

# MR07

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

NUMBER 392 | JULY-AUGUST 2015



## ECONOMIC & FINANCIAL ENVIRONMENT

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### FINANCIAL MARKETS

*Monetary normalisation in the US: the Fed's new toolbox*

### INTERNATIONAL ECONOMY

*Energy subsidies: ready for a reduction?*

### EUROPEAN UNION

*Euro area: the importance of real convergence for economic union*

### SPANISH ECONOMY

*Alternative sources of financing: venture capital*

## DOSSIER: THE DIGITAL ECONOMY

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*The digital economy: the global data revolution*

*The digital era and its role in the economy*

*Digitalise or die: the digital transformation of industries and companies*

*The challenges facing the State in the new digital economy*



**"la Caixa" Research**

## MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK

July-August 2015

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Date this issue was closed:

30 June 2015

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## Greece's alternatives

After the resounding victory of the «no» vote in the referendum on 5 July, a new phase has begun in negotiations between the institutions and the Greek government but essentially there are still just two political and economic options open to Greece.

The first is to continue in the euro area. This entails a new and complex negotiation in which the institutions are only prepared to grant further funding to Greece in exchange for firm evidence that the country is adopting the reforms and adjustments required to ensure its economy becomes competitive and fiscally stable.

Undoubtedly these negotiations could include measures to relieve the effective burden of debt on the Greek economy (as has already happened in the past) but the real key to any possible agreement is the timing between the reforms, the payout of funds and relaxation of financing conditions. In other words, to what extent the reforms and adjustments need to precede the granting of further funds and particularly any changes in the conditions of existing debt.

Apart from the specifics of the agreement, this first alternative is the one that makes most political sense for the euro area. And also for Greece if the country wants to modernise its economy and institutions.

Greece's second option is to effectively leave the euro by introducing promissory notes to tackle the extremely limited liquidity that would result from not reaching an agreement with the institutions. These promissory notes would act like a new currency in practical terms. In the immediate future this option would lead to shortages in shops and a lot of firms and financial institutions going bankrupt which, added to the sharp devaluation the new currency would undergo, would make it impossible for the country to repay its debts with international lenders as these would still be in euros.

Greece leaving the euro would be bad news for the euro area and for the European Union as a whole as it would jeopardise the European political project and involve significant risks from a geostrategic point of view. Although the resulting euro area might be more cohesive in the medium to long term, Grexit would be a hard knock at an inopportune time. Since 2008 it has become clear that greater political union is required to guarantee the viability of monetary union and a great deal of effort has been invested to accomplish this. A stumble right now could represent a serious setback.

In any case Grexit would be bad business particularly for Greece. Although it is true that, in the medium term, devaluation could lead to a certain upswing in economic activity, its effectiveness in terms of long-term growth is doubtful as, in the absence of structural and institutional reforms and fiscal and financial stability, the country would not improve the real competitiveness of its economy nor ultimately its well-being.

In short, after the referendum of 5 July the next few weeks are crucial for the euro area (and, by extension, the European Union as a whole). Strong political leadership will be required to reach an agreement: the negotiators will need to be totally committed and maintain a clear view of Europe's role in the world beyond the troubles and strife of the Member states. Only in this way can the European project tackle the formidable challenge it is facing and emerge even stronger than before.

**Jordi Gual**  
Chief Economist  
6 July 2015

## CHRONOLOGY

### 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.

### MARCH 2015

- 9** The **European Central Bank starts its sovereign bond purchases**. A limit is set on the yield of the bonds acquired, which must be at least equal to the deposit facility yield, currently -0.20%.

### FEBRUARY 2015

- 23** The **Greek government** reaches an agreement with the institutions **to extend its bail-out programme another four months**. In exchange, it has promised to carry out an ambitious agenda of structural reforms.

### JANUARY 2015

- 22** The **European Central Bank announces the enlargement of its asset purchase programme** to 60 billion euros a month, including both public and private debt. This programme will continue until September 2016 but might be extended if inflation is still well below 2%. It also **cut the TLTRO interest rate** from 0.15% to 0.05%.
- 25** **Syriza wins the general election in Greece** and plans to renegotiate the country's debt and austerity policies.

## AGENDA

### JULY 2015

- 2** Registration with Social Security and registered unemployment (June).
- 6** Industrial production index (May).
- 15** Financial accounts (Q1).
- 16** International trade (May).  
Governing Council European Central Bank.
- 17** Loans, deposits and NPL ratio (May).
- 23** Labour force survey (Q2).
- 28** State budget execution (June).  
Fed Open Market Committee.
- 30** Flash GDP (Q2).  
Flash GDP of the US (Q2).  
Flash CPI (July).  
Economic sentiment index of the euro area (July).
- 31** Balance of payments (May).

### AUGUST 2015

- 3** Registration with Social Security and registered unemployment (July).
- 7** Industrial production index (June).
- 14** Flash GDP of the euro area (Q2).
- 17** Flash GDP of Japan (Q2).
- 18** Loans, deposits and NPL ratio (June).  
Foreign trade (June).
- 27** Quarterly national accounts (Q2).
- 28** Flash CPI (August).  
Economic sentiment index of the euro area (August).
- 31** Balance of payments (June).  
State budget execution (July).

## The Greek storm will not blow Europe's recovery off course

**There's growing uncertainty regarding Greece's situation but Europe's macroeconomic expansion is in no danger.** After months of negotiations, on 30 June the second bail-out programme expired without Greece and its institutional creditors reaching an agreement. As a result, the pending payouts were not made. Towards the end of the negotiations, the Greek government also decided to hold a referendum on 5 July regarding the institutions' proposal, implemented capital controls in order to mitigate the liquidity problems in its banks and did not pay its debt with the International Monetary Fund (IMF). In spite of these ups and downs and the uncertainty hovering over the next few months, the impact on European stock markets and risk premia has been subdued. This is thanks to the firewalls progressively implemented by the European Central Bank (ECB) over the last few years and to the institutional advances made in economic and monetary union (EMU) which reduce the likelihood of financial contagion. Also favourable is the more limited exposure of Europe's banks to Greek financial assets and the improved macroeconomic situation of the peripheral countries as a result of structural reforms and public adjustment policies. Lastly, the current favourable economic situation in Europe also helped to ease the impact. Supported by cheaper crude oil, the euro's depreciation and improved financial conditions, Europe's expansion is gaining traction. While, in January, most analysts expected the euro area's growth to be 1.1% in 2015, the figure is now 1.5%. However, the fact that the Greek crisis is unlikely to destroy the economic recovery does not mean we can be complacent: EMU still has to develop in key areas such as financial and fiscal. The so-called «Five Presidents' Report» outlines the roadmap that should be followed to progress with financial, economic and fiscal union, a timely and relevant proposal that should not be ignored.

**The Spanish economy continues to perform well.** Given the European context, how is the Spanish economy weathering these stormy months? Spain is probably one of the countries that best exemplify the general features we have listed for the euro area as a whole. In the short term the financial impact has been similar on both: the Ibex 35 and Eurostoxx 50 (the euro area's stock market index) suffered similar losses and the upswing in Spain's risk premium was limited. This is the result of the

aforementioned factors: ECB firewalls, better EMU and a solid economic tone. In this last aspect it should be noted that the Spanish economy has been particularly dynamic during the first half of this year. After recording strong growth in 2015 Q1, available indicators point to a similar rate in Q2. This justifies our upward revision of growth for the year as a whole to 3.1% although we expect the economy to slow down moderately in the second half of 2015 and in 2016 due to the gradual disappearance of temporary supportive factors (oil and the euro, in particular). Nevertheless, this gentle slowdown does not sully the fact that Spain has now entered a positive period that includes elements such as improved household income (benefitting from the good performance of the labour market), inflation (which is at last starting to reflect the more vigorous tone of domestic demand), growth in the external surplus, recovery in the real estate sector and a revival in credit.

**Global growth continues.** The impact of the Greek crisis becomes more diluted as we move away from Europe (as testified by its lower impact on high risk financial assets) and other factors take over. In the US, after an abnormally weak 2015 Q1, business indicators for Q2 point to an appreciable recovery in growth and the continuation of two major forces: contained inflation and a dynamic labour market. With these two elements in place, we expect the Federal Reserve to start raising its reference rate in autumn and then afterwards continue its monetary normalisation at a gradual pace. Japan, for its part, after recording a better Q1 than initially announced, is en route to growing by 1% in 2015, a modest figure that can be explained by the difficulties encountered by the country to boost private consumption. Another Asian giant, China, is on a different track. In its case the challenge is to achieve what the IMF calls «a new normal, aimed at safer and higher-quality (...) growth. A transition that is both challenging and necessary». Given this situation, the more moderate growth rate of GDP is seen as a by-product of this change in model. In any case China's situation is diametrically opposed to the complications facing other emerging economies, in particular Brazil and Russia which have recorded quite hefty drops in activity in the first part of the year that look like continuing for the remainder of 2015.

## 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>	3.4	3.3	3.3	3.7	3.2	3.3	3.3	3.4	3.8	3.7
<b>Developed countries</b>	1.2	1.6	2.0	2.3	1.7	2.1	2.1	2.2	2.4	2.2
United States	2.2	2.4	2.7	2.7	2.9	2.8	2.4	2.7	3.2	2.8
Euro area	-0.4	0.9	1.5	1.8	1.0	1.4	1.7	1.8	1.9	1.8
Germany	0.2	1.6	1.6	1.9	1.0	1.5	2.0	1.8	2.0	2.0
France	0.4	0.2	1.1	1.5	0.7	1.1	1.2	1.4	1.2	1.4
Italy	-1.7	-0.4	0.6	1.2	0.1	0.5	0.9	1.1	1.1	1.2
Spain	-1.2	1.4	3.1	2.6	2.7	3.0	3.3	3.3	3.0	2.7
Japan	1.6	-0.1	1.0	1.2	-1.0	1.1	2.0	2.0	1.4	1.3
United Kingdom	1.7	3.0	2.1	2.1	2.9	2.3	1.9	1.5	1.7	2.0
<b>Emerging countries</b>	6.2	5.9	5.1	5.7	5.1	5.2	5.1	5.2	5.7	5.7
China	7.7	7.4	6.7	6.5	7.0	6.7	6.4	6.5	6.8	6.4
India <sup>2</sup>	6.9	7.3	7.1	7.2	7.5	7.1	7.0	7.2	7.2	7.2
Indonesia	5.6	5.0	5.4	5.9	4.7	5.4	5.6	5.7	5.7	5.8
Brazil	2.7	0.1	-0.9	0.8	-1.6	-0.8	-0.8	-0.5	0.1	0.8
Mexico	1.4	2.1	2.8	3.6	2.5	2.8	3.0	3.0	3.5	3.6
Chile	4.2	1.9	2.8	3.5	2.4	2.8	2.8	3.2	3.4	3.5
Russia	1.3	0.6	-3.3	-0.8	-2.2	-4.0	-3.6	-3.3	-2.5	-1.5
Turkey	4.2	2.9	3.3	4.0	2.3	3.2	3.6	3.9	3.8	4.0
Poland	1.7	3.5	3.5	3.7	3.5	3.3	3.5	3.6	3.7	3.6
South Africa	2.3	1.6	2.2	2.7	2.0	2.0	2.4	2.4	2.6	2.7
<b>INFLATION</b>										
<b>Global<sup>1</sup></b>	3.7	3.3	3.0	3.6	2.6	3.1	3.0	3.3	3.7	3.7
<b>Developed countries</b>	1.4	1.3	0.4	1.9	0.1	0.1	0.3	1.0	1.9	1.8
United States	1.5	1.6	0.2	2.2	-0.1	-0.1	0.2	0.9	2.3	2.1
Euro area	1.4	0.4	0.4	1.6	-0.3	0.2	0.5	1.1	1.8	1.6
Germany	1.6	0.8	0.6	1.9	-0.2	0.3	0.9	1.4	2.1	1.9
France	1.0	0.6	0.4	1.4	-0.2	0.3	0.6	1.1	1.6	1.4
Italy	1.3	0.2	0.3	1.4	-0.1	0.1	0.4	0.9	1.5	1.4
Spain	1.4	-0.2	0.0	1.9	-1.0	-0.2	0.2	1.1	2.2	1.8
Japan <sup>3</sup>	0.4	2.7	0.9	1.4	2.3	0.5	0.2	0.8	1.5	1.2
United Kingdom	2.6	1.5	0.4	1.7	0.1	0.0	0.5	0.9	1.4	1.6
<b>Emerging countries</b>	4.4	3.8	3.9	4.1	3.0	4.5	3.9	4.1	4.1	0.0
China	2.6	2.0	1.4	2.1	1.2	1.4	1.5	1.7	1.6	2.3
India	10.1	7.2	4.8	6.7	5.3	4.9	3.7	5.5	7.2	7.2
Indonesia	6.4	6.4	6.3	5.2	6.5	7.0	6.7	5.1	4.7	5.3
Brazil	6.2	6.3	7.8	6.1	7.7	8.0	8.0	7.7	6.5	6.2
Mexico	3.8	4.0	3.2	3.1	3.1	3.1	3.3	3.2	3.1	3.3
Chile	2.1	4.4	3.8	3.0	4.4	3.9	3.6	3.3	3.1	3.0
Russia	6.8	7.8	13.7	6.6	16.2	16.0	12.5	10.0	8.0	7.0
Turkey	7.5	8.9	6.9	6.5	7.5	6.8	6.7	6.6	6.5	6.2
Poland	1.2	0.2	-0.2	1.9	-1.2	-0.5	-0.1	0.9	1.7	1.7
South Africa	5.8	6.1	4.9	5.8	4.1	4.6	4.7	6.1	6.9	5.7

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	3.4	2.4	3.5	3.5	3.5	3.3	3.1	2.6
General government consumption	-2.9	0.1	0.6	-0.2	0.1	0.2	0.6	1.8	0.0	0.1
Gross fixed capital formation	-3.7	3.4	5.3	4.2	6.0	5.2	5.1	4.8	4.6	4.2
Capital goods	5.6	12.3	7.6	5.3	9.4	7.6	6.9	6.5	6.4	5.4
Construction	-9.2	-1.4	4.5	3.6	4.9	4.4	4.6	4.0	3.3	3.4
Domestic demand (contr. Δ GDP)	-2.7	2.2	2.9	2.2	3.0	2.9	2.9	3.0	2.7	2.3
Exports of goods and services	4.3	4.2	5.3	5.9	5.7	6.4	3.8	5.3	5.7	5.9
Imports of goods and services	-0.4	7.7	5.5	5.0	7.4	6.6	2.9	4.9	5.3	5.2
<b>Gross domestic product</b>	<b>-1.2</b>	<b>1.4</b>	<b>3.1</b>	<b>2.6</b>	<b>2.7</b>	<b>3.0</b>	<b>3.3</b>	<b>3.3</b>	<b>3.0</b>	<b>2.7</b>
<b>Other variables</b>										
Employment	-3.2	1.2	3.0	2.5	2.8	2.9	3.1	3.0	2.9	2.5
Unemployment rate (% labour force)	26.1	24.4	22.3	20.7	23.8	22.3	21.6	21.6	21.9	20.7
Consumer price index	1.4	-0.2	0.0	1.9	-1.0	-0.2	0.2	1.1	2.2	1.8
Unit labour costs	-0.4	-0.4	0.7	1.0	1.0	0.5	0.6	0.7	0.3	0.9
Current account balance (cum., % GDP) <sup>1</sup>	1.4	0.8	1.5	1.2	1.0	1.1	1.3	1.5	1.4	1.3
Net lending or borrowing rest of the world (cum., % GDP) <sup>1</sup>	2.0	1.2	2.1	1.8	1.3	1.7	1.9	2.1	2.0	1.9
Fiscal balance (cum., % GDP) <sup>1</sup>	-6.8	-5.8	-4.8	-3.3						

## Financial markets

<b>INTEREST RATES</b>										
<b>Dollar</b>										
Fed Funds	0.25	0.25	0.31	0.98	0.25	0.25	0.25	0.50	0.75	0.92
3-month Libor	0.27	0.23	0.41	1.21	0.26	0.28	0.44	0.67	0.89	1.10
12-month Libor	0.68	0.56	0.90	1.73	0.66	0.73	0.96	1.25	1.47	1.64
2-year government bonds	0.30	0.44	0.85	1.82	0.58	0.59	0.91	1.30	1.55	1.73
10-year government bonds	2.33	2.53	2.41	3.31	1.97	2.18	2.58	2.92	3.12	3.25
<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	0.02	0.03	0.05	-0.01	0.01	0.01	0.01	0.01
12-month Euribor	0.54	0.48	0.19	0.28	0.26	0.17	0.16	0.16	0.19	0.23
2-year government bonds (Germany)	0.13	0.05	-0.20	0.02	-0.18	-0.22	-0.20	-0.20	-0.13	-0.03
10-year government bonds (Germany)	1.62	1.23	0.62	1.48	0.35	0.53	0.64	0.98	1.22	1.39
<b>EXCHANGE RATES</b>										
\$/€	1.33	1.33	1.09	1.04	1.13	1.11	1.09	1.05	1.03	1.03
¥/€	129.65	140.42	133.05	129.82	134.30	134.21	133.27	130.41	129.29	129.60
£/€	0.85	0.81	0.72	0.71	0.74	0.72	0.72	0.71	0.71	0.71
<b>OIL</b>										
Brent (\$/barrel)	108.47	99.45	63.57	78.75	55.19	63.42	66.33	69.33	73.20	77.58
Brent (€/barrel)	81.67	74.83	58.25	75.87	48.97	57.34	61.14	66.19	71.24	75.43

Note: 1. Four quarter cumulative.

