

# MR10

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

NUMBER 394 | OCTOBER 2015



## ECONOMIC & FINANCIAL ENVIRONMENT

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### FINANCIAL MARKETS

*The risk parity approach and financial stability*

### INTERNATIONAL ECONOMY

*Iran and its potential new role in the oil map*

### EUROPEAN UNION

*Greece: third time lucky?*

### SPANISH ECONOMY

*Spain's 2016 Budget: from structural to cyclical adjustment*

## DOSSIER: THE DEMOGRAPHIC CHALLENGE

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*Is the impact of demographic transition inevitable?*

*Demographic trends and the price of financial assets: the tail winds are dying down*

*How a greying population affects public spending*

*The challenges of demography in Spain*

## MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

October 2015

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## The emerging risk

The last few months have witnessed a readjustment in the engines of world economic growth. The deterioration in the outlook for the main emerging countries has been offset by the improvement in developed countries. We now expect global growth to be around 3.2% in 2015 and to tend to improve in 2016, reaching 3.7%.

Crucial for this forecast to come about is an orderly slowdown in the emerging economies that does not bring about global financial instability, a scenario that seems improbable at present. It is true there are several threats hovering over the emerging world but, given their heterogeneous nature and the generally acceptable starting point of many of the countries in question, the emerging economies are unlikely to become immersed in a long phase of volatility.

The cycle of the emerging economies is changing direction due to three fundamental factors. First, the phase of low commodity prices and particularly oil, which is having a negative effect on several developing countries, some of them large like Russia and other small ones like Venezuela and Angola whose budgets and external accounts rely too heavily on oil-related revenue. Nevertheless the slump in oil prices is positive for net importers of crude oil, many of which belong to the emerging bloc such as China, India and Turkey, so the combined effect will not necessarily harm aggregate growth.

A second negative factor is related to the shift in direction of US monetary policy. The years of expanding liquidity in the US have led to a sharp rise in public and private debt in some emerging economies. The start of a contractionary cycle in US monetary policy threatens to cause capital outflows and undermine financial stability and growth, particularly in those countries where debt is in foreign currency. The risk is there but a detailed examination of the financial situation of the various economies affected shows that the potential sources of tension are localised. In fact, unlike previous episodes of tension in the emerging economies, many of them now have substantial financial buffers that help them face this new scenario with greater confidence.

Lastly we cannot ignore the internal situation of the emerging economies themselves. The capacity of some notable countries such as Brazil, Turkey and China to reform their growth models, which have been based on an unbalanced pattern, will be crucial. The success of these countries, and especially of the Asian giant, in correcting their macroeconomic imbalances will be decisive for world growth but it is vital not to lose sight of the fact that several are now in a solid and balanced economic situation. Particularly India and Mexico, the latter being expected to satisfactorily handle the economic slowdown in spite of suffering from the drop in oil prices, while other important emerging regions such as Central Europe are also looking solid with strong growth potential.

In conclusion, some large emerging economies will end the year in recession and this will have a negative effect on the world's economic growth. However, many developing countries are also tackling the slowdown with a lot of room to manoeuvre and, if China is capable of successfully piloting its economy towards a soft landing, there is no reason to think that the current slowdown in the emerging world will crucially affect the global economy.

**Jordi Gual**  
Chief Economist  
30 September 2015

## CHRONOLOGY

### SEPTEMBER 2015

- 20** Syriza wins the elections in Greece and secures the necessary support to implement the programme agreed with the institutions.

### AUGUST 2015

- 11** The People's Bank of China announces a new mechanism to determine the exchange rate of the yuan and **this depreciates by 3.0% against the US dollar in one week.**
- 19** The **third programme of financial aid for Greece** is approved, totalling 86 billion euros and without the initial participation of the IMF. The Greek Prime Minister, Alexis Tsipras, calls an **early general election.**

### JULY 2015

- 5** The **Greek referendum rejects** the agreement plan proposed by the European institutions.
- 14** **Iran reaches an agreement** with the five members of the United Nations Security Council and Germany in which it undertakes to reduce its nuclear programme in exchange for lifting the sanctions imposed.
- 31** The Spanish government brings forward its presentation of the **State Budget** for 2016.

### JUNE 2015

- 26** The **Greek government calls a referendum** on whether to accept the latest proposal offered by European institutions for 5 July.
- 30** Greece does not pay the 1.6 billion euro **due to the International Monetary Fund.**

### MAY 2015

- 7** The Conservatives win an absolute majority in the **UK elections**, marked by the promise to hold a referendum on the country remaining in the European Union.

### APRIL 2015

- 7** The **Spanish Treasury places six-month bills at a negative interest rate** for the first time in its history.

## AGENDA

### OCTOBER 2015

- 2** Registration with Social Security and registered unemployment (September).
- 7** Industrial production index (August).
- 15** Financial accounts (Q2).  
European Council.
- 16** Loans, deposits and NPL ratio (August).
- 22** Governing Council of the ECB.  
International trade (August).  
Labour force survey (Q3).
- 27** Fed Open Market Committee  
State budget execution (September).
- 29** CPI flash estimate (October).  
Economic sentiment index of the euro area (October).  
US GDP flash estimate (Q3).
- 30** GDP flash estimate (Q3).  
Balance of payments (August).

### NOVEMBER 2015

- 3** Registration with Social Security and registered unemployment (October).
- 4** Governing Council of the ECB.
- 6** Industrial production index (September).
- 16** Japan GDP flash estimate (Q3).
- 18** Loans, deposits and NPL ratio (September).
- 19** International trade (September).
- 24** Central government budget execution (October).  
US GDP flash estimate (Q3).
- 26** Quarterly national accounts (Q3).
- 27** Economic sentiment index of the euro area (November).  
CPI flash estimate (September).

## The world economy withstands the emerging onslaught

**Uncertainty in emerging economies but expansion in the advanced.** «A forecast of 3.3% growth this year is no longer realistic. A forecast of 3.8% for next year neither. We will, however, remain above the 3% threshold». These are the words recently pronounced by Christine Lagarde, Managing Director of the IMF. The key reason for this less promising outlook is, in her opinion, slower growth in the emerging economies. Given the latest macroeconomic data published, this assessment is shared by most analysts and, one way or another, has led to appreciable stock market losses in emerging markets. However, we believe this might be an excessively partial view of the current situation. Firstly, it should be noted that, should the forecasts be accurate, the world economy will have seen four consecutive years of growth above 3%, from 2013 to 2016, which is a remarkable rate. Secondly, it seems to underestimate the evidence that the world economy is capable of absorbing the emerging shock as the advanced economies are still performing well; not too long ago the greatest cause for concern was precisely the lack of dynamism in the wealthiest countries. Lastly, we also need to fine-tune our analysis of the emerging economies. To begin with, one important region, namely Central Europe, is managing to avoid the wave of uncertainty, as are individually relevant countries such as Mexico and India. The pattern observed in these cases generally combines a healthy macroeconomic situation, good performance by domestic demand and, in the case of Mexico and emerging Europe, close ties with advanced economies. Does this eliminate the doubts concerning emerging countries? No, because there is still concern regarding the current situation of the most systemic of these economies, China, as well as the situation of others such as Russia and Brazil which are deteriorating relatively quickly. Latin America is also cause for concern, as well as those Asian economies most closely connected to China. How China manages to weather the storm will largely determine the future prospects of both cases. Our opinion is that the Asian giant has enough leeway to alleviate this weak phase via economic policy but it must also adjust its measures more precisely than in the recent past.

**The United States and Europe are holding their own, albeit each at their own pace.** The US continues to benefit from positive growth and the rate recorded in Q2, namely 2.7% year-on-year, will continue over the coming quarters thanks to the combined boost from

private consumption and investment. This expansion will not be accompanied by too many problems with inflation as energy prices will play a decisive role in containing the tensions typical of mature phases of the cycle. Given this situation, and although, in September, the Fed decided not to raise the official interest rate given the prevailing uncertainty, we expect the first interest rate hike since the dim and distant 2004 to take place in December. Meanwhile the euro area is gradually consolidating its recovery. After a first half of the year with positive but moderate growth we expect the second half to be somewhat more expansionary and that this dynamic will continue in 2016, predicting that the possible negative effect of greater global uncertainty will be offset by the positive impact of recent reductions in the price of crude oil. We also believe that the Greek elections will have a positive effect, strengthening the new government's mandate to implement the financial assistance programme.

**Growth in the Spanish economy is tailing off slightly but will remain strong.** Growth was particularly strong in the first half of the year thanks to temporary factors such as the euro's depreciation, the relaxation of fiscal policy and cheaper oil. As was to be expected, the rate of growth has moderated slightly as the impact of these supports has diminished. This can be seen, for example, in the CaixaBank Research activity indicator. In any case the good trend seen in fundamental factors such as the recovery in credit and in the real estate sector (here we should mention the sharp increase in prices in Q2, more than expected), suggests that growth will remain above 2% in the medium term. Moreover we expect the slowdown to be more moderate than predicted before the summer (revising upwards our growth forecast for 2016, from 2.6% to 2.7%), thanks to the positive effect of the recent decline in oil prices, a factor that also explains our forecast of a scenario with lower inflation. Nonetheless the risks surrounding these projections are slightly downward-biased given recent events. Domestically, Spain's risk premium has risen since mid-July and is now higher than Italy's. Given the absence of fundamental economic factors, this increase can be attributed to the uncertainty caused by the country's elections at the end of 2015. The external environment might also be somewhat less solid due to the aforementioned slowdown in the emerging economies.

## FORECASTS

Year-on-year (%) change, unless otherwise specified

### International economy

	2013	2014	2015	2016	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
<b>GDP GROWTH</b>										
<b>Global<sup>1</sup></b>	3.3	3.3	3.2	3.7	3.2	3.2	3.2	3.3	3.7	3.7
<b>Developed countries</b>	0.9	1.6	2.1	2.2	1.8	2.1	2.1	2.3	2.3	2.2
United States	1.5	2.4	2.7	2.7	2.9	2.7	2.6	2.9	3.1	2.8
Euro area	-0.2	0.9	1.5	1.8	1.2	1.5	1.7	1.7	1.7	1.8
Germany	0.4	1.6	1.6	1.9	1.1	1.6	1.9	1.8	1.9	1.9
France	0.7	0.2	1.0	1.4	0.9	1.0	1.0	1.2	0.9	1.4
Italy	-1.7	-0.4	0.7	1.2	0.2	0.7	1.0	1.2	1.1	1.1
Spain	-1.2	1.4	3.1	2.7	2.7	3.1	3.4	3.4	3.1	2.7
Japan	1.6	-0.1	0.9	1.1	-0.8	0.9	1.8	1.9	1.1	1.6
United Kingdom	1.7	3.0	2.5	2.3	2.9	2.6	2.5	2.2	2.4	2.3
<b>Emerging countries</b>	6.2	5.8	5.0	5.6	5.1	5.0	4.9	5.0	5.5	5.7
China	7.7	7.3	6.7	6.5	7.0	7.0	6.6	6.4	6.7	6.5
India <sup>2</sup>	6.9	7.3	7.1	7.2	7.5	7.0	7.0	7.2	7.2	7.2
Indonesia	5.6	5.0	5.1	5.9	4.7	4.7	5.3	5.7	5.7	5.8
Brazil	2.7	0.1	-1.8	0.4	-1.6	-2.6	-1.8	-1.3	-1.5	0.5
Mexico	1.4	2.1	2.5	3.3	2.6	2.2	2.5	2.6	2.9	3.2
Chile	4.2	1.9	2.3	3.2	2.5	1.9	2.4	2.2	2.0	3.5
Russia	1.3	0.6	-3.7	-0.2	-2.2	-4.6	-4.2	-3.8	-1.5	-0.2
Turkey	4.2	3.0	3.1	3.3	2.5	3.8	3.2	3.0	2.7	3.2
Poland	1.7	3.5	3.5	3.7	3.4	3.6	3.5	3.6	3.7	3.6
South Africa	2.3	1.6	2.1	2.7	2.0	1.5	2.4	2.4	2.6	2.7
<b>INFLATION</b>										
<b>Global<sup>1</sup></b>	3.7	3.3	3.1	3.5	2.6	3.1	3.1	3.4	3.7	3.6
<b>Developed countries</b>	1.4	1.3	0.3	1.6	0.1	0.1	0.1	0.8	1.7	1.5
United States	1.5	1.6	0.2	2.0	-0.1	0.0	0.2	0.8	2.1	1.9
Euro area	1.4	0.4	0.2	1.3	-0.3	0.2	0.1	0.7	1.4	1.1
Germany	1.6	0.8	0.3	1.4	-0.1	0.4	0.0	0.8	1.4	1.2
France	1.0	0.6	0.3	1.3	-0.2	0.3	0.3	0.7	1.3	1.1
Italy	1.3	0.2	0.3	1.3	-0.1	0.1	0.3	0.8	1.3	1.1
Spain	1.4	-0.2	-0.4	1.3	-1.0	-0.3	-0.4	0.1	1.3	0.8
Japan <sup>3</sup>	0.4	2.7	0.9	1.3	2.3	0.5	0.2	0.8	1.5	1.2
United Kingdom	2.6	1.5	0.3	1.5	0.1	0.0	0.2	0.7	1.1	1.4
<b>Emerging countries</b>	4.4	3.8	4.2	4.3	3.0	4.5	4.6	4.8	4.4	0.0
China	2.6	2.0	1.6	2.2	1.2	1.4	1.7	2.0	1.9	2.5
India	10.1	7.2	5.2	6.2	5.3	5.1	4.1	6.4	7.7	6.9
Indonesia	6.4	6.4	6.4	5.1	6.5	7.1	7.1	4.9	4.8	5.2
Brazil	6.2	6.3	8.7	6.2	7.7	8.5	9.4	9.2	7.0	6.2
Mexico	3.8	4.0	3.0	3.3	3.1	2.9	2.9	3.0	3.3	3.5
Chile	2.1	4.4	4.1	3.3	4.4	4.2	4.1	3.9	3.8	3.3
Russia	6.8	7.8	15.0	6.6	16.2	15.8	15.3	12.5	8.0	7.0
Turkey	7.5	8.9	7.3	6.5	7.5	7.7	7.5	6.6	6.5	6.2
Poland	1.2	0.2	-0.4	1.7	-1.2	-0.8	-0.2	0.6	1.4	1.5
South Africa	5.8	6.1	5.1	6.1	4.1	4.6	5.1	6.6	7.4	6.2

Notes: 1. In purchasing power parity. 2. Annual figures represent the fiscal year. 3. Takes into account the consumption tax hike introduced in April 2014.

Forecasts



## Spanish economy

	2013	2014	2015	2016	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2
<b>Macroeconomic aggregates</b>										
Household consumption	-2.3	2.4	3.5	2.5	3.5	3.5	3.6	3.2	3.2	2.6
General government consumption	-2.9	0.1	1.3	0.2	0.2	1.0	1.4	2.7	0.5	0.6
Gross fixed capital formation	-3.7	3.4	5.9	4.3	6.1	6.1	6.0	5.5	5.1	4.1
Capital goods	5.6	12.3	8.7	5.3	9.6	9.2	8.4	7.8	7.4	5.0
Construction	-9.2	-1.4	5.0	3.7	5.0	5.1	5.4	4.7	3.9	3.4
Domestic demand (contr. Δ GDP)	-2.7	2.2	3.3	2.3	3.1	3.3	3.3	3.5	3.1	2.4
Exports of goods and services	4.3	4.2	4.8	6.0	5.0	6.0	3.4	4.9	5.9	5.9
Imports of goods and services	-0.4	7.7	5.8	5.3	7.0	7.2	3.5	5.5	6.3	5.2
<b>Gross domestic product</b>	<b>-1.2</b>	<b>1.4</b>	<b>3.1</b>	<b>2.7</b>	<b>2.7</b>	<b>3.1</b>	<b>3.4</b>	<b>3.4</b>	<b>3.1</b>	<b>2.7</b>
<b>Other variables</b>										
Employment	-3.2	1.2	3.0	2.5	2.8	2.9	3.1	3.1	2.9	2.5
Unemployment rate (% labour force)	26.1	24.4	22.4	20.8	23.8	22.4	21.6	21.7	22.0	20.7
Consumer price index	1.4	-0.2	-0.4	1.3	-1.0	-0.3	-0.4	0.1	1.3	0.8
Unit labour costs	-0.4	-0.4	0.5	1.6	1.0	-0.1	0.1	0.9	0.3	1.8
Current account balance (cum., % GDP) <sup>1</sup>	1.5	1.0	1.9	1.7	1.1	1.4	1.6	1.9	1.8	1.8
Net lending or borrowing rest of the world (cum., % GDP) <sup>1</sup>	2.0	1.4	2.5	2.3	1.5	1.8	2.2	2.5	2.4	2.4
Fiscal balance (cum., % GDP) <sup>1</sup>	-6.8	-5.8	-4.8	-3.3	-5.8	-5.3				

## Financial markets

<b>INTEREST RATES</b>										
<b>Dollar</b>										
Fed Funds	0.25	0.25	0.25	0.79	0.25	0.25	0.25	0.25	0.50	0.75
3-month Libor	0.27	0.23	0.32	0.96	0.26	0.28	0.31	0.44	0.64	0.85
12-month Libor	0.68	0.56	0.81	1.48	0.66	0.73	0.82	1.02	1.22	1.39
2-year government bonds	0.30	0.44	0.71	1.57	0.58	0.59	0.67	1.01	1.30	1.48
10-year government bonds	2.33	2.53	2.23	3.06	1.97	2.16	2.22	2.58	2.87	3.00
<b>Euro</b>										
ECB Refi	0.54	0.16	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
3-month Euribor	0.22	0.21	0.00	0.02	0.05	-0.01	-0.03	-0.02	-0.01	0.01
12-month Euribor	0.54	0.48	0.19	0.28	0.26	0.17	0.16	0.17	0.19	0.23
2-year government bonds (Germany)	0.13	0.05	-0.21	0.02	-0.18	-0.22	-0.24	-0.20	-0.13	-0.03
10-year government bonds (Germany)	1.62	1.23	0.64	1.48	0.35	0.53	0.69	1.00	1.22	1.39
<b>EXCHANGE RATES</b>										
\$/€	1.33	1.33	1.11	1.04	1.13	1.11	1.11	1.10	1.06	1.02
¥/€	129.65	140.42	134.91	129.69	134.30	134.25	135.83	135.24	133.58	128.79
£/€	0.85	0.81	0.72	0.71	0.74	0.72	0.72	0.72	0.71	0.71
<b>OIL</b>										
Brent (\$/barrel)	108.47	99.45	56.19	63.59	55.19	63.43	51.36	54.75	60.89	63.60
Brent (€/barrel)	81.68	74.54	50.87	61.38	49.07	57.64	46.00	50.80	58.37	62.15

Note: 1. Four quarter cumulative.

Forecasts

## FINANCIAL OUTLOOK · Uncertainty plays a key role on the global financial scene

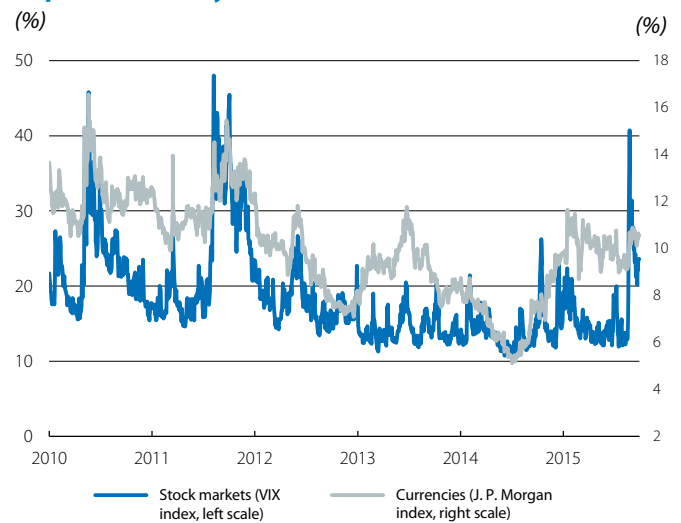
The persistence of doubts regarding the world economy is prolonging the correction beyond the summer. The commotion that appeared in international markets in August regarding China's slowdown and the yuan's devaluation has not vanished with the arrival of autumn. Doubts surrounding global growth increased given the decision of the Federal Reserve (Fed) to postpone the start of its normalisation of interest rates. Paradoxically, the caution adopted by the institution fuelled fears of a sharp slowdown in the world economy while the weak tone of activity in the emerging bloc, principally in China and Brazil, has not helped to boost investor optimism. Moreover the severe corrections seen in sectors such as automobiles and mining-energy are adding to the widespread markets instability.

Meanwhile risky assets in the euro area have shown greater resistance thanks to positive surprises provided by cyclical indicators and the ECB's accommodative stance. Although the global environment will still be fragile over the short term, the effect of the forces behind this risk-off will tend to reverse and the necessary wake-up call should be the realisation, sooner rather than later, that the world economy is not headed for a pronounced slowdown. At the same time the start of an upward cycle for US interest rates will put an end to one of the main sources of uncertainty over the last few years, despite the challenge it poses.

The Fed is cautious about the conditions of the external environment and has chosen to wait. Expectation was high regarding whether the Fed would start the first official interest rate hike in nine years. Finally the member of the Governing Council decided to wait, due largely to signs of weakness in the Chinese economy and summer tensions in financial markets. Growth and inflation forecasts were also revised slightly downwards, as was the expected level for the Fed fund rate. The caution shown by the institution and the fact that the external factor weighed heavily in its decision, unlike the Fed's typical *modus operandi*, triggered alarm bells regarding a severe decline in world growth. This circumstance has been reflected in a further delay in predictions for the first hike in the Fed fund rate, now expected in March. Nevertheless, the positive trend in the US economy has led us to keep our scenario unchanged from last month: with hikes starting in December and very gradual increases from then on.

