | 93.2 | 85.8 | 142.3 | 139.2 | 151.8 | 150.0 | -- | |
| 2010 | 100.0 | 100.0 | 100.0 | 90.1 | 89.6 | 74.8 | 142.8 | 140.4 | 150.2 | 151.5 | -- | |
| 2011 | 100.0 | 106.9 | 104.2 | 83.4 | 84.6 | 69.8 | 144.5 | 141.9 | 152.5 | 154.8 | -- | |
| 2012 | 100.1 | 111.0 | 105.9 | 72.0 | 77.2 | 65.4 | 143.6 | 141.1 | 151.3 | 154.7 | -- | |
| 2013 | 100.5 | 111.7 | 106.7 | 64.3 | 72.7 | 55.1 | 143.8 | 141.1 | 152.1 | 155.2 | -- | |
| 2014 | 100.2 | 110.2 | 105.9 | 64.5 | 71.0 | 52.6 | 143.3 | 140.9 | 150.7 | 155.5 | -- | |
| 2015 | 100.7 | 107.9 | 106.2 | 66.8 | 71.7 | 54.9 | 144.2 | 142.5 | 149.6 | 156.5 | -- | |
| 2016 (b) | 100.9 | 103.5 | 105.6 | 69.3 | 72.9 | 56.6 | 143.3 | 141.4 | 149.2 | 151.0 | -- | |
| 2014 | IV | 100.4 | 109.1 | 105.8 | 65.0 | 71.2 | 55.9 | 149.1 | 149.2 | 149.0 | 162.2 | -- |
| 2015 | I | 100.5 | 107.7 | 105.9 | 64.6 | 70.9 | 53.8 | 140.6 | 137.2 | 151.1 | 147.1 | -- |
| | II | 100.7 | 109.2 | 106.5 | 67.3 | 71.8 | 55.0 | 146.5 | 145.4 | 149.7 | 154.5 | -- |
| | III | 100.7 | 108.5 | 106.6 | 67.8 | 71.8 | 56.1 | 138.8 | 135.5 | 149.0 | 160.0 | -- |
| | IV | 100.8 | 106.1 | 105.7 | 67.7 | 72.5 | 54.5 | 151.0 | 151.7 | 148.6 | 164.4 | -- |
| 2016 | I | 100.7 | 102.3 | 105.2 | 68.7 | 72.6 | 56.6 | 140.3 | 137.2 | 149.8 | 147.5 | -- |
| | II | 101.1 | 103.4 | 105.6 | 69.9 | 73.3 | 56.6 | 146.3 | 145.5 | 148.6 | 154.4 | -- |
| | III (b) | 101.0 | 105.0 | 106.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| 2016 | Jul | -- | 106.2 | 101.1 | -- | -- | -- | -- | -- | -- | -- | -- |
| | Aug | -- | 106.0 | 100.4 | -- | -- | -- | -- | -- | -- | -- | -- |
| | Sep | -- | 105.9 | 101.9 | -- | -- | -- | -- | -- | -- | -- | -- |
| Annual percent changes (c) | | | | | | | | | | | | |
| 2009 | | 0.3 | -3.4 | -2.3 | -6.7 | -7.4 | -5.8 | 3.5 | 3.2 | 4.3 | 5.1 | 2.3 |
| 2010 | | 0.2 | 3.7 | 1.8 | -2.0 | -3.9 | -12.8 | 0.4 | 0.9 | -1.1 | 0.9 | 1.5 |
| 2011 | | 0.0 | 6.9 | 4.2 | -7.4 | -5.6 | -6.7 | 1.2 | 1.0 | 1.6 | 2.2 | 2.0 |
| 2012 | | 0.1 | 3.8 | 1.7 | -13.7 | -8.7 | -6.4 | -0.6 | -0.6 | -0.8 | -0.1 | 1.0 |
| 2013 | | 0.4 | 0.6 | 0.7 | -10.6 | -5.8 | -15.7 | 0.2 | 0.0 | 0.6 | 0.3 | 0.5 |
| 2014 | | -0.3 | -1.3 | -0.8 | 0.3 | -2.4 | -4.6 | -0.3 | -0.1 | -1.0 | 0.2 | 0.5 |
| 2015 | | 0.5 | -2.1 | 0.3 | 3.6 | 1.1 | 4.3 | 0.6 | 1.1 | -0.7 | 0.6 | 0.8 |
| 2016 (d) | | 0.3 | -4.6 | -0.7 | 5.1 | 2.4 | 4.1 | -0.2 | 0.0 | -0.8 | 0.2 | 1.1 |
| 2014 | IV | -0.1 | -2.1 | -0.1 | 1.8 | -0.3 | 5.2 | -0.5 | -0.2 | -1.5 | -0.2 | 0.5 |
| 2015 | I | 0.5 | -1.9 | 0.2 | 1.5 | -0.1 | 5.9 | 0.5 | 1.4 | -1.9 | 0.8 | 0.7 |
| | II | 0.6 | -1.2 | 0.7 | 4.0 | 1.2 | 4.7 | 0.4 | 0.6 | -0.2 | 0.5 | 0.7 |
| | III | 0.6 | -2.4 | 0.5 | 4.5 | 1.4 | 9.7 | 0.3 | 0.5 | -0.5 | -0.1 | 0.8 |
| | IV | 0.4 | -2.8 | -0.1 | 4.2 | 1.8 | -2.4 | 1.2 | 1.7 | -0.3 | 1.4 | 0.8 |
| 2016 | I | 0.2 | -5.1 | -0.7 | 6.3 | 2.4 | 5.3 | -0.2 | 0.0 | -0.8 | 0.3 | 1.1 |
| | II | 0.4 | -5.4 | -0.9 | 3.9 | 2.0 | 2.9 | -0.2 | 0.0 | -0.8 | 0.1 | 1.1 |
| | III (e) | 0.3 | -3.3 | -0.5 | -- | -- | -- | -- | -- | -- | -- | 1.1 |
| 2016 | Jul | -- | -4.6 | -0.5 | -- | -- | -- | -- | -- | -- | -- | 1.1 |
| | Aug | -- | -3.2 | -0.6 | -- | -- | -- | -- | -- | -- | -- | 1.1 |
| | Sep | -- | -2.0 | -0.4 | -- | -- | -- | -- | -- | -- | -- | 1.1 |

(a) Seasonally adjusted. (b) Period with available data. (c) Annualized percent change from the previous quarter for quarterly data, non-annualized percent change from the previous month for monthly data, unless otherwise indicated. (d) Growth of available period over the same period of the previous year. (e) Annualized growth of the average of available months over the monthly average of the previous quarter.

Sources: M. of Public Works, M. of Labour and INE (National Statistics Institute).

Chart 15.1.- Housing and Urban land prices
Index (2007=100)

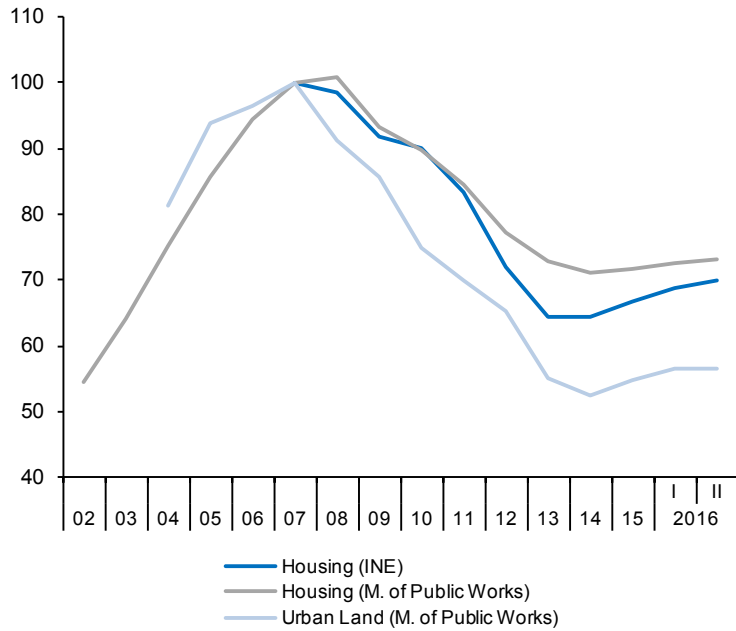


Chart 15.2.- Wage costs
Annual percent change

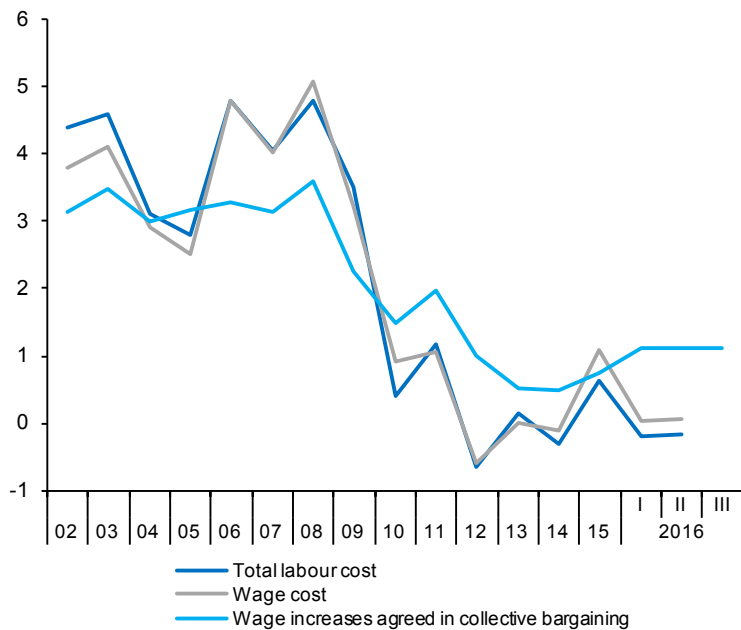


Table 16

External trade (a)