Forecasts



## FINANCIAL OUTLOOK · Upswing in risk aversion given the uncertain future

**The reappearance of the spectre of a potential Grexit in the last few days of June is leaving its mark on the markets.**

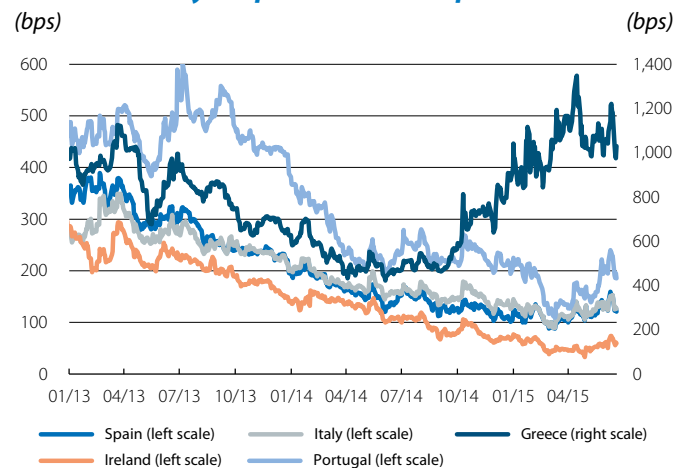
In any case, the derailment in negotiations between Greece and its creditors has had a limited impact on European stock markets and peripheral bond risk premia. Unfortunately, in the short term investor sentiment is dominated by the high uncertainty resulting from Greece's political and economic situation. Although it is now more likely that the outcome of the Greek issue will be adverse, our main scenario still assumes that the country will remain in the euro area. On the other hand, as the euro area's mechanisms designed to contain potential increases in financial instability are now fully operational, this limits the scope and possible contagion to the rest of the region.

**The news coming from Greece will dominate the international financial scene this summer,** already a less than favourable time of year. Consequently the volatile tone of the international financial environment, far from abating, will continue throughout the summer months. In addition to the ups and downs caused by the Greek saga, the actions taken by the Federal Reserve (Fed) regarding interest rates is another important factor in the trend of international markets. We do not expect any huge changes in this area: the Fed will keep its message of a gradual, conditional normalisation of interest rates based on the incoming economic activity data and the expected path of inflation.

**The resilience of periphery sovereign debt has become more important** after the sell-off of German public debt in spring and worsening tension in Greece and the imposition of capital controls in the country. The initial reaction by investors intensified «flight to quality flows» in search of a safe haven (mainly German public debt) and also the sale of periphery debt. However, the resulting upswing in periphery risk premia has been subdued (in the order of 30 bps in Spain and Italy and 40 bps in Portugal). Improved macroeconomic and financial conditions, the regularisation of the banking sector and various mechanisms to contain risk have limited the extent of possible contagion to the rest of the periphery countries. Proof of this is that mechanisms to transmit and amplify financial tensions have not been started up, unlike what happened during the euro area crisis in 2011 and 2012.

**The ECB's actions are key on several fronts.** On the one hand, the monetary authority's Governing Council decided to continue providing Greek banks with emergency liquidity assistance (ELA). Although it can stop this liquidity facility

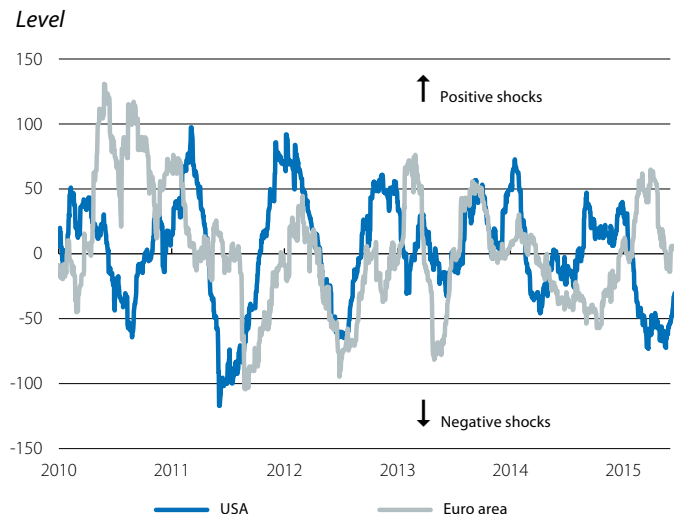
### Euro area: 10-year public debt risk premia \*



Note: \* Spread compared with German 10-year bond.

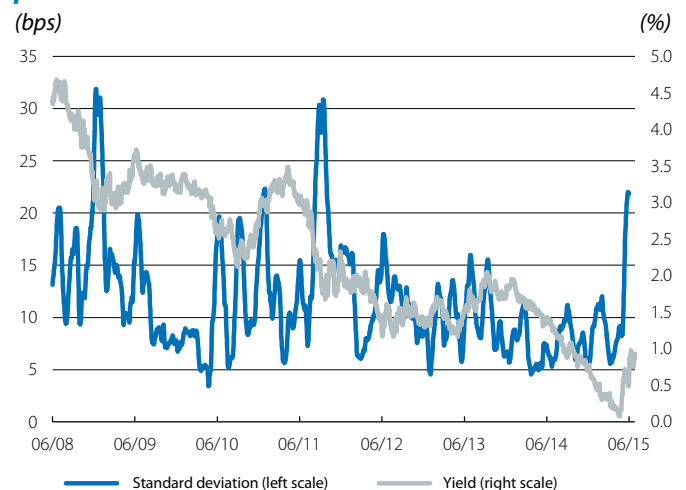
Source: "la Caixa" Research, based on data from Thomson Reuters Datastream.

### Index of economic shocks



Source: "la Caixa" Research, based on data from Bloomberg.

### Germany: yield and volatility of 10-year public debt



Source: "la Caixa" Research, based on Bloomberg data.



when bank solvency is called into question, the European Central Bank (ECB) is unlikely to adopt such a far-reaching decision: stopping ELA would precipitate a *de facto* Grexit from economic and monetary union. On the other hand the institution has considerable ammunition to tackle a potentially turbulent episode in sovereign debt markets. In particular the ECB can opt to temporarily shift the centre of gravity of its bond purchases from sovereign QE towards periphery debt. If necessary, it can also make full use of OMTs (outright monetary transactions), announced in the summer of 2012 and whose legality has been ratified recently by the European Court of Justice.

**The path of the Fed's monetary normalisation at the heart of debate.** The Fed's June meeting provided further clues as to its expected strategy to raise interest rates with a view to the next few years. The Chair of the monetary authority, Janet Yellen, confirmed the intention of the Federal Open Market Committee to start raising the official interest rate in the last few months of 2015, once the improvement in the labour market has been confirmed and inflation moves closer to 2%. The Fed members still expect moderate expansion for the US economy although the temporary standstill in GDP in 2015 Q1 has forced them to reduce their growth forecast for 2015 (from 2.5% to 1.9% annually). Although the debate regarding which month will see the first official interest rate hike (September or December) is still a source of discrepancy among the Committee's members, attention on the messages is starting to revolve around the expected rate of rises in the medium and long term. Regarding this last point, Yellen stressed that monetary policy will continue to be accommodative after the first hike in the official interest rate. This, together with the reduction in the path of the official interest rate forecast by Fed members, confirms our scenario of a very gradual monetary normalisation.

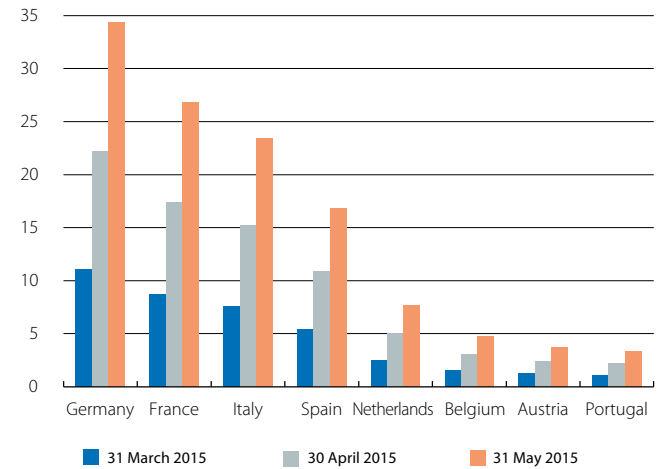
**Treasury yields continue the upward trend started in April.** The imminence of the first official interest rate hike by the Fed has supported the increase in yields on US sovereign debt. Upward pressures have been particularly significant in the longest tranche of the Treasury curve. Specifically, in June the yield on 10-year bonds rose by 20 bps compared with the 2 bps increase seen in 2-year Treasury bonds. This advance has also been supported by better inflation expectations over the medium to long term. In the coming months we expect both factors to continue boosting the sustained rise in interest rates. However, it is very likely that the dependence of the Fed's monetary policy on the trend in economic data and European sovereign debt market tensions will keep public debt volatility at a relatively high level during the third quarter of the year.

#### Investor appetite towards emerging countries shrinks.

The upswing in risk aversion in financial markets has slowed down the flow of portfolio investments towards the

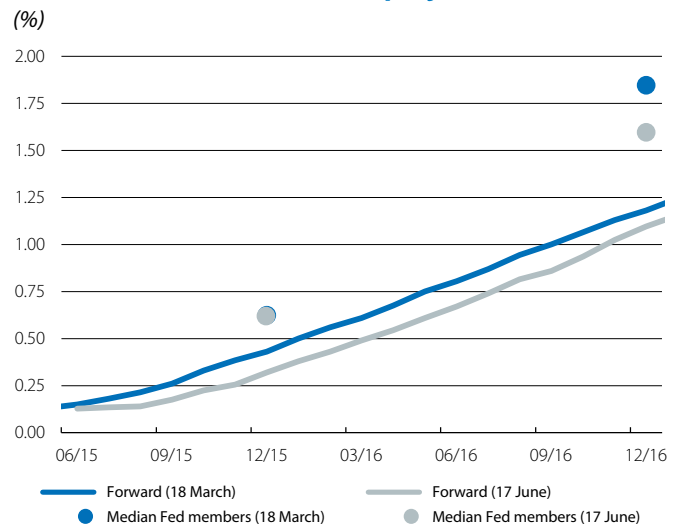
#### ECB: cumulative purchases of public debt by country

(Billion euros)



Source: "la Caixa" Research, based on Bloomberg data.

#### USA: Fed official interest rate projections



Source: "la Caixa" Research, based on Bloomberg data.

#### USA: breakdown of the yield on 10-year bonds



Source: "la Caixa" Research, based on Bloomberg data.

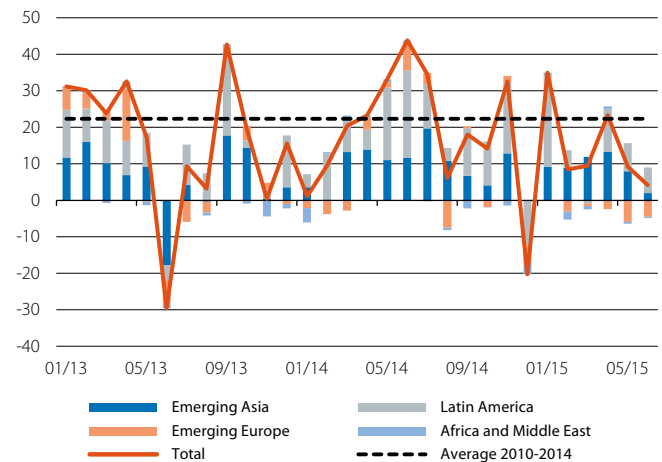
emerging bloc in the last few weeks. Although the impact of this slowdown on the spreads of the emerging bonds and currencies has been relatively moderate, it has not eliminated doubts regarding the consequences of the start of interest rate hikes in the US. On the one hand, Brazil and Turkey are looking like the most vulnerable countries to the imminent turnaround in the Fed's monetary policy. On the other hand, the slowdown of the Chinese economy is still a source of risk, although limited thanks to the room for manoeuvre enjoyed by its monetary policy. In this respect, the strong fluctuations in China's stock market have resulted in the country's central bank adopting further monetary stimuli. Specifically, the institution cut the official lending rate by 25 bps for the fourth time since November, as well as the official deposit rate, down to 4.85% and 2.0% respectively. At the same time, the central bank also reduced the ratio for banks' mandatory reserves by 50 bps, down to 16.0%.

**International stock markets become immersed in a period of uncertainty.** The doubtful tone of the last few weeks has continued in the US stock market, awaiting possible clues from the Fed regarding the future trend in interest rates and the publication of macroeconomic data. Across the Atlantic, a downward slide has consolidated in European stock markets given the lack of resolution of the Greek crisis, which looks like affecting the trend in the Old Continent's stock markets over the coming weeks. Under such circumstances, the correction in stock markets is more likely to continue than a phase with the opposite trend. Similarly, current conditions will maintain the dynamic of the last few months throughout the summer, characterised by the US stock market performing relatively better than the European market. However, the focus of investors will gradually shift towards fundamental indicators (macroeconomic environment and corporate earnings) as the issues underlying the Greek situation become clearer. On the other hand, the corrections in China's stock market are likely to continue during the summer due to the still high levels of investor leverage.

**Trends in the euro and oil are still unclear, awaiting Greece and the Fed.** With questions hovering over the outcome of the Greek crisis and interest rate rises in the US, the euro is still somewhat erratic, fluctuating within the range of 1.14-1.11 dollars. Although debate regarding euro-dollar parity has eased in the last few weeks, we believe the euro is likely to start falling again sooner rather than later as US interest rate hikes become more imminent. In commodities, the Brent oil price has recorded small fluctuations at around 65 dollars/barrel. This lack of any decisive trend in the oil price can be attributed to OPEC's decision to keep its crude production quote unchanged as well as weak demand from emerging economies. In the medium term, we place the price range for a Brent barrel at 70-80 dollars.

### Emerging countries: new foreign portfolio investment

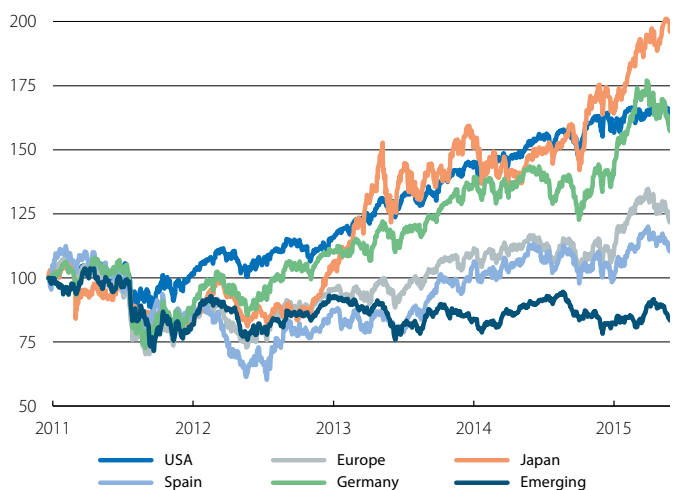
(Billion dollars)



Source: "la Caixa" Research, based on data from the IIF.

### Main international stock markets

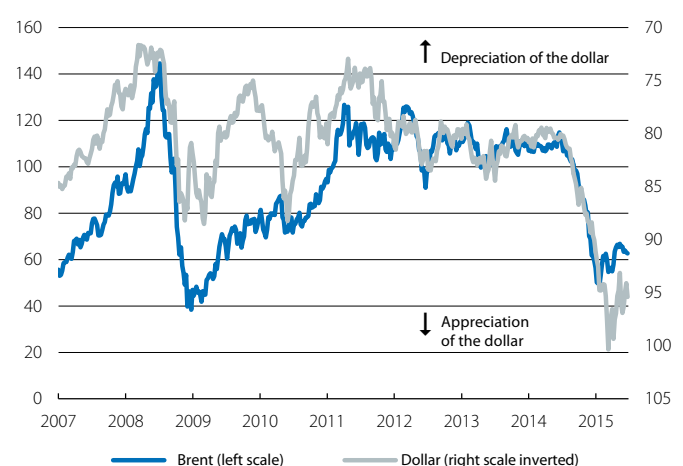
Index (100 = January 2011)



Source: "la Caixa" Research, based on Bloomberg data.