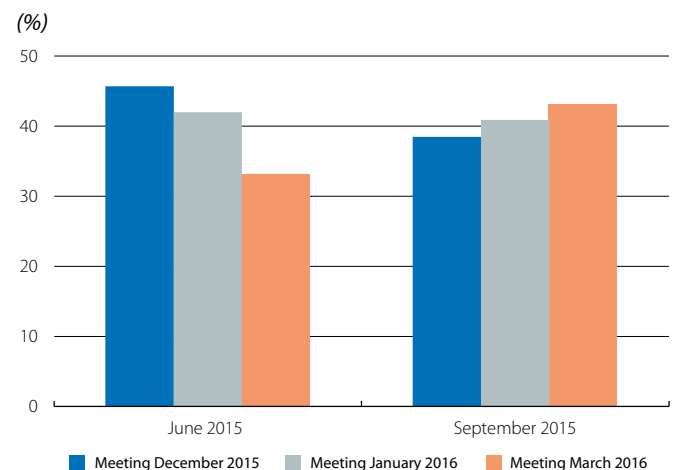
Emerging countries with weak economic fundamentals are increasingly being punished. The weakness of commodities, a less favourable external environment (the Fed's normalisation) and the slowdown in the Chinese economy are producing a very harmful cocktail for the performance of emerging assets, particularly in those

### Implied volatility in financial markets



Source: CaixaBank Research, based on Bloomberg data.

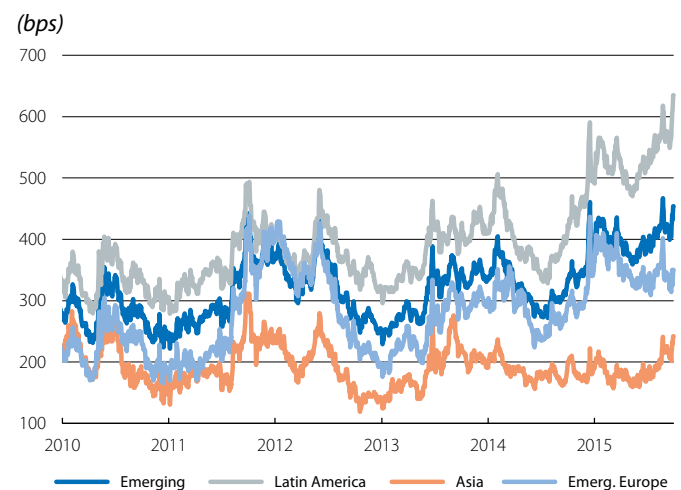
### US: likelihood of the first official interest rate hike\*



Note: \* Implied in Fed funds rate futures.

Source: CaixaBank Research, based on Bloomberg data.

### Spreads of government bonds from the emerging countries \*



Note: \* Spread compared with a basket of US government bonds.

Source: CaixaBank Research, based on data from Thomson Reuters Datastream.



countries with substantial internal imbalances such as Turkey and Brazil. In this last case the worsening macroeconomic outlook, difficulties in controlling the imbalance of public accounts and political instability have led the S&P ratings agency to downgrade its sovereign debt to BB+ (with Brazilian debt consequently losing its investment grade status). In addition to Brazil and Turkey, other countries facing a complex situation are Russia, South Africa and Malaysia. Although there are notable differences between the economies of the emerging bloc (India is a clear example of this), investor appetite for emerging assets is continuing to shrink, highlighted by the depreciation of currencies such as the Brazilian real, the Turkish lira and the Malaysian ringgit and continued increases in their respective sovereign spreads over the last few weeks. From a long-term point of view and looking at fundamentals, emerging stock prices and private debt are at reasonably attractive levels but the absence of positive catalysts in the short term will help to keep down the prices of such assets.

#### The ECB focuses its attention on strengthening its accommodative stance after the events of the summer.

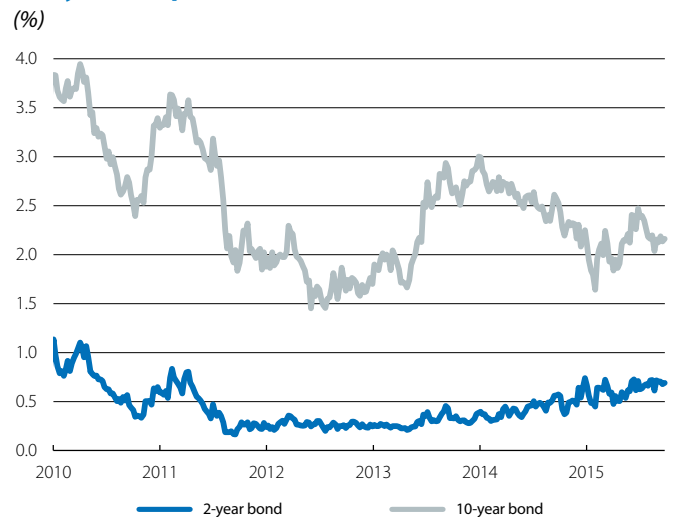
At its September meeting, the Governing Council of the ECB revealed its determination to employ all the tools possible to counteract any possible risks from the slowdown in the Chinese economy and market volatility, with Mario Draghi putting particular emphasis on the possibility of introducing adjustments to the ECB's asset purchase programme (QE) if necessary. In fact, the ECB President announced it would raise the limit placed on central banks for acquiring a single bond from 25% to 33%. Draghi's categorical tone was justified given the ECB's downward revision of quarter-on-quarter forecasts for growth and inflation and the European supervisor pointed out that risks for the region's macroeconomic situation are still downwards, particularly in the case of inflation due to the slump in oil prices. Nonetheless the ECB is unlikely to significantly increase the scale and scope of its expansionary measures at present.

#### Treasuries fluctuate depending on the Fed's messages.

Yields on US public debt were volatile both before and after the Federal Open Market Committee's meeting on 17 September. In the monthly calculation, the bond curve fell as a result of this new scenario with yields on 10 and 2 years dropping to 2.11% and 0.68%, respectively. Fluctuations have taken centre stage with substantial upswings in the days prior to the meeting but stabilising afterwards, towards the end of the month, at levels similar to the beginning of the year.

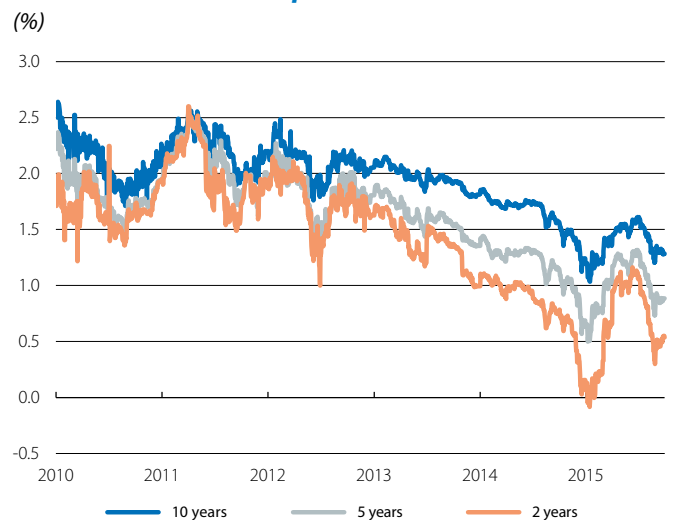
**European periphery debt has followed US bonds and is wary of the situation of the world economy.** European sovereign debt had a relatively calmer month than its American cousin but experienced a similar upswing in yields prior to the Fed's decision. From a broader perspective, European sovereign bonds have also been hit by the volatility caused by uncertain global growth but the ECB's message

#### US: yield on public debt



Source: CaixaBank Research, based on Bloomberg data.

#### Euro area: inflation expectations



Source: CaixaBank Research, based on Bloomberg data.

#### Euro area: yield on 10-year public debt



Source: CaixaBank Research, based on data from Thomson Reuters Datastream.

regarding a possible enlargement of the QE programme helped to stabilise the region's sovereign yields. On the other hand Spain's risk premium has continued to move up and away from the Italian premium, possibly reflecting the greater political risk perceived by investors.

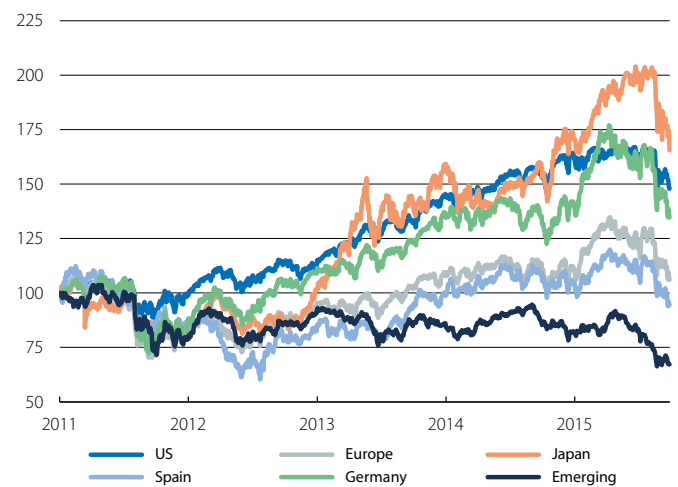
**International stock markets are still battling their own particular problems.** Developed stock markets have been hit by the uncertainty regarding world growth due to the Fed's decision to postpone its first official interest rate hike. As from the beginning of the month, US, European and British stock markets had managed to achieve gains of 4.2%, 2.3% and 1% respectively before the Fed's decision but the reversal of this trend in the second half of the month ended up affecting most developed indices. These events have relegated to second place the flow of good news concerning business activity in Europe, whose outlook continues to be more favourable than in the US.

**Cyclical sectors have been particularly hard hit.** Specifically the automobile and mining-energy industries have come under the microscope this month. The former has seen losses due to the news regarding the manipulation of harmful emissions. Although this circumstance only affected the company in question at the beginning, its effects ended up spreading to the rest of the automobile industry. In the case of the energy sector, the correction of the last few months has intensified given the slump in shares of one of the main companies in the mining sector. Both developments have occurred at a rather unfavourable time for equity markets. The unwillingness shown by investors to take positions in this kind of asset does not seem to have decreased in the short term, particularly given weak outlook for US corporate earnings.

**The foreign exchange market is at the mercy of higher interest rates and weak emerging economies.** The euro has remained slightly above 1.10 dollars, the lower limit of the currency's value over the last year. However we expect Europe's currency to continue to weaken as the Fed's actions become clearer. Among the emerging currencies, countries that export commodities such as Brazil, Mexico, Turkey and South Africa have been particularly affected by weak commodity prices.

### Main international stock markets

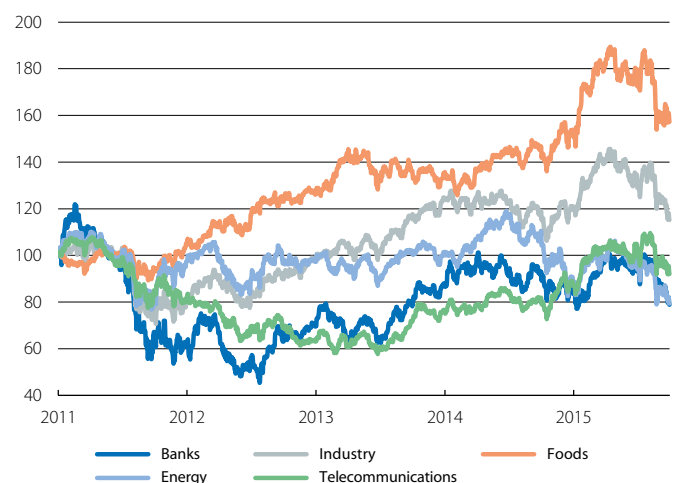
Index (100 = January 2011)



Source: CaixaBank Research, based on Bloomberg data.

### Euro area: stock prices by sector

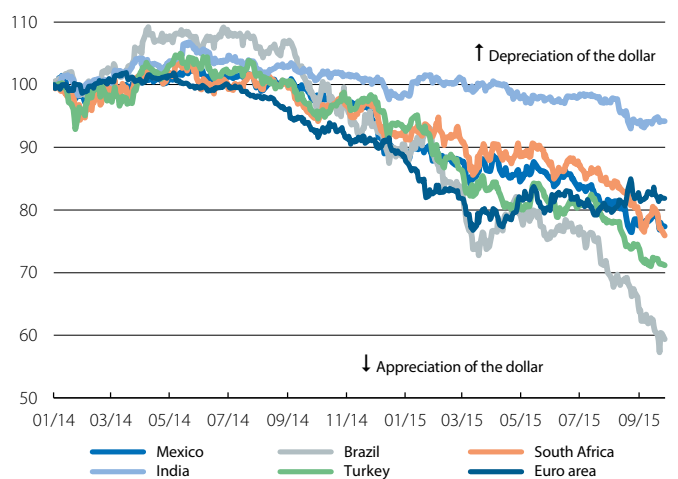
Index (100 = January 2011)



Source: CaixaBank Research, based on Bloomberg data.

### Trend in different currencies against the dollar

Index (100 = January 2014)



Source: CaixaBank Research, based on Bloomberg data.

## FOCUS · Greenspan's conundrum ten years on

In 2005, the Federal Reserve (Fed) Chairman at the time, Alan Greenspan, described the behaviour of long-term interest rates during the tightening up of monetary policy that was underway as a «conundrum». The figures spoke for themselves: between June 2004 and July 2006 the Fed had raised the official interest rate by 4 pps to create more restrictive financial conditions and put a stop to the risk of the economy overheating. But 10-year Treasury yields increased by merely 0.3 pps, thereby neutralising one of the main mechanisms for cooling down the economy. The potential occurrence of this phenomenon, called «Greenspan's conundrum», has now resurfaced given the imminent start of interest rate normalisation in the US.

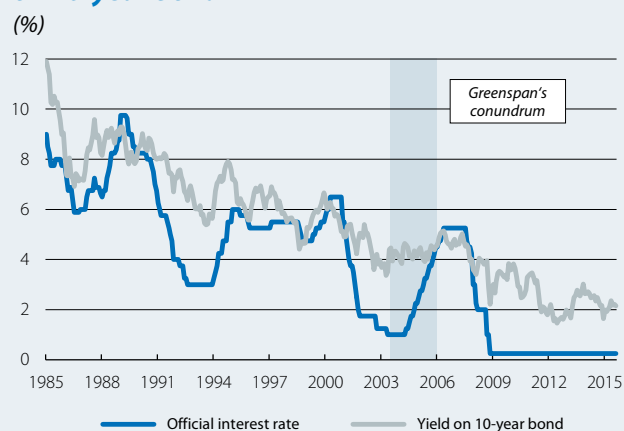
Conceptually, the long-term interest rate or LTR, for example 10 years, has three components. First, the real short-term rate expected by market participants as an average for the next ten years (RESTR). Second, the long-term inflation expectations, at 10 years, of these participants (LTIE). And third, the term risk premium (TRP) demanded to invest in bonds with long maturities rather than successively investing in short-term bonds. When the central bank modifies the official short-term rate (or announces its strategy and monetary policy plans), each of these three components is likely to move either upwards or downwards, obviously also depending on other forces or shocks. While the Fed was tightening up its monetary policy in 1988, 1994 and 1999, the LTR rose noticeably, pushed up both by the RESTR (because market participants took the Fed's message on board that it was willing and able to maintain a higher level for the short-term rate) as well as the TRP (given the greater uncertainty regarding the level and volatility of short-term rates in the near future). The LTIE component would have moved downwards (as the Fed was committed to combating inflation) but with less impact due to the anchoring of expectations since credible inflation targets had been set.

The phase of tougher monetary policy in 2004 put a stop to these earlier trends. In spite of rapid rises in the official rate, the LTR hardly moved at all. Several studies have shown that the component that evolved differently compared with previous cycles was the TRP, on that occasion falling noticeably (by around 1 pps), counteracting the rise, as per the script, experienced by the RESTR (while the LTIE remained stable). Greenspan's conundrum therefore lay in the term premium, a variable whose importance grows when market imperfections intensify (the limits to arbitrage between maturities). The fundamental forces leading to this drop in the term premium are now well-known: excessive global savings,

the accumulation of reserves by the central banks of many countries, a search for safe assets and, as a result, strong demand for long-term US Treasury bonds which was not passed on to shorter terms.

Ten years later, a large proportion of these structural factors are still in place, suggesting that they would tend to offset the upward pressure on the LTR exercised by the forces of the economic-monetary cycle. The gradual fall in the rate of potential growth of the US economy, the persistence of abundant savings worldwide, the demographics and ageing populations in advanced countries and the fact that few assets are considered as safe will continue to limit the extent of any rises in the LTR via downward pressure on the RESTR and TRP. The expectations of Treasury market participants seem to be along these lines, judging by the scenario implicit in the current rate curve, according to which the LTR will rise very little over the coming years in spite of the Fed's actions and the debt curve will flatten out considerably. However, this market view of the LTR trend omits two key elements. Firstly, bond investors have very low LTIE today and this perception could have an abrupt effect should price or wage indicators be surprisingly high, leading to sharp upswings in the LTR. Secondly, the Fed's willingness to sell the 4 trillion dollars of bonds in its portfolio, a circumstance that could notably push up the TRP. In this respect leading Fed members have warned on several occasions that the institution will adopt a more aggressive normalisation strategy if the LTR does not move upwards. In other words, we are unlikely to witness a «Yellen's conundrum» in the future.

### US: Federal Reserve interest rate and yield on 10-year bond



Source: CaixaBank Research, based on Bloomberg data.

## FOCUS · The risk parity approach and financial stability

The risk parity approach has attracted a lot of attention recently as it has been blamed for the unusual volatility of markets both in terms of debt sales and also the Chinese stock market. This approach has been endorsed by Bridgewater and AQR Capital, two of the world's largest funds, and it seeks to achieve equity-like returns while providing a risk profile closer to that of bonds, with a long-term horizon and through any financial environment.

To achieve this, the strategy defines the weight of each asset in the portfolio so as to maximise risk diversification as opposed to the traditional allocation that optimises the risk-return ratio. Consequently, each asset makes the same contribution to the portfolio's total volatility (i.e. risk), with the result that the weight of equity is significantly less than that of bonds. However, leveraging is used to prevent this approach from lowering the portfolio's overall return. As happens with other strategies, the risk associated with this debt is reflected in the total risk of the portfolio. But as it has a higher proportion of bonds than other investment approaches, the total increase in risk is less thanks to its greater diversification. In any case, this amount of leverage is not, on average, greater than the level of leverage in the rest of the industry. In fact risk parity portfolios require a lesser amount of leverage to achieve the same risk-adjusted returns than other, less diversified strategies.

Historically the risk parity approach has outperformed other strategies. Russell Investments and the CFA Institute show that, for medium and long-term investment horizons, risk parity consistently achieved higher returns than the traditional 60/40 strategy (60% equity, 40% bonds) and the weighting capitalisation approach. The volume of assets managed by risk parity funds has risen considerably, now totalling 1.4 trillion dollars including the value of leverage (according to J. P. Morgan). Although an increasing number of investors (including institutional) are adopting this approach, it is important to note that risk parity assets only represent 3.26% of the total risky assets in the market in 2013, while the ETF industry (exchange-traded funds) accounts for around 3 trillion dollars, 6% of all risky assets.

Nonetheless, critics claim that such figures could be underestimating the real importance of risk parity. They argue that its strategy for allocating assets in portfolios, with automatic rules to preserve the evenly balanced contribution to total risk, could intensify sell-offs. Consequently, they blame the risk parity approach both for the volatility in German and US debt markets last May and also for the excessive losses in global equity this summer. However, a recent analysis by J. P. Morgan

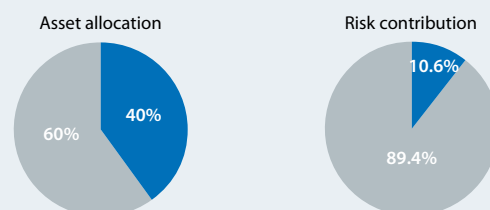
has shown that the extent of the equity positions of risk parity funds is limited as a result of how the portfolios are constructed, and that these only fell slightly during the aforementioned episodes. Other, more actively managed funds were responsible for most of this rebalancing.

In addition to these arguments, we should also note that, in many scenarios, the same sell orders would probably have also been placed by active management funds and we need to be able to quantify the contribution to financial stability of both types of portfolio management. In any case, the extent of risk parity's exposure (even leveraged) does not seem enough to cause any major impact. Moreover, risk parity portfolios are rebalanced based on long-term objectives rather than speculative short-term movements. Lastly, this is a passive strategy that strives for efficient market exposure and therefore needs to limit how frequently rebalances in order to contain transaction costs.

Attention is now focused on the Fed's upcoming interest rate hike which could make or break risk parity funds and determine their role in global financial stability: with great exposure to bonds, a scenario of monetary normalisation could significantly reduce the value of their debt portfolio and affect their volatility. This might lead to the corresponding sell-offs which, in addition to lowering bond market liquidity, would also provide us with a framework to observe the extent to which volatility is generated.

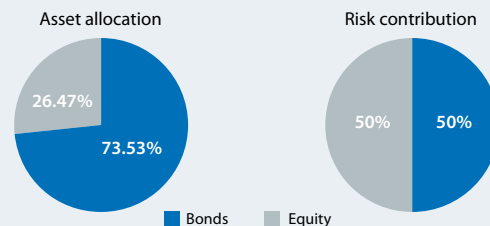
### 60/40 strategy \*

(%)



### Risk parity strategy

(%)



Note: \* 60% equity, 40% bonds.

Source: CaixaBank Research, based on data from Kazemi, H. (2012) «An Introduction to Risk Parity», Alternative Investment Analyst Review, 1.