| | Exports of goods | | | Imports of goods | | | Exports to EU countries (monthly average) | Exports to non-EU countries (monthly average) | Total Balance of goods (monthly average) | Balance of goods excluding energy (monthly average) | Balance of goods with EU countries (monthly average) |
|----------|------------------------|--------|-------|------------------|--------|-------|---|---|--|---|--|
| | Nominal | Prices | Real | Nominal | Prices | Real | | | | | |
| | 2005=100 | | | 2005=100 | | | EUR Billions | | | | |
| 2010 | 120.5 | 103.4 | 116.6 | 103.0 | 100.9 | 102.2 | 10.5 | 5.0 | -4.4 | -1.5 | -0.4 |
| 2011 | 138.9 | 108.4 | 128.1 | 113.0 | 109.5 | 103.2 | 11.9 | 6.1 | -4.0 | -0.3 | 0.3 |
| 2012 | 145.9 | 110.6 | 131.9 | 110.7 | 114.6 | 96.6 | 11.9 | 6.9 | -2.7 | 1.2 | 1.0 |
| 2013 | 152.1 | 110.4 | 137.7 | 108.3 | 109.8 | 98.7 | 12.3 | 7.3 | -1.4 | 2.1 | 1.4 |
| 2014 | 155.2 | 109.4 | 141.9 | 114.0 | 107.2 | 106.3 | 12.7 | 7.3 | -2.1 | 1.1 | 0.9 |
| 2015 | 163.0 | 110.0 | 148.1 | 118.6 | 104.5 | 113.5 | 13.5 | 7.3 | -2.0 | 0.3 | 0.7 |
| 2016 (b) | 163.4 | 107.9 | 151.5 | 116.2 | 100.4 | 115.7 | 13.9 | 7.0 | -1.5 | 0.2 | 1.1 |
| 2014 IV | 158.7 | 109.8 | 144.5 | 114.1 | 107.9 | 105.8 | 12.8 | 7.6 | -1.7 | 1.2 | 0.8 |
| 2015 I | 158.0 | 110.0 | 143.6 | 115.2 | 104.6 | 110.2 | 13.2 | 7.0 | -2.0 | 0.4 | 0.7 |
| II | 162.4 | 110.6 | 146.8 | 119.3 | 105.4 | 113.2 | 13.4 | 7.4 | -2.3 | 0.2 | 0.7 |
| III | 164.7 | 109.4 | 150.5 | 120.5 | 104.4 | 115.4 | 13.6 | 7.5 | -2.2 | 0.1 | 0.6 |
| IV | 164.7 | 109.9 | 149.9 | 118.1 | 103.9 | 113.7 | 13.7 | 7.4 | -1.7 | 0.2 | 0.7 |
| 2016 I | 160.2 | 107.7 | 148.7 | 114.9 | 99.4 | 115.5 | 13.9 | 6.6 | -1.7 | -0.1 | 1.1 |
| II | 165.9 | 107.7 | 154.0 | 116.8 | 100.3 | 116.5 | 14.1 | 7.2 | -1.3 | 0.3 | 1.0 |
| III | 164.4 | 108.3 | 151.9 | 116.8 | 101.6 | 115.0 | 13.7 | 7.3 | -1.5 | 0.3 | 0.9 |
| 2016 Jul | 163.6 | 109.7 | 149.2 | 115.5 | 101.5 | 113.8 | 13.8 | 7.2 | -1.0 | 0.5 | 1.5 |
| Aug | 164.9 | 107.0 | 154.1 | 118.8 | 101.2 | 117.4 | 13.7 | 7.4 | -1.4 | 0.0 | 0.8 |
| Sep | 164.7 | 108.2 | 152.3 | 116.2 | 102.2 | 113.8 | 13.7 | 7.4 | -1.6 | 0.3 | 0.6 |
| | Percentage changes (c) | | | | | | Percentage of GDP | | | | |
| 2010 | 16.8 | 1.6 | 15.0 | 16.5 | 4.6 | 11.3 | 14.3 | 22.5 | -4.9 | -1.7 | -0.4 |
| 2011 | 15.3 | 4.8 | 9.9 | 9.7 | 8.5 | 1.0 | 12.7 | 20.5 | -4.5 | -0.4 | 0.3 |
| 2012 | 5.0 | 2.0 | 3.0 | -2.0 | 4.7 | -6.4 | 0.5 | 14.1 | -3.1 | 1.4 | 1.2 |
| 2013 | 4.2 | -0.2 | 4.4 | -2.2 | -4.2 | 2.2 | 3.1 | 6.3 | -1.6 | 2.5 | 1.7 |
| 2014 | 2.0 | -0.9 | 3.1 | 5.3 | -2.4 | 7.7 | 3.5 | -0.4 | -2.4 | 1.3 | 1.0 |
| 2015 | 4.3 | 0.6 | 3.7 | 3.7 | -2.5 | 6.4 | 6.0 | 0.5 | -2.2 | 0.3 | 0.8 |
| 2016 (d) | 1.2 | -2.0 | 3.2 | -1.6 | -4.2 | 2.7 | 3.9 | -3.8 | -- | -- | -- |
| 2014 IV | -1.7 | 1.4 | -3.1 | -7.3 | -1.0 | -6.2 | -6.6 | 7.4 | -2.0 | 1.4 | 0.9 |
| 2015 I | -1.5 | 0.9 | -2.5 | 3.9 | -11.6 | 17.6 | 14.8 | -25.1 | -2.3 | 0.4 | 0.8 |
| II | 11.4 | 2.1 | 9.3 | 14.9 | 3.1 | 11.1 | 6.5 | 21.3 | -2.5 | 0.3 | 0.8 |
| III | 5.7 | -4.4 | 10.4 | 3.9 | -3.9 | 8.3 | 3.9 | 9.1 | -2.4 | 0.1 | 0.7 |
| IV | 0.2 | 1.8 | -1.5 | -7.8 | -1.9 | -6.0 | 5.4 | -8.6 | -1.9 | 0.3 | 0.7 |
| 2016 I | -10.6 | -7.7 | -3.2 | -10.4 | -16.1 | 6.8 | 4.7 | -34.6 | -1.8 | -0.1 | 1.2 |
| II | 15.0 | 0.0 | 14.9 | 7.1 | 3.7 | 3.2 | 6.2 | 35.2 | -1.4 | 0.4 | 1.1 |
| III | -3.5 | 2.2 | -5.4 | 0.0 | 5.3 | -4.9 | -10.2 | 10.6 | -1.6 | 0.3 | 1.0 |
| 2016 Jul | -1.6 | 1.3 | -2.9 | -2.5 | 0.2 | -2.7 | -2.7 | 0.5 | -- | -- | -- |
| Aug | 0.7 | -2.5 | 3.3 | 2.9 | -0.3 | 3.2 | -0.7 | 3.5 | -- | -- | -- |
| Sep | -0.1 | 1.1 | -1.2 | -2.1 | 1.0 | -3.1 | 0.1 | -0.5 | -- | -- | -- |

(a) Seasonally adjusted, except for annual data. (b) Period with available data. (c) Annualized percent change from the previous quarter for quarterly data, non-annualized percent change from the previous month for monthly data. (d) Growth of available period over the same period of the previous year. Source: Ministry of Economy.

Chart 16.1.- External trade (real)
Percent change from previous period

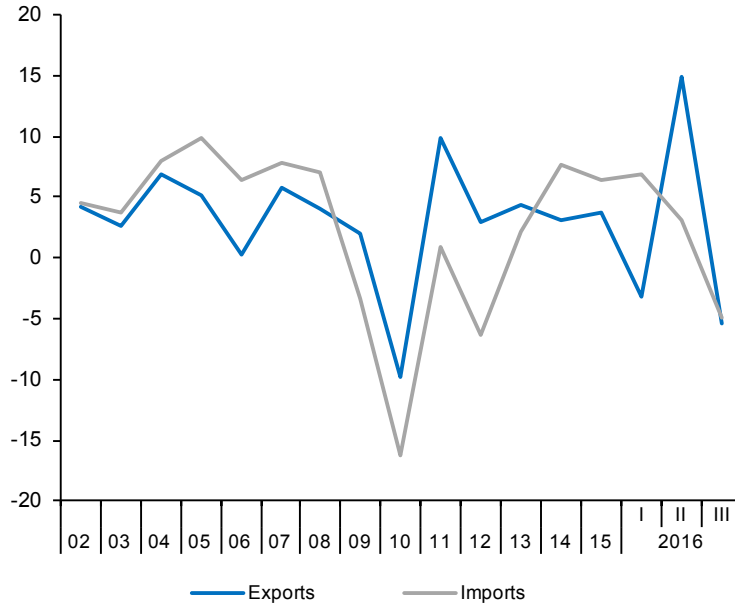


Chart 16.2.- Trade balance
EUR Billions, moving sum of 12 months

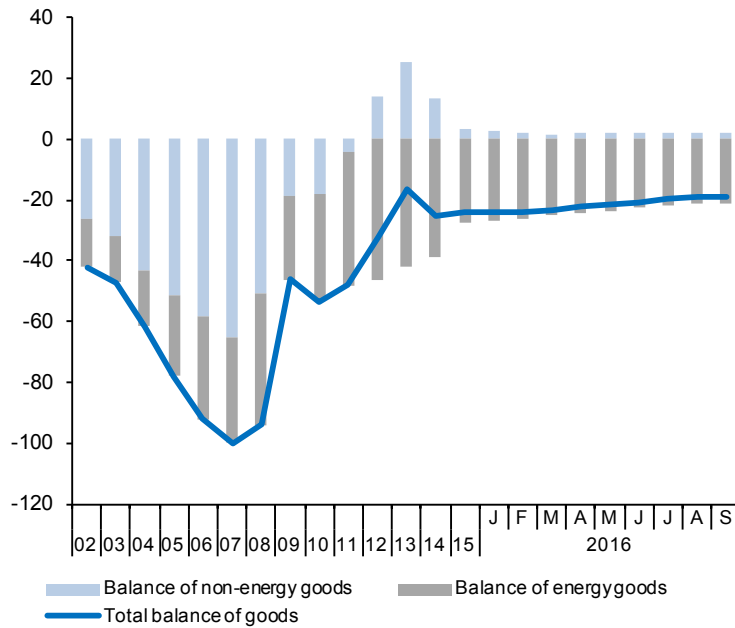


Table 17

Balance of Payments (according to IMF manual)
(Net transactions)