### Brent oil price and dollar index value \*

(Dollars per barrel)



Note: \* Dollar's value compared with the currencies of its main trading partners.

Source: "la Caixa" Research, based on Bloomberg data.

## FOCUS · Monetary normalisation in the US: the Fed's new toolbox

After the summer holidays the US Federal Reserve (Fed) is going to take on a complex task: starting to raise the official interest rate after more than six years of it being frozen close to 0%. This will be the first important move in terms of monetary normalisation since the announcement of tapering of bond purchases in 2013, which shook the financial markets. So as not to repeat this situation, the Fed will have to calculate very carefully the date and size of each interest rate hike and precisely word its announcements. But it will also be vital for the mechanisms used in these operations to work smoothly and effectively. There are reasonable doubts hovering over the process due particularly to two factors: the huge amount of excess liquidity in the banking system and the far-reaching regulatory and competitive changes in the financial system taking place over the last few years. Given this challenge, the Fed has designed new tools to intervene in the money market.

Traditionally the Fed has used open market operations (OMOs) to control the volume of bank reserves and guide the interest rate at which banks lend overnight (known as the Fed funds rate or market rate) towards the Fed's desired level (the Fed funds target rate or official rate). However, the Fed's policy of expanding its balance sheet after the financial crisis erupted (mainly via bond purchases) has pushed bank reserves up to a level that is much higher than normal or indeed necessary. In practical terms, this huge excess of reserves makes OMOs less effective: to raise the Fed funds rate the Fed would have to sell such a large number of bonds (and thereby absorb reserves) that the disruptive side effects on financial markets would be devastating. Action via other means is therefore required.

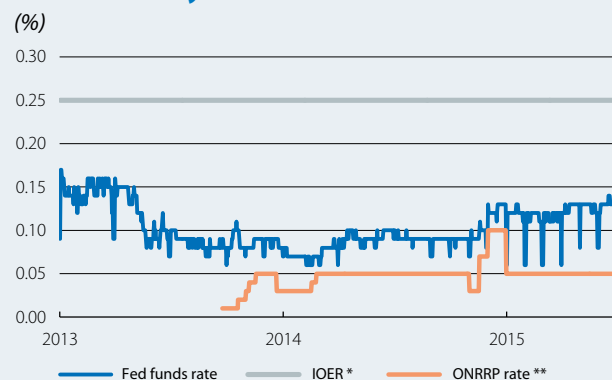
In September 2014 the Fed outlined a new strategy to further monetary normalisation and announced that its main instrument would be the interest rate paid by banks on excess reserves (IOER). This tool should help the Fed to set an interest rate below which each bank is not willing to lend money to other financial institutions; in other words, the IOER should act as a lower limit for the Fed funds rate. But evidence over the last few years has shown that the IOER does not provide, *per se*, the desired degree of control over the market rate and, since 2008, the Fed funds rate has been systematically below that of the IOER. The reason is that non-banking financial institutions have become relatively important in the US financial system (hedge funds, money market mutual funds and public mortgage agencies such as Fannie Mae and Freddie Mac). As these institutions cannot access a

Fed reserve account, they are ready to lend funds at interest rates below the IOER. With the aim of resolving this problem, the Fed has made use of an additional tool, the overnight reverse repurchase agreement (ONRRP), via which non-banking financial institutions can provide overnight funds to the Fed (with securities from the Fed's bond portfolio as collateral). Consequently, ONRRP users have no incentive to lend money at interest rates below those offered by the Fed. Tests carried out since September 2013 show that the ONRRP rate has effectively acted as a lower limit for the short-term market interest rate. The Fed has also prepared two complementary tools designed to temporarily withdraw liquidity from circulation: the term deposit facility (TDF) to convert bank reserves into term deposits, and term reverse repurchase agreements (TRRP) for other financial institutions.

Although, in theory, the combined use of all these tools should be enough on paper to adjust short-term interest rates there are doubts regarding the possible effects on financial stability. One initial fear is that the money market could atrophy as a result of the Fed's hegemonic role. There are also concerns about financial institutions hastily redirecting investments towards the safety of the ONRRP should they foresee an episode of financial stress, which would drastically reduce private sector financing and accentuate the initial tensions.

In short, the Fed has enough tools to effectively raise interest rates on paper. However, there are still doubts regarding the ease of this process and even more so the possible side effects. The US monetary authority should keep a close eye on the details of the implementation and successfully handle its bigger toolbox.

### USA: monetary interest rates



Notes: \* IOER: interest on excess reserves.

\*\* ONRRP: overnight reverse repurchase agreement.

Source: "la Caixa" Research, based on Bloomberg data.

## FOCUS · Liquidity risk in fixed income markets: best to remain on the alert

The high volatility observed in European sovereign debt prices since the end of April has revived investor concerns regarding the market's liquidity conditions; i.e. whether large transactions can be carried out without significant impact on the price of the asset being traded. The risk is that insufficient liquidity will lead to an excessively volatile and erratic interest rate environment. Identifying which factors underlie lower market liquidity is key to determining whether this is a temporary phenomenon or a lasting source of instability which therefore needs to be watched closely or even corrected.

Two disparate phenomena have played their part over the last three years. On the one hand, financing liquidity (the ease of obtaining funds) has gradually increased thanks to central banks' ultra-accommodative monetary policies, in particular quantitative easing. On the other hand, market liquidity has diminished in several financial segments, especially secondary bond markets. On the whole the secondary market of corporate bonds has seen a larger reduction in its liquidity than its government bond counterpart, both in the US and Europe. Although bid-ask spreads for corporate bonds have historically been narrow, suggesting there are no extreme liquidity tensions, other indicators are hinting at a less encouraging diagnosis. This is the case of the ratio between daily trading volumes and the stock of debt by issuer which, in the US, has fallen by 50% since 2007 in the segment of investment grade bonds and by 30% in the speculative grade. Also revealing is the continuous drop in the average value of corporate bond transactions over 5 million dollars, from 29 million dollars in 2005 to just 15 million in 2013. Beyond these specific figures, corporate bond traders themselves are warning of a worrying difficulty in trading with debt securities due to the growing illiquidity of the secondary market. This deterioration has been less acute in government bonds but the decline observed over the last few months in the depth and breadth of secondary markets for sovereign debt from the US, Japan and Germany is a cause for concern.

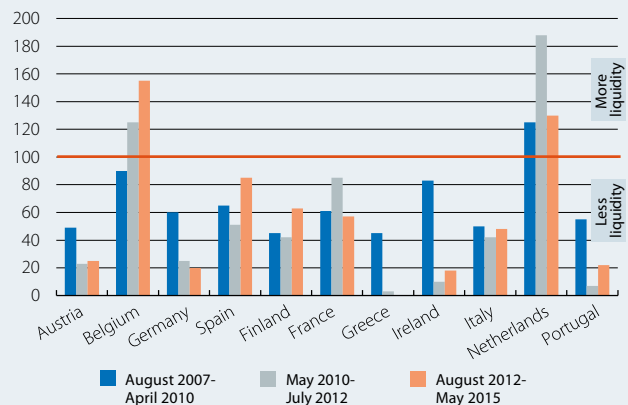
Such erosion in liquidity is due to the combined effect of two big factors. Firstly, the gradual dismantling of market-making and proprietary trading activities previously carried out by large international financial institutions. New legal requirements on capital and liquidity brought in after the financial crisis have pushed up costs and consequently cut the returns

from such operations. They have also depressed banks' risk appetite for accumulating stocks of bonds, traditionally a fundamental source of liquidity for the market. According to data from the Federal Reserve (Fed), stocks of corporate debt held by US banks have fallen by 80% since 2007. This reduction in the brokerage role played by the banking sector has given rise to significant changes in the kind of investor involved in the debt market with bonds managed by investment funds growing by 77% since 2007 worldwide. The second factor corresponds, paradoxically, to the very adoption of quantitative easing schemes by central banks. Such large-scale purchases have removed large amounts of public debt from the market and increased the share of buy and hold investors.

These far-reaching changes affecting the microstructure of bond markets are likely to continue in the medium term. Given this situation, the liquidity risk premia of bonds may well rise, amplifying the virulence of possible readjustments in interest rates originally brought about by fundamental forces which, in principle, would normally have a gradual effect. The abruptness of the recent sell-off of German public debt is a clear example of this circumstance. Although the tendency of liquidity to move out of reach of investors just when they need it the most is nothing new, the experience of this spring at least serves as a lesson regarding what might happen with the imminent normalisation of interest rates by the Fed.

### Euro area: trading volumes compared with outstanding balance of public debt

Index (100 = average December 2004-July 2007)



Source: "la Caixa" Research, based on ECB data.

## KEY INDICATORS

## Interest rates (%)

	30-June	29-May	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	-10.0
3-month Euribor	-0.01	-0.01	0	-9.2	-22.1
1-year Euribor	0.16	0.16	0	-16.5	-32.8
1-year government bonds (Germany)	-0.24	-0.22	-2	-17.6	-26.4
2-year government bonds (Germany)	-0.23	-0.23	0	-13.2	-25.8
10-year government bonds (Germany)	0.76	0.49	27	21.9	-48.5
10-year government bonds (Spain)	2.30	1.84	46	68.9	-36.1
10-year spread (bps) <sup>1</sup>	154	135	19	46.7	12.2
<b>USA</b>					
Fed funds	0.25	0.25	0	0.0	0.0
3-month Libor	0.28	0.28	0	2.4	4.9
12-month Libor	0.77	0.75	2	14.1	22.5
1-year government bonds	0.26	0.24	2	4.7	16.4
2-year government bonds	0.64	0.61	3	-2.5	18.3
10-year government bonds	2.35	2.12	23	17.9	-18.0

## Spreads corporate bonds (bps)

	30-June	29-May	Monthly change (bps)	Year-to-date (bps)	Year-on-year change (bps)
Itraxx Corporate	75	66	9	11.9	12.6
Itraxx Financials Senior	90	77	13	22.4	22.1
Itraxx Subordinated Financials	179	157	22	30.5	76.4

## Exchange rates

	30-June	29-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
\$/€	1.115	1.099	1.5	-7.9	-18.6
¥/€	136.540	136.350	0.1	-5.7	-1.6
£/€	0.710	0.719	-1.3	-8.6	-11.3
¥/\$	122.500	124.150	-1.3	2.3	20.9

## Commodities

	30-June	29-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	426.3	424.7	0.4	-2.6	-14.1
Brent (\$/barrel)	61.4	63.9	-4.0	10.0	-45.3
Gold (\$/ounce)	1,172.4	1,190.6	-1.5	-1.0	-11.7

## Equity

	30-June	29-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	2,063.1	2,107.4	-2.1	0.2	5.2
Eurostoxx 50 (euro area)	3,424.3	3,570.8	-4.1	8.8	6.1
Ibex 35 (Spain)	10,769.5	11,217.6	-4.0	4.8	-1.4
Nikkei 225 (Japan)	20,235.7	20,563.2	-1.6	24.2	33.5
MSCI Emerging	972.3	1,004.2	-3.2	1.7	-7.5
Nasdaq (USA)	4,986.9	5,070.0	-1.6	5.3	13.1

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



## ECONOMIC OUTLOOK · The Fed and cheap oil will continue to support world growth

**Global growth is being supported by accommodative monetary policy and low oil prices.** Although the Federal Reserve (Fed) made it clear at its June meeting that it will start to raise interest rates very soon, it also added an important element with regard to the rate at which it will tighten up its monetary policy. According to the Fed's communication, financial conditions will more than likely continue accommodative for a long time. This will provide a significant boost for world growth, especially for the emerging countries with a relatively unbalanced macroeconomic situation such as Turkey and South Africa, as well as those in recession such as Brazil and Russia. On the other hand, OPEC maintaining its oil production levels will also be particularly helpful for advanced economies and a large number of emerging countries as this will help to keep down the price of crude.

### UNITED STATES

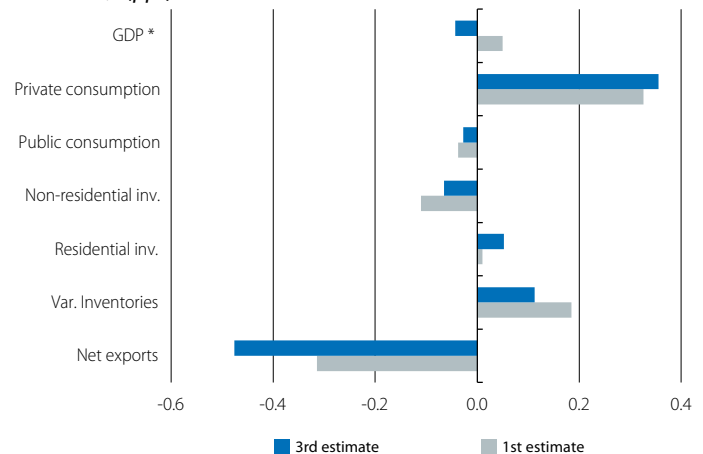
**GDP saw a slight decline in 2015 Q1** according to the second revision produced by the Bureau of Economic Analysis. The flash figure published (0.1% quarter-on-quarter) posted an insignificant drop due to the foreign sector which hindered growth more than had been estimated in the first forecast, partly because of the dock strike in Q1. Year-on-year growth remained at 2.9% although the most notable aspect of this third estimate was the slight upward revision of private consumption. This strong consumption was confirmed by May's national accounts figures which posted a 0.6% month-on-month rise in personal consumption expenditure and a more solid improvement in household income than in April. Retail sales also looked strong in May and the Conference Board Consumer Confidence index shows that perception is also positive at present, close to the levels of 2006.

**The bad figure from Q1 reflects temporary and methodological factors.** The Fed's latest analyses conclude that the Bureau of Economic Analysis tends to underestimate growth in the early quarters (see the Focus «US GDP in Q1: better than it looks»). Other negative contributions to growth were made by the aforementioned strike and exceptionally harsh weather at the beginning of the year, whose consequences were felt by components such as construction and investment in infrastructures, the latter in particular falling by 5.1% quarter-on-quarter, its worst figure since 2010.

**Recent business indicators support the hypothesis that construction has improved in Q2.** The recovery in the construction sector has been confirmed, after the drop off in activity during the first few months of the year because of the bad weather. Generous expenditure on construction in April, especially in the industrial sector, was the expected reaction after a lethargic Q1. Similarly, the number of housing starts in

### USA: GDP

Contribution to quarter-on-quarter growth in GDP in 2015 Q1 (pps)

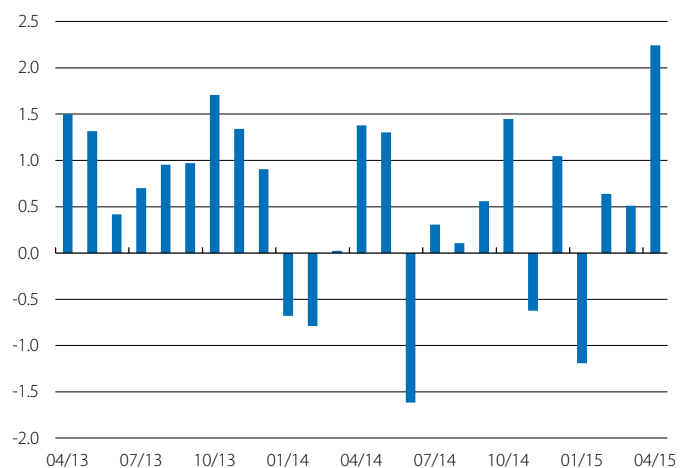


Note: \* Quarter-on-quarter change.

Source: "la Caixa" Research, based on data from the Bureau of Economic Analysis.

### USA: construction spending

Month-on-month change (%) \*

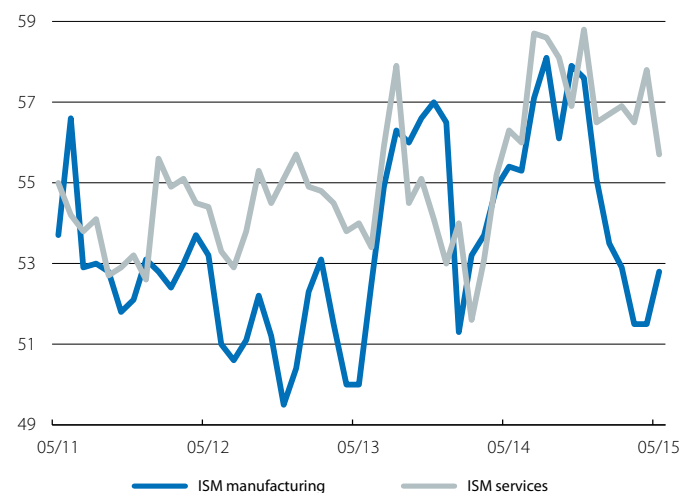


Note: \* Series seasonally adjusted.

Source: "la Caixa" Research, based on data from the US Census Bureau.

### USA: business sentiment indicators

(Index)



Source: "la Caixa" Research, based on ISM data.