## KEY INDICATORS

## Interest rates (%)

	30-Sep	31-Aug	Monthly change (bps)	Year-to-date (bps)	Year-on-year change (bps)
<b>Euro area</b>					
ECB Refi	0.05	0.05	0	0.0	0.0
3-month Euribor	-0.04	-0.03	-1	-11.8	-12.3
1-year Euribor	0.14	0.16	-2	-18.5	-19.8
1-year government bonds (Germany)	-0.27	-0.23	-4	-20.6	-21.1
2-year government bonds (Germany)	-0.25	-0.20	-5	-15.2	-16.8
10-year government bonds (Germany)	0.59	0.80	-21	4.9	-35.7
10-year government bonds (Spain)	1.89	2.11	-22	27.9	-25.0
10-year spread (bps) <sup>1</sup>	131	131	-1	23.5	11.2
<b>US</b>					
Fed funds	0.25	0.25	0	0.0	0.0
3-month Libor	0.33	0.33	0	7.4	9.5
12-month Libor	0.85	0.84	1	22.1	27.1
1-year government bonds	0.31	0.38	-7	9.7	21.4
2-year government bonds	0.63	0.74	-11	-3.5	6.3
10-year government bonds	2.04	2.22	-18	-13.1	-44.9

## Spreads corporate bonds (bps)

	30-Sep	31-Aug	Monthly change (bps)	Year-to-date (bps)	Year-on-year change (bps)
Itraxx Corporate	91	71	20	28.1	28.4
Itraxx Financials Senior	96	81	15	28.3	32.1
Itraxx Subordinated Financials	194	163	31	45.3	102.0

## Exchange rates

	30-Sep	31-Aug	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
\$/€	1.118	1.121	-0.3	-7.6	-11.5
¥/€	133.990	135.900	-1.4	-7.5	-3.2
£/€	0.739	0.731	1.1	-4.9	-5.2
¥/\$	119.880	121.230	-1.1	0.1	9.3

## Commodities

	30-Sep	31-Aug	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	403.1	406.3	-0.8	-7.9	-14.8
Brent (\$/barrel)	47.1	51.3	-8.1	-15.5	-49.4
Gold (\$/ounce)	1,115.1	1,134.8	-1.7	-5.9	-7.7

## Equity

	30-Sep	31-Aug	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (US)	1,920.0	1,972.2	-2.6	-6.7	-2.6
Eurostoxx 50 (euro area)	3,100.7	3,269.6	-5.2	-1.5	-3.9
Ibex 35 (Spain)	9,559.9	10,259.0	-6.8	-7.0	-11.7
Nikkei 225 (Japan)	17,388.2	18,890.5	-8.0	6.7	7.5
MSCI Emerging	792.1	818.7	-3.3	-17.2	-21.2
Nasdaq (US)	4,620.2	4,776.5	-3.3	-2.4	2.8

**Note:** 1. Spread between the yields on Spanish and German 10-year bonds.



## ECONOMIC OUTLOOK · Uncertainty in emerging economies, expansion in the advanced

**The world economy looks like it will grow by 3.2% in 2015.**

Just three months before the end of 2015, it has been confirmed that growth will be slightly less this year than in 2014 and still notably below the forecasts being given in December 2014. The main reason for this situation is the gradual deterioration in outlook for the emerging economies and this dichotomy between the advanced economies speeding up and some emerging economies slipping back has tended to intensify over the summer.

### EMERGING ECONOMIES

**Slight worsening of the outlook for the emerging economies, especially China.** Over the last few months uncertainty has increased regarding the trend in emerging countries. While, in spring, the main focus of attention was a small number of economies considered to be problematic, such as Russia, Brazil, Turkey and South Africa, concern has now spread to China. Given the country's importance and its significant global links, this issue is explored in detail in the Focus «China: the doubts return». We admit that there is now a greater risk of a hard landing for the Asian economy but, unlike other analysts who are focusing on the excessive slowdown in some activity indicators, we are more worried about the recent confusing action taken by the country's government. The events of the summer have highlighted the difficult task facing China's authorities in promoting a more market-driven economy with clear long-term benefits while kicking the habit of intervening decisively when there is any sign of a slowdown.

**Two emerging countries have their own problems: Russia and Brazil.** Although both have recorded a notable drop in activity and an accumulation of political problems for some time now (geopolitical in Russia and internal politics in Brazil), the situation has got worse in the last few months. In the Russian case, together with the increasing recession (remember that GDP fell by 4.6% year-on-year in Q2 compared with a 2.2% drop in Q1), of concern is rising inflation, reaching 15.8% year-on-year in August due to the 40% depreciation in the rouble over the last year. Indicators point to both trends (weak activity and strong inflationary tensions) continuing in Q3 without scarcely any let up.

**The problems are piling up for Brazil.** On the one hand its recession is getting worse (GDP fell by 2.6% year-on-year in Q2 compared with a 1.9% drop in Q1) while, on the other, macroeconomic imbalances are not being corrected: inflation climbed to 9.5% year-on-year in August and the current deficit rose to 4.3% of GDP in Q2. Lastly the country is still suffering from political unrest and, in this context, economic policy is

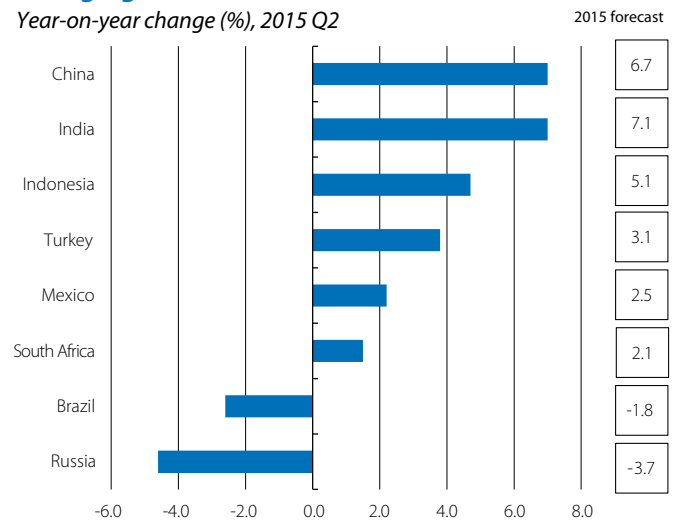
### GDP growth forecasts by region (%)

	2015 forecast		2016 forecast
	Dec. 2014	Current	Current
<b>World</b>	3.9	3.2	3.7
<b>Main emerging economies</b> Russia, China, India, Brazil, Mexico, Poland and Turkey	5.4	4.7	4.7
<b>Main advanced economies</b> United States, Japan, United Kingdom and euro area	2.1	1.9	2.1

Source: CaixaBank Research.

### Emerging countries: GDP

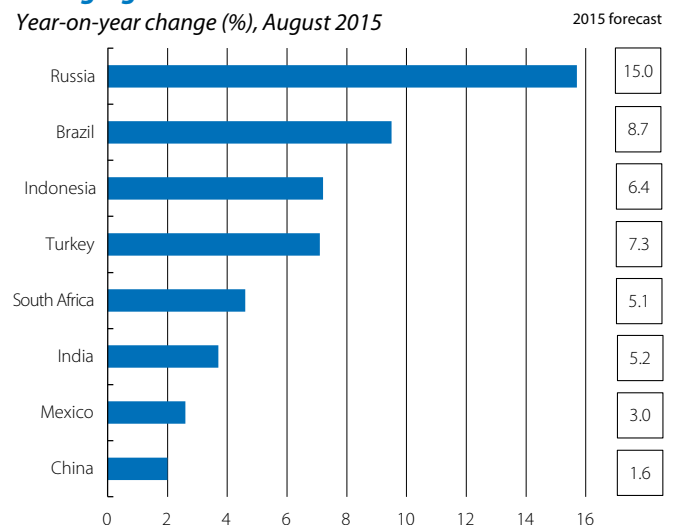
Year-on-year change (%), 2015 Q2



Source: CaixaBank Research, based on data from the national statistics institutes.

### Emerging countries: CPI

Year-on-year change (%), August 2015



Source: CaixaBank Research, based on data from the national statistics institutes.



facing strong demands. While the central bank is attempting to contain the inflationary spiral by aggressively raising the interest rate (which has gone from 11.0% to 14.25% in one year), the government is trying to redress the excessively accommodative fiscal policy of the last few years via ambitious fiscal adjustment. However, it is uncertain whether it will be able to achieve this due to the worsening economic situation. The need to carry out further adjustment in 2016, already announced, will probably come up against the difficulty of implementing it in a recessionary context and the need to secure the approval of Congress (something that cannot be assumed). In fact, these difficulties in implementing fiscal policy have been put forward by the S&P rating agency as the reason for downgrading its credit rating to below *investment grade* for the first time since 2008.

**Latin America and East Asia, emerging regions under scrutiny.** Although some of Brazil's problems are idiosyncratic, the negative effect of the fall in the price of its commodities due to weak demand from other emerging countries (especially China) is shared by a large number of Latin America's countries. The relative exception is Mexico which is offsetting the fall in international oil prices through its close ties with the US, a country that is clearly on the path of expansion. Asia's prospects are also on a downward slide, albeit less intensively. In this region the exception is India with its growth remaining around 7%. Nonetheless even in this case the central bank has decided to take advantage of contained inflation and unexpectedly lower the official interest rate from 7.25% to 6.75%, in September.

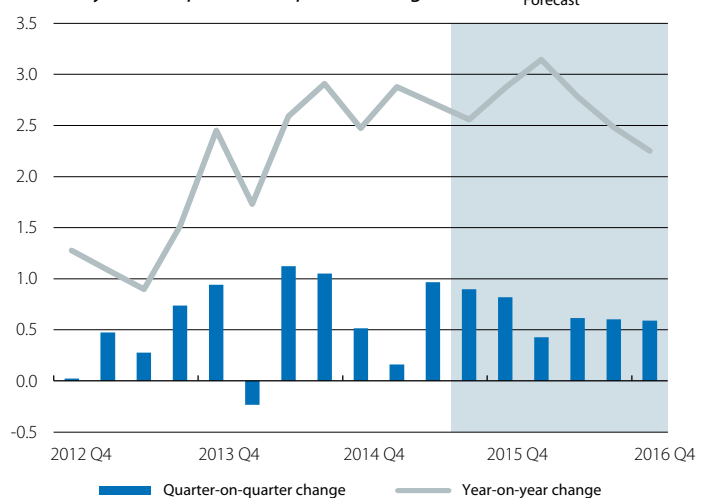
## UNITED STATES

**Strong growth is confirmed in the US in Q2.** According to the latest revised GDP figures produced by the Bureau of Economic Analysis, the US economy advanced by 1.0% quarter-on-quarter in Q2 (2.7% year-on-year), a notable acceleration compared to the rate in Q1 (0.2% quarter-on-quarter). Given that the year started abnormally weak due to temporary factors such as the bad weather and dock strike, beyond the «rebound effect» expected in Q2 we should also examine the underlying trends in the US economy. Taking the year-on-year growth figures, which are a better reflection of such trends, it can be seen that the key component in the recovery is private consumption with four consecutive quarters of growth in the order of 3.0%-3.3% year-on-year. In addition to this key element is the clear recovery in residential investment. On the other hand the underlying trend for non-residential investment is downward while the foreign sector has been deducting somewhat from growth in the last quarters.

**Consumption will continue to be the mainstay of the expansion.** Based on these trends, what can we expect over the next few quarters? Our main scenario has maintained dynamic consumption as its essential aspect given that the key factors behind household decisions to spend are well

### US: GDP

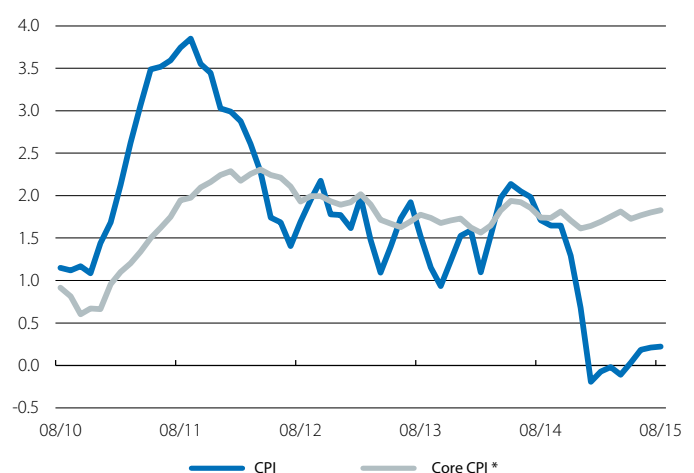
Year-on-year and quarter-on-quarter change (%)



Source: CaixaBank Research, based on data from the Bureau of Economic Analysis.

### US: CPI and Core CPI

Year-on-year change (%)

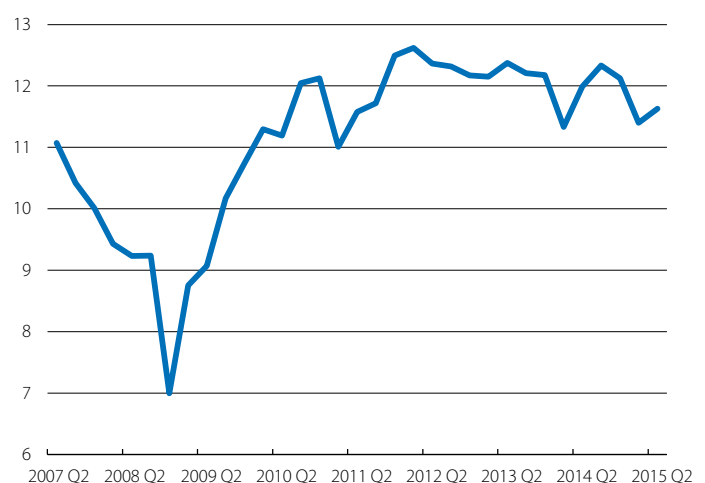


Note: \* Core: general index without energy or food.

Source: CaixaBank Research, based on data from the Bureau of Labor Statistics.

### US: corporate earnings

(% of GDP)



Source: CaixaBank Research, based on data from the Bureau of Economic Analysis.

aligned. In particular consumption is being supported by the three-way conjunction of a strong job creation rate (with the exception of August's slightly weaker figures, since January 212,000 jobs have been created on average every month), highly accommodative financial conditions and the absence of inflationary tensions (the CPI grew by a minimal 0.2% year-on-year in August). For the time being consumption indicators published for Q3 (in particular consumer confidence) suggest that consumption will continue to be strong.

**Investment is livening up.** The outlook for residential investment is clearly expansionary and we expect the route already taken by the recovery will have a clear path ahead, as suggested by some early indicators such as housing starts. Even non-residential investment is likely to improve in the coming quarters because the current weak trend is partly due to the high levels accumulated previously (and this factor will therefore diminish over time). Other underlying supportive factors will also continue to be favourable: high corporate earnings (although these will be partly affected by the impact of the dollar's appreciation), a good outlook for demand and favourable financial conditions. Precisely in this last area we should note that the Fed has decided to maintain the official interest rate but has suggested that the hike, the first since 2004, will take place before the end of the year (a schedule that coincides with our scenario, predicting an increase in December that comes into effect in January).

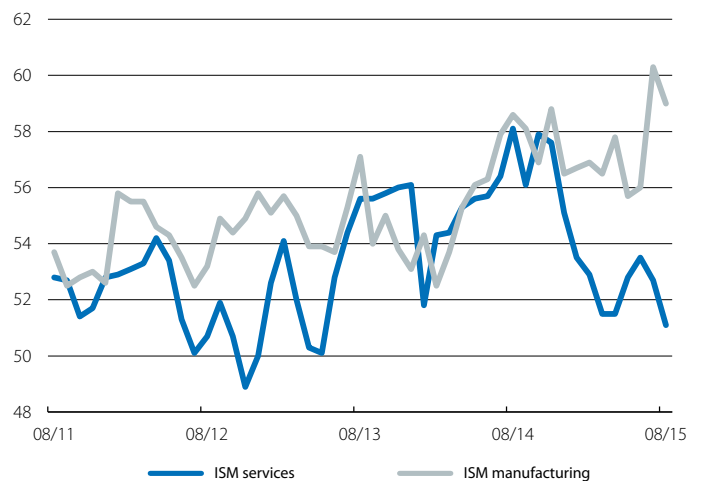
## JAPAN

**Japan will speed up over the coming months.** After the first six months were slightly worse than expected, the forecasts now being given point to a second half of the year with stronger growth. One key factor in this scenario is the expectation of slightly livelier private consumption, boosted by the greater purchasing power produced by falling inflation as a consequence of the trend in energy prices. In spite of the positive effect of contained inflation, it is important to remember that this complicates the economic policy target of accelerating nominal growth. Another risk that should be added to this scenario of recovery comes from the foreign sector as, in spite of the weak yen, exports to the US and especially China are falling (both countries account for 37.4% of all Japanese exports).

**The performance of large firms improves.** As shown by the Tankan business confidence indicator, large firms improved in Q2, ending with more than one year of stagnation. Although this kind of company is being helped by the weaker yen, it should be noted that a cheap yen is not equally favourable for the rest of the economy and could particularly jeopardise small and medium-sized firms that import intermediate goods and are therefore facing higher external prices.

## US: business sentiment indicators

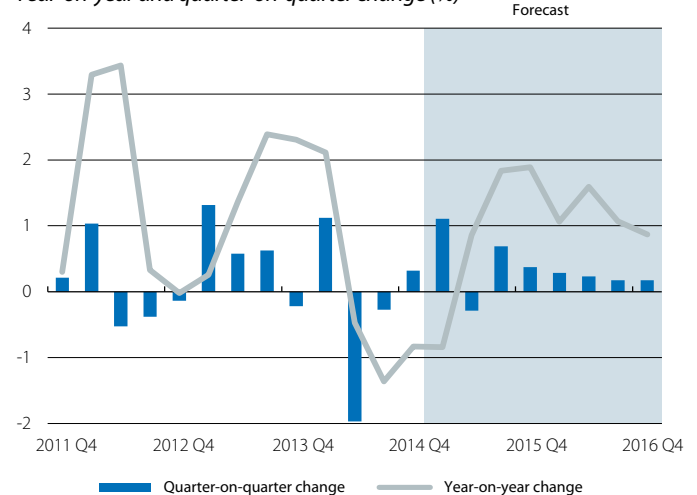
Year-on-year change (%)



Source: CaixaBank Research, based on ISM data.

## Japan: GDP

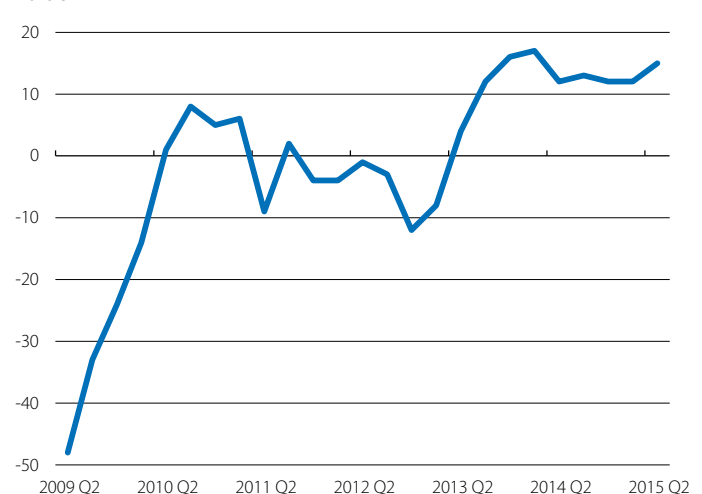
Year-on-year and quarter-on-quarter change (%)



Source: CaixaBank Research, based on data from the Ministry of the Interior and Communication.

## Japan: business sentiment index (Tankan)

Value



Source: CaixaBank Research, based on data from the Bank of Japan.

## FOCUS · China: the doubts return

Since mid-summer a flow of news has once again cast doubt on the capacity of the Chinese economy to engineer a soft landing. The Asian giant is immersed in a profound process of economic transformation, aiming to reduce the relative weight of investment and exports and increase that of consumption and the services sector. Although this difficult transition is expected to entail lower growth, macroeconomic imbalances have increased as the deceleration has intensified over the last few quarters.<sup>1</sup> Until the summer, the Chinese government's rapid and astute management of economic policy had managed to keep at bay fears of a possible hard landing for the economy. Now, however, a series of factors have once again fuelled debate.

The first doubt hovering over the solidity of China's economic growth comes from the latest activity data. Although some indicators have been positive, more attention has generally been paid to those suggesting a weaker trend in the economy (the PMI manufacturing index and the industrial production index), ignoring the fact that retail sales and GDP growth in Q2 were slightly higher than expected. The positive labour market trends have also been ignored: in the first half of the year 7.2 million jobs were created, in line with the 7.4 million generated during the same period of 2014.<sup>2</sup> It should be noted, however, that growth in electricity consumption has slowed down sharply in the last few months although these data are more erratic and short-term movements must therefore be interpreted with caution. In summary, an overall view softens the alarmist tone taken by many interpretations although the downside risks have undoubtedly increased.

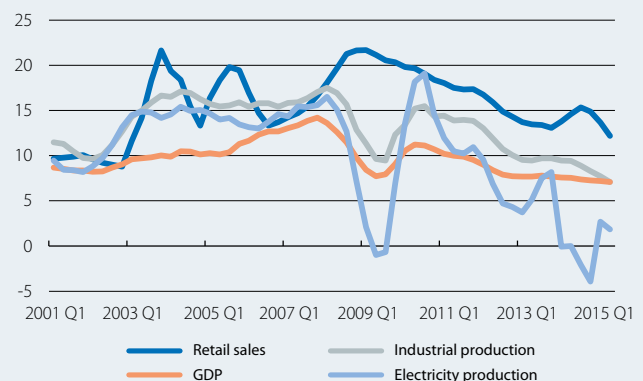
The second discordant element is related to events in the financial sphere, although clarifications are also important in this case. For example, the 40% fall in the stock market last summer occurred after a strong stock market rally (140% between August 2014 and June 2015). It is also necessary to take into account the fact that the importance of the stock is relatively inconsequential for the Chinese economy and its volatility is exacerbated by the high presence of minority investors (around 80%).