| | Current account | | | | | | Capital account | Current and capital accounts | Financial account | | | | | | Errors and omissions |
|--------------------------|-----------------|--------|--------------------|----------------|------------------------------|-------|----------------------|------------------------------|--|----------------------|------------------|-----------------------|---------|---------------|----------------------|
| | Total | Goods | Services | Primary Income | Secondary Income | Total | | | Financial account, excluding Bank of Spain | | | | | Bank of Spain | |
| | | | | | | | | | Direct investment | Portfolio investment | Other investment | Financial derivatives | Total | | |
| | | | | | | | | | | | | | | | |
| 1 = 2 + 3 + 4 + 5 | 2 | 3 | 4 | 5 | 6 | 7=1+6 | 8 = 9 + 10 + 11 + 12 | 9 | 10 | 11 | 12 | 13 | 14 | | |
| EUR billions | | | | | | | | | | | | | | | |
| 2008 | -103.25 | -87.04 | 29.82 | -30.49 | -15.55 | 4.67 | -98.58 | -69.23 | -1.53 | 0.96 | -75.72 | 7.07 | -30.22 | -0.86 | |
| 2009 | -46.19 | -41.47 | 29.54 | -19.62 | -14.64 | 3.33 | -42.86 | -40.70 | 1.94 | -44.04 | -4.66 | 6.05 | -10.46 | -8.31 | |
| 2010 | -42.39 | -47.80 | 33.93 | -15.13 | -13.38 | 4.89 | -37.49 | -27.24 | -1.46 | -28.40 | 11.23 | -8.61 | -15.70 | -5.44 | |
| 2011 | -34.04 | -44.48 | 42.59 | -18.36 | -13.79 | 4.06 | -29.98 | 79.51 | 9.23 | 26.25 | 41.96 | 2.07 | -109.23 | 0.26 | |
| 2012 | -2.40 | -29.25 | 45.25 | -7.01 | -11.39 | 5.18 | 2.77 | 170.51 | -21.12 | 55.40 | 144.57 | -8.35 | -168.76 | -1.02 | |
| 2013 | 15.59 | -14.01 | 47.78 | -5.29 | -12.89 | 6.58 | 22.17 | -84.89 | -18.54 | -52.99 | -14.40 | 1.04 | 118.19 | 11.13 | |
| 2014 | 11.24 | -22.38 | 47.88 | -3.25 | -11.01 | 5.05 | 16.29 | -15.99 | 8.04 | -6.49 | -17.66 | 0.12 | 27.49 | -4.79 | |
| 2015 | 14.72 | -21.75 | 47.97 | -0.66 | -10.84 | 7.01 | 21.73 | 65.35 | 29.38 | -5.87 | 43.08 | -1.24 | -40.16 | 3.46 | |
| 2014 | III | 5.51 | -6.90 | 16.94 | -2.49 | -2.03 | 0.64 | 6.15 | 2.05 | -7.71 | 32.03 | -21.84 | -0.43 | -2.40 | -6.49 |
| | IV | 8.31 | -5.26 | 10.49 | 4.61 | -1.54 | 2.39 | 10.70 | -14.30 | 15.41 | -21.81 | -8.95 | 1.05 | 26.00 | 1.00 |
| 2015 | I | -1.26 | -4.18 | 8.60 | -0.88 | -4.80 | 0.64 | -0.61 | 11.97 | 3.60 | -3.97 | 13.32 | -0.99 | -14.79 | -2.21 |
| | II | 3.22 | -5.21 | 12.23 | -1.28 | -2.52 | 1.52 | 4.74 | 19.67 | 15.53 | 6.16 | -1.54 | -0.47 | -8.82 | 6.11 |
| | III | 5.72 | -6.86 | 16.93 | -2.49 | -1.85 | 1.50 | 7.23 | 12.59 | 6.41 | 2.29 | 3.84 | 0.06 | 0.24 | 5.61 |
| | IV | 7.03 | -5.50 | 10.21 | 3.99 | -1.67 | 3.35 | 10.38 | 21.11 | 3.83 | -10.35 | 27.47 | 0.16 | -16.79 | -6.05 |
| 2016 | I | -0.60 | -4.58 | 8.79 | -0.13 | -4.69 | 0.44 | -0.16 | 9.63 | 6.75 | 22.53 | -18.14 | -1.51 | -7.36 | 2.43 |
| | II | 7.27 | -2.69 | 13.42 | -1.68 | -1.78 | 1.16 | 8.43 | 35.47 | 3.00 | 5.22 | 27.28 | -0.02 | -34.90 | -7.86 |
| | | | Goods and Services | | Primary and Secondary Income | | | | | | | | | | |
| 2016 | Jun | 2.05 | 3.40 | | -1.36 | 0.64 | 2.68 | 0.81 | 0.15 | -6.79 | 7.37 | 0.07 | -8.73 | -10.60 | |
| | Jul | 3.04 | 5.75 | | -2.71 | 0.53 | 3.57 | -9.48 | -1.90 | -4.36 | -3.26 | 0.04 | 15.06 | 2.02 | |
| | Aug | 2.86 | 3.72 | | -0.86 | 0.09 | 2.95 | 16.57 | 0.87 | 8.02 | 8.61 | -0.93 | -18.44 | -4.81 | |
| Percentage of GDP | | | | | | | | | | | | | | | |
| 2008 | | -9.3 | -7.8 | 2.7 | -2.7 | -1.4 | 0.4 | -8.8 | -6.2 | -0.1 | 0.1 | -6.8 | 0.6 | -2.7 | -0.1 |
| 2009 | | -4.3 | -3.8 | 2.7 | -1.8 | -1.4 | 0.3 | -4.0 | -3.8 | 0.2 | -4.1 | -0.4 | 0.6 | -1.0 | -0.8 |
| 2010 | | -3.9 | -4.4 | 3.1 | -1.4 | -1.2 | 0.5 | -3.5 | -2.5 | -0.1 | -2.6 | 1.0 | -0.8 | -1.5 | -0.5 |
| 2011 | | -3.2 | -4.2 | 4.0 | -1.7 | -1.3 | 0.4 | -2.8 | 7.4 | 0.9 | 2.5 | 3.9 | 0.2 | -10.2 | 0.0 |
| 2012 | | -0.2 | -2.8 | 4.4 | -0.7 | -1.1 | 0.5 | 0.3 | 16.4 | -2.0 | 5.3 | 13.9 | -0.8 | -16.2 | -0.1 |
| 2013 | | 1.5 | -1.4 | 4.7 | -0.5 | -1.3 | 0.6 | 2.2 | -8.3 | -1.8 | -5.2 | -1.4 | 0.1 | 11.5 | 1.1 |
| 2014 | | 1.1 | -2.2 | 4.6 | -0.3 | -1.1 | 0.5 | 1.6 | -1.5 | 0.8 | -0.6 | -1.7 | 0.0 | 2.7 | -0.5 |
| 2015 | | 1.4 | -2.0 | 4.5 | -0.1 | -1.0 | 0.7 | 2.0 | 6.1 | 2.7 | -0.5 | 4.0 | -0.1 | -3.7 | 0.3 |
| 2014 | III | 2.2 | -2.7 | 6.6 | -1.0 | -0.8 | 0.2 | 2.4 | 0.8 | -3.0 | 12.5 | -8.6 | -0.2 | -0.9 | -2.5 |
| | IV | 3.1 | -1.9 | 3.9 | 1.7 | -0.6 | 0.9 | 4.0 | -5.3 | 5.7 | -8.1 | -3.3 | 0.4 | 9.6 | 0.4 |
| 2015 | I | -0.5 | -1.6 | 3.4 | -0.3 | -1.9 | 0.3 | -0.2 | 4.7 | 1.4 | -1.5 | 5.2 | -0.4 | -5.8 | -0.9 |
| | II | 1.2 | -1.9 | 4.5 | -0.5 | -0.9 | 0.6 | 1.7 | 7.2 | 5.7 | 2.3 | -0.6 | -0.2 | -3.2 | 2.2 |
| | III | 2.2 | -2.6 | 6.4 | -0.9 | -0.7 | 0.6 | 2.7 | 4.7 | 2.4 | 0.9 | 1.4 | 0.0 | 0.1 | 2.1 |
| | IV | 2.5 | -2.0 | 3.6 | 1.4 | -0.6 | 1.2 | 3.7 | 7.5 | 1.4 | -3.7 | 9.8 | 0.1 | -6.0 | -2.2 |
| 2016 | I | -0.2 | -1.7 | 3.3 | 0.0 | -1.8 | 0.2 | -0.1 | 3.6 | 2.5 | 8.5 | -6.8 | -0.6 | -2.8 | 0.9 |
| | II | 2.6 | -1.0 | 4.7 | -0.6 | -0.6 | 0.4 | 3.0 | 12.5 | 1.1 | 1.8 | 9.6 | 0.0 | -12.3 | -2.8 |

Source: Bank of Spain.

Chart 17.1.- Balance of payments: Current and capital accounts
 EUR Billions, 12-month cumulated

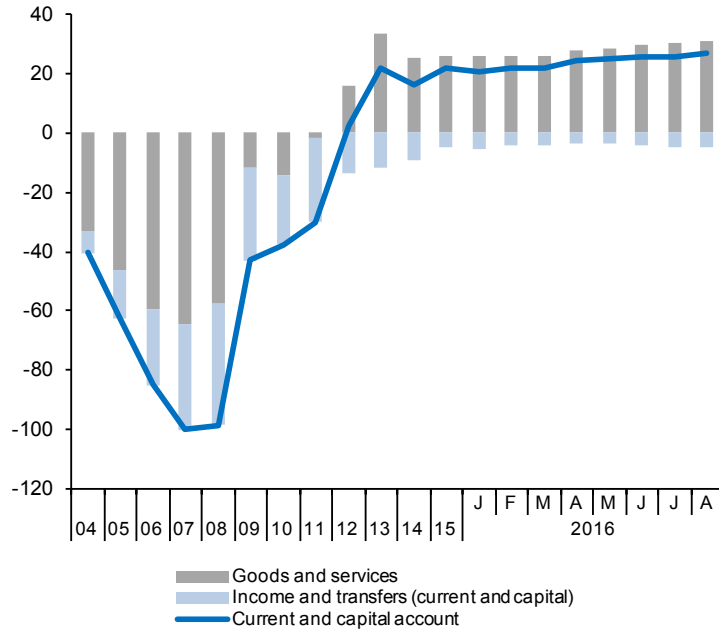


Chart 17.2.- Balance of payments: Financial account
 EUR Billions, 12-month cumulated