May was 15.1% higher than the figure for February, in spite of falling compared with April. Business sentiment indices (ISM) are also still in the expansionary zone. The ISM for manufacturing, which in the last few months had suffered from the drop in oil and coal investment, added its second consecutive rise in May and stood at 52.8 points, a figure that corresponds with growth in GDP close to 3%. The ISM for services dipped slightly in May but its current level of 55.7 points coincides with economic growth above 3%.

**Employment looks strong again.** 280,000 net jobs were created in May, a higher figure than expected and above 200,000, indicative of a strong market. However, a rise in the participation rate meant that the unemployment rate increased by 0.1 pps to 5.5% of the labour force. The broad unemployment rate (U6), which includes the under-employed (people working part-time for economic reasons but who would like to work full-time) remained at 10.8% after several months of decline. Wages rose by a still moderate 2.3% year-on-year in May. Nonetheless, vacancies outstripped new employment contracts, which are growing at a considerable rate and could represent the start of a more consistent recovery in wages.

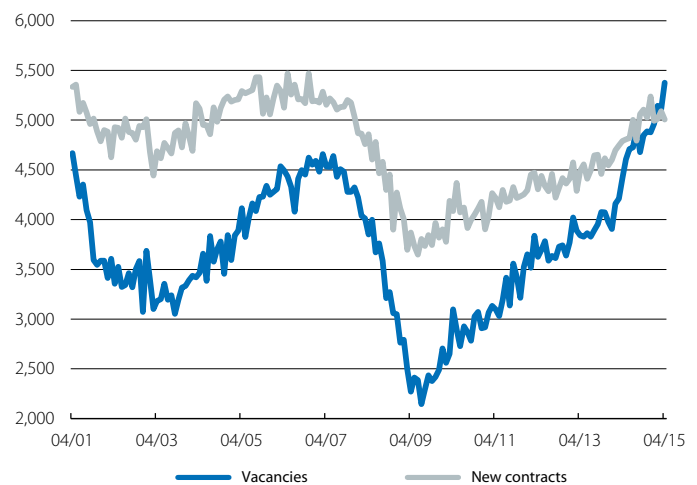
**Core inflation is slowing down.** In May the CPI rose by 0.4% compared with the previous month and by 0.0% year-on-year, still feeling the base effect of the fall in oil prices. More relevant is the fact that core inflation, which excludes food and energy prices, is slowing up, with a month-on-month increase of 0.1%, its lowest for the year to date (1.7% year-on-year, 0.1 pps less than in April). This slowdown in core inflation without owners' equivalent rent, which rose by 0.9% year-on-year, and May's deflator of core personal consumption expenditures (the price index used by the Fed as a benchmark), which rose by 1.2% year-on-year, also indicates moderate inflation. In spite of this, at its meeting on 17 June the Fed repeated its intention to carry out two hikes in the reference interest rate before the end of January. The rate of hikes will, however, be slower than had been announced.

## JAPAN

**2015 Q1 GDP is revised up.** The Japanese economy grew by 0.9% quarter-on-quarter in 2015 Q1, clearly above the previously announced figure of 0.6%. The year-on-year change posted a decline of 1.0% (compared with -1.4% previously). Almost all the revision, in absolute terms, is due to the improvement in capital goods investment which went from growing 0.4% to 2.7% quarter-on-quarter. Although a good figure, the adverse inventory cycle, the volatile investor component and particularly weak private consumption stop us from transferring all this rise to our corresponding forecast for 2015, which we have raised from 0.8% to 1.0%.

**Private consumption still needs to improve.** The success of Shinzo Abe's expansionary policies, known as Abenomics, which started at the beginning of 2013 to rescue Japan from its deflationary cycle and achieve higher growth based on private consumption is still not assured. These measures included fiscal

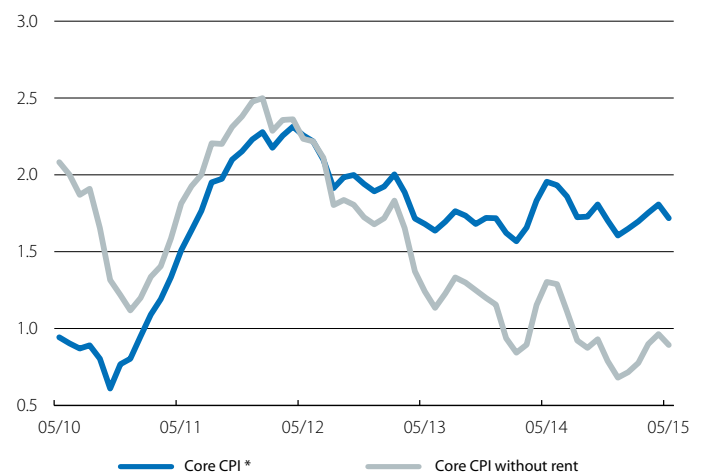
### USA: job vacancies and new contracts (Thousands)



Source: "la Caixa" Research, based on data from the Bureau of Labor Statistics.

### USA: CPI

Year-on-year change (%)

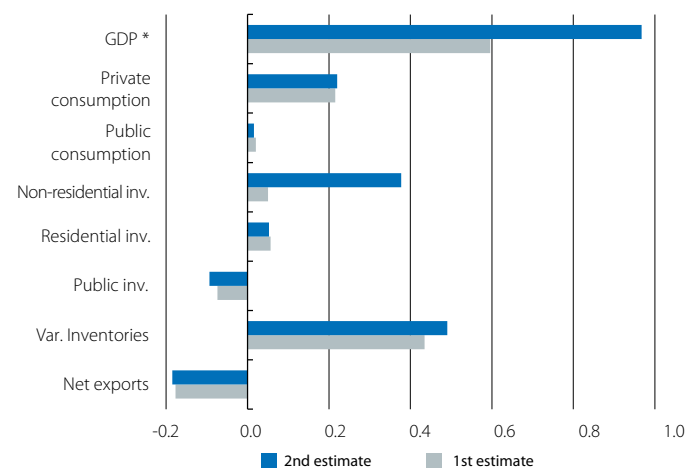


Note: \* Core: general index without energy or food.

Source: "la Caixa" Research, based on data from the Bureau of Labor Statistics.

### Japan: GDP

Contribution to quarter-on-quarter growth in GDP in 2015 Q1 (pps)



Note: \* Quarter-on-quarter change.

Source: "la Caixa" Research, based on data from the Ministry of the Interior and Communication.



expansion, unprecedentedly accommodative monetary policy and pro-growth structural reforms that have yet to be specified. Two and a half years later, the pattern of growth has not changed: exports and imports are the components with most growth (the former boosted by the yen's depreciation and the recovery of the global economy and the latter by reconstruction efforts after Fukushima and energy purchases) and private consumption has hardly altered.

**Prices rose in May somewhat more than expected**, in spite of the energy component. The general CPI grew by 0.5% year-on-year and the CPI without food but with energy (the benchmark for the Bank of Japan) rose by 0.1% year-on-year, above April's figure of 0.0%. Nonetheless, in the short term energy prices will continue to push the index down.

## EMERGING ECONOMIES

**China's evolving towards a more moderate and sustainable growth model.** In its report on the Chinese economy, the International Monetary Fund (IMF) states that the country is immersed in an arduous but necessary transition towards a model of more solid and higher quality growth. The slowdown in the growth rate is perceived as a by-product of this model change. The institution acknowledges the government's efforts to ease vulnerabilities such as debt and the real estate sector, among others. Lastly, as part of the far-reaching reforms required, it says essential changes comprise a «more market-oriented» policy in the financial sector and balancing the playing field for public and private firms.

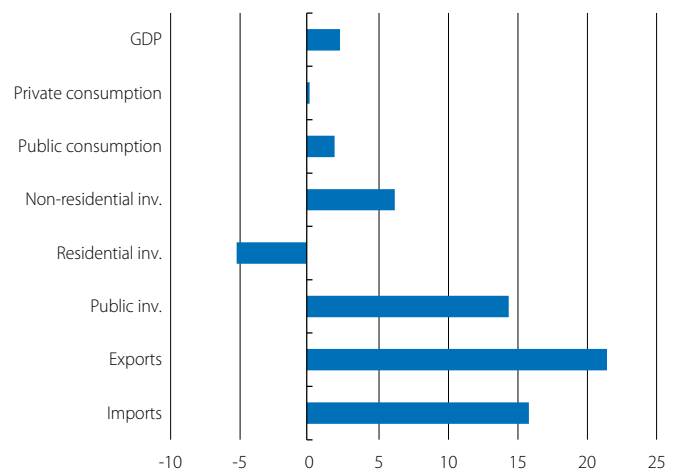
**The Chinese central bank continues to support the economy.** Within this context of a changing model and more moderate growth advances, the central bank has once again cut interest rates (for the fourth time since November) by 25 bps, down to 4.85%. Along the same lines, it also reduced the cash reserve ratio.

**India grew by 7.5% year-on-year in 2015 Q1.** Although this is positive, growth in 2014 Q4 was revised slightly downwards (from 7.5% to 6.6%), altering somewhat the good figure for the start of the year. Given this situation and also the moderation in prices, India's central bank once again cut the interest rate by 25 bps, down to 7.25%. On the other hand, Brazil central bank was forced to raise the reference rate due to high inflation, all within an environment of negative growth.

**Political uncertainty in Turkey.** The legislative elections of 7 June resulted in victory for the Islamist Party led by Erdogan although this time it did not achieve an absolute majority. Consequently, the proposed constitutional reform has been avoided, which would have shifted Turkey towards a strong presidential state, but it also complicates the country's governability. The stock market and the lira reacted to the outcome of the elections with strong losses. However, financial markets rallied after the initial surprise. This change was also due to the good GDP figures for 2015 Q1, whose growth (2.3% year-on-year) was higher than expected.

### Japan: GDP components \*

Cumulative change since December 2012 (%)

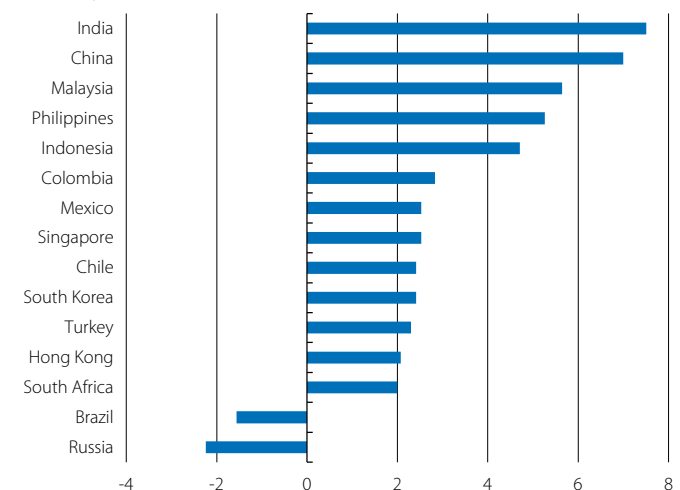


Note: \* In real terms.

Source: "la Caixa" Research, based on data from the Ministry of the Interior and Communication.

### Emerging countries: GDP growth in 2015 Q1

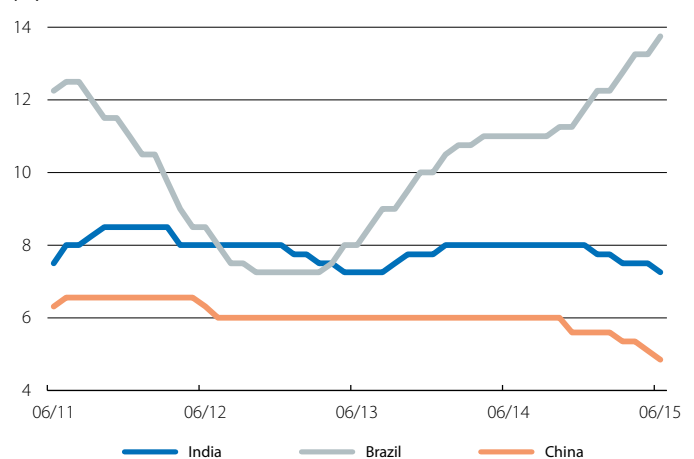
Year-on-year change (%)



Source: "la Caixa" Research, based on data from Thomson Reuters Datastream.

### Emerging countries: official interest rates of the central banks

(%)



Source: "la Caixa" Research, based on data from Thomson Reuters Datastream.

## FOCUS · Energy subsidies: ready for a reduction?

This year a lot of emerging countries are facing the difficult task of balancing their economies within a relatively adverse environment. In general, growth is slowing down in the main developing countries and financial conditions are also likely to get tougher in the coming quarters when the Federal Reserve starts to normalise its monetary policy. Given this situation, the fall in oil prices and those of many other energy commodities is paving the way for a reduction in energy subsidies. Granting energy subsidies is widespread practice in emerging economies and it has a significant effect on public finances, to such an extent that its direct fiscal cost amounts to 0.7% of the world's GDP and exceeds 5% of GDP in some countries. Below we analyse its rationale and importance from a geographical point of view.<sup>1</sup>

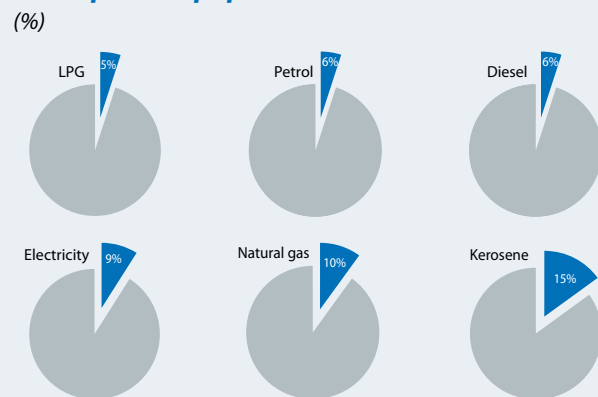
Governments tend to justify implementing energy subsidies with two reasons. Firstly, to ensure poorer people have access to basic services such as electricity and heating. Secondly, to support local industry by paying the public sector part of its energy costs. Hence, it should come as no surprise that this is a core policy in emerging economies. However, although there may be good intentions behind the initial motivation for energy subsidies, in many cases these lead to inefficiencies and, paradoxically, social injustice. From an environmental point of view, energy produced by local industry tends to be promoted even when this may be highly polluting. At a social level, as subsidies are normally applied to the price of a good and not focused on any particular group in society, they are highly inefficient: a very high fiscal cost is normally incurred relative to the advantage gained by those who really need such support and, in fact, in many cases subsidies do not benefit the poorest and most vulnerable consumers. By way of example, a study by the United Nations of India's subsidy for liquefied petroleum gas (used primarily to cook and heat homes) found that less than 25% is allocated to rural areas, which not only hold most of the country's population (70%) but also the largest number of poor people.<sup>2</sup>

Most emerging countries devote a lot of resources to energy subsidies in spite of them being relatively ineffective. In fact, the fiscal cost is particularly high if we also take into account the environmental cost generated.<sup>3</sup> According to a recent study by the IMF, if subsidies on the price of energy were removed, the savings for public treasuries would amount to 4% of the world's GDP. By

region, emerging Asia and MENAP are two of the zones where the fiscal benefit would be greatest, at around 10% of GDP.<sup>4</sup>

In the last few years some of the main emerging economies have started to cut back on their energy subsidies. The best-known case is that of India which, in 2013, started a programme of slow but progressive reductions in this kind of assistance. This Asian country has been followed by other large economies such as Indonesia, Egypt and Malaysia. Given the potential savings for public spending in eliminating such subsidies, this change in trend is encouraging. The challenge now is to invest these savings in public resources to protect the most vulnerable people more efficiently, consolidate the change in energy policy once the energy price normalises and maintain a more balanced macroeconomic situation.

### Energy subsidies received by 20% of the poorest population (%)

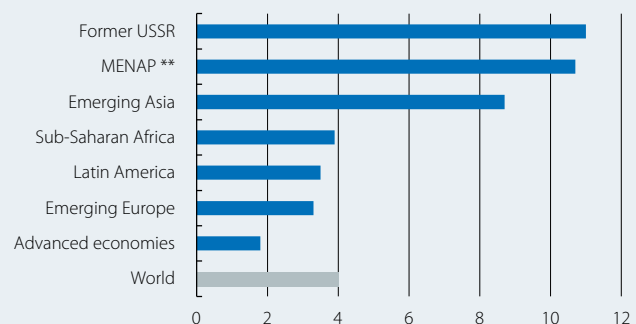


**Note:** LPG: Liquefied petroleum gas. Data for Angola, Bangladesh, China, India, Indonesia, Pakistan, Philippines, South Africa, Sri Lanka, Thailand and Vietnam.

**Source:** "la Caixa" Research, based on data from the World Energy Outlook 2010.

### Energy subsidies: fiscal impact of their removal by region \*

(% of GDP)



**Notes:** \* Including environmental costs.

\*\* MENAP is made up of the Middle East, North Africa, Pakistan and Afghanistan.