Lastly, the third of the factors causing some confusion over the last few months has been the economic policy decisions taken by the Chinese authorities. Specifically, the summer's episodes have highlighted the government's growing tension between favouring a more market-led

economy with clear long-term advantages and the habit of acting decisively whenever there is the risk of an economic slowdown. For example, in the monetary area, whereas the government announced that the renminbi's value would be backed by greater market influence in mid-August, which at that time resulted in the currency depreciating by 3% against the dollar, a few days later it acted categorically to stop the acceleration of capital outflows (limited, however, given that the financial account is not very open). Along the same lines, cuts in the interest rate and cash reserve ratio to support the slowdown are not helping to contain credit. And there is no less juggling on the fiscal front. The higher expenditure on infrastructures announced recently in the right direction to ensure a soft landing but it ignores the need to clean up public finances and abandon the investment model of the past. Consequently, and in spite of the success we still attribute to China in its desire to become a more modern economy, the risks of going off-track have increased.

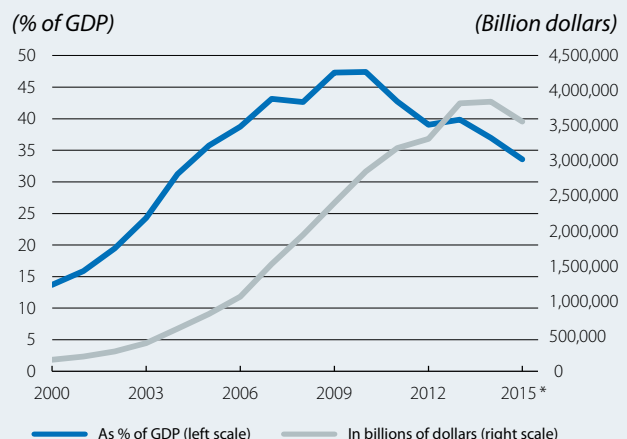
### China: GDP, industrial production and retail sales

Average of the four last quarters, year-on-year change (%)



Source: CaixaBank Research, based on data from Thomson Reuters Datastream.

### China: international reserves



Note: \* 2015: data up to August estimated.

Source: CaixaBank Research, based on data from Thomson Reuters Datastream.

1. See the Focus «Is Chinese public debt a source of risk?», published in MR06 2015.

2. See Lam, M.R.W., Liu, X. and Schipke, M.A. (2015), «China's Labor Market in the New Normal» (No. 15-151), International Monetary Fund, for an analysis of the robustness of the Chinese labour market.

## FOCUS · Iran and its potential new role in the oil map

The nuclear agreement signed on 14 July between Iran and the five members of the United Nations Security Council plus Germany stipulates that the country must reduce its stocks of enriched uranium by 98% within 15 years and its capacity to enrich uranium by two thirds within 10 years. In exchange, all the sanctions imposed as a result of its nuclear programme will be lifted, allowing it to export oil to hitherto restricted markets, such as the EU. In the first few weeks of September, the US President, Barack Obama, secured enough support in the Senate to get this agreement approved.

The possible repercussions of Iran's oil returning to western markets could be significant: Iran is the world's seventh largest producer with 3.4 million barrels per day (MBD) of crude oil, out of a global total of 93 MBD in 2014; it is fourth in terms of reserves, behind Venezuela, Saudi Arabia and Canada and is among the producers with the lowest costs.

Given this situation, and according to estimates by Iran's government, the lifting of sanctions could push up world production by 1.1 MBD in 2016. This increase would undoubtedly be boosted by the country's improved financial capacity, which will regain access to assets that had been blocked abroad, and also due to the expected increase in foreign investment. Numerous foreign oil producers have obviously shown great interest in the country. The government expects to achieve a total production of 5 MBD in the medium term, a figure that does not seem exaggerated if we consider that Iran was already producing 6 MBD in the 1970s. Regarding the impact that could result from increased Iranian production, we only need to observe that, since Saudi Arabia started its strategy of holding onto all its market share in 2014, the world supply of crude has risen by around 1.4 MBD. This manoeuvre's effect on the price of crude is widely known.<sup>1</sup>

Although the realisation of Iran's oil potential presents certain risks, they do seem manageable. From a macroeconomic perspective, tougher international sanctions in 2012 and the reform of energy and food subsidies that started at the end of 2010, increasing inflation to above 30%, have pushed the economy towards stagflation. The IMF estimates that the country will grow by a limited 0.6% in 2015 and prices by 16.5%. This deterioration in the growth rate has been reflected in both the fiscal balance, going from a surplus of almost 3% of GDP in 2010 to an estimated deficit of 2.4% in 2015, as well as in the current balance, falling by almost

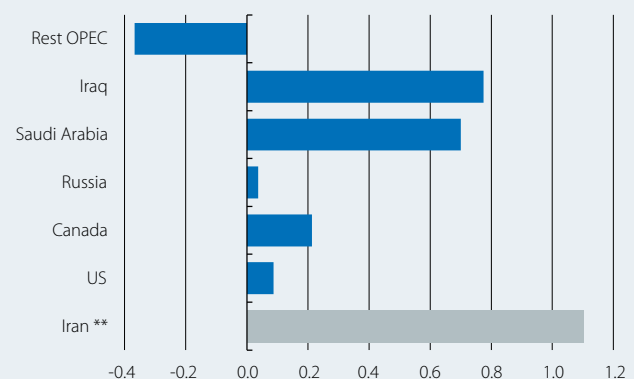
5 points of GDP to the +0.8% forecasted for 2015. The good news in this respect is that the implementation of the nuclear agreement would increase Iran's energy exports almost immediately, improving its macroeconomic situation relatively quickly.<sup>2</sup> Similarly, the worsening fiscal situation in the last few years does not represent any significant risk given that the country's public debt is at a contained 11.8% of GDP, in line with the economies of the Persian Gulf.

There are also certain challenges at an institutional level. The Ease of Doing Business index produced by the World Bank ranks Iran 130th out of a total of 189 countries, far, for example, from the 49th position occupied by Saudi Arabia. However, the establishment of a new contract to exploit energy resources, the Integrated Petroleum Contract, planned for the end of 2015, is an important step forward in improving conditions for foreign investors. Apart from lengthening the duration permitted for exploiting the resource, this contract also extends the phases for involvement by foreign investors, making investment more profitable and therefore more attractive.

Lastly, there is some nervousness in the external area given the opposition to the agreement shown by Israel and Saudi Arabia, two strategic allies of the US, and also by a few US politicians, including some presidential candidates for 2016. However, the advanced phase in which the agreement finds itself, and the strong commitment expressed by Obama himself to its success make this contract unlikely to fail.

### Increase in oil production \*

(Millions of barrels a day)



Notes: \* Increase between November 2014 (OPEC summit) and August 2015.

\*\* Iranian government forecast for 2016.

Source: CaixaBank Research, based on data from the Energy Information Administration.

1. The growth in supply has been a consequence of higher production in Saudi Arabia as well as in other countries, such as Iraq.

2. Iran's exports, around 70% of which are hydrocarbons and minerals, represent 34% of GDP. Tax revenue from the oil industry also accounted for 45% of the total in 2013.

## KEY INDICATORS

Year-on-year change (%), unless otherwise specified

## UNITED STATES

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	07/15	08/15	09/15
<b>Activity</b>									
Real GDP	1.5	2.4	2.9	2.5	2.9	2.7	–	...	–
Retail sales (excluding cars and petrol)	3.4	3.9	4.4	4.8	4.8	3.7	4.3	4.0	...
Consumer confidence (value)	73.2	86.9	90.9	92.7	101.3	96.2	91.0	101.3	103.0
Industrial production	1.9	3.7	4.2	4.5	3.5	1.4	1.3	0.9	...
Manufacturing activity index (ISM) (value)	53.8	55.7	56.9	56.9	52.6	52.6	52.7	51.1	...
Housing starts (thousands)	928	1,001	1,029	1,055	978	1,158	1,161	1,126	...
Case-Shiller home price index (value)	158	171	170	173	177	179	178.3	...	...
Unemployment rate (% lab. force)	7.4	6.2	6.1	5.7	5.6	5.4	5.3	5.1	...
Employment-population ratio (% pop. > 16 years)	58.6	59.0	59.0	59.2	59.3	59.3	59.3	59.4	...
Trade balance <sup>1</sup> (% GDP)	–2.9	–2.9	–2.9	–2.9	–3.0	–2.9	–3.9	...	...
<b>Prices</b>									
Consumer prices	1.5	1.6	1.8	1.2	–0.1	0.0	0.2	0.2	...
Core consumer prices	1.8	1.7	1.8	1.7	1.7	1.8	1.8	1.8	...

Note: 1. Cumulative figure over last 12 months.

Source: CaixaBank Research, based on data from the Department of Economic Analysis, Department of Labor, Federal Reserve, Standard &amp; Poor's, ISM and Thomson Reuters Datastream.

## JAPAN

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	07/15	08/15
<b>Activity</b>								
Real GDP	1.6	–0.1	–1.4	–0.8	–0.8	0.9	–	...
Consumer confidence (value)	43.6	39.3	40.5	38.9	40.7	41.5	40.3	41.7
Industrial production	–0.6	2.1	–0.3	–1.4	–2.2	–0.5	0.0	0.3
Business activity index (Tankan) (value)	6.0	13.5	13.0	12.0	12.0	15.0	–	...
Unemployment rate (% lab. force)	4.0	3.6	3.6	3.5	3.5	3.3	3.3	...
Trade balance <sup>1</sup> (% GDP)	–2.4	–2.6	–2.9	–2.6	–1.8	–1.4	–1.3	–1.1
<b>Prices</b>								
Consumer prices	0.4	2.7	3.4	2.5	2.3	0.5	0.3	0.2
Core consumer prices	–0.2	1.8	2.3	2.1	2.1	0.4	0.6	0.8

Note: 1. Cumulative figure over last 12 months.

Source: CaixaBank Research, based on data from the Communications Department, Bank of Japan and Thomson Reuters Datastream.

## CHINA

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	07/15	08/15
<b>Activity</b>								
Real GDP	7.7	7.3	7.2	7.2	7.0	7.0	–	...
Retail sales	13.1	10.3	16.3	11.7	10.5	10.2	10.5	10.8
Industrial production	9.7	8.3	8.0	7.6	6.4	6.3	6.0	6.1
PMI manufacturing (value)	50.8	50.7	51.3	50.4	49.9	50.2	50.0	49.7
<b>Foreign sector</b>								
Trade balance <sup>1</sup> (value)	258	382	322	382	488	541	537	547
Exports	7.8	6.0	13.0	8.6	4.6	–2.2	–8.3	–5.5
Imports	7.3	0.5	1.0	–1.7	–17.6	–13.5	–8.1	–13.8
<b>Prices</b>								
Consumer prices	2.6	2.0	2.0	1.5	1.2	1.4	1.6	2.0
Official interest rate <sup>2</sup> (value)	6.00	5.60	6.00	5.60	5.35	4.85	4.85	4.60
Renminbi per dollar (value)	6.1	6.2	6.2	6.1	6.2	6.2	6.2	6.3

Notes: 1. Cumulative figure over last 12 months. Billion dollars. 2. End of period.

Source: CaixaBank Research, based on data from the National Bureau of Statistics of China and Thomson Reuters Datastream.



## ECONOMIC OUTLOOK · Sustained but moderately paced growth

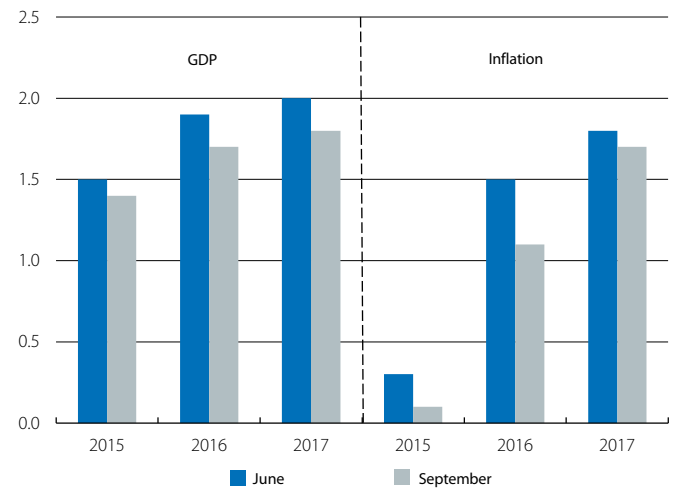
**The euro area continues to consolidate its recovery although growth is not speeding up.** The second revision for GDP growth increased the figure by 0.1 pps in the first two quarters of the year to 0.4% growth quarter-on-quarter in Q2 (0.5% in Q1). Over the coming months we expect the recovery to continue at a similar rate to Q2, placing GDP growth at 1.5% and 1.8% annually for 2015 and 2016 respectively. Our current growth scenario for the euro area is very similar to the one used by the ECB which, in September, revised downwards its outlook for growth compared with the figures announced three months ago, to 1.4% in 2015 and 1.7% in 2016. Both our forecast and the ECB's suggest that the recovery will continue on track in spite of the slowdown in the emerging economies. The institution also predicts that the gradual rise in inflation will ease off slightly due to the drop in oil prices. Regarding the uncertainty generated in the last few months due to the situation in Greece, the outcome of the recent parliamentary elections is cause for some optimism. Syriza's ample victory, with a mandate to implement the third financial assistance programme, should help it to succeed and reduce this source of instability.

**The breakdown of GDP for Q2 shows almost zero contribution from domestic demand to growth.** Specifically, its contribution was 0.03 pps as a consequence of the drop in investment and stocks since household private consumption remained quite strong. In Q2 foreign demand was therefore the largest contributor (with 0.3 pps), supported by the good performance of exports although leading indicators for consumption and investment suggest that domestic demand will pick up again over the coming months.

**Slight improvement in economic activity in Q3.** The good performance by the euro area's economy can be seen in the composite PMI activity index which has remained in the expansionary zone in spite of September's slowdown (by 0.4 percentage points to 53.9 points). For Q3 as a whole, the index accelerated its rate of expansion slightly up to 54.0 points compared with the 53.9 in Q2. The picture differs slightly from country to country. On the one hand the German index posted some improvement in Q3 compared with the previous quarter and the German IFO (business climate index) provides the same picture, whose average from July to September (108.3 points) was 0.1 pps higher than from April to June. On the other hand the slowdown in the French PMI in Q3 is cause for concern as the country was already at a rather contained level. Other activity indicators also suggest that the euro area's recovery is likely to continue at a similar rate to that seen in Q2 and industrial production continued its upward trend, rising by 1.2% year-on-year in July (seasonally adjusted). Of note is the strong growth recorded in Spain, Italy

### Euro area: ECB's forecasts for GDP and inflation

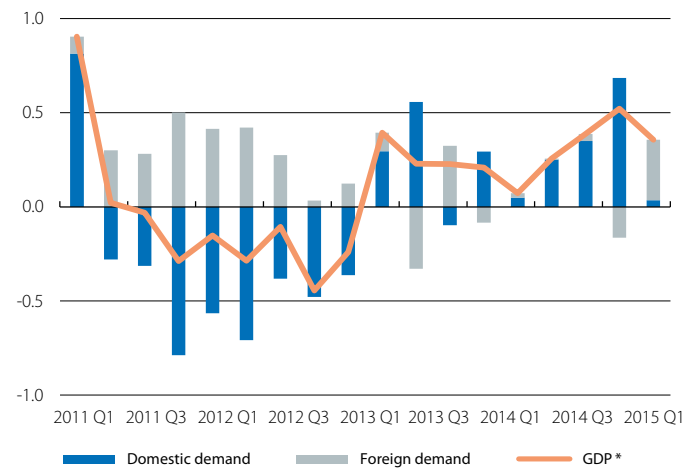
Annual change (%)



Source: CaixaBank Research, based on data from the ECB.

### Euro area: GDP

Contribution to quarter-on-quarter growth in GDP (pps)

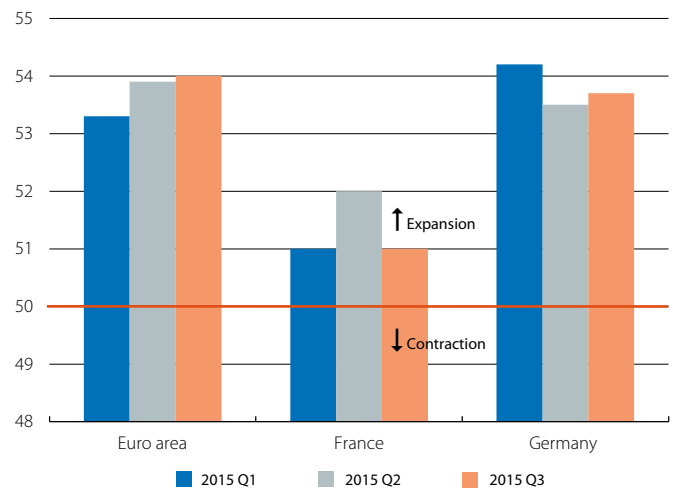


Note: \* Quarter-on-quarter change (%).

Source: CaixaBank Research, based on Eurostat data.

### Euro area: Composite PMI activity indicator

Level



Source: CaixaBank Research, based on data from Markit.



and Portugal, of 5.0%, 2.4% and 1.3%, respectively, reaffirming that activity in the periphery, with the exception of Greece, continues to look healthy. , France's figure was negative, however, falling by 1.1% year-on-year in July, a trend which, if it continues, points to French investment performing badly in Q3.

**The French government presents the 2016 Budget.** The expected reduction in the deficit, from 3.8% this year to 3.3% next year, is supported by a feasible macroeconomic situation with moderate growth in GDP (1.0% in 2015 and 1.5% in 2016) and also inflation, (0.1% and 1.0%, respectively), in line with our forecasts. The cuts in fiscal expenditure totalling 16 billion euros seem ambitious at first, especially after the measures announced which contain aid for the agricultural sector and an increase the number of civil servants (in particular in defence). According to the French government's scenario, debt will increase to 96.5% in 2016, 0.2 pps more than in 2015. The public accounts, however, will not improve without greater economic consolidation and a bigger recovery of the competitiveness lost by the French economy. The government seems to be aware of this, announcing reforms for the coming year in key areas such as the labour market, although their extent has yet to be specified.

**Consumption was still strong in Q3 in the euro area as a whole, supported by the gradual recovery in the labour market.** Retail sales posted a notable rate of growth in July of 2.7% year-on-year (2.2% in Q2). The euro area's consumer confidence index has also remained at a considerable level, in spite of falling slightly in Q3 and the improved performance by employment is helping the recovery in consumption. In fact, the figures show a slight acceleration in employment's growth rate in the euro area, up by 0.3% quarter-on-quarter in 2015 Q2 (0.2% in Q1). Moreover the euro area's unemployment rate stood at 11.0% in August, 0.5 pps below the figure for the same month one year ago. Looking at the second half of the year, the employment expectations surveyed by the European Commission point to the labour market continuing its good performance, especially in the services sector. If this comes about, these improved employment expectations will help to boost household consumption.

**The periphery is recovering part of the competitiveness it lost, through wages.** The increase in wage costs in the euro area, namely 1.9% year-on-year in Q2, speeded up slightly compared with the same quarter one year ago (1.5%). This figure hides a highly disparate trend between countries, however. Significant wage rises can be seen in Germany, where unemployment is rock bottom (3.3% year-on-year in Q2) while increases are much more subdued in Italy and Spain, namely 0.0% and 0.7% respectively. Moreover, the wage rises recorded over the last few months, especially in Germany, have been higher than the increase in prices, allowing workers to gain purchasing power and increase their consumption capacity.

### France: activity indicators

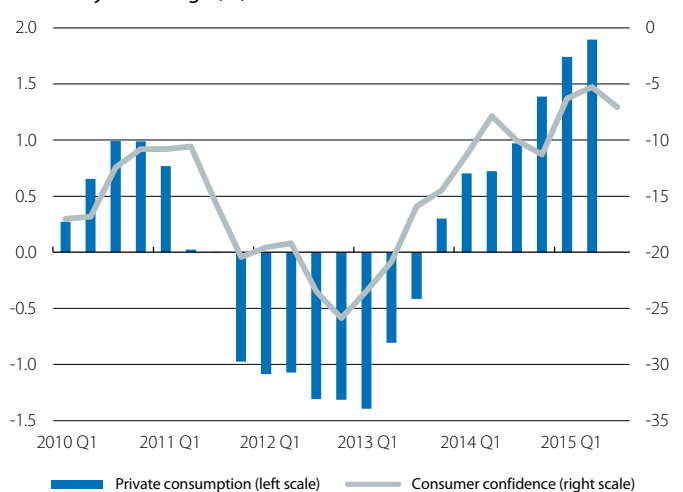
Year-on-year change (%)

	Latest figure
GDP	1.1
Industrial production	-0.8
Retail sales	4.0
Composite PMI (points)	51.4
Exports	8.0
Imports	1.5
Unemployment rate	10.8
Consumer prices	0.1

Source: CaixaBank Research, based on data from Insee and Thomson Reuters Datastream.

### Euro area: consumption indicators

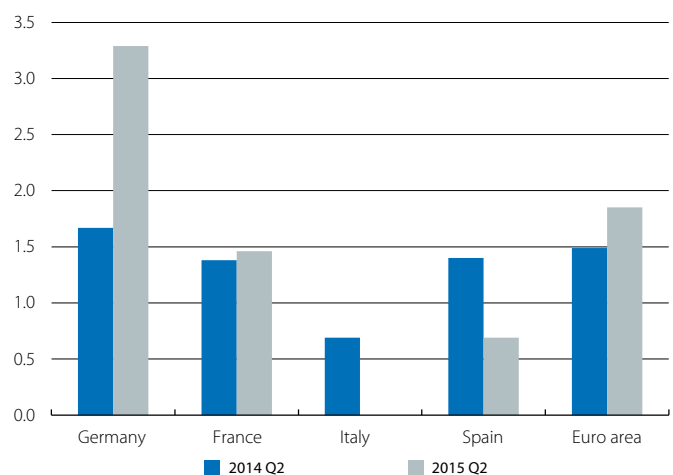
Year-on-year change (%)



Source: CaixaBank Research, based on data from Eurostat and the European Commission.