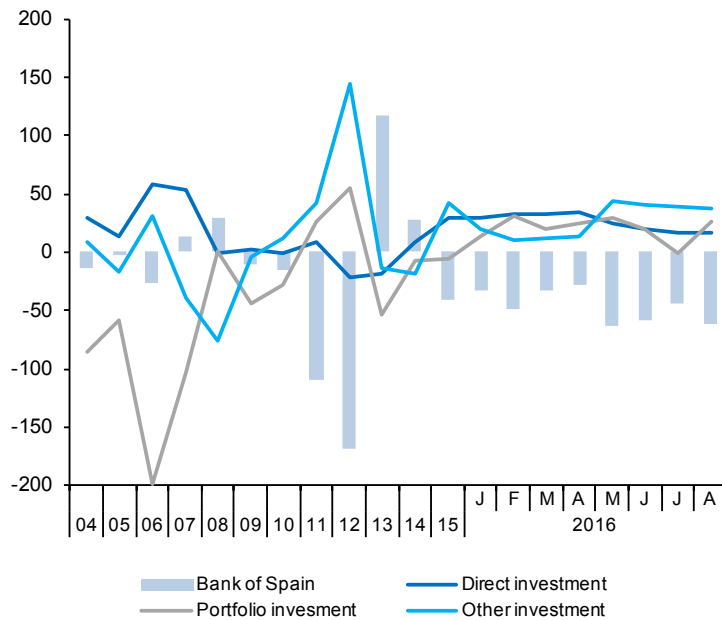


Table 18

State and Social Security System budget

| | State | | | | | | | Social Security System (b) | | | | |
|--|-------------------------|---------|-------------|-------------------------|--------------|----------------|--------|----------------------------|----------------|--------------------------------|-------------|--------------------|
| | National accounts basis | | | Revenue, cash basis (a) | | | | Surplus or deficit | Accrued income | | Expenditure | |
| | Surplus or deficit | Revenue | Expenditure | Total | Direct taxes | Indirect taxes | Others | | Total | of which, social contributions | Total | of which, pensions |
| | 1=2-3 | 2 | 3 | 4=5+6+7 | 5 | 6 | 7 | 8=9-11 | 9 | 10 | 11 | 12 |
| EUR billions, 12-month cumulated | | | | | | | | | | | | |
| 2009 | -99.7 | 134.0 | 233.6 | 162.5 | 87.5 | 55.7 | 19.3 | 8.8 | 123.7 | 107.3 | 114.9 | 92.0 |
| 2010 | -50.6 | 161.2 | 211.8 | 175.0 | 86.9 | 71.9 | 16.3 | 2.4 | 122.5 | 105.5 | 120.1 | 97.7 |
| 2011 | -32.0 | 168.1 | 200.1 | 177.0 | 89.6 | 71.2 | 16.1 | -0.5 | 121.7 | 105.4 | 122.1 | 101.5 |
| 2012 | -44.1 | 173.0 | 217.1 | 215.4 | 96.2 | 71.6 | 47.7 | -5.8 | 118.6 | 101.1 | 124.4 | 105.5 |
| 2013 | -45.4 | 169.7 | 215.1 | 191.1 | 94.0 | 73.7 | 23.3 | -8.9 | 121.3 | 98.1 | 130.2 | 111.1 |
| 2014 | -40.2 | 174.3 | 214.5 | 205.9 | 95.6 | 78.2 | 32.1 | -14.0 | 119.3 | 99.2 | 133.3 | 114.4 |
| 2015 | -30.0 | 181.0 | 211.0 | 217.5 | 97.8 | 82.7 | 37.0 | -16.7 | 123.7 | 100.5 | 140.4 | 117.8 |
| 2016 (c) | -28.5 | 126.1 | 154.6 | 147.0 | 62.7 | 64.6 | 19.7 | -6.2 | 94.3 | 77.4 | 100.4 | 86.5 |
| 2016 Jul | -34.7 | 174.3 | 209.0 | 209.6 | 94.7 | 85.1 | 29.8 | -18.0 | 121.8 | 102.1 | 139.9 | 119.8 |
| 2016 Aug | -34.2 | 175.3 | 209.5 | 210.1 | 94.6 | 85.5 | 30.0 | -17.5 | 122.8 | 102.4 | 140.3 | 120.0 |
| 2016 Sep | -34.1 | 175.9 | 210.0 | 210.5 | 95.0 | 85.6 | 30.0 | -17.3 | 123.3 | 102.6 | 140.6 | 120.3 |
| Annual percentage changes | | | | | | | | | | | | |
| 2009 | -- | -19.3 | 17.8 | -13.9 | -14.2 | -21.2 | 20.4 | -- | -0.5 | -1.3 | 4.7 | 5.9 |
| 2010 | -- | 20.3 | -9.3 | 7.7 | -0.7 | 29.1 | -15.7 | -- | -1.0 | -1.7 | 4.5 | 6.2 |
| 2011 | -- | 4.2 | -5.6 | 1.1 | 3.1 | -0.9 | -0.8 | -- | -0.7 | -0.1 | 1.7 | 3.9 |
| 2012 | -- | 3.0 | 8.5 | 21.7 | 7.3 | 0.5 | 195.9 | -- | -2.5 | -4.0 | 1.9 | 3.9 |
| 2013 | -- | -1.9 | -0.9 | -11.3 | -2.2 | 3.0 | -51.1 | -- | 2.3 | -3.0 | 4.6 | 5.3 |
| 2014 | -- | 2.7 | -0.3 | 7.7 | 1.6 | 6.1 | 37.6 | -- | -1.6 | 1.1 | 2.4 | 3.0 |
| 2015 | -- | 3.8 | -1.6 | 5.7 | 2.3 | 5.8 | 15.3 | -- | 3.7 | 1.3 | 5.4 | 3.0 |
| 2016 (d) | -- | -3.9 | -0.7 | -4.5 | -4.3 | 4.6 | -26.3 | -- | -0.4 | 2.8 | 0.2 | 3.0 |
| 2016 Jul | -- | -2.5 | -1.0 | -3.0 | -2.4 | 5.5 | -22.2 | -- | -0.3 | 2.5 | 1.0 | 2.9 |
| 2016 Aug | -- | -2.1 | -0.5 | -4.1 | -3.6 | 5.4 | -24.7 | -- | 0.3 | 2.7 | 1.1 | 2.9 |
| 2016 Sep | -- | -1.8 | -0.4 | -3.7 | -3.0 | 5.2 | -24.1 | -- | 0.5 | 2.7 | 1.1 | 3.0 |
| Percentage of GDP, 12-month cumulated | | | | | | | | | | | | |
| 2009 | -9.2 | 12.4 | 21.7 | 15.1 | 8.1 | 5.2 | 1.8 | 0.8 | 11.5 | 9.9 | 10.6 | 8.5 |
| 2010 | -4.7 | 14.9 | 19.6 | 16.2 | 8.0 | 6.7 | 1.5 | 0.2 | 11.3 | 9.8 | 11.1 | 9.0 |
| 2011 | -3.0 | 15.7 | 18.7 | 16.5 | 8.4 | 6.7 | 1.5 | 0.0 | 11.4 | 9.8 | 11.4 | 9.5 |
| 2012 | -4.2 | 16.6 | 20.9 | 20.7 | 9.2 | 6.9 | 4.6 | -0.6 | 11.4 | 9.7 | 12.0 | 10.1 |
| 2013 | -4.4 | 16.5 | 21.0 | 18.6 | 9.2 | 7.2 | 2.3 | -0.9 | 11.8 | 9.6 | 12.7 | 10.8 |
| 2014 | -3.9 | 16.8 | 20.7 | 19.9 | 9.2 | 7.5 | 3.1 | -1.3 | 11.5 | 9.6 | 12.9 | 11.0 |
| 2015 | -2.8 | 16.8 | 19.6 | 20.2 | 9.1 | 7.7 | 3.4 | -1.6 | 11.5 | 9.3 | 13.1 | 11.0 |
| 2016 Jul | -3.1 | 15.8 | 18.9 | 19.0 | 8.6 | 7.7 | 2.7 | -1.6 | 11.0 | 9.2 | 12.7 | 10.8 |
| 2016 Aug | -3.1 | 15.9 | 19.0 | 19.0 | 8.6 | 7.7 | 2.7 | -1.6 | 11.1 | 9.3 | 12.7 | 10.9 |
| 2016 Sep | -3.1 | 15.9 | 19.0 | 19.1 | 8.6 | 7.7 | 2.7 | -1.6 | 11.2 | 9.3 | 12.7 | 10.9 |

(a) Including the regional and local administrations share in direct and indirect taxes. (b) Not included unemployment benefits and wage guarantee fund (c) Cumulated since January. (d) Percent change over the same period of the previous year.

Sources: M. of Economy and M. of Labour.

Chart 18.1.- State: Revenue, expenditure and deficit (cash basis)
 EUR Billions, 12-month cumulated

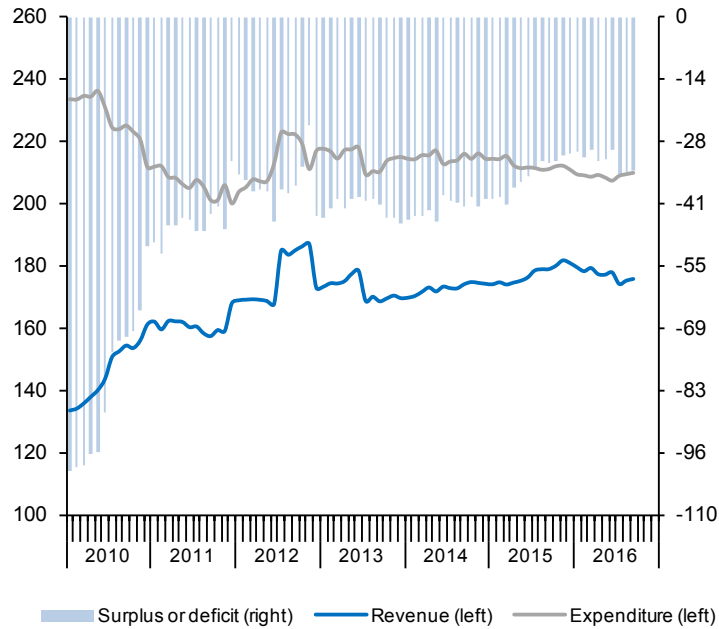


Chart 18.2.- Social Security System: Revenue, expenditure and deficit
 EUR Billions, 12-month cumulated

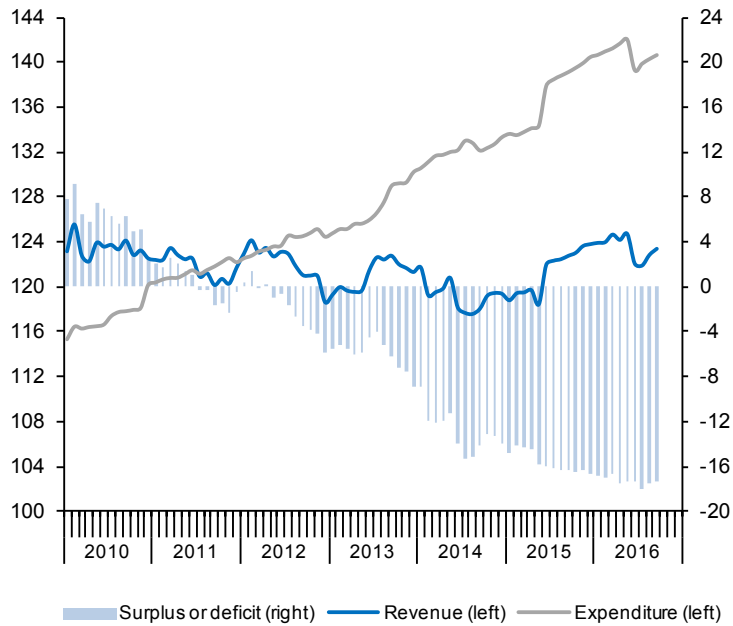


Table 19

Monetary and financial indicators

| | Interest rates (percentage rates) | | | | | Credit stock (EUR billion) | | | | Contribution of Spanish MFI to Eurozone M3 | Stock market (IBEX-35) |
|----------|-----------------------------------|--|------------------------------|-------------------------------|--|--|------------|----------------------------|------------|--|------------------------|
| | 10 year Bonds | Spread with German Bund (basis points) | Housing credit to households | Consumer credit to households | Credit to non-financial corporations (less than 1 million) | TOTAL | Government | Non-financial corporations | Households | | |
| | Average of period data | | | | | End of period data | | | | | |
| 2009 | 3.98 | 75.7 | 3.4 | 10.0 | 4.7 | 2,715.6 | 568.7 | 1,246.5 | 900.4 | -- | 11,940.0 |
| 2010 | 4.25 | 150.8 | 2.6 | 8.1 | 4.3 | 2,788.5 | 649.3 | 1,244.0 | 895.2 | -- | 9,859.1 |
| 2011 | 5.44 | 283.3 | 3.5 | 8.0 | 5.1 | 2,805.5 | 743.5 | 1,194.0 | 867.9 | -- | 8,563.3 |
| 2012 | 5.85 | 435.1 | 3.4 | 8.6 | 5.6 | 2,821.3 | 890.7 | 1,099.7 | 830.9 | -- | 8,167.5 |
| 2013 | 4.56 | 299.2 | 3.2 | 9.0 | 5.5 | 2,760.0 | 966.0 | 1,011.0 | 783.0 | -- | 9,916.7 |
| 2014 | 2.72 | 156.0 | 3.1 | 8.9 | 4.9 | 2,724.8 | 1,033.7 | 942.5 | 748.5 | -- | 10,279.5 |
| 2015 | 1.74 | 124.0 | 2.5 | 8.0 | 3.8 | 2,714.4 | 1,072.2 | 918.2 | 724.0 | -- | 9,544.2 |
| 2016 (a) | 1.39 | 127.4 | 2.3 | 7.9 | 3.2 | 2,735.6 | 1,104.9 | 915.0 | 715.7 | -- | 9,143.3 |
| 2014 IV | 1.99 | 129.0 | 2.8 | 8.6 | 4.3 | 2,740.0 | 1,040.9 | 950.4 | 748.8 | -- | 10,279.5 |
| 2015 I | 1.43 | 112.3 | 2.6 | 8.1 | 4.2 | 2,745.1 | 1,052.1 | 952.3 | 740.7 | -- | 11,521.1 |
| II | 1.77 | 126.0 | 2.5 | 7.9 | 3.7 | 2,738.6 | 1,057.6 | 938.5 | 742.5 | -- | 10,769.5 |
| III | 2.03 | 132.5 | 2.5 | 8.1 | 3.7 | 2,729.4 | 1,067.6 | 931.6 | 730.1 | -- | 9,559.9 |
| IV | 1.71 | 118.4 | 2.4 | 7.8 | 3.5 | 2,724.0 | 1,073.2 | 925.4 | 725.5 | -- | 9,544.2 |
| 2016 I | 1.67 | 135.5 | 2.3 | 8.0 | 3.4 | 2,729.6 | 1,096.2 | 913.8 | 719.6 | -- | 8,723.1 |
| II | 1.52 | 139.9 | 2.3 | 7.6 | 3.1 | 2,749.5 | 1,106.7 | 915.7 | 727.1 | -- | 8,163.3 |
| III | 1.07 | 114.6 | 2.4 | 8.0 | 3.1 | 2,735.6 | 1,104.9 | 915.0 | 715.7 | -- | 8,779.4 |
| 2016 Aug | 1.01 | 108.7 | 2.4 | 8.1 | 3.0 | 2,734.3 | 1,102.1 | 915.0 | 717.3 | -- | 8,716.8 |
| Sep | 1.04 | 109.3 | 2.4 | 8.0 | 2.9 | 2,735.6 | 1,104.9 | 915.0 | 715.7 | -- | 8,779.4 |
| Oct | 1.07 | 103.6 | -- | -- | -- | -- | -- | -- | -- | -- | 9,143.3 |
| | | | | | | Percentage change from same period previous year | | | | | (b) |
| 2009 | -- | -- | -- | -- | -- | 4.1 | 29.3 | -1.4 | -0.3 | -0.8 | 29.8 |
| 2010 | -- | -- | -- | -- | -- | 3.4 | 14.2 | 0.7 | 0.2 | -2.2 | -17.4 |
| 2011 | -- | -- | -- | -- | -- | 1.7 | 14.5 | -2.0 | -2.4 | -1.6 | -13.1 |
| 2012 | -- | -- | -- | -- | -- | 1.3 | 19.8 | -6.4 | -3.8 | 0.1 | -4.6 |
| 2013 | -- | -- | -- | -- | -- | -0.8 | 9.8 | -6.1 | -5.2 | -4.4 | 21.4 |
| 2014 | -- | -- | -- | -- | -- | -0.1 | 6.4 | -3.7 | -3.6 | 3.4 | 3.7 |
| 2015 | -- | -- | -- | -- | -- | 0.5 | 3.8 | -0.4 | -2.1 | 5.2 | -7.2 |
| 2016 (a) | -- | -- | -- | -- | -- | 1.1 | 3.5 | 0.5 | -1.6 | 7.4 | -11.8 |
| 2014 IV | -- | -- | -- | -- | -- | -0.1 | 6.4 | -3.7 | -3.6 | 3.4 | -5.0 |
| 2015 I | -- | -- | -- | -- | -- | 0.1 | 5.7 | -1.9 | -3.3 | 4.5 | 12.1 |
| II | -- | -- | -- | -- | -- | -0.2 | 4.5 | -2.3 | -2.6 | 3.6 | -6.5 |
| III | -- | -- | -- | -- | -- | 0.0 | 4.6 | -2.3 | -2.4 | 4.6 | -11.2 |
| IV | -- | -- | -- | -- | -- | 0.5 | 3.8 | -0.4 | -2.1 | 5.2 | -0.2 |
| 2016 I | -- | -- | -- | -- | -- | 0.5 | 4.2 | -1.8 | -1.9 | 5.5 | -8.6 |
| II | -- | -- | -- | -- | -- | 1.3 | 4.6 | -0.1 | -1.6 | 7.8 | -6.4 |
| III | -- | -- | -- | -- | -- | 1.1 | 3.5 | 0.5 | -1.6 | 7.4 | 7.5 |
| 2016 Aug | -- | -- | -- | -- | -- | 1.4 | 4.6 | 0.1 | -1.6 | 8.4 | 1.5 |
| Sep | -- | -- | -- | -- | -- | 1.1 | 3.5 | 0.5 | -1.6 | 7.4 | 0.7 |
| Oct | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.1 |