**Source:** "la Caixa" Research, based on IMF data.

1. See IMF (2015), «How Large are Global Energy Subsidies?», WP/15/105.
2. See United Nations (2008), «Reforming Energy Subsidies. Opportunities to Contribute to the Climate Change Agenda».
3. For example, promoting heavily polluting sources of energy leads to higher expenditure on healthcare in many emerging countries.

4. MENAP is made up of countries in the Middle East, North Africa, Pakistan and Afghanistan.

## FOCUS · US GDP in Q1: better than it looks

The growth capacity of the world's leading economy is once again under suspicion. This time doubts are due to the decline in GDP in Q1, which reached 0.7% quarter-on-quarter in annualised terms.<sup>1</sup> But are such fears justified?

Part of this weakness can be attributed to an exceptionally harsh winter, as witnessed by the snowstorms that hit Boston. The bad weather has subtracted about 1.0 pps from output growth. The dockworkers' strike that paralysed activity on the west coast towards the end of Q1 is another temporary factor that also reduced GDP growth in Q1.

However, these calculations would place GDP growth at a still very modest 0.6%. So why the mismatch? A recent study by the Fed has revealed that the Bureau of Economic Analysis (BEA), the US statistics office that prepares the country's accounts, tends to considerably underestimate GDP growth in the first quarter of the year and overestimate it the rest of the year when adjusting the series for seasonal effects.

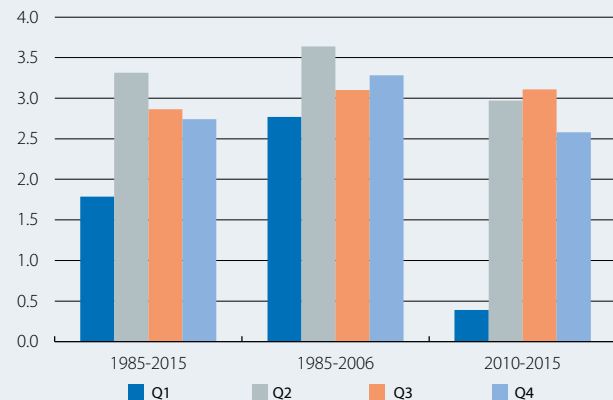
Specifically, since 1985 the BEA has calculated Q1 growth in GDP at 1.8% on average, compared with 3.0% for the other quarters. This pattern, which has become more accentuated recently, should not be seen as the seasonal adjustment of the series is meant, precisely, to eliminate fluctuations occurring systematically in some quarters. The reason for this error is that, when the BEA produces the GDP series, it seasonally adjusts it at a highly disaggregated level and the seasonality that seems to be relatively insignificant in an individual series, once the different series are aggregated it becomes obvious that it is not. In fact, if we use the same programme as the one employed by the BEA to seasonally adjust the final GDP series, a significant seasonal pattern can be observed in the series, as already suggested by the average quarterly flash figure. Once the residual seasonality has been duly corrected, GDP growth in Q1 2105 becomes 1.1%. Moreover, if we take into account the effect of the bad weather and the strike, then output would have grown by 2.35%, a figure more in line with business indicators. As shown by the third graph, the level reached by the ISM manufacturing index corresponds historically with GDP growth rate of around 3%.

In short, when all the different pieces are taken into consideration, first quarter GDP looks more positive than suggested by the figure published by the BEA. In fact, having analysed the factors slowing down GDP in Q1, the conclusion is that growth is likely to have speeded up considerably in Q2.

1. Corresponds to the second estimate for the GDP figure presented by the BEA on 29th May 2015. On 24th June the third estimate was published, with a 0.2% annualised drop, quarter-on-quarter.

### Average GDP growth by quarter

Quarter-on-quarter annualised rate (%)

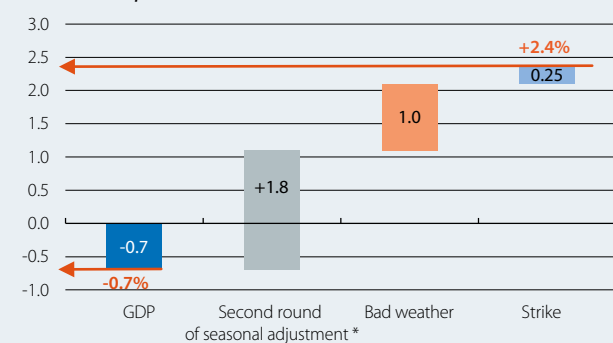


Note: Average quarter-on-quarter growth of Q1, Q2, Q3 and Q4 for the period.

Source: "la Caixa" Research, based on data from the BEA.

### Impact of temporary factors and methodological errors on GDP in 2015 Q1

Quarter-on-quarter annualised rate (%)

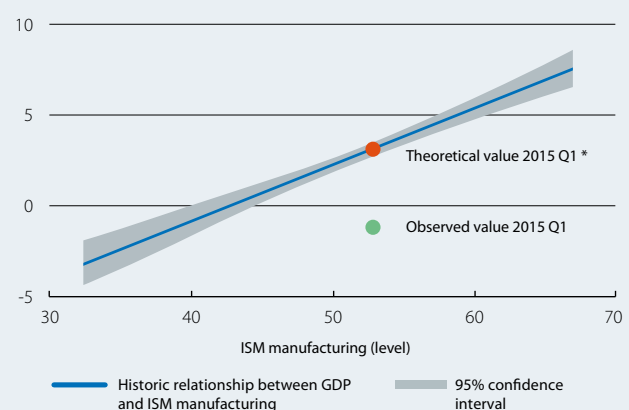


Note: \* Seasonal adjustment of the GDP series since 1960 compiled by the BEA using the X12-ARIMA method employed by the BEA itself. These results identify the deviation due to the «inexact» seasonal adjustment carried out by the BEA.

Source: "la Caixa" Research, based on data from the BEA and Goldman Sachs.

### GDP and ISM manufacturing index

GDP, quarter-on-quarter annualised rate (%)



Note: \* The theoretical value indicates the GDP growth corresponding to the average ISM for 2015 Q1.

Source: "la Caixa" Research, based on data from the BEA and the ISM.

## KEY INDICATORS

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

## UNITED STATES

	2013	2014	2014 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15	06/15
<b>Activity</b>									
Real GDP	2.2	2.4	2.6	2.7	2.4	2.9	–	...	–
Retail sales (excluding cars and petrol)	3.4	3.9	4.1	4.5	4.8	4.8	3.8	4.3	...
Consumer confidence (value)	73.2	86.9	83.4	90.9	92.7	101.3	94.3	94.6	101.4
Industrial production	2.9	4.2	4.2	4.6	4.6	3.5	2.0	1.4	...
Manufacturing activity index (ISM) (value)	53.8	55.7	55.5	56.9	56.9	52.6	51.5	52.8	...
Housing starts (thousands)	928	1,001	984	1,029	1,055	978	1,165	1,036	...
Case-Shiller home price index (value)	158	171	171	170	173	178	...	...	...
Unemployment rate (% lab. force)	7.4	6.2	6.2	6.1	5.7	5.6	5.4	5.5	...
Employment-population ratio (% pop. > 16 years)	58.6	59.0	58.9	59.0	59.2	59.3	59.3	59.4	...
Trade balance <sup>1</sup> (% GDP)	–2.9	–2.9	–2.9	–2.9	–2.9	–2.9	–3.8	...	...
<b>Prices</b>									
Consumer prices	1.5	1.6	2.1	1.8	1.2	–0.1	–0.2	0.0	...
Core consumer prices	1.8	1.7	1.9	1.8	1.7	1.7	1.8	1.7	...

Note: 1. Cumulative figure over last 12 months.

Source: "la Caixa" 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 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15
<b>Activity</b>								
Real GDP	1.6	–0.1	–0.4	–1.4	–0.9	–1.0	–	...
Consumer confidence (value)	43.6	39.3	38.9	40.5	38.9	40.7	41.5	41.4
Industrial production	–0.6	2.1	2.7	–0.3	–1.4	–2.2	0.1	–2.4
Business activity index (Tankan) (value)	6.0	13.5	12.0	13.0	12.0	12.0	–	...
Unemployment rate (% lab. force)	4.0	3.6	3.6	3.6	3.5	3.5	3.3	3.3
Trade balance <sup>1</sup> (% GDP)	–2.4	–2.6	–2.9	–2.9	–2.6	–1.8	–1.7	–1.5
<b>Prices</b>								
Consumer prices	0.4	2.7	3.6	3.4	2.5	2.3	0.6	0.5
Core consumer prices	–0.2	1.8	2.3	2.3	2.1	2.1	0.4	0.4

Note: 1. Cumulative figure over last 12 months.

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

## CHINA

	2013	2014	2014 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15
<b>Activity</b>								
Real GDP	7.7	7.4	7.5	7.3	7.3	7.0	–	...
Retail sales	13.1	10.3	14.8	11.9	11.7	10.5	10.0	10.1
Industrial production	9.7	8.3	8.9	8.0	7.6	6.4	5.9	6.1
PMI manufacturing (value)	50.8	50.7	50.7	51.3	50.4	49.9	50.1	50.2
<b>Foreign sector</b>								
Trade balance <sup>1</sup> (value)	258	382	254	322	382	488	503	527
Exports	7.8	6.1	5.0	13.0	8.6	4.6	–6.4	–2.5
Imports	7.3	0.5	1.3	1.1	–1.7	–17.6	–16.2	–17.6
<b>Prices</b>								
Consumer prices	2.6	2.0	2.2	2.0	1.5	1.2	1.5	1.2
Official interest rate <sup>2</sup> (value)	6.00	5.60	6.00	6.00	5.60	5.35	5.35	5.10
Renminbi per dollar (value)	6.1	6.2	6.2	6.2	6.1	6.2	6.2	6.2

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

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

## ECONOMIC OUTLOOK · Recovery continues in the euro area but the Greek crisis deteriorates

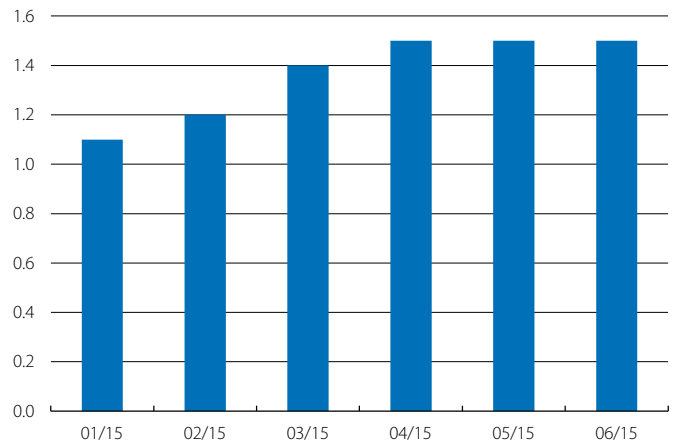
**The macroeconomic situation is improving in all countries of the euro area except for Greece.** The economic recovery has gradually consolidated over the first six months of the year in the euro area as a whole, supported particularly by stronger domestic demand but also with other favourable tail winds: low oil prices, the euro's depreciation and better financing conditions. All this has helped to strengthen the economic outlook in the short term. However, Greece is the exception to this widespread improvement. The latest episode of political uncertainty has led to a severe deterioration in the country's macroeconomic and financial conditions. Nevertheless, unlike what happened in 2012, the contagion to the rest of the euro area, and particularly to peripheral countries, is very limited. Several factors are acting as firewalls: the commitment of the European Central Bank (ECB) to defend the euro is much more credible now than in 2012, as is the commitment of the main countries in the euro area to continue creating a more robust institutional framework at a European level. Also of help is the more limited exposure of European banks to Greek financial assets and the improved macroeconomic situation of peripheral countries thanks to the efforts made over the last few years to reduce the public deficit and implement structural reforms that have strengthened long-term growth capacity.

**The Greek tragedy continues.** On 30 June the second bail-out programme ended without an agreement being reached between Greece and the institutions to temporarily extend the programme in place. Given this situation, the Greek government decided, *in extremis*, to hold a referendum for the Greek people to decide whether they would accept the conditions to extend the bail-out. The programme therefore ended without the last pending disbursement being made, leaving Greek public finances fully stretched and causing the Greek government to miss its debt payment to the International Monetary Fund (IMF). Moreover, the liquidity problems of Greek's banking system forced Alexis Tsipras's government to implement capital controls. All this has led to a scenario full of questions. For the moment, the upswing in uncertainty is having disastrous consequences at a macroeconomic level. Growth prospects have plummeted and Greece is once again facing an immediate future of deep recession.

**The Presidents of the European Commission, the Eurogroup, the European Council, ECB and the European Parliament have proposed a roadmap to continue constructing the Economic and Monetary Union (EMU).** The Greek crisis has once again highlighted the pressing need to complete the EMU's institutional structure. The report proposes, in the first stage between July 2015 and June 2017,

### Euro area: evolution of the growth forecast for GDP in 2015

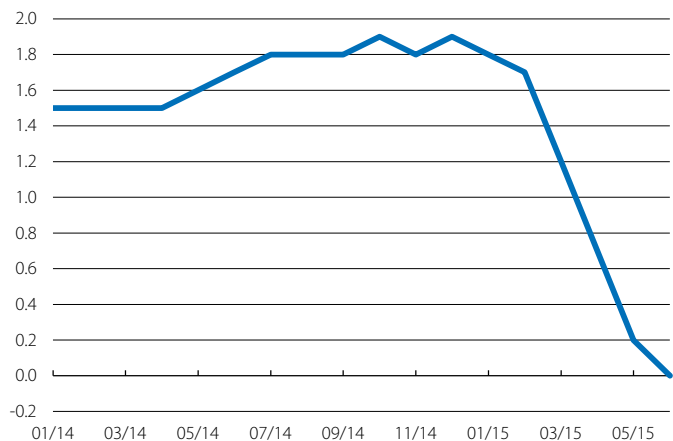
Year-on-year change (%)



Source: "la Caixa" Research, based on data from Consensus Forecasts.

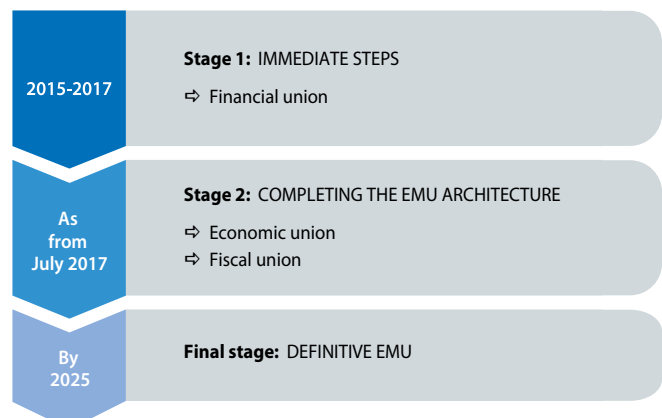
### Greece: evolution of the growth forecast for GDP in 2015

Year-on-year change (%)



Source: "la Caixa" Research, based on data from Consensus Forecasts.

### Five Presidents' Report on completing economic and monetary union (EMU)



Source: "la Caixa" Research, based on European Commission data.



to implement actions that do not require any change in European treaties. The aim of this first phase will be to progress in aspects that increase economic and financial integration. For example, banking union will be completed with a common deposit guarantee fund and a single resolution fund and the capital markets union will be set in motion. In the second stage, as from July 2017, the institutional structure of the EMU would be completed to achieve real and long-lasting convergence. To this end, the aim is to set up institutions that can handle macroeconomic shocks with greater guarantees. To finalise the process, EMU will be created with a system of common institutions that take decisions collectively on economic and fiscal policy issues.

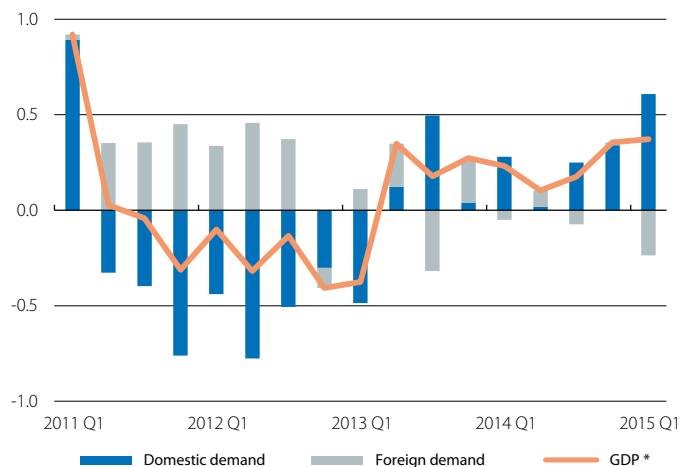
**The breakdown of GDP for Q1 shows that the recovery is becoming more robust.** Growth in the euro area increased to 0.4% quarter-on-quarter in Q1 (1.0% year-on-year), supported particularly by the contribution from domestic demand (0.6 pps). The rise in public consumption (1.1%) and in private consumption (1.7%), as well as investment (0.8%), shows how domestic demand is currently the mainstay of the recovery. The foreign sector contributed negatively (–0.2 pps) due to lower growth in exports than imports, although its contribution should improve throughout 2015 and 2016 thanks to the euro's depreciation.