### Euro area: hourly wage costs \*

Year-on-year change (%)



Note: \* Data seasonally adjusted.

Source: CaixaBank Research, based on Eurostat data.

### Inflation takes a surprising dip and returns to negative figures

In September the year-on-year change in the harmonised index of consumer prices (HICP) for the euro area fell by 0.2 pps, reaching -0.1% after five consecutive months in positive figures. This drop is due to the considerable reduction in the energy component (of 8.9%), somewhat larger than expected, although core inflation remained at a moderate level (0.9%). The breakdown of HICP for goods by level of inflation helps to determine whether this low inflation is widespread or due mainly to a drop in price of a specific component such as energy. The breakdown shows that the proportion of goods with negative inflation has fallen in the last few months, indicating there are fewer goods in this situation and that oil is therefore the main reason for low inflation. With a view to the end of the year, however, inflation should recover as the base effect disappears of the downward slide in oil prices, which started at the end of 2014. Core inflation should also continue to rise given the greater push by domestic demand and more expensive imports because of the euro's depreciation.

### The foreign sector is still an important support for economic growth

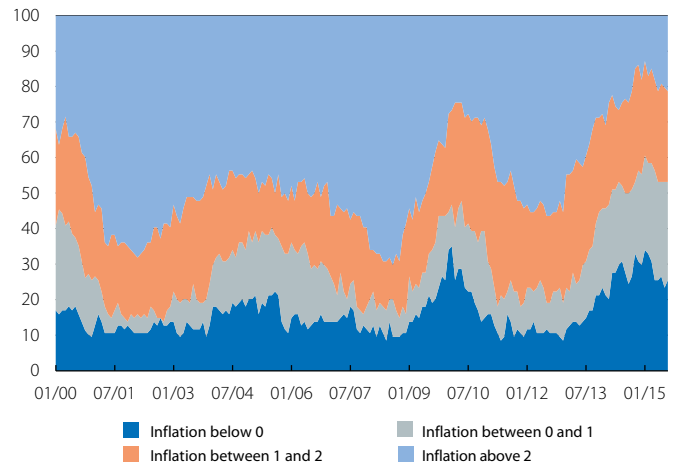
The euro's depreciation in the last few quarters has been helping to improve the price competitiveness of the euro area's products, boosting sales abroad. In fact, exports of goods from the euro area to the rest of the world rose at a good rate and reached 6.8% year-on-year in July (7.7% in Q2) while imports grew by a much lower rate (1.3%). This brought the trade balance to 31.4 billion euros in July, a significant advance compared with the same period last year (21.2 billion). This surplus in the goods account is helping the euro area's current account to maintain a good balance and we expect the foreign sector's contribution to GDP growth to remain positive in the future. However, it is vital for the impact caused by the slowdown in the main emerging economies to be moderate in scope and temporary, as expected.

### The spread between different countries' financing costs for firms continues to shrink

The monetary policy measures implemented by the ECB have helped to improve confidence in a generalised recovery of the euro area, narrowing the spreads between countries in interest rates applied to bank loans for non-financial firms. In Spain and Italy these costs were 3.3% and 2.9% respectively in July compared with 4.6% and 4.0% the same month one year ago. The reduction in Germany was smaller, however, standing at 2.6%. These low financing costs are supporting a gradual increase in credit in the euro area. Specifically, according to data from the ECB, the year-on-year growth in loans to the private sector speeded up to 1.4% in July (compared with 0.9% in Q2). In spite of this improvement, the volume of credit is still historically low but should gradually rise as the economy recovers and financing conditions improve.

### Euro area: breakdown of HICP for goods by level of inflation

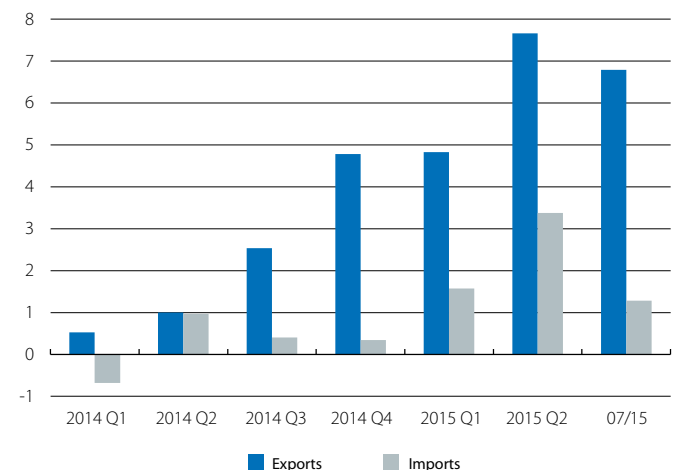
Weight of each group (% total)



Source: CaixaBank Research, based on Eurostat data.

### Euro area: balance of goods \*

Year-on-year change (%)

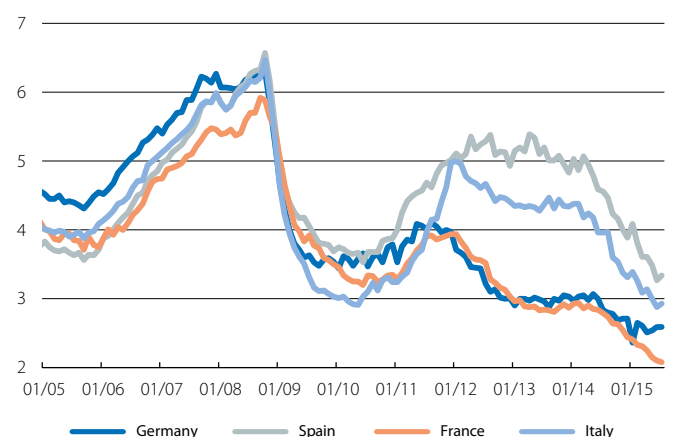


Note: \* Nominal data, seasonally adjusted.

Source: CaixaBank Research, based on data from the Bureau of Economic Analysis.

### Financing costs for non-financial firms \*

(%)



Note: \* Interest rate on loans up to 1 million euros.

Source: CaixaBank Research, based on data from the ECB.

## FOCUS · Greece: third time lucky?

After several months of tough negotiations between the Greek government and its international creditors, at last an agreement has been reached to start a new bail-out programme, the third in five years. This is therefore a good time to look back, examine the errors of previous programmes and assess whether they might be avoided this time.

Before starting to analyse the first two bail-outs, we need to look at the general conditions of the latest programme. Lasting three years, it will inject 86 billion euros<sup>1</sup> into Greece's public funds. In exchange, the government has to implement a series of reforms to clean up its public accounts, change the country's model of growth and restore investor confidence. These reforms are based on four key areas. Firstly, to achieve a sustainable public debt. Although the deficit targets have been relaxed to make them more realistic, additional measures must be implemented to reinforce the mechanisms used to control, plan and spend the budget. The second area involves safeguarding financial stability via a plan to recapitalise banks and resolve the high NPL rate. The third focuses on the structural reforms required to revive growth and competitiveness. To achieve this, the programme not only emphasises the need to optimise the use of the funds provided by the European Investment Bank<sup>2</sup> but also proposes programmes to improve vocational training, implement the OECD's recommendations that are still pending regarding competition, eliminate restrictions in officially regulated professions, set up initiatives to boost exports and develop a comprehensive privatisation plan controlled by an independent fund, among many other measures. The last key area concerns the modernisation of the state and public administrations, improving their efficiency and combating corruption.

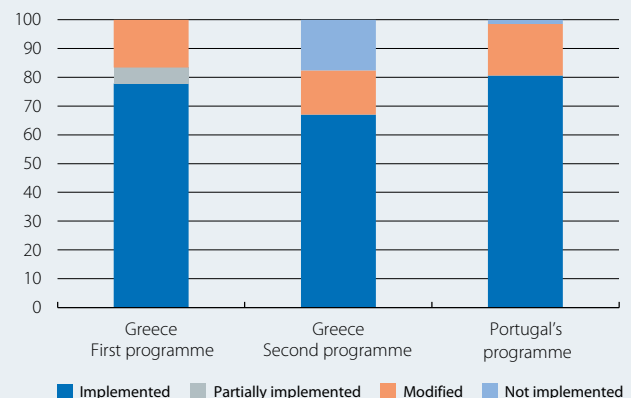
Thanks to the IMF's monitoring of the programmes it is involved in financially, we can examine some of the particular features of the first two bail-outs. Specifically, and as can be seen in the first graph, most of the reforms contained in the 2010 programme were aimed at cleaning up the public accounts via fiscal adjustment and reforms of public administrations. Although this makes sense given that it was precisely the high level of public debt that had led to the Greek crisis, reforms to boost growth in the short-term were of secondary importance (classified as «Other structural measures» in the second graph). However, this composition changed in the second bail-out, striking a balance between the need for fiscal

consolidation and the need to improve the country's model of growth via further reforms in the product market and competitiveness. However, the second bail-out was only moderately successful due to the government's lack of commitment to implementing the programme, leading to delays and nearly 20% of the reforms never being carried out. This is illustrated even more clearly when the country is compared with Portugal.

Greece's latest bail-out programme is similar to the second one insofar as structural reforms have become more important but without forgetting the need for fiscal consolidation. Given this situation, what might make a difference and lead to its success is its degree of implementation. For the time being there are clear indications that the government is firmly committed to this new programme. The re-election of Syriza in the latest elections has given it a stronger mandate to implement the programme although close monitoring on the ground by the European authorities will be crucial.

### Breakdown of the reforms according to their degree of implementation

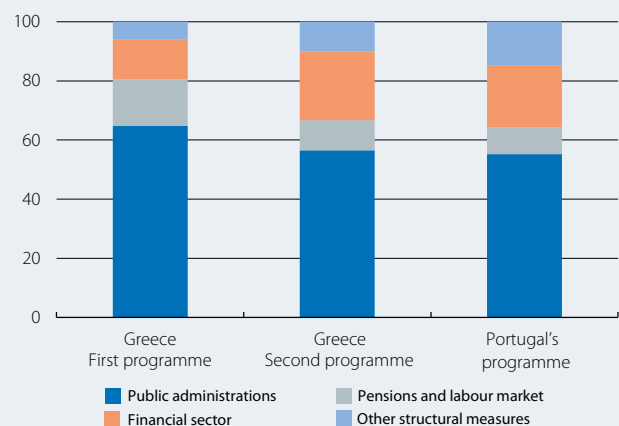
(% total reforms)



Source: CaixaBank Research, based on IMF data (MONA).

### Breakdown of the reforms according to the target

(% total reforms)



Source: CaixaBank Research, based on IMF data (MONA).

1. 25 billion euros have been included to recapitalise banks.

2. Greece was allocated 35 billion euros between 2014 and 2020.

## FOCUS · The challenges still facing Italy's banking system

The assessment of European banks carried out by the ECB last year highlighted the Italian banking system as one of the weakest: 8 of the 15 banks examined failed their asset quality review and displayed capital shortfalls in the stress test's baseline scenario. Although many have now increased their capital buffers to reverse these shortcomings, Italy's banking industry is still under great pressure as the quality of its assets is continuing to deteriorate. Since the start of the crisis, the NPL ratio has tripled, reaching 17.7% of all loans in 2014, and problematic assets account for 22% of GDP. Given this situation, the IMF has published a series of recommendations to urge the authority to take action in this area. In response, Matteo Renzi's government has already started to implement some measures that should help to speed up improvements in banks' balance sheets.

Traditionally the Italian banking business has been closely linked to the granting of credit to the business sector, mostly made up of SMEs. This business model explains why banking was hit so hard when there was a shock to the real economy. Unlike countries such as Spain or Ireland, Italy did not suffer a real estate boom so that banks started the crisis with healthy balance sheets. But as business activity worsened, bad debt rocketed, reducing the profitability and solvency of banks and limiting their capacity to take on more credit risk. In turn, this lower credit capacity among banks limited investment and slowed up the country's economic recovery.

The IMF estimates<sup>1</sup> that improving banks' balance sheets in Italy would substantially improve their credit capacity. However, several factors have slowed up the progress made in this area. Particularly economic factors such as a heterogeneous portfolio of bad debt that makes it difficult to value and a taxation system that discourages loan-loss provisions due to limitations on tax deductions. Notable legal factors are the slow judicial system which prolongs the time taken to resolve such cases.

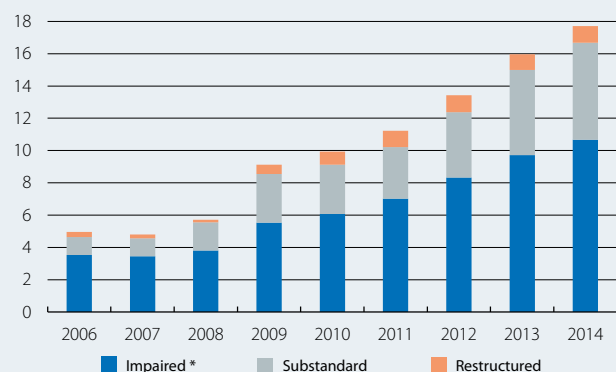
In order to get credit flowing again, and as soon as possible, the government has started to work on a package of measures. For example, it approved a Royal Decree to facilitate and speed up procedures for loans when they have been declared impaired and amended tax laws to allow provisions to be tax deductible in the year in which they occur and not over five years as was the case previously. The government is also negotiating with the European Commission to create a «bad bank» with state participation that would acquire doubtful loans granted to companies, which would clarify the solvency of banks and improve their credit capacity. But there are still questions

of a technical nature to resolve, such as how assets acquired by the institution can be valued and how this body can be financed without harming public accounts to any great extent. Although this series of measures is in the right direction, it should be accompanied by improvements in corporate governance to improve mechanisms to manage risk and thereby prevent the situation from being repeated. Along these lines, the government approved a Decree-Law that requires cooperative banks with more than 8 billion euros in assets to become listed banks, which could help to consolidate the banking system and modernise governance.

In short, the Italian government's action plan would help to reduce the high levels of non-performing loans, which would improve the solvency of banking institutions. Moreover, the start-up of Europe's banking union and the ECB taking on the role of bank supervisor will help to make the Italian banking system more transparent and credible, improving its position to support the country's economic recovery.

### Italian banks: Non-performing loans

(% total credit)

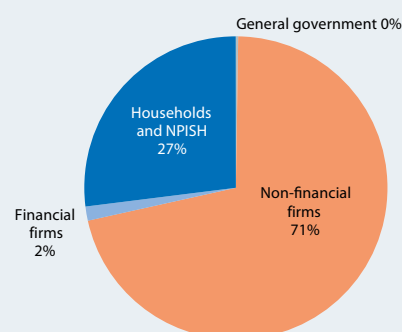


**Note:** \* Includes exposure to any borrower in a situation of insolvency and to any borrower whose loans are not included in another category and with an overdraft of more than 90 days.

**Source:** CaixaBank Research, based on data from the Bank of Italy.

### Non-performing loans by sector

(% of total NPLs)



**Note:** NPISH are non-profit institutions serving households. Data from July 2015.

**Source:** CaixaBank Research, based on data from the Bank of Italy.

1. Resolving nonperforming loans in Italy: a comprehensive approach, Italy: Selected Issues 2015, Country Report No. 15/167.

## KEY INDICATORS

### Activity and employment indicators

Values, unless otherwise specified

	2013	2014	2014 Q4	2015 Q1	2015 Q2	07/15	08/15	09/15
Retail sales (year-on-year change)	-0.8	1.3	1.9	2.1	2.2	2.7	...	...
Industrial production (year-on-year change)	-0.7	0.8	0.3	1.6	1.3	1.9	...	...
Consumer confidence	-18.7	-10.1	-11.3	-6.3	-5.3	-7.2	-6.9	-7.1
Economic sentiment	93.8	101.6	100.8	102.6	103.7	104.0	104.1	105.6
Manufacturing PMI	49.6	51.8	50.5	51.4	52.2	52.4	52.3	52.0
Services PMI	49.3	52.5	51.7	53.5	54.1	54.0	54.4	54.0
<b>Labour market</b>								
Employment (people) (year-on-year change)	-0.7	0.6	0.8	0.8	0.9	-	...	-
<b>Unemployment rate: euro area</b> (% labour force)	12.0	11.6	11.5	11.2	11.1	11.0	11.0	...
Germany (% labour force)	5.2	5.0	4.9	4.8	4.7	4.6	4.5	...
France (% labour force)	10.3	10.3	10.5	10.4	10.4	10.7	10.8	...
Italy (% labour force)	12.2	12.7	12.8	12.4	12.4	12.0	11.9	...
Spain (% labour force)	26.1	24.5	23.7	23.1	22.6	22.3	22.2	...

Source: CaixaBank Research, based on data from the Eurostat, European Central Bank, European Commission and Markit.

### Foreign sector

Cumulative balance over the last 12 months as % of GDP of the last 4 quarters, unless otherwise specified

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	07/15	08/15
<b>Current balance: euro area</b>	1.9	2.1	2.1	2.1	2.5	2.7	2.8	...
Germany	6.4	7.4	7.2	7.4	7.6	7.9	8.0	...
France <sup>1</sup>	-0.8	-0.9	-1.1	-0.9	-0.6	-0.2	-0.2	...
Italy	0.9	1.9	1.6	1.9	2.0	2.3	2.2	...
Spain	1.5	1.0	0.7	1.0	1.1	1.4	1.5	...
<b>Nominal effective exchange rate<sup>1</sup> (value)</b>	101.2	101.8	101.2	99.0	93.0	91.1	91.3	93.0

Note: 1. Weighted by flow of foreign trade. Higher figures indicate the currency has appreciated.

Source: CaixaBank Research, based on data from the Eurostat, European Commission and national statistics institutes.

### Financing and deposits of non-financial sectors

Year-on-year change (%), unless otherwise specified

	2013	2014	2014 Q4	2015 Q1	2015 Q2	06/15	07/15	08/15
<b>Private sector financing</b>								
Credit to non-financial firms <sup>1</sup>	-2.6	-2.6	-1.7	-0.8	-0.4	-0.3	0.3	0.4
Credit to households <sup>1,2</sup>	-0.2	-0.1	0.1	0.2	0.5	0.7	0.9	1.0
Interest rate on loans to non-financial firms <sup>3</sup> (%)	2.2	2.0	1.8	1.7	1.6	1.7	1.6	...
Interest rate on loans to households for house purchases <sup>4</sup> (%)	2.8	2.6	2.4	2.2	2.0	2.0	2.0	...
<b>Deposits</b>								
On demand deposits	7.9	6.0	7.2	9.7	11.7	12.3	12.8	11.9
Other short-term deposits	0.0	-2.1	-2.1	-3.1	-3.9	-4.3	-4.6	-4.5
Marketable instruments	-14.8	-7.2	1.3	3.8	5.6	0.5	2.7	1.1
Interest rate on deposits up to 1 year from households (%)	2.0	1.3	1.0	1.0	0.9	0.8	0.7	...

Notes: 1. Data adjusted for sales and securitization. 2. Including NPISH. 3. Loans of more than one million euros with a floating rate and an initial rate fixation period of up to one year. 4. Loans with a floating rate and an initial rate fixation period of up to one year.

Source: CaixaBank Research, based on data from the European Central Bank.



## ECONOMIC OUTLOOK · The recovery continues although the rate of growth is falling

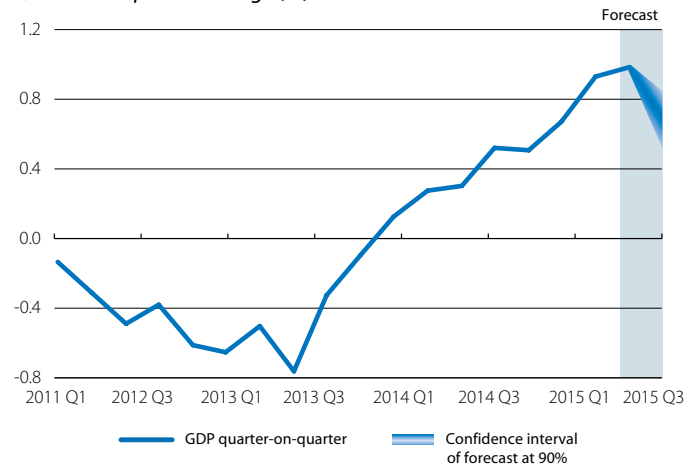
The CaixaBank Research activity indicator estimates that the rate of growth slowed down slightly in Q3. GDP growth was particularly strong in the first two quarters of the year thanks to temporary support factors such as the euro's depreciation, the relaxation of fiscal policy and especially cheaper oil, which have notably benefitted the Spanish economy. It was to be expected that, as the impact of these supports has gradually diminished, the rate of growth would be slightly slower. This is reflected in the CaixaBank Research activity indicator which places GDP growth in Q3 in line with the Bank of Spain forecast (0.8% quarter-on-quarter), a slightly lower figure than in Q2 (1.0% quarter-on-quarter). In any case the recovery in fundamental factors such as the revival in credit and in the real estate sector suggests that growth will remain above 2% in the medium term. We also expect the slowdown to be more moderate than forecasted before the summer thanks to the positive effect of a further drop in oil prices. We have revised upwards our growth forecast for 2016, from 2.6% to 2.7% (and have kept our forecast for 2015 unchanged at 3.1%). Nonetheless, given recent events the risks surrounding these projections are slightly downward. On the domestic front Spain's risk premium has risen since mid-July and is now higher than Italy's. Given the absence of any other fundamental economic factors, this increase can be attributed to the uncertainty caused by the country's elections at the end of 2015. The external environment might also be somewhat less favourable due to a sharper slowdown in the emerging economies than initially expected and the impact this might have on the euro area's recovery.