(a) Period with available data. (b) Percent change from preceeding period.

Source: Bank of Spain.

Chart 19.1.- 10 year bond yield
Percentage rates and basis points

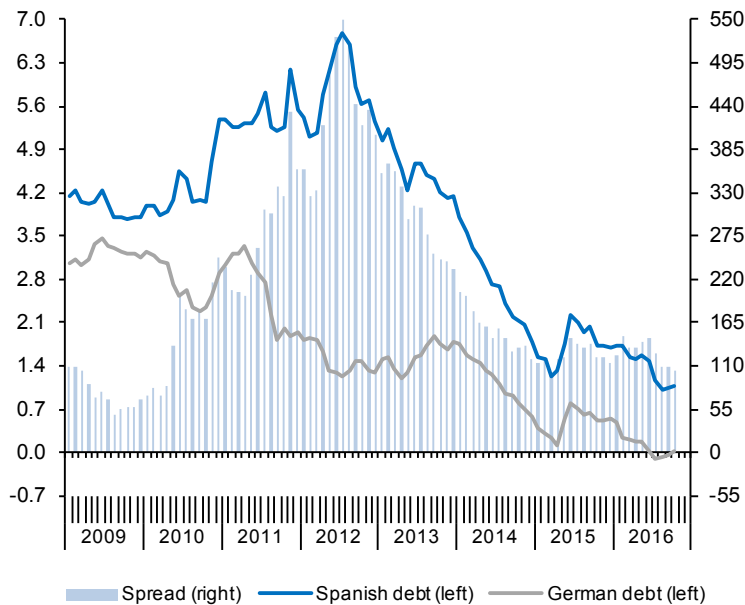


Chart 19.2.- Credit stock growth
Annual percentage change

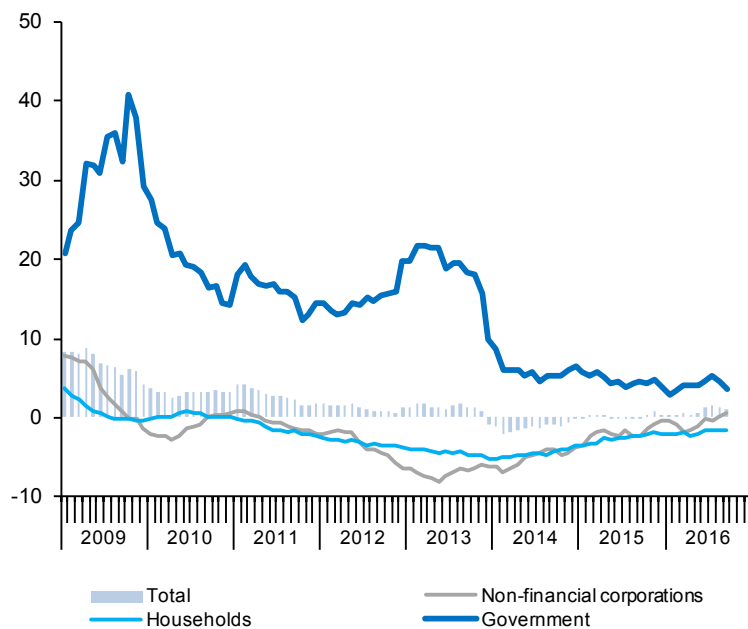


Table 20

Competitiveness indicators in relation to EMU

| | Relative Unit Labour Costs in industry (Spain/EMU) | | | Harmonized Consumer Prices | | | Producer prices | | | Real Effective Exchange Rate in relation to developed countries |
|----------|--|----------------|--------------|----------------------------|-------|---------------------------|-----------------|--------------|-----------|---|
| | Relative productivity | Relative wages | Relative ULC | Spain | EMU | Spain/EMU | Spain | EMU | Spain/EMU | |
| | 1998=100 | | | 2015=100 | | | 2010=100 | | | 1999 I =100 |
| 2009 | 108.3 | 97.8 | 110.8 | 92.2 | 91.8 | 100.4 | 96.2 | 97.0 | 99.2 | 114.0 |
| 2010 | 107.4 | 94.4 | 113.8 | 94.1 | 93.3 | 100.9 | 100.0 | 100.0 | 100.0 | 112.8 |
| 2011 | 106.4 | 94.9 | 112.1 | 96.9 | 95.8 | 101.2 | 106.5 | 105.2 | 101.2 | 113.1 |
| 2012 | 105.2 | 95.2 | 110.4 | 99.3 | 98.2 | 101.1 | 110.1 | 107.9 | 102.0 | 111.6 |
| 2013 | 103.5 | 93.1 | 111.1 | 100.8 | 99.5 | 101.3 | 110.0 | 107.4 | 102.4 | 113.4 |
| 2014 | 102.3 | 93.2 | 109.7 | 100.6 | 100.0 | 100.7 | 108.4 | 105.8 | 102.4 | 112.4 |
| 2015 | 100.9 | 92.8 | 108.8 | 100.0 | 100.0 | 100.0 | 106.8 | 104.0 | 102.7 | 109.0 |
| 2016 (a) | -- | -- | -- | 99.4 | 100.1 | 99.3 | 103.0 | 101.4 | 101.6 | 108.5 |
| 2014 IV | -- | -- | -- | 100.7 | 100.1 | 100.7 | 107.7 | 105.3 | 102.3 | 111.8 |
| 2015 I | -- | -- | -- | 98.8 | 99.2 | 99.6 | 106.6 | 104.2 | 102.3 | 108.7 |
| II | -- | -- | -- | 101.2 | 100.5 | 100.6 | 108.0 | 104.9 | 103.0 | 109.6 |
| III | -- | -- | -- | 99.8 | 100.0 | 99.7 | 107.4 | 104.0 | 103.2 | 108.6 |
| IV | -- | -- | -- | 100.3 | 100.2 | 100.0 | 105.2 | 102.8 | 102.4 | 109.0 |
| 2016 I | -- | -- | -- | 98.0 | 99.2 | 98.8 | 101.9 | 100.8 | 101.1 | 107.7 |
| II | -- | -- | -- | 100.1 | 100.4 | 99.7 | 102.8 | 101.2 | 101.6 | 109.1 |
| III | -- | -- | -- | 99.5 | 100.3 | 99.2 | 104.2 | 102.1 | 102.1 | 108.7 |
| 2016 Aug | -- | -- | -- | 99.2 | 100.2 | 99.0 | 104.0 | 102.0 | 102.0 | 108.5 |
| Sep | -- | -- | -- | 99.9 | 100.6 | 99.3 | 104.4 | 102.1 | 102.3 | 109.0 |
| Oct | -- | -- | -- | 100.7 | 100.9 | 99.9 | -- | -- | -- | -- |
| | Annual percentage changes | | | Differential | | Annual percentage changes | | Differential | | Annual percentage changes |
| 2009 | -2.4 | 7.1 | -8.9 | -0.2 | 0.3 | -0.5 | -3.3 | -4.5 | 1.2 | -0.4 |
| 2010 | -1.4 | -7.2 | 6.3 | 2.0 | 1.6 | 0.4 | 3.9 | 3.1 | 0.9 | -1.0 |
| 2011 | -0.8 | -2.2 | 1.4 | 3.0 | 2.7 | 0.3 | 6.5 | 5.2 | 1.3 | 0.2 |
| 2012 | -2.4 | 0.4 | -2.8 | 2.4 | 2.5 | -0.1 | 3.4 | 2.6 | 0.8 | -1.3 |
| 2013 | -1.6 | 1.3 | -2.9 | 1.5 | 1.3 | 0.2 | -0.1 | -0.4 | 0.4 | 1.5 |
| 2014 | -0.5 | 1.0 | -1.5 | -0.2 | 0.4 | -0.6 | -1.5 | -1.5 | 0.0 | -0.9 |
| 2015 | -0.5 | 1.0 | -1.5 | -0.6 | 0.0 | -0.7 | -1.5 | -1.7 | 0.3 | -3.0 |
| 2016 (b) | -- | -- | -- | -0.6 | 0.1 | -0.7 | -4.0 | -2.9 | -1.2 | -0.5 |
| 2014 IV | -- | -- | -- | -0.6 | 0.2 | -0.8 | -1.7 | -1.5 | -0.2 | -1.9 |
| 2015 I | -- | -- | -- | -1.1 | -0.3 | -0.8 | -1.3 | -2.1 | 0.9 | -3.4 |
| II | -- | -- | -- | -0.3 | 0.2 | -0.5 | -0.6 | -1.2 | 0.6 | -3.3 |
| III | -- | -- | -- | -0.6 | 0.1 | -0.7 | -1.7 | -1.9 | 0.2 | -2.8 |
| IV | -- | -- | -- | -0.5 | 0.2 | -0.6 | -2.3 | -2.4 | 0.1 | -2.6 |
| 2016 I | -- | -- | -- | -0.8 | 0.0 | -0.8 | -4.4 | -3.2 | -1.1 | -1.0 |
| II | -- | -- | -- | -1.0 | -0.1 | -1.0 | -4.8 | -3.5 | -1.3 | -0.5 |
| III | -- | -- | -- | -0.3 | 0.3 | -0.6 | -2.9 | -1.8 | -1.1 | 0.1 |
| 2016 Aug | -- | -- | -- | -0.3 | 0.2 | -0.5 | -2.9 | -1.7 | -1.2 | 0.1 |
| Sep | -- | -- | -- | 0.0 | 0.4 | -0.4 | -1.7 | -1.3 | -0.4 | 0.1 |
| Oct | -- | -- | -- | 0.5 | 0.5 | 0.0 | -- | -- | -- | -- |

(a) Period with available data. (b) Growth of available period over the same period of the previous year.