**The economic recovery is spreading almost throughout the euro area.** Improvement in the composite PMI activity index speeded up, reaching in June its highest level in four years and ending a more expansionary Q2 than Q1. The consolidation of the recovery is also becoming more generalised both by sector and by country. Increases were recorded in manufacturing and especially in services, the latter boosted by the strength of domestic demand. By country, of note is the acceleration in France's activity, posting its largest expansion in the composite PMI since 2011 Q3, predicting a good rate of growth for GDP in Q2. Germany's activity index, although higher than France's, was lower in Q2 than in the previous quarter. In the rest of the euro area, the rate of growth was faster than in the two core countries, recording the highest figure for the last eight years.

**The positive trend in the euro area's labour market continues although it varies from country to country.** Employment in the euro area grew by 0.8% year-on-year in Q2 and employment expectations suggest this improvement will continue in the next quarter, particularly in the services sector. Although starting from different levels, the improvement in the rate of job creation was very marked in Spain (2.9%) but more modest in Italy (0.3%) and France (0.0%). In fact, the French government has passed a reform of the labour market for SMEs within its so-called «Macron Act» to encourage job creation. This reform reduces compensation for wrongful dismissal in SMEs (both for companies with fewer than 20 workers and those with more

### Euro area: GDP

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

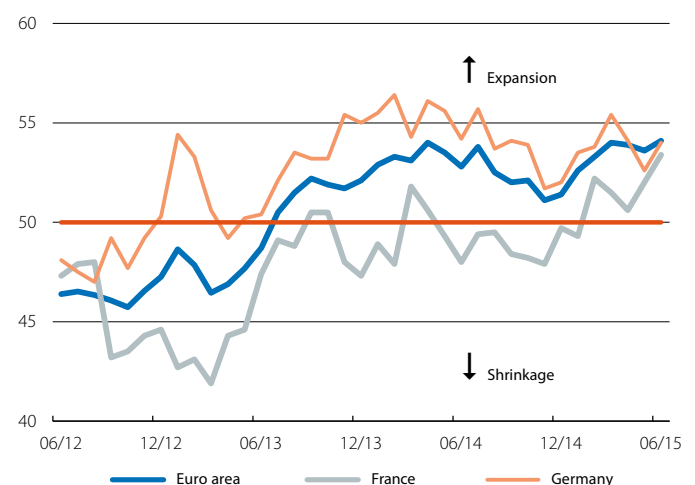


Note: \* Quarter-on-quarter change (%).

Source: "la Caixa" Research, based on Eurostat data.

### Euro area: composite PMI activity indicator

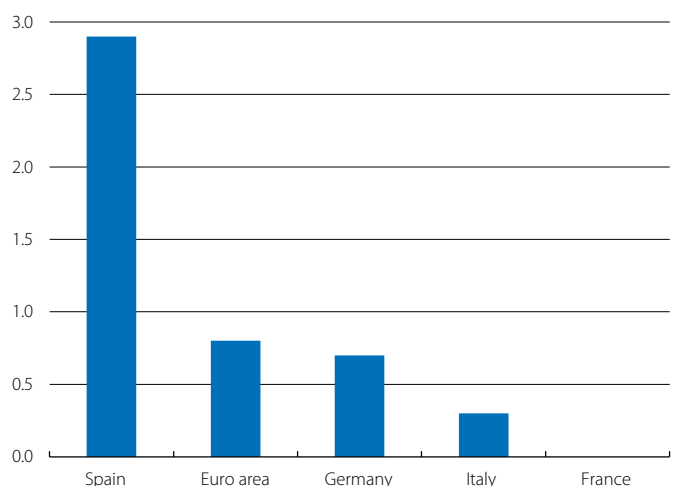
Level



Source: "la Caixa" Research, based on Markit data.

### Employment in 2015 Q1

Year-on-year change (%)



Source: "la Caixa" Research, based on Eurostat data.

than 20 but less than 299). The reform thereby attacks, albeit timidly, the problem of the dual nature of the labour market, slightly reducing severance pay and making the final sum of compensation more predictable. It also delays the regulatory requirements for companies depending on their size, helping to eliminate obstacles to expanding the workforce.

#### **Inflation continues to recover in spite of a slight decline in June.**

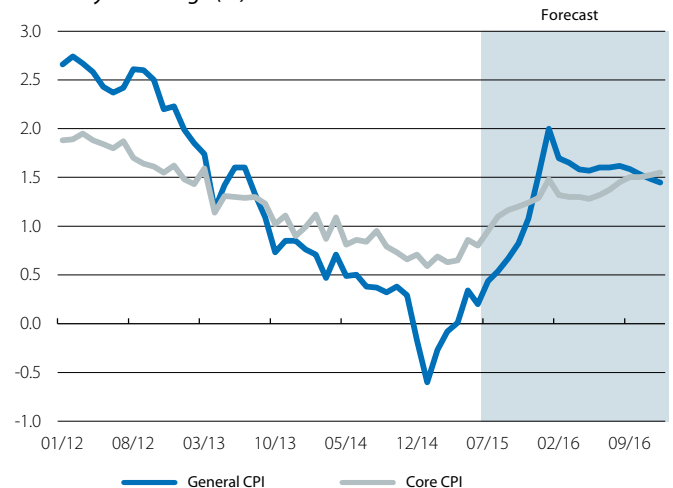
The year-on-year change in the harmonised index of consumer prices (HCPI) for the euro area stood at 0.2% in June, 0.1 pps below its level the previous month, partly due to the fall in the energy component. In spite of this drop, we expect inflation to continue rising in the euro area over the coming months, reaching 1.5% by the end of year. Higher oil prices, more expensive imports due to the euro's depreciation and the consolidation of domestic demand should help this to be the case. By country, the decline in German inflation came as some surprise (from 0.7% to 0.1%), although this was the result of temporary factors such as May's increase in leisure and tourism prices. We do not expect this decline to continue for long given the good performance of the Germany economy and especially its labour market, with strong wage rises expected for 2015.

**The foreign sector revives.** The euro's depreciation is boosting the euro area's exports. One example of its dynamism is April's 6.8% year-on-year increase in exports of goods from the euro area to the rest of the world, continuing the improvements recorded in previous months. For their part, imports rose to a lesser extent (2.5% year-on-year), to some extent due to a lower energy bill. The trade balance between January and April was 69% higher than the figure reached one year ago. We predict that the moderation in energy prices and sustained depreciation of the euro, especially once the Federal Reserve starts to raise interest rates, will continue to support the export sector.

**The economic improvement reaches companies, albeit unevenly.** In October 2014 and March 2015, the net share of firms with increases in earnings was 15% for large firms and 6% for medium-sized firms while this decreased for small and microfirms (5% and 21% respectively), according to the euro area's survey on the access to finance of enterprises (SAFE). This was due to increased turnover as well as the stabilisation of labour costs and reduction in other company costs, including financial. There was also an improvement in the availability of external financing for firms, in particular large companies. A larger percentage of these saw net rises in available financing (in the form of loans and bank overdrafts) although small and medium-sized firms also perceived improvements. These easier credit facilities for companies demonstrate how the recovery is now being felt in the real economy. By country, it is worth noting the increase in the net share of firms stating an increase in credit availability in Germany (14%) and especially in Spain (30% compared with 11% for the previous six months of the year).

#### **Euro area: harmonised CPI**

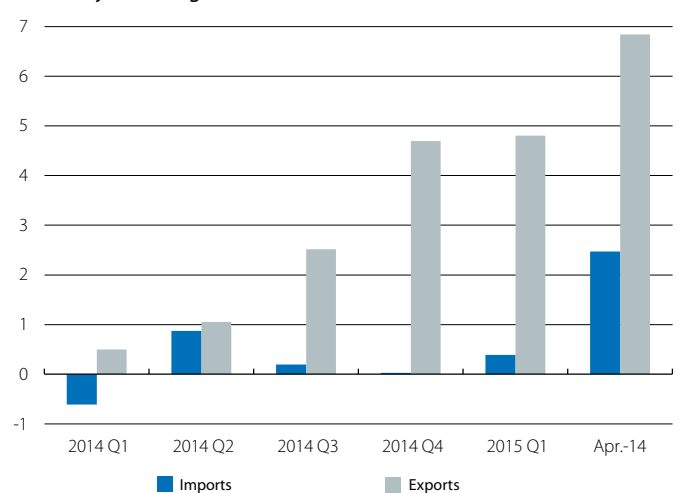
Year-on-year change (%)



Source: "la Caixa" Research, based on Eurostat data.

#### **Euro area: balance of goods**

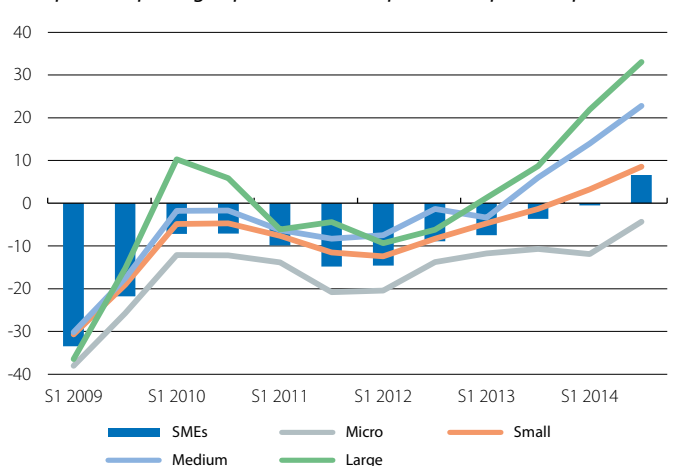
Year-on-year change (%)



Source: "la Caixa" Research, based on ECB data.

#### **Euro area: access to external financing of enterprises**

Companies reporting improvements compared with previous period (%)



Source: "la Caixa" Research, based on ECB data.



## FOCUS · Emerging Europe: prosperity in the euro area will help to overcome difficulties with Russia

Should the forecasts be right, 2015 and 2016 will be two years of clear expansion in emerging Europe: on average during the period 2015-2016, Poland, Romania and Slovakia will grow by more than 3%, the Czech Republic will almost reach this figure and the only countries to trail behind will be Hungary (with growth forecast at 2.5%) and Bulgaria (1.4%), two economies hindered by a relatively unfavourable business environment. These are high figures and therefore beg the question: what are they based on?

Apart from a few local idiosyncrasies, the dynamism expected in emerging Europe is the result of a combination of three factors: renewed growth in the euro area, the temporary boost provided by cheaper oil and the continuation of good financing conditions. Regarding the first factor, an analysis of trade flows for emerging Europe provides detailed information on how the region functions economically. As can be seen in the graph, most trade with emerging Europe is concentrated within the core countries of the euro area while inter-regional flows, although important, have lower volumes. However, the intensity of trade flows between the region and Russia is clearly lower. Based on this overview of the trade situation we can see why, during a period which will witness two good years of growth in the euro area (with average growth of 1.7%) and an appreciable recession in Russia (–3.3% in 2015 and –0.8% in 2016), the first is going to be much more important than the second. Russia's difficulties would only truly be disruptive for emerging Europe if they affected its exports of commodities and intermediate goods as these goods categories are key inputs for the region. However, if the euro area does not fulfil expectations due to adverse circumstances, the region will find it hard to avoid a slide towards mediocre growth figures.

The importance of the second factor, namely the boost to growth provided by lower oil prices, results from the fact that all the countries in emerging Europe are net importers of oil.<sup>1</sup> In this respect, emerging Europe is not so very different from its partners in the European Union (EU). However, another factor coming into play in Europe, namely the exchange rate, does make a difference. One factor often cited as supporting growth in the euro area is its currency's depreciation which is helping European exporters to improve their price competitiveness. In the case of emerging Europe this factor has less weight as, last year, the region's

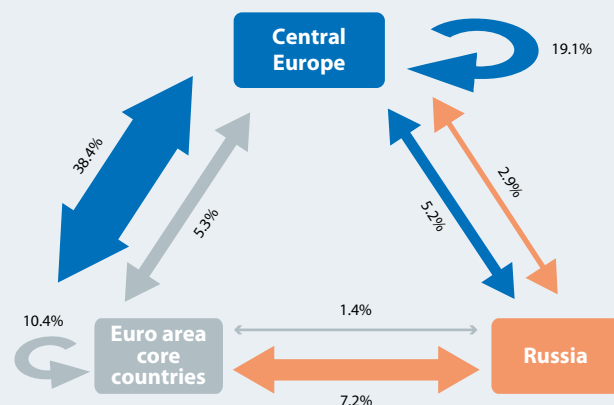
currencies remained almost unchanged against the euro, their main trading currency.

Lastly, the third development expected to support economic expansion is international bank financing. The relative weight of foreign banks and in particular EU banks is very high in the countries of emerging Europe. According to OECD figures, in 2012 the share of foreign banks (from the EU) in all assets ranged from 54% for Hungary to 96% for Slovakia (in the EU the average share of foreign banks was 17%). This high proportion has been a risk factor on other occasions because the credit capacity of central European subsidiaries largely depended on the health of their parent banks. However, the financial situation is now more benign, partly thanks to the measures being carried out by the European Central Bank and partly due to banks' improved solvency and liquidity. This circumstance will allow the banking sector to support the expansion of emerging Europe in the short and medium term.

In summary, apart from the idiosyncratic domestic factors of each country, external factors will help emerging Europe to enjoy a period of notable growth over the next few years. The single currency countries will provide both foreign demand and financing for central European economies, two elements that have traditionally had a great impact on the region.

### Trade relations between Central Europe,\* euro area core countries \*\* and Russia

Total exports and imports (% GDP) \*\*\*



Notes: \* Central Europe: Poland, Czech Republic, Hungary, Romania, Bulgaria and Slovakia.

\*\* Euro area core countries: Germany, France and Italy.

\*\*\* For example, the orange arrow between Central Europe and Russia shows the total Russian exports and imports as a percentage of Russia's GDP, and so on.

Source: "la Caixa" Research, based on IMF data (DOTS).

1. Net fuel imports range from 6.2% of GDP in the case of Hungary to 1.4% for Romania, according to Eurostat data.

## FOCUS · Euro area: the importance of real convergence for economic union

For monetary union to be sustainable, economic convergence between the member countries is fundamental. That is why it is important to analyse to what extent convergence has occurred between the euro area countries over the last few decades and how convergence could be strengthened.

Since the Maastricht criteria were introduced in 1992, the countries of the euro area experienced some convergence: the spread between GDP per capita (in purchasing power parity) of the countries of the core and the periphery narrowed (see the first graph). This process was more accentuated in some countries, such as Spain whose GDP per capita went from 81.0% of the average GDP per capita for the euro area in 1993 to 95.3% in 2007.

However, this convergence, which never consolidated, started to reverse with the onset of the global financial crisis of 2008. The spread between the GDP per capita of the core and periphery increased from 11 pps in 2007 to 21 pps in 2013 as the economic recession was more intense and lasted longer in the periphery. Since last year, however, all evidence points to this divergence between economies starting to abate, in particular in countries such as Spain which is currently making up part of the ground lost during the crisis and whose GDP per capita might reach 91.3% of the average GDP per capita for the euro by 2016. The case of Italy, which is at the other end of the spectrum, is particularly critical as its relative GDP per capital worsened both before and during the crisis: from a GDP per capita that was 8% higher than the average for the euro area in 1993 to a GDP per capita that was 2.6% lower in 2007. This figure continued to descend during the crisis and by 2014 had fallen to 8.6% below the European average.

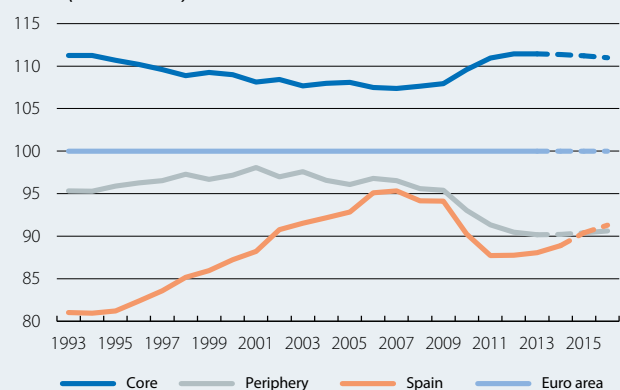
Between 1990 and 2007, relative convergence was achieved between the economies of the euro area thanks to the greater contribution to growth of the labour factor in peripheral countries, both in terms of the amount of employment (for instance by more women joining the labour market) and quality (such as workers' higher qualifications). On the other hand, the contribution of the factor of capital not related to information technologies was also greater in the periphery, also contributing to these countries' catch-up.<sup>1</sup> However, total factor productivity (TFP), which measures how efficiently an economy uses its input factors, did not help the convergence process; in fact, quite the opposite: between 1990 and 2007 the TFP worsened in the periphery but increased in the core, a divergence that was accentuated by the crisis.