**The labour market continues to recover but is losing some of its steam.** In line with the gentle slowdown in activity, the number of registered workers affiliated to Social Security, seasonally adjusted, fell slightly in August (-13,980) after a July that posted slightly weaker data (10,500) compared to the average recorded between January and June (57,311). A large part of the drop in summer months can be explained by the smaller contribution from public administration after the sharp increases seen in the first half of the year. Consequently the year-on-year rate of change slowed down to 3.2% in August, albeit still a high figure. Moreover the dynamism shown by branches of activity related to the market economy, together with the significant improvement in expectations for job creation in September, both in services and industry, point to the labour market continuing to recover satisfactorily in the last part of the year.

**The savings capacity of households is gradually recovering.** The strong growth in private consumption in Q2 (3.5% year-on-year) was compatible with an increase in gross household

### CaixaBank Research leading GDP indicator

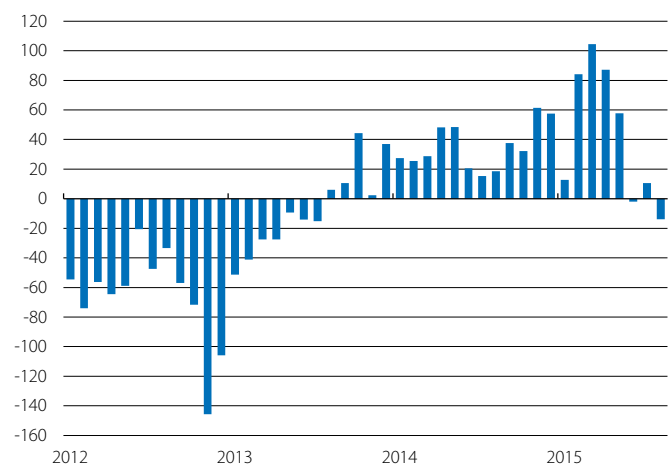
Quarter-on-quarter change (%)



Source: CaixaBank Research.

### Registered workers affiliated to Social Security

Month-on-month change (thousand people)



Note: Series seasonally adjusted.

Source: CaixaBank Research, based on data from the Ministry of Employment and Social Security.

### Household savings rate

(% of gross disposable income)



Source: CaixaBank Research, based on INE data.



savings (3.2% year-on-year), with the result that the savings rate remained almost stable at 9.3% of gross disposable income. This situation, which allows households to increase their consumption without reducing their savings capacity, is the result of higher wage income (2.9% year-on-year), in turn supported by the recovery in the labour market. The drop in oil prices is also helping households to maintain their purchasing power within an environment of wage containment, as the energy bill has fallen substantially and inflation is at a very low level.

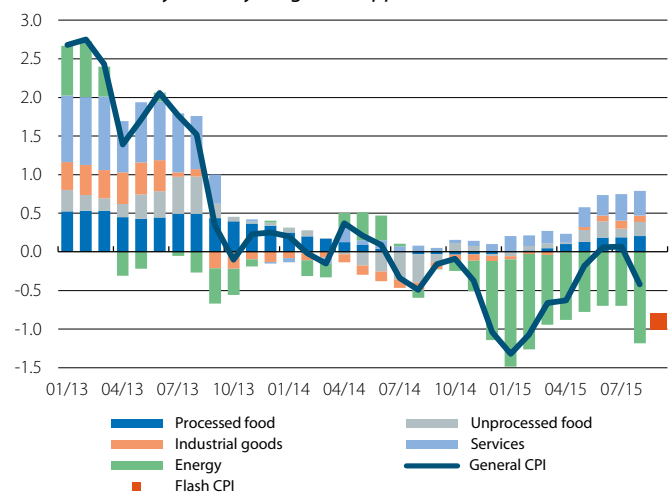
**This scenario of a slump in oil prices is leading to a significant downward revision for inflation.** In September inflation plummeted to -0.9%, a drop of 0.5 pps compared with the previous month's figure and essentially due to the decline in the price of fuels and electricity. For its part core inflation fell by 0.1 pps in August (from 0.8% to 0.7%), due particularly to the reduction in transport prices, closely linked to the trend in oil prices. This new scenario for the price of crude has forced us to substantially revise downwards our inflation forecasts, both for this year and the next.

**The external balance is benefitting from lower crude prices.** Goods exports accumulated 5.5% growth from January to July compared with the same period in 2014, boosted by the automobile industry. The tourism sector is also continuing to provide good news: for the year to date, 47.2 million international tourists have come to Spain, 1.8 million more than in 2014. The sharp drop in tourists from Russia has been more than offset by the significant increase in the number of tourists from France, the US, and Asia. The growth in goods imports remained subdued (4.5% cumulative from January to July) largely thanks to the fall in energy imports (-28.4% cumulative from January to July). For the third year running the drop in oil prices will help Spain to end the year with a current account surplus, which we expect to be around 1.7% of GDP. This is vitally important in order to reduce the economy's high level of external debt. The most recent figures, corresponding to Q2, show that the net international investment position stood at 91.1% of GDP, 4.9 pps less than in 2014 Q2 but still far above the 35% threshold set by the European Commission as a sustainable level.

**The public accounts are improving thanks to higher tax revenue in a favourable economic environment.** The deficit accumulated by public administrations (excluding local government corporations) up to July was 3.3% of GDP, 0.5 pps below the figure posted in 2014 although the adjustment that is being carried out will surely not be enough to achieve the target by the end of the year. This improvement is supported by the notable increase in tax revenue (+4.2% between January and July) and less so by the reduction in the total spending, which is rather moderate as the drop in spending on interest (-1.1%) and unemployment benefit (-17.6%) has been almost totally made up by the increase in other items such as employees' wages (+2.0%) and pension expenditure (+3.8%). It therefore seems that the margin provided by the

## CPI

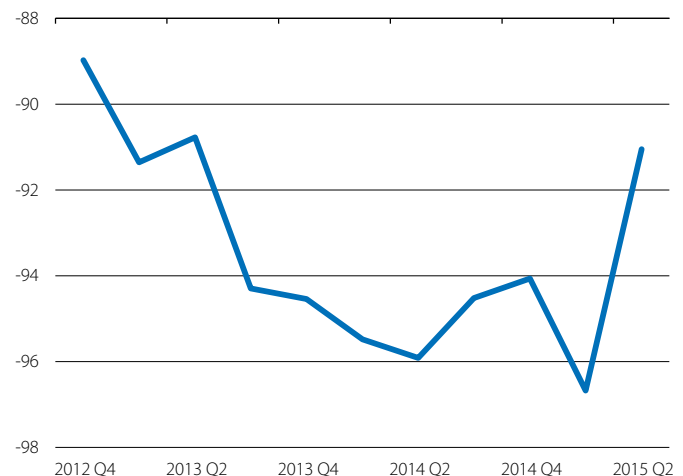
Contribution to year-on-year growth (pps)



Source: CaixaBank Research, based on INE data.

## Net international investment position

(% of GDP)



Source: CaixaBank Research, based on data from the Bank of Spain.

## State budget execution

(% of GDP)



Source: CaixaBank Research, based on data from the State Public Accounts.

improvement in economic activity is being used to increase discretionary expenditure (see the Focus «Spain's 2016 Budget: from structural to cyclical adjustment» in this Monthly Report). By administration, both the central government and the Autonomous Communities have improved on their figures from last year while the Social Security deficit has deteriorated again. Regarding this last aspect, the government has proposed that some pensions (such as those for widows and orphans) that are currently financed as contributory pensions should become non-contributory and financed via the Government budget.

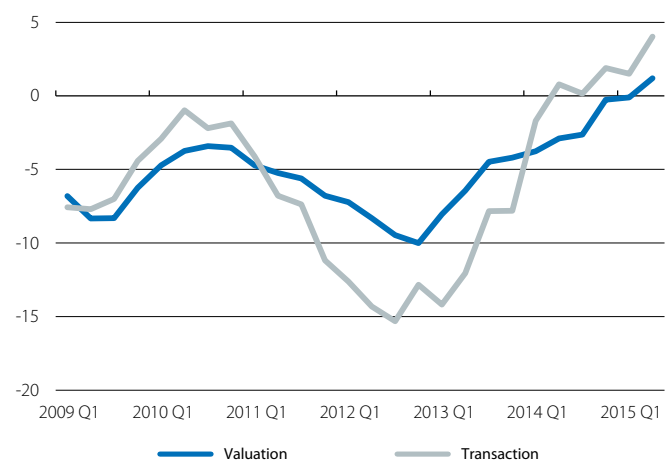
**The recovery in the real estate market steps up.** After eight years of contraction, house prices (appraisal values) grew again in Q2 (1.2% year-on-year). The house price index produced by the INE, based on transaction figures, also posted considerable growth in Q2 (4.0% year-on-year). These figures were higher than expected and denote that, after years with a very low level of activity in construction, the availability of housing for sale in some zones might become limited although, on the whole, the stock of empty residential properties is still very high. The relaxation of financial conditions is also playing an important role in the sector's recovery. In July, the mortgages granted to buy residential properties rose by 22.7% year-on-year, providing a key support for demand (house sales grew by 10.9% year-on-year in the same month, cumulative over 12 months).

**Credit is adding to the recovery.** In July the rate of reduction in total credit fell to -5.4% year-on-year, suggesting the adjustment in the outstanding credit balance is coming close to completion. Some segments already posted positive year-on-year growth figures in Q2 such as loans to the services sector and agriculture. However, the outstanding balance of credit to developers and construction, precisely those segments where most doubtful assets are concentrated, is still contracting by double digit figures. With regard to deposits, July maintained the trend seen in previous months with a strong shift from term to sight and a slight reduction in the total balance due to the increase in fund subscriptions, which is expected to ease due to increasing volatility in financial markets over the last few weeks.

**The revision of the accounting series for GDP reveals the recession was deeper than previously thought.** According to the latest data published by the INE, GDP fell by 3.9% cumulative between 2011 and 2014 and not by 2.5% as had been estimated previously. The growth figure for 2014 was not altered and is still 1.4% but its breakdown is very different: a lower contribution by domestic demand (1.6 pps compared with 2.2 pps previously) was offset by a smaller negative contribution by foreign demand (-0.2 pps compared with -0.8 pps previously). However, GDP was revised substantially downwards in 2011, 2012 and 2013, fundamentally as a consequence of a larger fall in private consumption. If we compare the 2014 level with the peak reached before the crisis in 2008, GDP is 7.3% lower (instead of the 6% estimated previously) and private consumption, 11.0% (instead of 8.2%).

## House prices

Year-on-year change (%)



Source: CaixaBank Research, based on data from the Ministry of Public Works (valuation) and INE (transaction).

## Credit and non-performing loans in 2015 Q2

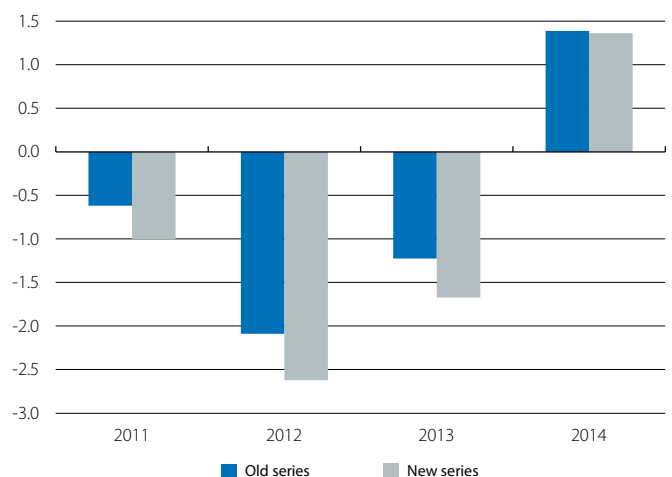
	Balance (billion euros)	Year-on-year change %	NPL ratio %
Households (housing)	564	-5.3	5.3
Households (consumption)	116	-1.9	9.6
Productive activities	661	-4.6	16.2
Construction	46	-16.9	29.8
Development	138	-14.2	32.1
Services	349	0.1	9.8
Industry	110	-0.3	11.8
Agriculture	18	1.1	11.0
<b>Total *</b>	<b>1,341</b>	<b>-4.7</b>	<b>11.0</b>

Note: \* The total balance does not include loans to NPISH or non-classified loans.

Source: CaixaBank Research, based on data from the Bank of Spain.

## GDP

Annual change (%)



Source: CaixaBank Research, based on INE data.

## FOCUS · Part-time employment in Spain

A gradual improvement can be seen in the labour market in different dimensions. In 2015 Q2 the rate of job creation speeded up to 3.0% year-on-year and the unemployment rate fell to 22.4%, accumulating a drop of 4.5 pps since its peak in 2013 Q1. Similarly, after years of substantial increases, the long-term unemployment rate is also showing signs of stabilising (see the Focus «On long-term unemployment in Spain» in MR 02/2015). Another relevant dimension that reveals the state of the labour market is under-employment, understood here as workers employed part-time who would like to work full-time; i.e. involuntary part-time employment. Let's see how this kind of employment has evolved over the last few years.

In 2007, before the crisis, the percentage of part-time employees out of the total (the part-time employment rate) was 11.6% in Spain, far below the rate of the euro area, namely 19.1%. By 2014 this part-time employment rate had increased by 4.3 pps to 15.9%. The rate also increased in the euro area during this period, albeit to a lesser extent (3.1 pps). However, if we distinguish between voluntary and involuntary part-time employment, a markedly disparate trend can be observed (see the first graph). In Spain, the rise in part-time employment was concentrated entirely in the involuntary type, increasing by 6.3 pps to 10.1%. In fact, voluntary part-time employment fell between 2007 and 2014, perhaps due to the effects of the crisis, causing part of the female population to lengthen their work day to offset the unemployment situation of other members of the household.<sup>1</sup> In the euro area, however, the rise in part-time employment occurred both in the involuntary and in the voluntary type, although the share of involuntary part-time employment also increased because of the recession.

This sharp rise in involuntary part-time employment in Spain during the crisis suggests that some companies facing economic difficulties reduced their employees' hours to adjust their workforce. Indeed, the labour reform of 2010 introduced measures to increase the internal flexibility of firms,<sup>2</sup> and the legislative changes approved in 2013 made part-time employment easier.<sup>3</sup> This kind of adjustment, which may be appropriate during a recession as it can help to limit the number of actual job losses, also took place in the euro area but less intensively because the crisis was not so severe. Moreover, it is possible that the part-time employment rate does not reflect the fact that some of this reduction in hours has occurred in full-time jobs.

1. See «The Crisis and Its Aftermath: a Stress Test for Societies and for Social Policies», Society at Glance 2014, OECD.

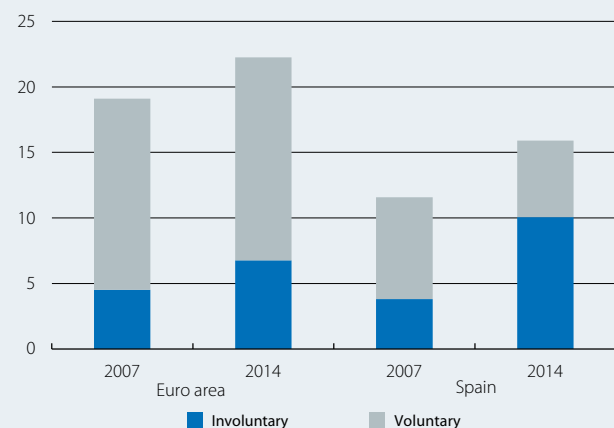
2. In RDL 10/2010, the permitted range of reduction in the work day for economic, technical or organisational reasons went from 33%-50% to 10%-70%. RDL 3/2012 and 1483/2012 clarify the economic conditions under which companies can take advantage of greater internal flexibility.

3. See RDL 16/2013.

The most recent data indicate that the involuntary part-time employment rate in Spain has stabilised (see the second graph). This stabilisation is a result of a rate that has remained constant in the services sector and fallen slightly in industry. On the other hand, the involuntary part-time employment rate continued to rise in construction. With regard to the voluntary part-time employment rate, Spain's levels are much lower than in the euro area as a whole, either because its institutional framework does not encourage such employment or because, at least during the recession, families could not allow themselves to reduce the hours they worked. In the coming quarters, as the economic recovery takes hold and the improvement in activity is passed on to the labour market, it is likely that this change in direction in the involuntary part-time employment trend will consolidate and spread to all productive sectors, while voluntary part-time employment should start to rise again.

### Part-time employment

(% of total employment)

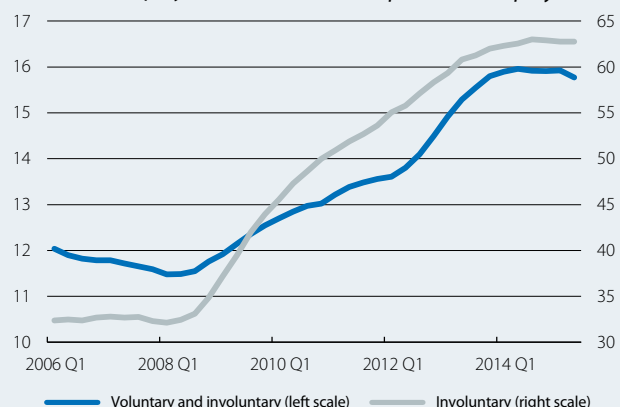


Source: CaixaBank Research, based on Eurostat data.

### Part-time employment \*

(% of total employment)

(% of part-time employment)



Note: \* Average of four quarters.

Source: CaixaBank Research, based on data from the LFS (INE).

## FOCUS · Towards a less import-dependent production model

The dynamism shown by imports in the current phase of the recovery has raised doubts concerning Spain's ability to keep its current account in surplus. A sustainable correction in the external imbalance should be based on a production model which, in addition to having a broader and more competitive export base, also depends less on imports. This Focus analyses the trend in imports since the recovery began in 2013 Q3 to determine whether the Spanish economy seems to have embarked on the road towards such a transformation.

One initial approach to assess the rise in imports looks at the trend in the different sectors that support growth. If those sectors requiring more imported inputs to manufacture their products are the ones behind the improvement in economic activity, it is very likely that imports will also rise sharply. And that is precisely what is happening: the recovery is stronger in those branches of activity with a higher import content.<sup>1</sup> Industry, which is the sector with the highest import content (38.2%), posted the largest cumulative increase in its value-added between 2013 Q2 (the start of the recovery) and 2015 Q2 (most recent figure). A similar picture is provided by analysing growth from the point of view of demand. The components recovering the fastest are private consumption, particularly of durables, and investment, precisely those components with the highest import intensity (29.0% and 35.8%, respectively).

However, we must also take into account the fact that this is unlikely to reflect a structural change in the economy towards sectors with a higher import content. Industry, on the supply side, and investment and durables consumption on the demand side, tend to fluctuate a lot throughout the economic cycle: they fall more during recessions and grow more during the cycle's expansionary phase. In fact, in developed countries the share of industry and investment in the economy has a downward secular trend, which should result in their economies becoming less import-dependent in the long term.

To determine more accurately whether the underlying trend in the Spanish economy is towards less dependence on imports, we need to calculate the import content of the different GDP items over time. Unfortunately the data available do not have the necessary frequency. In fact, the most recent estimates for the import content in the main demand components of GDP correspond

to 2005.<sup>2</sup> However, one simple exercise can be highly illustrative. Taking as our reference the estimated import content in 2005, we can extrapolate the trend for imports according to the growth observed in the different demand components of GDP. If the predicted growth in imports is higher than the actual growth, we can conclude that the import content has fallen. This is precisely the result obtained. The strong growth observed in imports over the last few years is therefore modulated when we take into account the growth in GDP components and the estimated import content in 2005. For example, imports should have grown by 7.6% year-on-year in 2015 Q2 if the import intensity had remained constant since 2005 but they actually grew by 6.8%.

We must, however, enter two caveats regarding this deduction. Firstly, part of the difference between the observed and predicted trend in imports according to the trend in GDP components and their import content is due to the fall in oil prices, resulting in import growth being more moderate in nominal terms. However, growth in imports was already lower than the predicted rate before oil prices started to plummet, reinforcing the idea that a structural change is occurring towards less dependence on imports. Secondly, given that those branches of activity with the most growth are the ones with the highest import content, we should expect the observed growth in imports to be higher than the predicted figure rather than lower. Consequently, this second factor also supports the idea of a change towards a less import-dependent pattern of growth.<sup>3</sup>

In summary, the evidence is not direct and a more detailed analysis is therefore required before reaching any firm conclusion. But the exercise carried out suggests that the gains in competitiveness achieved over the last few years are helping to construct a model of growth that is less dependent on imports. If the Spanish economy continues to progress along this path, it will be capable of growing at a high rate without this leading to external imbalances.

1. The import content is the share of production value represented by imported intermediate inputs.

2. See «The import content of the industrial sectors in Spain», Economic Bulletin, April 2012, Bank of Spain.

3. The theoretical trend in imports according to the estimated import intensity in 2005 is calculated with a limited level of disaggregation by demand component. Given the aforementioned composition effect, the predicted growth in imports would be higher if this exercise could be carried out in more detail.

## FOCUS · Spain's 2016 Budget: from structural to cyclical adjustment

Spain's 2016 Budget, presented by the government to Parliament last July, includes an improvement in the macroeconomic situation of the Spanish economy with 3.3% growth forecast for 2015 and 3.0% for 2016. This scenario should allow the fiscal deficit for 2016 to reach 2.8%, meaning that Spain would exit the Excessive Deficit Procedure as this figure is below the 3% threshold established. Spain's Independent Authority for Fiscal Responsibility (AiRef in Spanish) has judged these forecasts to be reasonable on the whole, although not without risk. This Focus analyses both the breakdown in the adjustment predicted and its accuracy.