Sources: Eurostat, Bank of Spain and Funcas.

Chart 20.1.- Relative Unit Labour Costs in industry (Spain/EMU)
1998=100

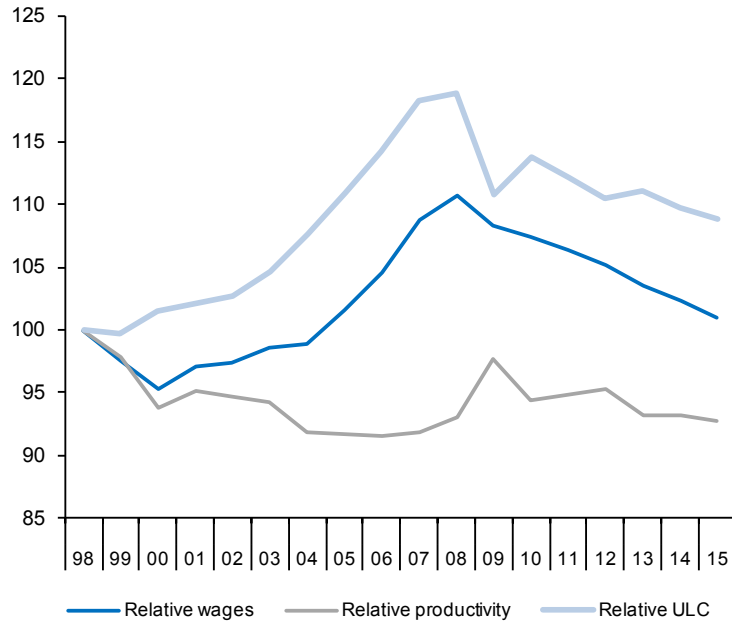


Chart 20.2.- Harmonized Consumer Prices
Annual growth in % and percentage points

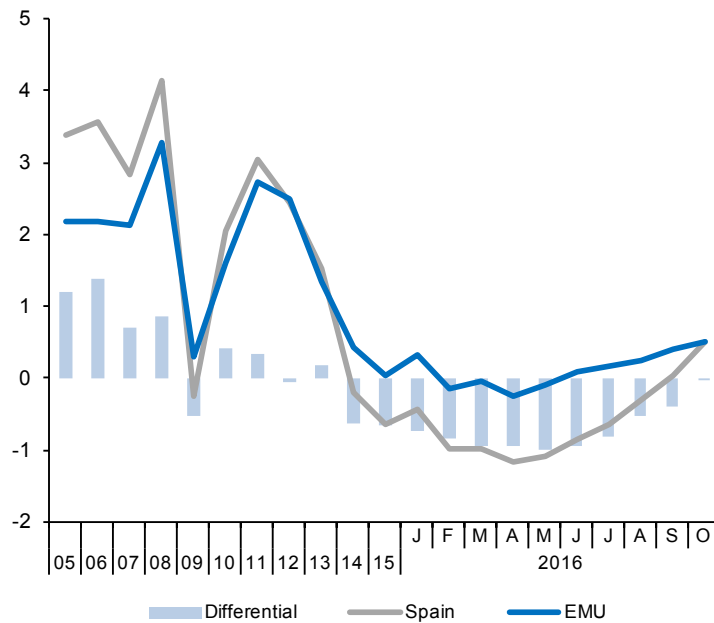


Table 21a

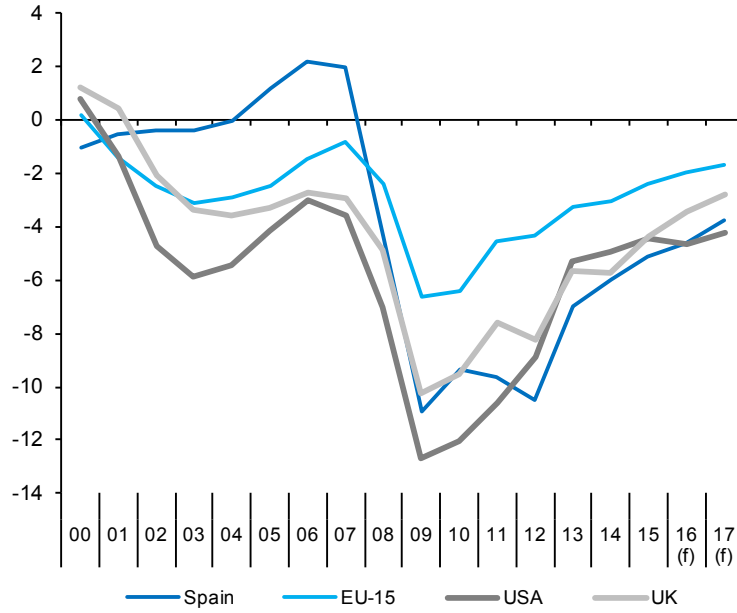
Imbalances: International comparison (I)

In blue: European Commission Forecasts

| | Government net lending (+) or borrowing (-) | | | | Government gross debt | | | | Current Account Balance of Payments (National Accounts) | | | |
|--------------------------------------|---|--------|----------|--------|-----------------------|----------|----------|---------|---|-------|--------|--------|
| | Spain | EU-15 | USA | UK | Spain | EU-15 | USA | UK | Spain | EU-15 | USA | UK |
| Billions of national currency | | | | | | | | | | | | |
| 2005 | 11.2 | -267.4 | -543.4 | -45.8 | 393.5 | 6,844.6 | 8,496.7 | 552.0 | -70.3 | 45.4 | -737.7 | -16.7 |
| 2006 | 22.1 | -170.5 | -411.6 | -39.9 | 392.2 | 7,057.0 | 8,817.9 | 597.1 | -90.7 | 28.9 | -802.2 | -32.4 |
| 2007 | 21.6 | -100.9 | -513.6 | -44.5 | 383.8 | 7,134.7 | 9,267.5 | 646.2 | -104.1 | 24.1 | -718.1 | -37.5 |
| 2008 | -49.4 | -284.8 | -1,033.3 | -76.4 | 439.8 | 7,570.7 | 10,721.7 | 786.3 | -102.9 | -82.0 | -691.6 | -55.0 |
| 2009 | -118.2 | -751.9 | -1,827.4 | -155.4 | 568.7 | 8,531.5 | 12,404.7 | 975.5 | -46.5 | 14.0 | -381.9 | -44.8 |
| 2010 | -101.4 | -759.8 | -1,797.7 | -150.3 | 649.3 | 9,581.6 | 14,175.8 | 1,190.9 | -42.0 | 35.0 | -445.9 | -43.1 |
| 2011 | -102.9 | -552.4 | -1,646.6 | -124.1 | 743.5 | 10,258.0 | 15,361.7 | 1,324.2 | -35.3 | 68.1 | -481.5 | -29.1 |
| 2012 | -108.9 | -534.5 | -1,430.7 | -138.6 | 890.7 | 10,912.3 | 16,558.5 | 1,424.8 | -4.6 | 147.7 | -468.2 | -61.4 |
| 2013 | -71.9 | -409.4 | -889.6 | -98.5 | 978.3 | 11,274.0 | 17,462.6 | 1,499.8 | 15.0 | 190.4 | -386.1 | -76.4 |
| 2014 | -62.2 | -387.6 | -854.2 | -104.4 | 1,040.9 | 11,811.8 | 18,210.6 | 1,604.8 | 10.4 | 189.8 | -401.7 | -85.0 |
| 2015 | -55.2 | -326.6 | -800.1 | -81.1 | 1,073.2 | 12,132.7 | 18,965.9 | 1,666.0 | 14.3 | 252.6 | -477.4 | -100.2 |
| 2016 | -51.3 | -269.4 | -861.7 | -66.5 | 1,112.2 | 12,073.0 | 20,093.1 | 1,710.1 | 18.7 | 305.9 | -467.5 | -107.0 |
| 2017 | -43.6 | -234.7 | -811.8 | -55.4 | 1,155.8 | 12,121.9 | 20,998.3 | 1,756.5 | 17.4 | 314.6 | -498.2 | -97.2 |
| Percentage of GDP | | | | | | | | | | | | |
| 2005 | 1.2 | -2.5 | -4.2 | -3.3 | 42.3 | 63.0 | 64.9 | 40.0 | -7.6 | 0.4 | -5.6 | -1.2 |
| 2006 | 2.2 | -1.5 | -3.0 | -2.7 | 38.9 | 61.7 | 63.6 | 41.0 | -9.0 | 0.3 | -5.8 | -2.2 |
| 2007 | 2.0 | -0.8 | -3.5 | -2.9 | 35.5 | 59.2 | 64.0 | 42.2 | -9.6 | 0.2 | -5.0 | -2.4 |
| 2008 | -4.4 | -2.4 | -7.0 | -4.9 | 39.4 | 63.1 | 72.8 | 50.3 | -9.2 | -0.7 | -4.7 | -3.5 |
| 2009 | -11.0 | -6.6 | -12.7 | -10.2 | 52.7 | 75.2 | 86.0 | 64.2 | -4.3 | 0.1 | -2.6 | -3.0 |
| 2010 | -9.4 | -6.4 | -12.0 | -9.6 | 60.1 | 81.2 | 94.7 | 75.7 | -3.9 | 0.3 | -3.0 | -2.7 |
| 2011 | -9.6 | -4.6 | -10.6 | -7.6 | 69.5 | 84.6 | 99.0 | 81.3 | -3.3 | 0.6 | -3.1 | -1.8 |
| 2012 | -10.5 | -4.3 | -8.9 | -8.3 | 85.7 | 88.2 | 102.5 | 85.1 | -0.4 | 1.2 | -2.9 | -3.7 |
| 2013 | -7.0 | -3.3 | -5.3 | -5.7 | 95.4 | 90.5 | 104.6 | 86.2 | 1.5 | 1.5 | -2.3 | -4.4 |
| 2014 | -6.0 | -3.0 | -4.9 | -5.7 | 100.4 | 91.8 | 104.7 | 88.1 | 1.0 | 1.5 | -2.3 | -4.7 |
| 2015 | -5.1 | -2.4 | -4.4 | -4.3 | 99.8 | 89.7 | 105.2 | 89.1 | 1.3 | 1.9 | -2.6 | -5.4 |
| 2016 | -4.6 | -2.0 | -4.6 | -3.5 | 99.5 | 89.0 | 108.1 | 89.2 | 1.7 | 2.3 | -2.5 | -5.6 |
| 2017 | -3.8 | -1.7 | -4.2 | -2.8 | 99.9 | 88.2 | 108.5 | 88.9 | 1.5 | 2.3 | -2.6 | -4.9 |

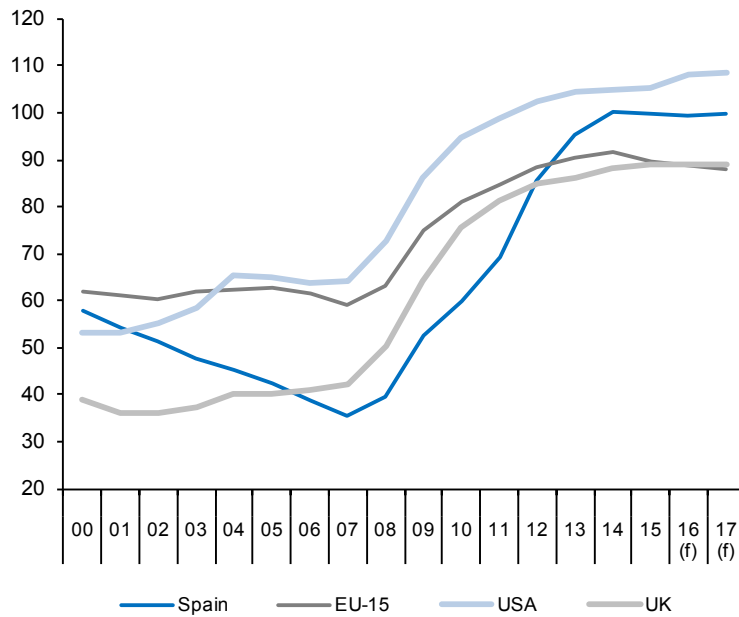
Source: European Commission Forecasts, Autumn 2016.