1. The contribution to growth of investment in IT capital has been low both in core and peripheral countries of the euro area, partly explaining the region's lower growth compared with the United States.

In short, the convergence occurring between peripheral and core countries over the last few decades has been very limited. Moreover, the convergence that has occurred has been due to higher growth in labour and capital factors in the periphery, making this improvement short-lived. At the end of the day, productivity must increase more in the periphery than in the core in order to achieve durable convergence between countries. Translated into concrete actions, those countries lagging behind must improve the efficiency of their economies by adopting the institutions, technologies and production methods of the advanced countries and must also make more use of the advantage of the economies of scale offered by the single market. Total factor productivity is the key element that determines long-term growth. Only by increasing this productivity in the periphery will convergence between countries be stronger and more sustainable.

### GDP per capita (in purchasing power parity)

Level (100 = EU19)

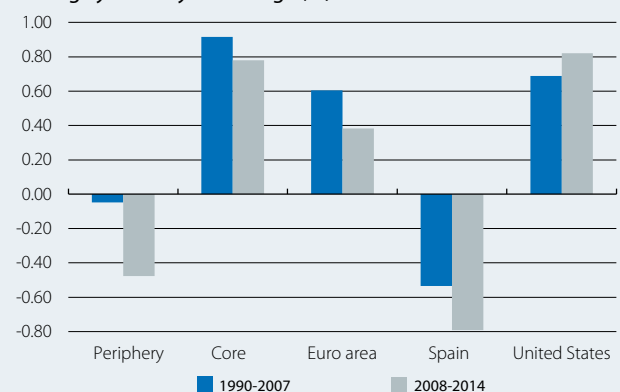


**Note:** Core: France, Germany, Austria, Netherlands, Belgium and Luxembourg; periphery: Ireland, Portugal, Spain, Italy and Greece; and the euro area: EU19.

**Source:** "la Caixa" Research, based on data from AMECO.

### Total factor productivity

Average year-on-year change (%)



**Note:** Core: France, Germany, Austria, Netherlands, Belgium and Luxembourg; periphery: Ireland, Portugal, Spain, Italy and Greece; and euro area: EU19.

**Source:** "la Caixa" Research, based on data from The Conference Board.

## KEY INDICATORS

### Activity and employment indicators

Values, unless otherwise specified

	2013	2014	2014 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15	06/15
Retail sales (year-on-year change)	-0.8	1.3	1.4	0.8	2.0	2.3	2.2	...	...
Industrial production (year-on-year change)	-0.7	0.8	1.0	0.6	0.3	1.5	0.8	...	...
Consumer confidence	-18.7	-10.1	-7.9	-10.0	-11.3	-6.3	-4.6	-5.6	-5.6
Economic sentiment	93.8	101.6	102.5	101.2	100.8	102.6	103.8	103.8	103.5
Manufacturing PMI	49.6	51.8	52.5	50.9	50.5	51.4	52.0	52.2	52.5
Services PMI	49.3	52.5	53.0	53.2	51.7	53.5	54.1	53.8	54.4
<b>Labour market</b>									
Employment (people) (year-on-year change)	-0.7	0.6	0.6	0.7	0.9	0.8	-	...	-
<b>Unemployment rate: euro area</b> (% labour force)	12.0	11.6	11.6	11.5	11.4	11.2	11.1	11.1	...
Germany (% labour force)	5.2	5.0	5.0	5.0	4.9	4.8	4.7	4.7	...
France (% labour force)	10.3	10.2	10.1	10.3	10.4	10.3	10.2	10.3	...
Italy (% labour force)	12.2	12.7	12.5	12.7	12.7	12.4	12.4	12.4	...
Spain (% labour force)	26.1	24.5	24.7	24.2	23.7	23.1	22.7	22.5	...

Source: "la Caixa" 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 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15
<b>Current balance: euro area<sup>1</sup></b>	1.9	2.2	1.8	2.1	2.2	2.4	2.5	...
Germany	6.5	7.6	6.8	7.4	7.6	7.9	7.9	...
France <sup>1</sup>	-1.4	-1.0	-1.6	-1.3	-1.0	-0.8	-0.8	...
Italy	0.9	1.9	1.3	1.6	1.9	2.3	2.4	...
Spain	1.4	0.8	0.8	0.7	0.8	1.0	1.0	...
<b>Nominal effective exchange rate<sup>2</sup> (value)</b>	101.7	102.3	103.9	101.7	99.6	93.7	90.4	92.2

Notes: 1. Methodology changed as from 2014. 2. Weighted by flow of foreign trade. Higher figures indicate the currency has appreciated.

Source: "la Caixa" 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 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15
<b>Private sector financing</b>								
Credit to non-financial firms <sup>1</sup>	-2.3	-2.2	-2.5	-2.0	-1.3	-0.4	-0.1	0.1
Credit to households <sup>1,2</sup>	0.3	0.5	0.5	0.5	0.7	1.0	1.3	1.4
Interest rate on loans to non-financial firms <sup>3</sup> (%)	2.2	2.0	2.1	1.9	1.8	1.7	1.7	...
Interest rate on loans to households for house purchases <sup>4</sup> (%)	2.8	2.6	2.7	2.6	2.4	2.2	2.0	...
<b>Deposits</b>								
On demand deposits	7.9	6.0	5.2	5.9	7.2	9.7	10.9	11.8
Other short-term deposits	0.0	-2.1	-2.0	-1.7	-2.1	-3.2	-3.3	-4.2
Marketable instruments	-14.8	-7.2	-11.6	-5.8	1.3	3.9	11.9	5.0
Interest rate on deposits up to 1 year from households (%)	2.0	1.3	1.4	1.3	1.1	1.0	0.9	...

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: "la Caixa" Research, based on data from the European Central Bank.

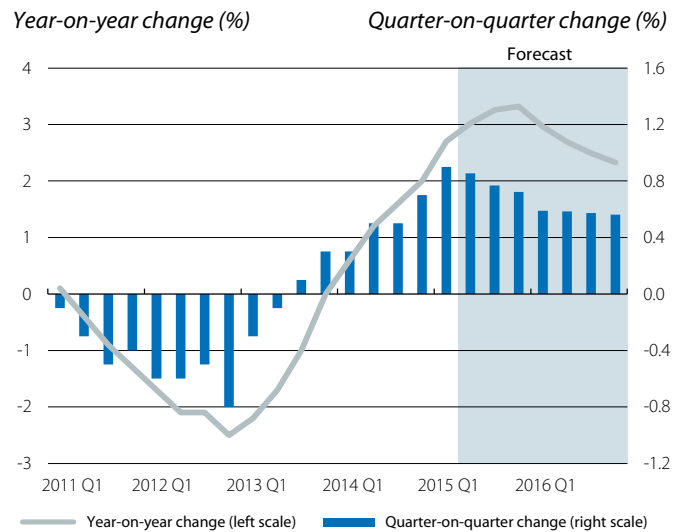
## ECONOMIC OUTLOOK · The economic recovery continues at a good rate

**The Spanish economy is increasingly dynamic but could cool down slightly in the second half of the year.** After the sharp growth in GDP recorded in Q1, the business indicators of the last few months point to GDP growth remaining strong in Q2. This has led us to revise upwards our growth forecast for GDP for the whole of the year by 0.3 pps, to 3.1%. As from Q3 we have maintained a slight slowdown in growth due to the progressive disappearance of that temporary support factors which the Spanish economy has been benefitting from, such as the drop in oil prices and the euro's depreciation. This gradual slowdown in the rate of growth for GDP will continue in 2016, a year for which we expect 2.6% growth.

**The IMF improves its growth prospects for Spain.** In June, the International Monetary Fund (IMF) notably increased its growth forecast for the Spanish economy compared with its estimates just two months before. Specifically, the forecast was increased by 0.6 percentage points for 2015, to 3.1%, and by 0.5 pps for 2016, to 2.5%. The institution, in its conclusions report after its annual visit to the country, recommends continuing with the agenda of reforms to bolster the country's growth capacity in the medium and long term. Regarding the labour market, the IMF insists on the need to reduce its dual nature and to encourage job creation, for example by linking wage rises to specific conditions in the company. It also urges measures to encourage the growth of SMEs, such as accelerating the implementation of the single market, eliminating regulations that hinder companies from growing in size and encouraging alternative sources of financing. With regard to the macroeconomic adjustments that have yet to be finalised, the IMF asks Spain to continue its efforts to improve fiscal consolidation, reinforce solvency in the banking industry and reduce private debt.

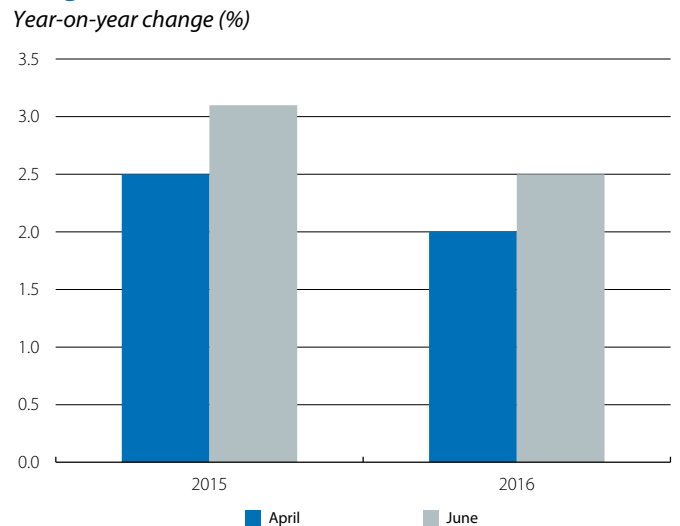
**Corporate investment and private consumption appear to drive growth in Q2.** Regarding supply indicators, both the PMI manufacturing and services indices are still at levels compatible with a slight acceleration in the rate of growth for investment in capital goods in Q2. The PMI manufacturing index rose to 55.8 points in May, boosted by the increase in new domestic and foreign orders, especially from the euro area. The PMI services index corrected part of the sharp rise seen the previous month but was still at a very high level (58.4 points). Other indicators also provide good news for investment, particularly the good performance by industrial production, whose average growth in the last three months was 2.3% year-on-year, higher than the figure recorded pre-crisis, between 2000 and 2007, which was 1.6% year-on-year on average. Concerning demand, the solid advance of retail and consumer goods, with average growth over the last three months of 3.3% (compared with 2.8% between 2000 and 2007), points to household expenditure increasing sharply

### GDP



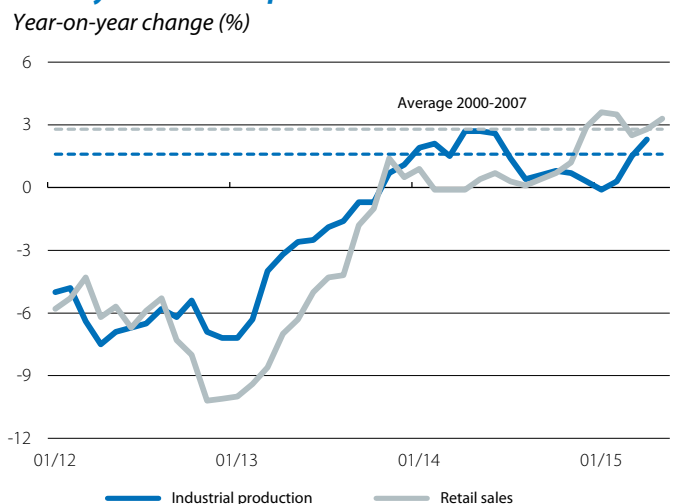
Source: "la Caixa" Research, based on INE data.

### IMF growth forecast for GDP



Source: "la Caixa" Research, based on IMF data.

### Activity and consumption indicators \*



Note: \* Moving average of three months.

Source: "la Caixa" Research, based on INE data.

in Q2, a rise that, to a large extent, is supported by the pace of job creation.

**Favourable trends in the labour market.** In May, the number of registered workers affiliated to Social Security increased by 57,721 people (seasonally adjusted), speeding up the year-on-year rate of change to 3.6%. This rise is widespread across all activity sectors, suggesting it is not just a passing phase. The employment expectations of the European Commission also point to the labour market continuing to recover although we will probably see a slight reduction in the sharp increase in employment observed in the first half of the year. Specifically, this index, which measures the intention of entrepreneurs to hire new workers over the next three months, was a little lower in Q2 than in Q1, particularly in industry.

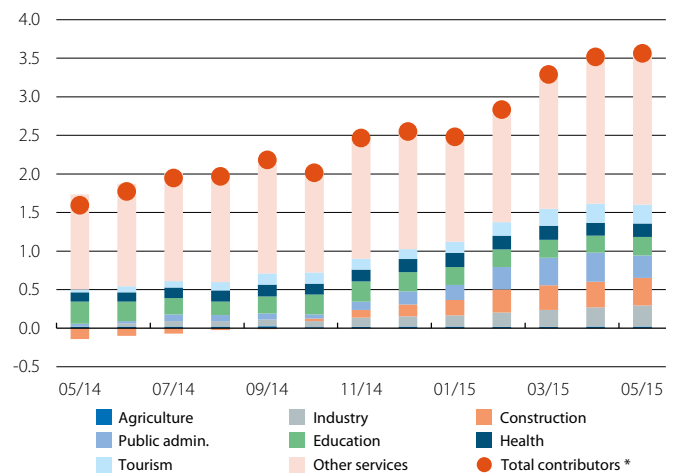
**Household wage income picks up.** The gross disposable income of households grew by 2.5% year-on-year in Q1 (1.4% in Q4), boosted by the rise in total employee income which, in turn, can be explained both by the good rate of job creation and by higher wages. Specifically, hourly wage costs rose by 0.8% quarter-on-quarter in 2015 Q1 (0.1% in Q4), an upswing that is largely due to the impact in this quarter of the refund to civil servants of 25% of their extraordinary pay from 2012. In any case, over the coming months wages might increase slightly more than the rates recorded in the last three years. In May, the wage rise established in official collective agreements was 0.7% (0.6% in Q1). Moreover, the wage agreement signed this month between employers and the trade unions establishes recommended wage increases of up to 1.0% in 2015 and 1.5% in 2016. The agreement also establishes an inflation guarantee clause to be applied at the end of 2016 should, in 2015 and 2016 as a whole, inflation rise above the agreed wage increase; i.e. more than 2.5%. This indicates a certain change in trend in wage rises which should continue to be very moderate so as not to endanger the gains in competitiveness achieved over the last few years.

**Inflation returns to positive figures.** The improvement in domestic demand is gradually being reflected, as expected, in price rises. Specifically, the CPI posted a 0.1% change year-on-year in June, representing an increase of 0.3 pps compared with the previous month's rate. The rise in core inflation is also notable, this being more closely related to the performance of consumption, increasing in May by 0.2 pps to 0.5% year-on-year.

**The real estate market is showing signs of recovery,** particularly in terms of demand: house purchases rose in April by 9.8% year-on-year (according to the cumulative figure over 12 months). This advance is being supported by the improved labour market and better financial conditions, boosting growth in new loans granted to households to purchase housing (between January and April, the number of loans granted was 15.2% higher than in the same four months in 2014). While demand is gaining traction, construction is still lagging behind due to the high levels of stock of empty residential properties for sale. On the other hand, the fall in

## Registered workers affiliated to Social Security

Contribution of sectors to the year-on-year change (pps)



Note: \* Year-on-year change.

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

## Hourly wage costs \*

Change (%)

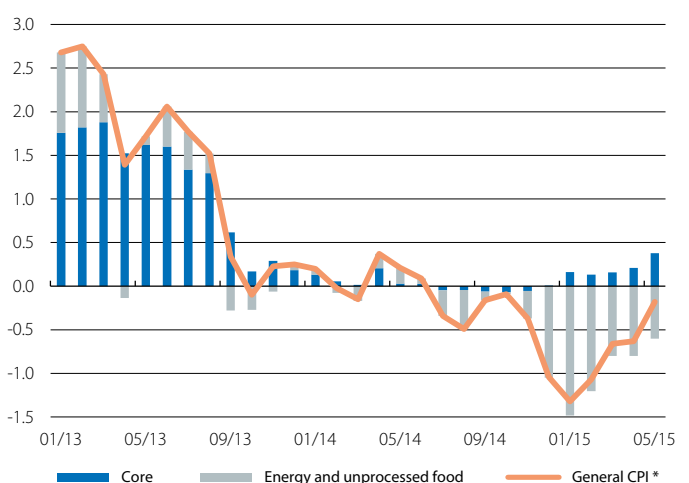


Note: \* Data adjusted for calendar and seasonal effects.

Source: "la Caixa" Research, based on INE data.

## CPI

Contribution to year-on-year growth (pps)



Note: \* Year-on-year change.

Source: "la Caixa" Research, based on INE data.