Most of this reduction in the deficit does not come from higher revenue but less expenditure. Starting with the former, the Budget predicts that total non-financial revenue will increase slightly in 2016 (+0.6%) because the drop in non-tax revenue (-32.5%), exceptionally high in 2015,<sup>1</sup> will be offset by a sharp rise in tax revenue (+6.2%). This tax revenue would be boosted by the economic recovery, resulting in higher revenue from income tax (+5.5%), corporate tax (+10%) and VAT (+4.6%). In the Social Security accounts, revenue from employer social contributions would increase by 6.7%. These revenue forecasts assume that the impact of economic activity on income will be greater than the effect observed historically and may therefore be slightly optimistic. Moreover, the last steps for the tax reform completion include a reduction of corporate tax plus a whole year of lower income taxes, and thus the revenue expected should be lower.

With regard to state expenditure, this is expected to fall in 2016 (-3.0%) due to a significant drop in interest payments and current transfers. The lower expenditure on interest payments (-5.6%) reflects the lower average cost of debt and its stabilisation while current transfers decrease by 3.2% as a consequence of the lower contribution paid to the Public State Employment Service (SPEE in Spanish) resulting from a decrease in unemployment subsidies. The forecasts for both items seem plausible given the expected macroeconomic situation.

Excluding these cyclical reductions, expenditure will increase in 2016 in most of the other items (personnel, liabilities, Social Security contributions, etc.). Moreover, the majority of the new measures contained in the Budget are concentrated in this area of expenditure. Of particular note are those affecting civil servants:

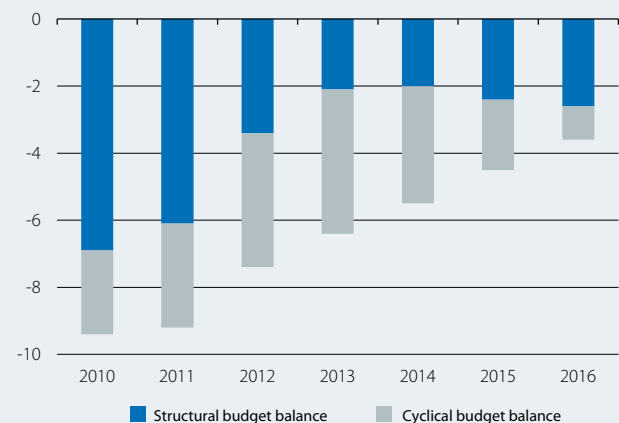
they will have a wage rise of 1% and 50% of their extraordinary pay suppressed in 2012 will be refunded, their «free days» (additional days given for seniority and also holiday) will be restored, plus the workforce replacement rate will increase as a result of the planned 5.0% rise in expenditure on government employees.

The 2016 Budget sets the same deficit target for 2016 as that contained in the Stability Programme 2014-2017, presented in April 2014. This programme, however, assumed a much lower GDP growth of 1.8% in 2015 and 2.3% in 2016, so that the structural adjustment that now needs to be carried out between 2015 and 2016 will be much less than originally forecasted when the agreement was reached, with the European Commission, regarding the rate of reduction required in the public deficit. Maintaining the structural adjustment calculated at that time (namely 0.5 pps) and assuming the government's economic forecasts are accurate, the deficit could fall to 2.3% next year. As noted in the Budget, this adjustment no longer comes, as in previous years, from discretionary cost-cutting measures or from higher taxes but from larger revenues and a reduction in spending thanks to the economic recovery.

The 2016 Budget therefore marks a change in direction after several years of strong structural adjustments: at present the cyclical improvements in the economy will help to reduce the deficit. The best course of action would be to carry out structural adjustments when there is a tail wind to help public finances recover more quickly and avoid having to repeat the experience of tackling them in a headwind.

### Cyclical and structural budget balance

(% GDP)



Source: CaixaBank Research, based on data from the European Commission (AMECO).

1. In 2015, the item of non-tax revenue was exceptionally high because of income from the privatisation of AENA.



## KEY INDICATORS

Year-on-year (%) change, unless otherwise specified

### Activity indicators

	2013	2014	2014 Q4	2015 Q1	2015 Q2	07/15	08/15	09/15
<b>Industry</b>								
Electricity consumption	-2.1	-0.1	-1.6	1.2	-0.1	5.5	1.9	...
Industrial production index	-1.5	1.3	0.3	1.5	3.5	5.6	...	...
Indicator of confidence in industry ( <i>value</i> )	-13.9	-7.1	-5.3	-3.2	0.9	-0.9	1.6	1.4
Manufacturing PMI ( <i>value</i> )	48.5	53.2	53.7	54.4	54.8	53.6	53.2	...
<b>Construction</b>								
Building permits ( <i>cumulative over 12 months</i> )	-36.3	-7.7	4.0	12.1	17.0	18.8	...	...
House sales ( <i>cumulative over 12 months</i> )	0.4	-5.6	0.3	8.9	10.2	10.9	...	...
<b>Services</b>								
Foreign tourists	5.8	7.2	5.4	5.2	3.7	6.3	1.6	...
Services PMI ( <i>value</i> )	48.3	55.2	54.3	56.7	58.3	59.7	59.6	...
<b>Consumption</b>								
Retail sales	-3.7	1.0	2.8	2.5	2.9	3.6	2.4	...
Car registrations	5.6	18.4	21.7	31.4	13.6	23.5	23.3	...
Consumer confidence index ( <i>value</i> )	-25.3	-8.9	-9.6	-0.6	1.6	0.0	-1.3	-2.6

Source: CaixaBank Research, based on data from the Ministry of Finance, Ministry of Public Works, INE, Markit and European Commission.

### Employment indicators

	2013	2014	2014 Q4	2015 Q1	2015 Q2	06/15	07/15	08/15
<b>Registered as employed with Social Security<sup>1</sup></b>								
Employment by industry sector								
Manufacturing	-4.3	0.1	0.9	1.5	2.2	2.3	2.4	2.4
Construction	-12.1	-1.6	1.6	4.6	5.6	5.3	4.9	4.5
Services	-2.0	2.2	2.8	3.5	3.7	3.6	3.6	3.4
Employment by professional status								
Employees	-3.8	1.4	2.3	3.0	3.8	3.7	3.7	3.5
Self-employed and others	-0.6	2.2	2.5	2.4	2.2	2.1	1.9	1.7
<b>TOTAL</b>	-3.2	1.6	2.3	2.9	3.5	3.4	3.4	3.2
<b>Employment<sup>2</sup></b>	-2.8	1.2	2.5	3.0	3.0	-	-	...
<b>Hiring contracts registered<sup>3</sup></b>								
Permanent	-14.2	18.8	23.0	24.1	7.7	15.1	8.6	10.1
Temporary	6.4	13.1	7.7	12.2	11.2	13.5	9.2	10.0
<b>TOTAL</b>	4.0	13.4	8.8	13.2	10.9	13.6	9.1	10.0
<b>Unemployment claimant count<sup>3</sup></b>								
Under 25	-6.2	-8.2	-6.9	-9.8	-9.3	-10.5	-14.3	-13.4
All aged 25 and over	3.7	-5.3	-5.7	-6.1	-7.4	-7.1	-7.9	-7.6
<b>TOTAL</b>	2.7	-5.6	-5.8	-6.5	-7.6	-7.4	-8.5	-8.1

Notes: 1. Mean monthly figures. 2. LFS estimate. 3. Public Employment Offices.

Source: CaixaBank Research, based on data from the Ministry of Employment and Social Security, INE and Public Employment Offices.

### Prices

	2013	2014	2014 Q4	2015 Q1	2015 Q2	07/15	08/15	09/15
<b>General</b>	1.4	-0.1	-0.5	-1.0	-0.3	0.1	-0.4	-0.9
Core	1.5	0.0	0.0	0.2	0.5	0.8	0.7	...
Unprocessed foods	3.6	-1.2	0.8	0.3	1.9	1.7	2.7	...
Energy products	0.1	-0.8	-4.3	-9.7	-6.4	-5.8	-9.8	...

Source: CaixaBank Research, based on data from the INE.



## Foreign sector

Cumulative balance over the last 12 months in billions of euros, unless otherwise specified

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	06/15	07/15
<b>Trade of goods</b>								
Exports (year-on-year change)	5.2	2.5	4.8	4.3	4.4	5.4	7.8	8.9
Imports (year-on-year change)	-1.3	5.7	7.3	5.0	2.5	5.8	9.8	6.4
<b>Current balance</b>	<b>15.6</b>	<b>10.2</b>	<b>7.5</b>	<b>10.2</b>	<b>12.1</b>	<b>15.0</b>	<b>15.0</b>	<b>16.2</b>
Goods and services	33.5	26.0	25.6	26.0	27.4	27.6	27.6	28.2
Primary and secondary income	-17.9	-15.7	-18.1	-15.7	-15.3	-12.6	-12.6	-12.0
<b>Net lending (+) / borrowing (-) capacity</b>	<b>22.3</b>	<b>14.7</b>	<b>13.4</b>	<b>14.7</b>	<b>15.6</b>	<b>19.1</b>	<b>19.1</b>	<b>21.0</b>

Source: CaixaBank Research, based on data from the Department of Customs and Special Taxes and Bank of Spain.

## Public sector

Percentage GDP, cumulative in the year, unless otherwise specified

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	07/15	08/15
<b>Net lending (+) / borrowing (-) capacity</b>	<b>-6.8</b>	<b>-5.8</b>	<b>-3.7</b>	<b>-5.9</b>	<b>-0.7</b>	<b>-2.9</b>	<b>-</b>	<b>-</b>
Central government <sup>1</sup>	-4.9	-3.9	-3.1	-3.9	-1.0	-2.1	-2.4	-2.5
Autonomous regions	-1.5	-1.7	-1.0	-1.7	-0.2	-0.8	-0.7	...
Local government	0.5	0.5	0.4	0.6	0.1	0.2	-	-
Social Security	-1.1	-1.1	0.0	-1.1	0.3	-0.4	-0.2	...
<b>Public debt (% GDP)</b>	<b>92.1</b>	<b>97.7</b>	<b>96.8</b>	<b>97.7</b>	<b>98.0</b>	<b>97.7</b>	<b>...</b>	<b>...</b>

Note: 1. Includes measures related to bank restructuring but does not include other central government bodies.

Source: CaixaBank Research, based on data from the IGAE, Ministry of Taxation and Bank of Spain.

## Financing and deposits of non-financial sectors

Year-on-year change (%), unless otherwise specified

	2013	2014	2014 Q3	2014 Q4	2015 Q1	2015 Q2	06/15	07/15	Balance 07/15 <sup>1</sup>
<b>Financing of non-financial sectors<sup>2</sup></b>									
Private sector	-8.2	-4.9	-4.4	-4.6	-5.0	-4.5	-4.6	-4.6	1,665.8
Non-financial firms	-10.6	-4.8	-4.0	-4.7	-5.6	-5.1	-5.4	-5.2	932.5
Households <sup>3</sup>	-5.0	-5.1	-5.0	-4.6	-4.1	-3.7	-3.7	-3.7	733.2
General government <sup>4</sup>	16.8	7.0	5.9	6.7	4.9	4.1	4.0	3.4	1,040.1
<b>TOTAL</b>	<b>-1.1</b>	<b>-0.9</b>	<b>-0.9</b>	<b>-0.7</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.5</b>	<b>-1.7</b>	<b>2,705.9</b>
<b>Liabilities of financial institutions due to firms and households</b>									
Total deposits	2.1	-0.9	-1.2	-1.7	-1.3	-1.2	-1.7	-1.0	1,163.6
On demand deposits	4.2	10.8	13.6	14.8	17.9	19.5	18.2	19.7	367.9
Savings deposits	-0.1	5.8	6.9	6.8	10.5	12.3	12.9	13.6	243.2
Term deposits	1.7	-7.6	-9.4	-11.3	-13.5	-15.5	-16.5	-16.1	530.6
Deposits in foreign currency	16.8	1.1	0.3	5.2	8.9	10.5	8.2	6.0	22.0
Rest of liabilities <sup>5</sup>	-16.8	-8.2	-6.8	-6.8	-11.4	-11.5	-13.0	-16.1	102.9
<b>TOTAL</b>	<b>-0.2</b>	<b>-1.7</b>	<b>-1.7</b>	<b>-2.2</b>	<b>-2.3</b>	<b>-2.2</b>	<b>-2.8</b>	<b>-2.4</b>	<b>1,266.5</b>
<b>NPL ratio (%)<sup>6</sup></b>	<b>13.6</b>	<b>12.5</b>	<b>13.0</b>	<b>12.5</b>	<b>12.1</b>	<b>11.0</b>	<b>11.0</b>	<b>10.9</b>	<b>-</b>
<b>Coverage ratio (%)<sup>6</sup></b>	<b>58.0</b>	<b>58.1</b>	<b>59.1</b>	<b>58.1</b>	<b>58.5</b>	<b>60.0</b>	<b>60.0</b>	<b>60.3</b>	<b>-</b>

Notes: 1. Billion euros. 2. Resident in Spain. 3. Including NPISH. 4. Total liabilities (consolidated). Liabilities between different levels of government are deduced. 5. Aggregate balance according to supervision statements. Includes asset transfers, securitized financial liabilities, repos and subordinated deposits. 6. Data end of period.

Source: CaixaBank Research, based on data from the Bank of Spain.

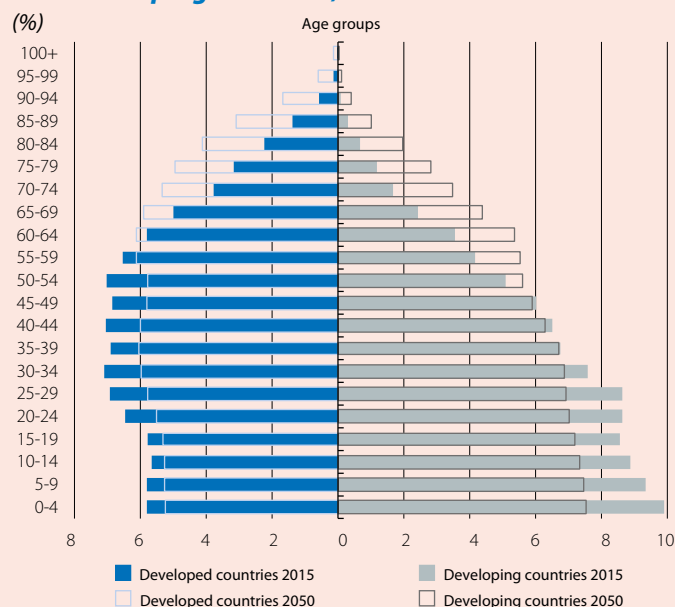
## THE DEMOGRAPHIC CHALLENGE

## Is the impact of demographic transition inevitable?

In developed countries population growth has been gradually diminishing throughout the last half century. This phenomenon corresponds to the end of a stage of demographic transition in which a society that has already considerably reduced its death rate also reduces its birth rate to a similar (or even lower) level, bringing about stagnation (or a drop) in the size of the population. At the same time, there is also an increase in life expectancy which results in significant ageing. This month's Dossier analyses the extent of this demographic transition, its effect on the macroeconomy, the changes that might occur in population terms and which factors might lessen the impact.

The United Nations' report entitled «World Population Prospects 2015» describes the slowdown in population growth and even suggests this will become negative in some geographical areas. This drop in the level of population, which had already begun a decade ago in countries such as Germany, will continue over the next ten years in other countries such as Spain and

### Breakdown of the world's population in developed and developing countries, 2015 and 2050



**Note:** Developed countries correspond to countries whose GDP per capita is above 3,975 dollars and developing countries correspond to countries whose GDP per capita is below this figure.  
**Source:** CaixaBank Research, based on data from the United Nations («World Population Prospects 2015»).

Italy and will reach the euro area as a whole by 2030 and, although immigration flows are currently positive, they will not be enough to offset this trend. Apart from the decrease in size there is also a change in the population pyramid with a higher proportion of older people. The share of individuals aged over 65 has gone from 15% of the euro area population in 1990 to 21% in 2015 and is expected to reach 24% by 2025 and 32% by 2050. In countries such as Germany, Italy and Spain, more than one third of the population will be 65 or older by that date. The (relative) exception is France which, thanks to its higher birth rate, will be able to expand its population and delay ageing, although 26% of its citizens will be over 65 by 2050. Evidently this ageing process will also occur in the future in developing countries although their population pyramids show that it has yet to come about in most of them. Such countries therefore have the potential to at least partially delay the phenomenon of an ageing population in developed countries via immigration.

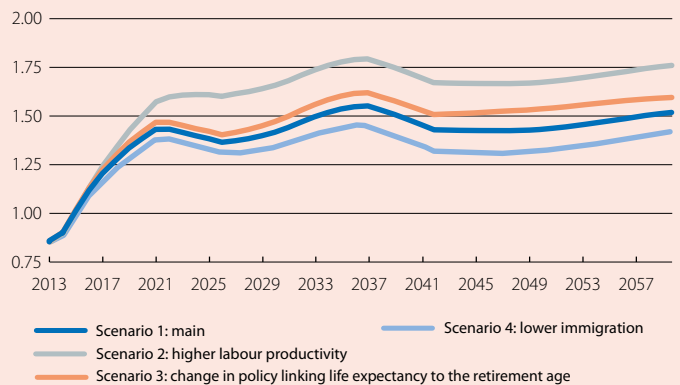
This considerable demographic transformation could have a direct effect on economic growth. A smaller population might result in less labour supply, less aggregate consumption and less need for investment, which would reduce the size of the economy as a whole. An ageing population would

also alter the characteristics of its economy as different age groups have different needs and production capacities. The life cycle theory claims that individuals try to maintain a stable level of consumption throughout their lives. Therefore they save while working and start to spend their savings once they retire. Assuming there are no changes in the behaviour of the different age groups or in the total population level, an ageing population could reduce the labour supply at the same time as the level of aggregate savings. However, longer life expectancy might encourage individuals to work longer, invest more in education to increase their human capital or save more before retirement in order to fund a longer period of inactivity, which could counteract the aforementioned effects. To a large extent the aggregate effect on the labour supply will be determined by the impact of ageing on GDP per capita. Empirical evidence shows that, to date, this impact has been limited but negative.<sup>1</sup> The impact of ageing on aggregate savings also seems to be negative (for more details, see «Demographic trends and the price of financial assets: the tail winds are dying down» in this Dossier). Demographic change could also affect prices by adding deflationary pressures to the economy if aggregate demand falls (because the population is smaller, for example) as well as affecting the sustainability of the welfare state as the proportion of the dependent population increases (see «How a greying population affects public spending», also in this Dossier).

1. See IMF (2014), «Impact of Demographic Changes on Inflation and the Macroeconomy», IMF Working Paper 14/210.

Several factors could modify the impact predicted of demographic transition on the economy. Firstly, although in this Dossier we focus on demographic aspects, we must not forget that increased productivity in an economy (through technology, for example) could significantly counteract the effects of ageing as higher productivity would increase the potential growth rate throughout the period (see the second graph). Secondly, we must also bear in mind that demographic forecasts have been calculated using specific hypotheses (such as the fertility, death or immigration rate) that are difficult to predict accurately, particularly over the long term, and there is therefore some doubt as to whether they will actually come about. Lastly, demographic forecasts assume that the behaviour of each generation remains constant but, as we have already mentioned, the population's behaviour may alter in response to demographic changes.<sup>2</sup> For example, growth in GDP could be higher if the retirement age is raised in line with life expectancy.

**Forecast of potential GDP growth rate for the European Union (2013-2060), various scenarios**



**Note:** Scenario 1 (main) already contains the changes expected in different areas (retirement, labour participation, immigration, etc.). Scenario 2 assumes convergence towards labour productivity that is 0.25 pps higher than in the main scenario. Scenario 3 assumes a later exit from the labour market in line with the increase in life expectancy. Scenario 4 assumes 20% less immigration than in the main scenario.  
**Source:** CaixaBank Research, based on data from the European Commission («2015 Ageing Report»).

Let us look more closely at the changes in a population's behaviour that could offset the impact of this demographic transition: the birth rate, immigration and labour supply. A higher birth rate could lessen the ageing of the population. However, a birth rate is endogenous to a country's development and, as it develops, its birth rate falls until reaching a level of well-being where social preferences tend to change and the state is able to finance significant policies to support the birth rate. In any case altering a society's birth rate pattern is complex and expensive and therefore unlikely to counteract the effect of ageing by itself.

Another way to offset demographic change in developed countries is by boosting immigration. It is predicted that net annual immigration between 2020 and 2050 will be equivalent to 0.22% of the population of the euro area and that this will be greater in Spain (0.27%), Germany (0.25%) and Italy (0.24%) than in France (0.15%). We must remember, however, that it is difficult to predict migratory flows as they depend on the economic and social conditions in both the original country and also the host and can also change quickly, as we have seen in the mass arrival of refugees in Europe over the last few months. Nevertheless, migratory flows can have a considerable impact, particularly for those countries whose populations are ageing the most, such as Germany, but suitable immigration policies must be put in place to ensure such immigrants are successfully integrated.

Lastly, the impact of these demographic changes can also be reduced by increasing the labour supply, either by means of a longer working life or greater participation in the workforce. A longer life expectancy, especially more healthy years, is going to allow people to work much longer, a relevant factor which is nonetheless not always taken sufficiently into account. Another way to increase labour supply is by encouraging the participation of women and other under-represented groups in the workforce such as immigrants, as well as increasing the number of hours worked.

In summary, changes in the behaviour of the population can offset a considerable part of the demographic transition that is very likely to occur. But for this to happen it is vital to use all available resources, including taking political decisions in the design of institutions (reforms of pension and tax systems, immigration policies, etc.). If not, it will be almost impossible for individuals to have the necessary incentives and resources to adjust their behaviour and take the right decisions.

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2. See Bloom et al. (2011), «Implications of Population Aging for Economic Growth», NBER Working Paper 16705.

## Demographic trends and the price of financial assets: the tail winds are dying down

Analyses attempting to explain the movement of financial asset prices based on factors such as the economic situation, actions taken by central banks, corporate news or geopolitical events are in great supply and therefore come as no surprise. But those focusing on demographic trends are less frequent and can be startling. The short-sightedness of a large number of investors leads them to ignore this variable whose impact is as slow over time as it is powerful in effect. In fact, theory suggests and historical evidence shows that demographic trends influence the two fundamental components of asset prices: the real risk-free rate of return and risk premia.