Chart 21a.1.- Government deficit
Percentage of GDP



(f) European Commission forecast.

Chart 21a.2.- Government gross debt
Percentage of GDP



(f) European Commission forecast.

Table 21b

Imbalances: International comparison (II)

| | Household debt (a) | | | | Non-financial corporations debt (a) | | | |
|--------------------------------------|--------------------|---------|----------|---------|-------------------------------------|----------|----------|---------|
| | Spain | EMU-19 | USA | UK | Spain | EMU-19 | USA | UK |
| Billions of national currency | | | | | | | | |
| 2005 | 653.5 | 4,752.9 | 11,958.0 | 1,189.8 | 925.0 | 6,895.5 | 8,171.5 | 1,102.9 |
| 2006 | 780.7 | 5,175.0 | 13,237.9 | 1,310.9 | 1,158.8 | 7,529.2 | 8,990.9 | 1,201.6 |
| 2007 | 876.6 | 5,540.7 | 14,157.1 | 1,426.4 | 1,344.5 | 8,323.3 | 10,114.2 | 1,281.6 |
| 2008 | 914.0 | 5,752.3 | 14,015.9 | 1,477.0 | 1,422.6 | 8,927.1 | 10,707.0 | 1,476.9 |
| 2009 | 906.2 | 5,860.6 | 13,773.1 | 1,473.8 | 1,406.1 | 9,020.1 | 10,169.7 | 1,414.2 |
| 2010 | 902.5 | 6,001.6 | 13,522.8 | 1,476.9 | 1,429.4 | 9,124.9 | 10,015.1 | 1,379.5 |
| 2011 | 875.2 | 6,086.5 | 13,313.8 | 1,486.7 | 1,415.7 | 9,448.7 | 10,286.7 | 1,408.1 |
| 2012 | 838.2 | 6,082.3 | 13,366.3 | 1,509.2 | 1,309.8 | 9,599.3 | 10,806.3 | 1,481.4 |
| 2013 | 790.7 | 6,038.0 | 13,509.7 | 1,525.5 | 1,231.1 | 9,566.0 | 11,292.8 | 1,454.1 |
| 2014 | 754.8 | 6,046.0 | 13,879.8 | 1,565.8 | 1,167.6 | 9,795.5 | 11,982.0 | 1,414.1 |
| 2015 | 729.0 | 6,112.8 | 14,219.6 | 1,624.7 | 1,132.8 | 10,181.6 | 12,787.2 | 1,388.3 |
| Percentage of GDP | | | | | | | | |
| 2005 | 70.2 | 56.2 | 91.3 | 86.3 | 99.4 | 81.5 | 62.4 | 80.0 |
| 2006 | 77.5 | 58.1 | 95.5 | 90.1 | 115.0 | 84.5 | 64.9 | 82.5 |
| 2007 | 81.1 | 58.9 | 97.8 | 93.2 | 124.4 | 88.5 | 69.9 | 83.7 |
| 2008 | 81.9 | 59.8 | 95.2 | 94.4 | 127.5 | 92.7 | 72.7 | 94.4 |
| 2009 | 84.0 | 63.1 | 95.5 | 97.0 | 130.3 | 97.1 | 70.5 | 93.1 |
| 2010 | 83.5 | 62.9 | 90.4 | 93.9 | 132.2 | 95.7 | 66.9 | 87.7 |
| 2011 | 81.8 | 62.1 | 85.8 | 91.3 | 132.3 | 96.5 | 66.3 | 86.5 |
| 2012 | 80.6 | 61.8 | 82.7 | 90.1 | 126.0 | 97.6 | 66.9 | 88.4 |
| 2013 | 77.1 | 60.7 | 80.9 | 87.7 | 120.0 | 96.2 | 67.7 | 83.6 |
| 2014 | 72.8 | 59.7 | 79.8 | 85.9 | 112.6 | 96.7 | 68.9 | 77.6 |
| 2015 | 67.8 | 58.5 | 78.8 | 86.9 | 105.3 | 97.4 | 70.9 | 74.3 |

(a) Loans and securities other than shares, excluding financial derivatives.

Sources: Eurostat and Federal Reserve.

Chart 21b.1.- Household debt
Percentage of GDP

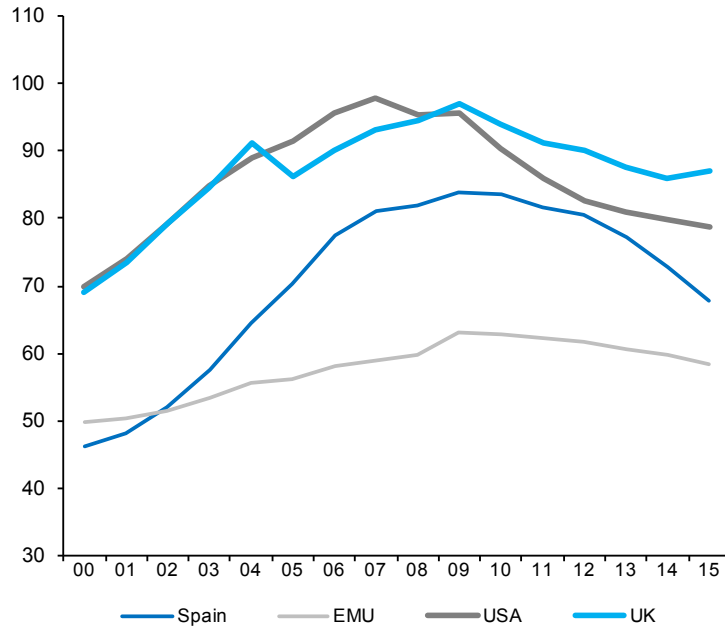
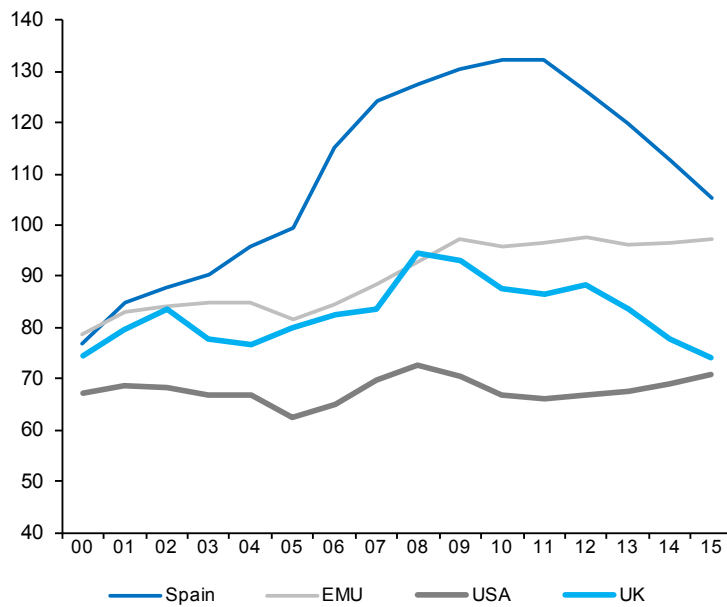


Chart 21b.2.- Non-financial corporations debt
Percentage of GDP



KEY FACTS: 50 FINANCIAL SYSTEM INDICATORS – FUNCAS

Updated: November 15th, 2016

Highlights

| Indicator | Last value available | Corresponding to: |
|--|----------------------|-------------------|
| Bank lending to other resident sectors (monthly average % var.) | -0.7 | August 2016 |
| Other resident sectors' deposits in credit institutions (monthly average % var.) | -0.1 | August 2016 |
| Doubtful loans (monthly % var.) | -0.6 | August 2016 |
| Recourse to the Eurosystem (Eurozone financial institutions, million euros) | 513,571 | October 2016 |
| Recourse to the Eurosystem (Spanish financial institutions, million euros) | 135,375 | October 2016 |
| Recourse to the Eurosystem (Spanish financial institutions million euros)- Main L/T refinancing operations | 134 | October 2016 |
| Operating expenses/gross operating income ratio (%) | 53.79 | June 2016 |
| Customer deposits/employees ratio (thousand euros) | 5,605.73 | June 2016 |
| Customer deposits/branches ratio (thousand euros) | 37,663.62 | June 2016 |
| Branches/institutions ratio | 232.36 | June 2016 |

A. Money and interest rates

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 October | 2016 November 15 th | Definition and calculation |
|--|---------------|-------------------|------|-------|--------------|--------------------------------|--|
| 1. Monetary Supply (% chg.) | ECB | 5.6 | 3.8 | 4.7 | - | - | M3 aggregate change (non-stationary) |
| 2. Three-month interbank interest rate | Bank of Spain | 2.49 | 0.21 | -0.02 | -0.313 | -0.312 | Daily data average |
| 3. One-year Euribor interest rate (from 1994) | Bank of Spain | 2.76 | 0.48 | 0.17 | -0.069 | -0.070 | End-of-month data |
| 4. Ten-year Treasury bonds interest rate (from 1998) | Bank of Spain | 4.6 | 2.7 | 1.7 | 1.2 | 1.4 | Market interest rate (not exclusively between account holders) |
| 5. Corporate bonds average interest rate | Bank of Spain | 4.5 | 2.3 | 2.2 | 3.0 | - | End-of-month straight bonds average interest rate (> 2 years) in the AIAF market |

Comment on "Money and Interest Rates:" The 3-month interbank rate has increased to -0.312% (from -0.313% in October) and the 1-year Euribor has decreased to -0.070% (from -0.069% in October). The ECB has not announced any further monetary policy measures but it has anticipated some further actions could be adopted in December amid some tensions in sovereign bond markets. As for the Spanish 10-year bond yield, it has increased to 1.4%

B. Financial markets

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 August | 2016 September | Definition and calculation |
|--|---|----------------------|----------|----------|----------------|-------------------------|---|
| 6. Outright spot treasury bills transactions trade ratio | Bank of Spain | 34.6 | 75.6 | 75.5 | 88.18 | 145.48 | (Traded amount/ outstanding balance) x100 in the market (not exclusively between account holders) |
| 7. Outright spot government bonds transactions trade ratio | Bank of Spain | 77.7 | 73.2 | 65.3 | 44.05 | 51.27 | (Traded amount/ outstanding balance) x100 in the market (not exclusively between account holders) |
| 8. Outright forward treasury bills transactions trade ratio | Bank of Spain | 0.9 | 2.6 | 1.3 | 0.15 | 0.52 | (Traded amount/ outstanding balance) x100 in the market (not exclusively between account holders) |
| 9. Outright forward government bonds transactions trade ratio | Bank of Spain | 4.5 | 4.6 | 3.4 | 1.60 | 1.03 | (Traded amount/ outstanding balance) in the market (not exclusively between account holders) |
| 10. Three-month maturity treasury bills interest rate | Bank of Spain | 2.3 | 0.1 | 0.1 | -0.04 | -0.04 | Outright transactions in the market (not exclusively between account holders) |
| 11. Government bonds yield index (Dec1987=100) | Bank of Spain | 603.2 | 1,037.9 | 1,058.2 | 1,160.74 | 1,160.00 | Outright transactions in the market (not exclusively between account holders) |
| 12. Madrid Stock Exchange Capitalization (monthly average % chg.) | Bank of Spain and Madrid Stock Exchange | 0.4 | 0.6 | 0.5 | 1.6 | 0.9 | Change in the total number of resident companies |
| 13. Stock market trading volume. Stock trading volume (monthly average % var.) | Bank of Spain and Madrid Stock Exchange | 3.7 | 7.0 | -0.2 | -38.7 | 39.3 | Stock market trading volume. Stock trading volume: change in total trading volume |
| 14. Madrid Stock Exchange general index (Dec1985=100) | Bank of Spain and Madrid Stock Exchange | 1,026.8 | 1,042.5 | 965.1 | 879.5 | 874.58 ^(a) | Base 1985=100 |
| 15. Ibex-35 (Dec1989=3000) | Bank of Spain and Madrid Stock Exchange | 9,767.1 | 10,528.8 | 10,647.2 | 8,716.8 | 8,867.10 ^(a) | Base dec1989=3000 |
| 16. Madrid Stock Exchange PER ratio (share value/profitability) | Bank of Spain and Madrid Stock Exchange | 16.2 | 26.1 | 15.4 | 18.9 | 19.7 ^(a) | Madrid Stock Exchange Ratio "share value/ capital profitability" |