In a previous Dossier<sup>1</sup> we looked at the basic conclusion proposed by economic theory regarding the impact on interest rates: a larger proportion of the adult population close to retirement entails a lower real equilibrium interest rate. This conceptual framework is based on the life-cycle hypothesis which states that people's income, consumption and savings patterns change with age: they get into debt when they are young (mainly to acquire housing), save during their adult lives (to repay this debt and prepare for old age) and spend their savings in retirement. As a whole, an increase in the share of adult population (for instance 40-65 years of age) would result in higher savings which, all things being equal, would push the interest rate down. On the other hand, as soon as a large enough mass of people reaches retirement age, the overall size of savings decreases, pushing the equilibrium interest rate up. This essential conclusion still features in the many different models proposed to enhance the analysis, incorporating variations related to interactions between the different overlapping generations, the presence of Social Security, inheritance, uncertainty, etc.

Trends in the data have been in line with this theoretical pattern. In fact, the singular demographic phenomenon of the baby boomers (those born after the Second World War) is turning out to be a natural paradigmatic experiment, at least to date. According to a recent report,<sup>2</sup> the demographic transition (the passing of the large number of baby boomers through adult life until reaching retirement age) has effectively resulted in a drop in the real equilibrium interest rate of close to 2 pps in the last three decades.

As more and more people in this generation retire, the interest rate should rise particularly quickly: by 1 pps in five years and 2.25 pps in 10 years. Consequently, in the not-too-distant 2025, the real interest rate would have returned to its historical equilibrium level, namely 2.5%-3.0%, as a result of a spectacular drop in global savings estimated at 25% (around 6 pps of global GDP). These figures highlight the powerful effect demographic trends could have on the foundations of financial markets, although there are several reasons why they should be interpreted with due caution. Firstly, such estimates aim to calibrate the effect of demographic trends on the interest rate via the savings supply, considering that demand for savings (to meet real investment) moves in line with the interest rate or at least to a much smaller extent than supply, so that the real interest rate is determined by changes in the latter. Secondly, there is no great confidence in the savings figures projected for emerging countries, not only because demographic projections *per se* are questionable but also because there are no historical references on people's savings patterns within similar contexts of radical economic transformation. Two countries will be key: India and China (whose incredibly high savings rate gave rise to the expression «global savings glut»).

The theoretical connection between demographic trends and the price of risky assets (such as shares) is also essentially based on simple relations. Firstly, a correspondence between the price of each asset and the total flows it generates in the future (dividends in the case of shares), discounted at a specific rate to obtain the present value. Consequently, a higher discount rate would imply a lower current price for an asset (and a lower price-to-earnings or P/E ratio). This rate is made up of the aforementioned real risk-free rate of return plus an equity premium. Secondly, the idea that a person's attitude towards risk changes throughout their life cycle; specifically, the risk tolerance inherent in the stock market is high in youth and adulthood but falls as people approach retirement. As a result of this and of their financial needs and possibilities, the composition of their portfolio gradually changes: the proportion of shares is relatively high at the beginning but low at the end. Demographic trends therefore end up affecting the risk premium required by the market: the ageing of investors pushes up the premium, encourages sell-offs to reduce the portfolio's proportion of equity and pushes down prices.

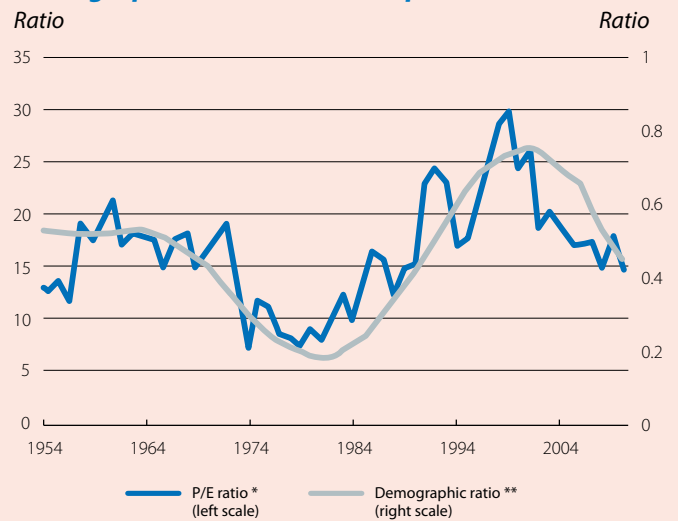
1. See «Low real interest rates and economic stability» in MR09/2014.

2. Gavin, M. (2015) «Equity Gilt Study», Barclays.

The data in this area also tend to support the outcomes predicted by the theory and, once again, the baby boomers take pride of place. In the last three decades developed stock markets have returned notably higher yields than in the preceding decades, coinciding with the baby boomers passing through the peak of equity accumulation, when they were aged between 35 and 55. Various empirical studies<sup>3</sup> have found a high correlation between age distribution and stock prices, most of these referring to the US stock market. The graph shows the close correlation between the P/E ratio for stock markets and the demographic ratio defined as the quotient between the population in the middle-age cohort (40-49 years) and the population in the cohort around retirement (60-69 years). This ratio seems to be a particularly good reflection of what the theory proposes as it compares the two most significant cohorts that tip the balance, leaving aside the very young due to the limited relevance of their share portfolios and those who have been retired for some time. An increase in this ratio is associated with an increase in share prices.

According to these ratios, projections for the next two decades do not encourage investor optimism: the demographic trends in the emerging countries will increasingly resemble those of the developed countries, the world population will be increasingly older, the drop in savings will push up the real risk-free rate of return and the equity premium will also rise due to the larger proportion of people having passed retirement age or coming close to it. This will result in a higher discount rate than at present, which will tend to push share prices down. However, it is also worth pointing out some considerations that could qualify or even counteract these pessimistic projections. Firstly, the value of bond portfolios will fall as the rate of return rises but, once a new higher equilibrium level is reached, yields will become more attractive again. Moreover, the most recent figures indicate that retired people rebalance their portfolios more slowly than workers at the savings age, so the negative effect on equity could be smaller than the positive effect observed over the last three decades. Lastly, and to complete the scenario, stock prices will not only depend on the discount rate but also on the flow of dividends, profits and, ultimately, economic growth. This leads us to another very relevant factor within long-term analyses: technological innovation, which throughout history has helped to produce huge advances in productivity and income. This has now become the great hope to counteract the demographic winds which are no longer blowing in our favour.

### Demographic trends and stock prices



Notes: \* P/E ratio (price/earnings) in the US stock market.

\*\* The demographic ratio is defined as the quotient between the population in the middle-age cohort (40-49 years of age) and the population in the cohort around retirement (60-69 years of age) in the US.

Source: CaixaBank Research, based on Liu, Z. and Spiegel, M. (2011).

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3. Favero, J., Gozluklu, M. and Tamoni, M. (2011) «Demographic trends, the dividend-price ratio and the predictability of long-run stock market returns», *Journal of Financial and Quantitative Analysis*; Liu, Z. and Spiegel, M. (2011) «Boomer Retirement; Headwinds for U. S. Equity Market» (2011-26), FRBSF Economic Letter; Geanakoplos, C., Magill, A. and Quinzii, A. (2004) «Demography and the Long Run Behaviour of the Stock Market», *Brookings Papers on Economic Activities*; Poterba, J. (2001) «Demographic Structure and Asset Returns», *The Review of Economics and Statistics*.



## How a greying population affects public spending

As countries' populations are becoming increasingly older, so more and more voices are warning of the need to carry out structural reforms to ensure public finances sustainability. An ageing population and consequent rise in dependency ratios could reduce tax revenue and increase public spending significantly. Hence, any measure that helps to contain this expenditure, such as policies to bolster public funds, are vital in ageing regions such as the EU. Nevertheless, there is still no consensus as to how to tackle one of the biggest challenges facing welfare states.

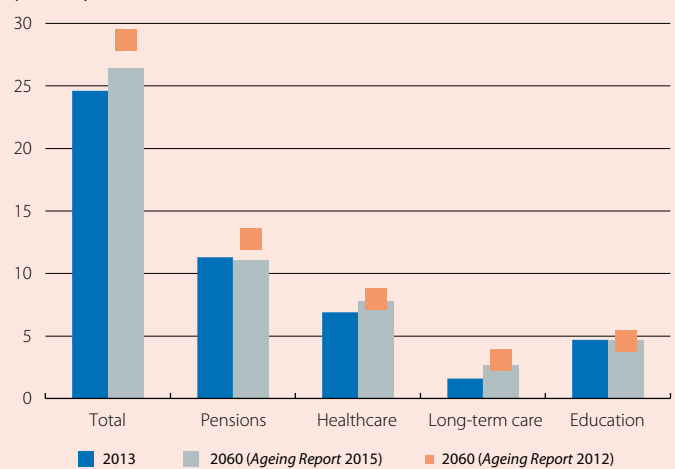
The ageing population affects public revenue by reducing it: this phenomenon, provided there are no changes in regulations or preferences, decreases the labour force and therefore the state's revenue capacity.<sup>1,2</sup> A new regulation increasing the legal retirement age, for example, could ease and even reverse this drop in revenue.<sup>3</sup>

On the other hand, and once again provided there are no changes in regulations or preferences, an older population also entails higher spending in three areas: pensions, healthcare and long-term care while there is less expenditure on education, which is concentrated into the first few years of a person's life. *A priori* this increase in spending appears to be significant. Nonetheless, estimating just how far ageing affects expenditure is no easy task since a range of factors all have an impact at the same time and can both increase and decrease expenditure, obscuring the true effect of ageing. For example, an ageing population is usually accompanied by a rise in per capita income. Since higher per capita income population requests more healthcare services (as these are a luxury good), it is difficult to quantify which part of the increased expenditure on healthcare is due to ageing and which is due to the population being wealthier.

An extensive study carried out recently by the European Commission on the effects of ageing on public expenditure suggests that in the long term this impact is limited.<sup>4</sup> Specifically, for the EU average, the results indicate an age-related increase in spending of just 1.6 points of GDP in 2040 and 1.8 points of GDP in 2060 (24.6% of GDP of 2013), as can be seen in the graph. Most of this rise is due to greater expenditure on healthcare and dependency. On the other hand, spending on pensions, which accounts for almost 50% of all public expenditure, will hardly change in GDP terms over the next 45 years: from 11.3% of GDP in 2013 it will rise to 11.7% in 2040 and will then fall again to 11.1% in 2060. It is the same situation with spending on education. This scenario proposed by the European Commission is largely based on the assumption that the recently announced measures for pensions in EU countries will continue in the medium term, pushing up participation rates and significantly reducing expenditure per pensioner as most of these measures aim to improve pension sustainability. The sustainability factor approved in Spain, which comes into force in 2019 and links benefits per pensioner to the population's life expectancy so that a longer life expectancy reduces the amount of pension received, should help to reduce the negative demographic effect on pension expenditure in the medium term. The same situation will happen in Portugal, where the official retirement age and life expectancy have been linked (starting in 2015), according to which a longer life expectancy delays the official retirement age.

The rise in age-related spending on healthcare and long-time care up to 2060 follows a similar pattern: growing by 0.9 and 1.1 points of GDP, respectively. Unlike pensions, these last two areas do not assume regulatory changes that might reduce spending but do assume a pattern of health for people's additional years of life. Specifically, the population's health is expected to improve so that someone aged 67 in 2040 would be the equivalent, in terms of healthcare and dependency expenditure, to a person aged

**Projections for EU public expenditure**  
(% GDP)



Source: CaixaBank Research, based on data from the European Commission (Ageing Report, 2012 and 2015).

1. Labour productivity is assumed to be constant; if not, the potential revenue could increase.

2. See the article «Is the impact of demographic transition inevitable?» in this Dossier for a more detailed discussion of the effects of ageing on GDP and GDP per capita and therefore, indirectly, on public revenue.

3. See the Dossier: «The challenges of the pension system» in MR11/2013.

4. See «The 2015 Ageing Report. Economic and budgetary projections for the 28 EU Member States (2013-2060)», European Commission, 2015.

64 in 2015, for example, and a person aged 70 in 2060. If this were not the case, spending on healthcare and especially long-term care would increase considerably. In line with the findings by the European Commission, a study produced by the OECD on the trend in public costs in healthcare and dependency concludes that non-demographic factors have the greatest effect on rising expenditure; specifically factors such as technological improvements, changes in income levels and institutional changes compared with demographic elements such as ageing.<sup>5</sup>

According to these two studies, the bulk of the evidence suggests we should not be too concerned about the sustainability of public expenditure within the current context of an ageing population. However, it comes as no surprise that, in June's Economic Bulletin, ECB analysts raised doubts regarding the European Commission's recent findings, given that the estimates used are so sensitive to the assumptions made. Just three years ago the Commission itself estimated an increase in age-related expenditure equivalent to 4.1 points of GDP between 2010 and 2060, a figure that more than doubles the one presented in its latest report, namely 1.8 points of GDP. This notable improvement in the findings comes from more favourable demographic assumptions that limit the increase in the dependency ratio and from more positive participation and employment rates (the latter two thanks partly to the impact of recent reforms passed by numerous countries although also because a better macroeconomic outlook is assumed for the region). In this respect, migratory flows, so much in the news due to the current crisis, could also significantly alter the calculations for the long-term sustainability of public accounts. In general, most immigrants who reach advanced countries do so at working age so that, if they join the labour market, they help to delay the impact of ageing and thereby the problem of sustainability.

It is therefore too early to conclude that ageing is not an important factor that might jeopardise public sustainability in the medium term. It might be more significant than assumed by the studies and its effects could start to be seen sooner than originally thought, particularly in those EU countries with a higher level of ageing, such as Germany. We should therefore do all we can to implement reforms aimed at increasing the efficiency of the public sector. Because, in the absence of more accurate estimates, it is better to be safe than sorry, as our elders would say.

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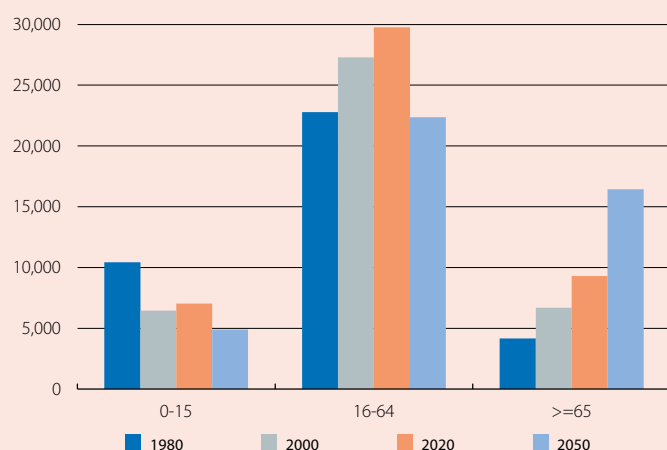
5. See «Public spending on health and long-term care: a new set of projections», OECD Economic Policy Papers, No. 06, 2013.

## The challenges of demography in Spain

Over the last few decades Spain's population has gradually got older. While 8.9% of the census was aged over 65 in 1971, this percentage had increased to 17.5% by 2015 and is expected to approach 20% by 2020. Such ageing will soon have a marked effect on economic growth and the main items within the welfare state, and could intensify over the coming years.<sup>1</sup>

### Population by age group

(Thousands)



Source: CaixaBank Research, based on INE data.

According to the European Commission, projections for the driving forces behind demography suggest that populations are likely to continue ageing. The birth rate, which was 1.3% in 2013, will pick up slightly in the long term (up to 1.5% by 2050) but will remain below the rate of 2.1% required to replace the population. Between 2013 and 2050 life expectancy at birth will increase by 4.9 years for men and 4.4 years for women (up to 84.4 and 89.1 years of age, respectively). Over the same period it is estimated that the net migratory balance will be positive and might total half a million people although this will not be enough to offset the ageing trend. As a result, the dependency ratio for people over 65 (the share of the population aged over 65 compared with those of working age, between 16 and 64) will go from 27% in 2013 to 62% in 2050.

As has been described in detail in the article «Is the impact of the demographic transition inevitable?» in this Dossier, the effect of lower demographic growth and an ageing population

on economic growth could be highly significant. In the case of the Spanish economy, the role played by demographics in growth has clearly changed when we compare its influence over the last few decades and its projected impact. Specifically, between 1980 and 2007 the working age population increased by 1.1% annually on average, to a large extent as a result of the baby boomers entering this group. Immigration also had a marked impact on this process, especially between 2000 and 2008 when the share of foreign workers increased by 3.0% to 15.5%. More women also joined the labour market (with the female participation rate rising from 27.8% in 1980 to 49.5% in 2007).

The outlook for the next few years is quite different. According to forecasts by the European Commission, on average the working age population will shrink by 0.6% annually between 2013 and 2050. One of the main reasons for this change in trend is that baby boomers are now aged between 50 and 55 and are therefore just about to retire. Among the different factors that could offset this situation, *a priori*, immigration is not expected to have such an impact as in the last few years partly because, given the large numbers coming to Spain in the past, the country is now one of the developed economies with the highest proportion of foreign population. However, the participation rate for women and the older population could help to cushion this change in trend in the working age population. In fact, in the short term the improvement in the economy and the recently approved reforms which aim to stimulate work among older people are likely to increase participation, a rise which would more than offset the reduction in working age population resulting from the baby boomers reaching retirement age. In this respect, the European Commission's projections expect the female participation rate (between 20 and 64 years of age) to go from 72.4% in 2013 to 78.6% in 2020, and the participation rate for older age groups (between 55 and 64 years of age) from 54.2% to 67.8%.

Nevertheless, in the longer term these mechanisms to counteract the ageing process will gradually reach their limit, which might lead to stagnation in the working age population. Given such a situation, growth in productivity would become even more crucial for the Spanish economy but recent trends are not promising: on average, total productivity factor growth was -0.7% annually between 2000 and 2014.<sup>2</sup>

The second great concern of demographic change is how it will affect the sustainability of the welfare state (see «How a greying population affects public spending» in this Dossier). One of the areas that cause most concern, and where most progress has

1. See «The 2015 Ageing Report», European Economy 3/2015, European Commission.

2. See «The Conference Board Total Economy Database, Growth Accounting and Total Factor Productivity, 1990-2015».

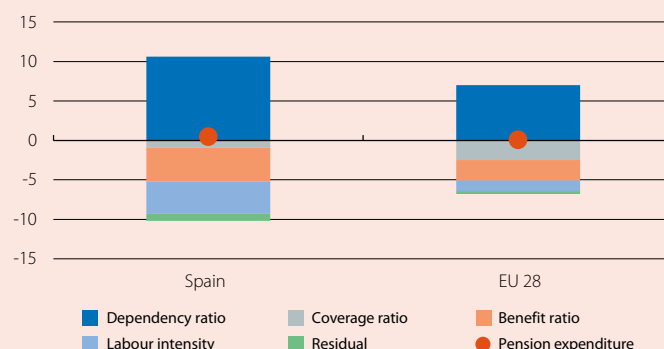
been made in recent years, is the sustainability of the pension system. The reason is that an ageing population is a huge challenge in a distributive pension system such as in Spain, where the retirement pensions received in a period are funded by contributions paid by workers during the same period. In this case the expected rise in the dependency ratio could jeopardise the system if it is not adapted in line with demographic changes. An increase in the birth rate would help to offset the longer life expectancy but, as demographic dynamics are highly persistent, it would need to triple to maintain the dependency ratio constant.

Part of the solution lies in designing a pension system that adapts people's working lives to changes in their life expectancy. This is precisely one of the main achievements of the reform carried out in 2011. Note that, in spite of a very significant increase in life expectancy after 65 years of age (from less than 10 years at the beginning of the 20th century to almost 20 years at present), until the reform the retirement age had remained unchanged at 65 since it was first established in 1919 (via the General Regulation for the mandatory worker retirement scheme).<sup>3</sup> In 2011 some of the pension system's conditions were altered to reduce the rate of growth in the number of pensioners by lengthening the working life of employees: a longer contributory period required to receive the maximum retirement pension and a gradual rise in the retirement age, from 65 in 2012 to 67 in 2027. Greater participation and employment rates among older people (one of the buffers for the effects of ageing on the working age population, as mentioned above) will help to partly offset the negative impact of ageing on the working age population and control the increase in the burden of pension expenditure caused by longer life expectancy (see the second graph).

In summary, demographic trends represent a considerable challenge for the economy as they are shrinking the working age population. However, there will be changes in the behaviour of the labour force due to the policies implemented, so that not all ageing will result in a smaller labour force and, consequently, in a loss of growth and an increase in public expenditure. Nonetheless, medium to long term projections are highly sensitive to small variations in the hypotheses used, so that any preventative measures will be more than welcome.

### Decomposition of the change in public pension expenditure \*

Contribution to the change in expenditure between 2013 and 2050 (pps)



**Note:** \* Dependency ratio = population 65+/population 20-64; coverage ratio = pensions/population 65+; benefit ratio = average pension/average wage; labour intensity = population 20-64/hours worked 20-74; residual = given that the decomposition excludes state pensions, this factor serves to tally this with changes in total pension expenditure.

**Source:** CaixaBank Research, based on data from the European Commission («The 2015 Ageing Report»).

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3. See Conde-Ruiz and González (2010), «Envejecimiento: pesimistas, optimistas, realistas», Colección Estudios Económicos 10-2010 FEDEA.

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As of June 30, 2015

	MILLION €
Customer funds	296,412
Receivable from customers	211,559
Profit attributable to Group (January-June 2015)	708
Market capitalisation	23,961
Customers (million)	13.8
Staff	33,157
Branches in Spain	5,345
Self-service terminals	9,724

**"la Caixa" BANKING FOUNDATION COMMUNITY PROJECTS: BUDGET 2015**

	MILLION €
Social	336
Science and environmental	56
Cultural	67
Educational and research	41
<b>TOTAL BUDGET</b>	<b>500</b>

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