B. Financial markets (continued)

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 August | 2016 September | Definition and calculation |
|---|---|----------------------|------|------|----------------|-------------------|---------------------------------------|
| 17. Long-term bonds. Stock trading volume (% chg.) | Bank of Spain and Madrid Stock Exchange | 4.2 | 7.4 | 21.3 | -75.2 | 0.0 | Variation for all stocks |
| 18. Commercial paper. Trading balance (% chg.) | Bank of Spain and AIAF | 2.0 | -1.3 | -0.2 | -0.5 | -0.9 | AIAF fixed-income market |
| 19. Commercial paper. Three-month interest rate | Bank of Spain and AIAF | 2.7 | 0.6 | 0.1 | 0.1 | -0.1 | AIAF fixed-income market |
| 20. IBEX-35 financial futures concluded transactions (% chg.) | Bank of Spain | 1.3 | 4.3 | 1.3 | -13.2 | 14.8 | IBEX-35 shares concluded transactions |
| 21. IBEX-35 financial options concluded transactions (% chg.) | Bank of Spain | 8.6 | 6.4 | 17.7 | 0.0 | 47.1 | IBEX-35 shares concluded transactions |

(a) Last data published: November 15th, 2016.

Comment on "Financial Markets:": During September, there was an increase in transactions with outright spot T-bills and of spot government bonds transactions, which stood at 145.5% and 51.3%, respectively. The stock market has lost some of the gains in October, and volatility is still high, with the IBEX-35 down to 8,867 points, and the General Index of the Madrid Stock Exchange to 875. Additionally, there was an increase of 14.8% in financial IBEX-35 futures transactions and also a growth of 47.1% in transactions with IBEX-35 financial options.

C. Financial Savings and Debt

| Indicator | Source: | Average 2008-2013 | 2014 | 2015 | 2016 Q 1 | 2016 Q 2 | Definition and calculation |
|---|---------------|----------------------|-------|-------|-------------|-------------|--|
| 22. Net Financial Savings/GDP (National Economy) | Bank of Spain | -2.8 | 1.6 | 2.2 | 2.0 | 2.3 | Difference between financial assets and financial liabilities flows over GDP |
| 23. Net Financial Savings/GDP (Households and non-profit institutions) | Bank of Spain | 2.5 | 3.4 | 3.6 | 1.6 | 2.9 | Difference between financial assets and financial liabilities flows over GDP |
| 24. Debt in securities (other than shares) and loans/GDP (National Economy) | Bank of Spain | 288.1 | 320.0 | 302.3 | 302.8 | 302.6 | Public debt, non-financial companies debt and households and non-profit institutions debt over GDP |

C. Financial Savings and Debt (continued)

| Indicator | Source: | Average 2008-2013 | 2014 | 2015 | 2016 Q 1 | 2016 Q 2 | Definition and calculation |
|--|---------------|----------------------|------|------|-------------|-------------|---|
| 25. Debt in securities (other than shares) and loans/GDP (Households and non-profit institutions) | Bank of Spain | 81.4 | 72.4 | 67.5 | 66.7 | 66.7 | Households and non-profit institutions debt over GDP |
| 26. Households and non-profit institutions balance: financial assets (quarterly average % chg.) | Bank of Spain | 0.6 | 2.1 | 1.7 | -1.7 | 0.9 | Total assets percentage change (financial balance) |
| 27. Households and non-profit institutions balance: financial liabilities (quarterly average % chg.) | Bank of Spain | -1.8 | -4.0 | -2.9 | -1.0 | 0.7 | Total liabilities percentage change (financial balance) |

Comment on "Financial Savings and Debt:" During 2016Q2, there was an increase in financial savings to GDP in the overall economy that reached 2.3% of GDP. There was also an increase in the financial savings rate of households from 1.6% in 2016Q1 to 2.9% in 2016Q2. The debt to GDP ratio remained at 66.7%. Finally, the stock of financial assets on households' balance sheets registered an increase of 0.9%, and there was a 0.7% growth in the stock of financial liabilities.

D. Credit institutions. Business Development

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 July | 2016 August | Definition and calculation |
|---|---------------|----------------------|------|-------|--------------|----------------|--|
| 28. Bank lending to other resident sectors (monthly average % var.) | Bank of Spain | 9.1 | -4.6 | -4.0 | -0.9 | -0.7 | Lending to the private sector percentage change for the sum of banks, savings banks and credit unions |
| 29. Other resident sectors' deposits in credit institutions (monthly average % var.) | Bank of Spain | 9.0 | -1.5 | -0.1 | -0.2 | -0.1 | Deposits percentage change for the sum of banks, savings banks and credit unions |
| 30. Debt securities (monthly average % var.) | Bank of Spain | 10.1 | 1.2 | -15.2 | -2.5 | -1.2 | Asset-side debt securities percentage change for the sum of banks, savings banks and credit unions |
| 31. Shares and equity (monthly average % var.) | Bank of Spain | 14.1 | -6.8 | -6.0 | 0.6 | -0.0 | Asset-side equity and shares percentage change for the sum of banks, savings banks and credit unions |
| 32. Credit institutions. Net position (difference between assets from credit institutions and liabilities with credit institutions) (% of total assets) | Bank of Spain | -1.7 | -5.9 | -5.2 | -5.6 | -5.4 | Difference between the asset-side and liability-side "Credit System" item as a proxy of the net position in the interbank market (month-end) |

D. Credit institutions. Business Development (continued)

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 July | 2016 August | Definition and calculation |
|---|---------------|----------------------|-------|-------|--------------|----------------|---|
| 33. Doubtful loans (monthly average % var.) | Bank of Spain | 40.5 | -12.7 | -22.4 | -1.4 | -0.6 | Doubtful loans. Percentage change for the sum of banks, savings banks and credit unions. |
| 34. Assets sold under repurchase (monthly average % var.) | Bank of Spain | -0.8 | -6.1 | -30.8 | -15.4 | 9.1 | Liability-side assets sold under repurchase. Percentage change for the sum of banks, savings banks and credit unions. |
| 35. Equity capital (monthly average % var.) | Bank of Spain | 11.1 | -1.1 | -1.8 | 0.8 | 0.4 | Equity percentage change for the sum of banks, savings banks and credit unions. |

Comment on "Credit institutions. Business Development:" The latest available data as of August 2016 show a fall in bank credit to the private sector of 0.7%. Data also show a decrease in financial institutions deposit-taking of 0.1%. Holdings of debt securities fell by 1.2%. Also, doubtful loans decreased 0.6% compared to the previous month.

E. Credit institutions. Market Structure and Eurosystem Refinancing

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 March | 2016 June | Definition and calculation |
|--|---------------|----------------------|---------|---------|---------------|------------------------|---|
| 36. Number of Spanish credit institutions | Bank of Spain | 199 | 138 | 135 | 131 | 130 | Total number of banks, savings banks and credit unions operating in Spanish territory |
| 37. Number of foreign credit institutions operating in Spain | Bank of Spain | 73 | 86 | 82 | 81 | 82 | Total number of foreign credit institutions operating in Spanish territory |
| 38. Number of employees | Bank of Spain | 246,418 | 203,305 | 203,305 | 202,954 | 202,954 | Total number of employees in the banking sector |
| 39. Number of branches | Bank of Spain | 40,703 | 31,817 | 30,921 | 30,627 | 30,207 | Total number of branches in the banking sector |
| 40. Recourse to the Eurosystem (total Eurozone financial institutions) (Euro millions) | Bank of Spain | - | 406,285 | 460,858 | 457,324 | 513,571 ^(a) | Open market operations and ECB standing facilities. Eurozone total |
| 41. Recourse to the Eurosystem (total Spanish financial institutions) (Euro millions) | Bank of Spain | - | 111,338 | 122,706 | 123,429 | 135,375 ^(a) | Open market operations and ECB standing facilities. Spain total |

E. Credit institutions. Market Structure and Eurosystem Refinancing (continued)

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 March | 2016 June | Definition and calculation |
|--|---------------|-------------------|--------|--------|------------|--------------------|--|
| 42. Recourse to the Eurosystem (total Spanish financial institutions): main long term refinancing operations (Euro millions) | Bank of Spain | 22,794 | 21,115 | 10,515 | 6,206 | 134 ^(a) | Open market operations: main long term refinancing operations. Spain total |

(a) Last data published: October 2016.

Comment on "Credit institutions. Market Structure and Eurosystem Refinancing:" In October 2016, recourse to Eurosystem funding by Spanish credit institutions reached 135.3 billion euro.

MEMO ITEM: From January 2015, the ECB also offers information on the asset purchase programs. The amount borrowed by Spanish banks in these programs reached 198 billion euro in October and 1.48 trillion euro for the entire Eurozone banking system.

F. Credit institutions. Efficiency and Productivity, Risk and Profitability

| Indicator | Source: | Average 2000-2013 | 2014 | 2015 | 2016 March | 2016 June | Definition and calculation |
|--|---------------|-------------------|-----------|-----------|------------|-----------|--|
| 43. "Operating expenses/gross operating income" of Spain ratio | Bank of Spain | 50.89 | 47.27 | 50.98 | 52.44 | 53.79 | Operational efficiency indicator. Numerator and denominator are obtained directly from credit institutions' P&L accounts |
| 44. "Customer deposits/employees" ratio (Euro thousands) | Bank of Spain | 3,519.51 | 5,892.09 | 5,595.62 | 5,683.37 | 5,605.73 | Productivity indicator (business by employee) |
| 45. "Customer deposits/branches" ratio (Euro thousands) | Bank of Spain | 21,338.27 | 40,119.97 | 36,791.09 | 36,521.43 | 37,663.62 | Productivity indicator (business by branch) |
| 46. "Branches/institutions" ratio | Bank of Spain | 205.80 | 142.85 | 229.04 | 235.00 | 232.36 | Network expansion indicator |
| 47. "Employees/branches" ratio | Bank of Spain | 6.1 | 6.8 | 6.57 | 6.43 | 6.72 | Branch size indicator |
| 48. Equity capital (monthly average % var.) | Bank of Spain | 0.11 | 0.07 | 0.01 | 0.14 | 0.02 | Credit institutions equity capital variation indicator |
| 49. ROA | Bank of Spain | 0.45 | 0.49 | 0.39 | 0.39 | 0.40 | Profitability indicator, defined as the "pre-tax profit/average total assets" |
| 50. ROE | Bank of Spain | 6.27 | 6.46 | 5.04 | 4.79 | 4.93 | Profitability indicator, defined as the "pre-tax profit/equity capital" |

Comment on "Credit institutions. Efficiency and Productivity, Risk and Profitability:" In June 2016, most of the profitability and efficiency indicators improved for Spanish banks. Productivity indicators have also improved since the restructuring process of the Spanish banking sector was implemented.

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