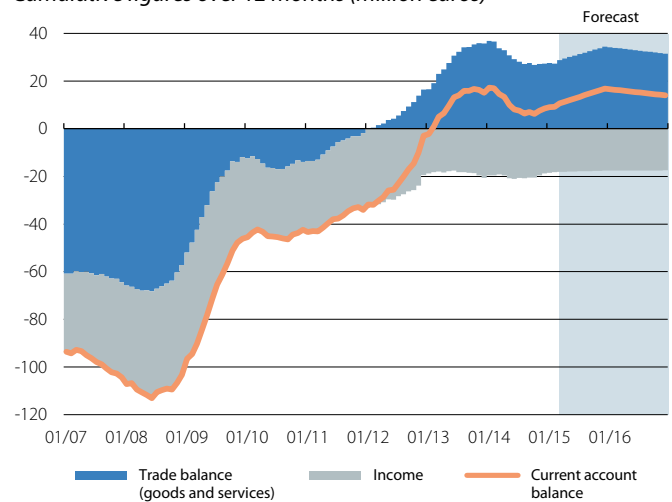
house prices seems to have bottomed out. Valuation prices shrank by 0.4% quarter-on-quarter in Q1 (–0.1% year-on-year). Although this figure is not very encouraging, two factors point to the adjustment in prices almost being complete. Firstly, the contraction in Q1 offset the surprising rise posted in 2014 Q4 (by 0.5% quarter-on-quarter). Secondly, the effort required by households to buy residential property is now at a sustainable level. House prices are therefore very unlikely to fall much further over the coming months.

**The current account surplus continues to grow, standing at 1.0% of GDP in April.** Goods exports grew strongly by 7.4% year-on-year in cumulative terms from February to April, boosted by demand from the euro area and the rest of the European Union. Imports increased by 5.7% year-on-year but this figure would have been much higher had it not been for plummeting oil prices, resulting in considerable savings in the import bill. The services component is still the great support for the trade balance thanks to the excellent performance of tourism. Spain received 6.5 million foreign tourists in May, a 6.8% increase on the same period last year. A new annual record is expected to be set in 2015, higher than the 65 million visitors in 2014. These good figures, and the prospect of this trend consolidating for the rest of the year, have led us to improve our forecast for the current balance to 1.5% of GDP. In 2016 we expect the current balance to shrink to 1.2% of GDP once the positive impact of low oil prices disappears, making imports more expensive again.

**Considerable growth in the amount of credit granted to the real economy.** The figures for new loans granted show a clear upward trend, especially in terms of credit to SMEs. Moreover, according to estimates by the Bank of Spain, the likelihood of companies being granted credit has increased in the last two years. It can also be seen that this probability is significantly higher among companies with a better financial situation, something that was less evident a few years ago. There has also been a continuous decline in the NPL ratio in the banking system. This stood at 12.0% in April, 0.1 pps less than the previous month thanks mostly to a marked drop in doubtful loans (–15.8% year-on-year). We expect the balance of doubtful loans to continue shrinking over the coming months which, combined with a moderate fall in the outstanding balance of credit, will help to reduce the NPL ratio even further. In addition to the improvement of indicators in the banking sector, June also saw progress in the construction of its key pillars. Specifically, Act 11/2015 has been passed regulating the recovery and resolution of credit institutions and investment service firms, establishing the responsibilities, instruments and powers allowing Spanish authorities to resolve the situation of banks with problems of capital in an orderly fashion while protecting their critical functions. The Bank of Spain will be responsible for developing the resolution plan and the bank recapitalisation fund (FROB), as an independent body, will be in charge of implementing this plan.

## Current balance

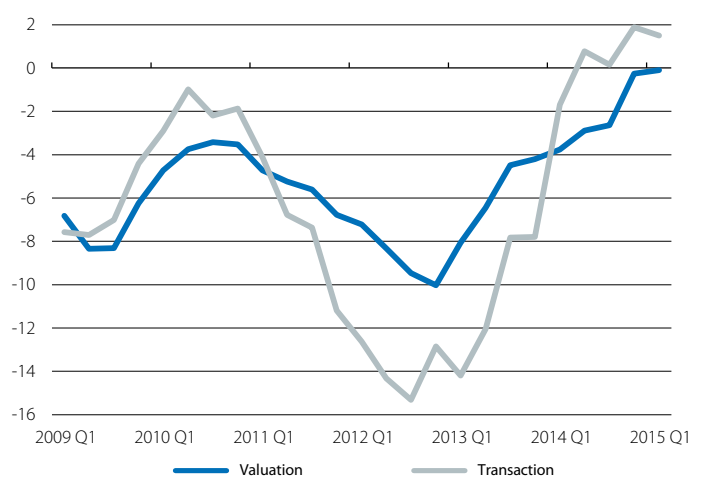
Cumulative figures over 12 months (million euros)



Source: "la Caixa" Research, based on data from the Bank of Spain.

## House prices

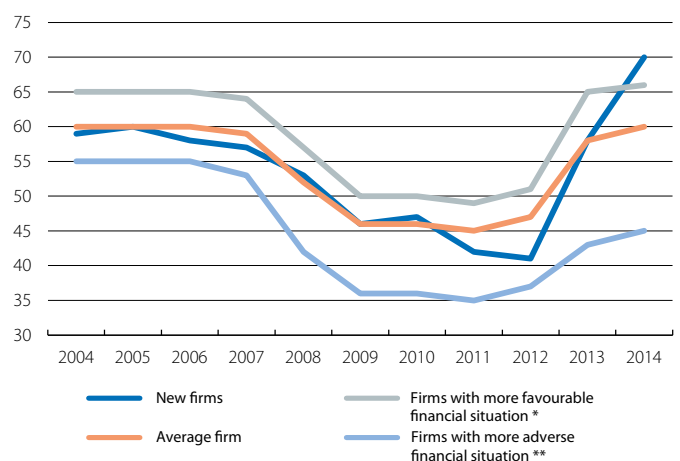
Year-on-year change (%)



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

## Probability of obtaining credit by type of firm

(%)



Notes: \*10th percentile in financial burden and debt.

\*\* 90th percentile in financial burden and debt.

Source: "la Caixa" Research, based on data from the Bank of Spain.

## FOCUS · Permanent employment contracts in the recovery

One of the biggest drawbacks for Spain's labour market has been its dual nature.<sup>1</sup> Between 2000 and 2007 the ratio of temporary to total employment contracts was 32.5% on average, a figure that is far from the 15% posted in the euro area. During the recession, job losses in Spain were particularly high among those on temporary contracts, thereby leading to a sharp fall in this temporary employment ratio although it was still clearly higher than Europe's figures. Now that employment contracts are on the rise again, it is a good time to assess whether this change in trend is consolidating.

To this end, we have analysed the share of permanent contracts among people who have been employed for less than one year in a company. As shown by the second graph, in general a slight upward trend can be observed. Worthy of note is the fact that the increase in the share of new permanent contracts out of the total new contracts is higher in those sectors that have seen a better trend over the last few years. This is encouraging in terms of the trend in temporary employment continuing in the short and medium term. Moreover, the slight upward trend observed in the share of new permanent contracts is particularly important if we take into account the Spanish economy's current point in the cycle. Given that the recovery is still very much in its infancy, it would not be unusual for the share of temporary contracts to grow as, in this phase of the cycle, decisions to hire new employees are usually taken with particular caution.

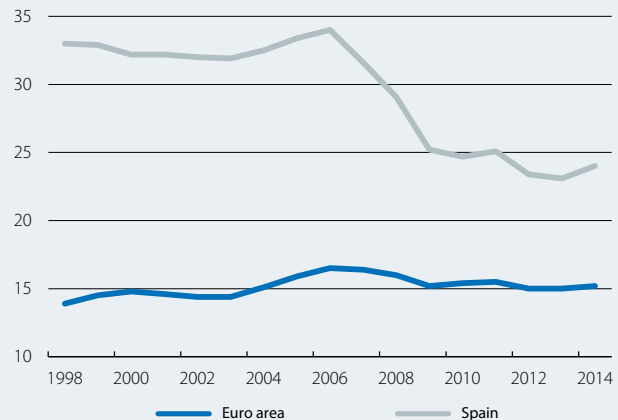
Another interesting fact is that the share of permanent contracts is usually higher among better qualified workers and it is precisely in this segment of the population where the rise in permanent contracts is greatest. This can be seen in the third graph, which focuses on those sectors with the highest growth in employment over the last few years. Consequently, higher qualifications are not only linked to a higher salary but also reflected in better employment conditions.

In short, the dual nature of the labour market has eased considerably over the last few years, partly for cyclical reasons, and perhaps also due to structural changes. However, Spain's labour market is still very far from the European standards. Although the trend of permanent contracts over the last year makes Spain's labour situation look more promising, it is vital to continue working to ensure new jobs are created on a solid basis.

1. The dual nature of labour is the division of the workforce into two segments: those in jobs with permanent contracts (more protected) and those with temporary contracts.

### Employees with temporary contracts

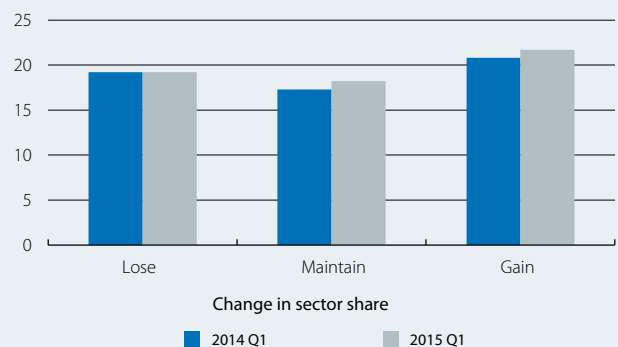
(% of total employees)



Source: "la Caixa" Research, based on Eurostat data.

### Share of new permanent contracts by trend in the sector \*

New permanent contracts (% of total new contracts)

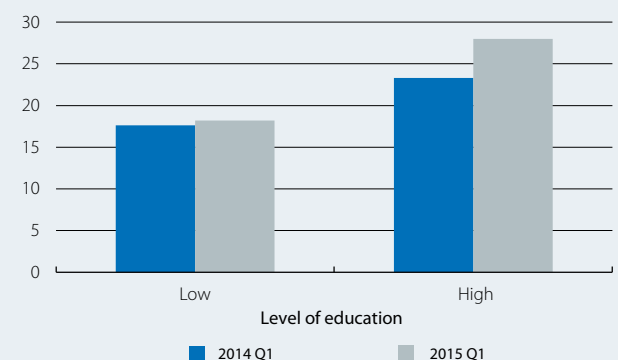


Note: \* The CNAE-90 three-digit economic sectors are ordered from less to more variation in share of employment out of the total between 2009 and 2014, the cut-off point for the three groups between the 1/3 and 2/3 percentiles. Flow analysis: new employees (less than one year in the same firm).

Source: "la Caixa" Research, based on INE data (LFS).

### Share of new permanent contracts in terms of educational attainment in sectors that grow more \*

New permanent contracts (% of total new contracts)



Note: \* See the note for the second graph. The high level of education corresponds to completing university or higher grade professional qualifications.

Source: "la Caixa" Research, based on INE data (LFS).



## FOCUS · The interest rate and the improvement in the income balance: a temporary support

One of the factors contributing the most to the improvement in the current balance over the last few years has been the correction in the balance of primary income,<sup>1</sup> going from a deficit of more than 30 billion euros in 2008 to a deficit of just over 6 billion euros in 2014. This improvement accounts for 25% of the change seen in the current balance, an additional factor that helps to put into perspective the importance of the trend in the balance of primary incomes for the Spanish economy.

This change in the income account partly reflects the situation affecting the Spanish economy over the last few years. Given that Spain's economic situation has been particularly adverse, investments made by foreign individuals and firms in the country have had lower returns than Spanish investments abroad, a factor that is particularly relevant for portfolio investments and direct foreign investment. However, this trend now looks like changing: as the recovery of the Spanish economy gradually gains traction, the returns on investments in Spain will also grow, benefitting international investors. Naturally this circumstance will be reflected in the income account and will undo part of the improvement seen over the last few years.

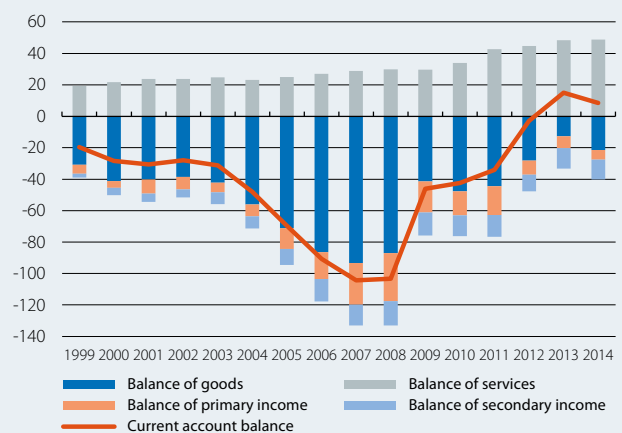
However, in the short and medium term the decline will not be total. The trend in debt premia will help payments by the Spanish economy to the rest of the world as interest rates will remain at very low levels over the next few years. This trend is crucial for the performance of the balance of primary income as 47% of all liabilities held by Spain in relation to other countries are in the form of debt.<sup>2</sup> By way of example, we expect the risk premium for Spain's 10-year public debt to stand at 1.7% on average in 2015, 1 pps below the level posted in 2014.<sup>3</sup> This drop in the cost of debt will provide savings of approximately 2 billion euros.

Nevertheless, it is important to note that this source of support for the Spanish economy is temporary. As interest rates normalise, something we expect

to happen as from next year, the cost of debt will increase. Any permanent correction in the balance of primary income should come from structural factors such as higher surpluses in the balance of trade of goods and services, resulting in a lower net debt position for the Spanish economy and consequently lower payments to the rest of the world.

### Current balance

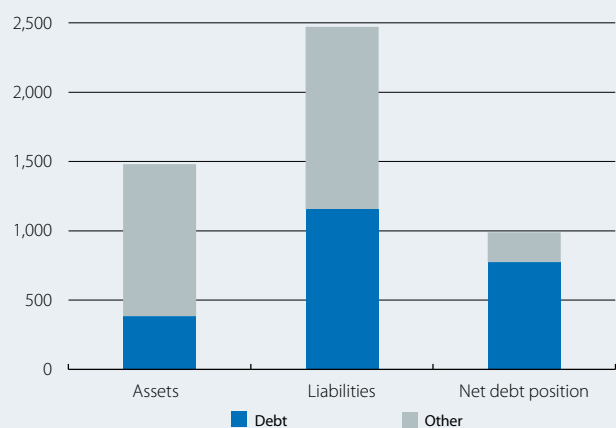
(Billion euros)



Source: "la Caixa" Research, based on data from the Bank of Spain.

### Net debt position (2014)

(Billion euros)



Source: "la Caixa" Research, based on data from the Bank of Spain.

1. The balance of primary income is essentially the difference between recorded income from interest, dividends and profit obtained from capital invested by Spanish residents abroad and the payments made by non-residents for the same concepts in Spain. Broadly speaking, it consists of income and payments from assets held by Spanish citizens abroad and its liabilities with the rest of the world.
2. The share of debt in foreign assets held by Spanish residents is lower, specifically 25%.
3. A large part of the debt is public (43% of total debt). The trend in the interest rate for corporate bonds is very similar to the trend in the interest rate for public debt.

## FOCUS · Alternative sources of financing: venture capital

After implementing the banking union, the European Commission has now set its sights on a new initiative to continue building a common financial framework throughout the European Union: the capital markets union (CMU). One of the pillars of the CMU is the expansion and diversification in the medium and long term of alternative sources of financing to bank loans. This article analyses one of these, venture capital, something many people are unfamiliar with but which can have considerable impact on a country's economic growth.

Venture capital funds provide capital for unlisted firms with high growth potential, either new companies (seeds and start-ups<sup>1</sup>) or existing firms that are expanding. In Spain 91% of companies supported by such funds are firms with fewer than 100 workers, 58% are in at advanced stage of their business development and 76% belong to the ICT sector and digital technology. This source of financing is particularly attractive for companies without much of a track record as, given their young age, they usually have little chance of obtaining other, more traditional types of financing. Moreover venture capitalists do not just inject capital into the firms they invest in but also offer experience and expert advice, the professional skills of a management team with corporate governance know-how and detailed supervision of the business, given that their main aim is for the firm they have invested in to grow and gain in value, thereby providing them with a return that offsets the risk they have taken on. Another advantage of this source of financing is that it is more stable throughout the cycle than traditional financing sources such as debt or loans.

Many academic studies have analysed the benefits of venture capital on a country's economy and its business fabric. Basically the impact of this type of financing leads to increases in innovation, productivity and competitiveness. On the one hand companies backed by venture capital are more efficient in allocating resources to research and development. For example, one euro invested in R&D by these firms is up to nine times more effective, in terms of the probability of generating a patent, than one euro invested by companies not backed by venture capital.<sup>2</sup> With regard to productivity, a study<sup>3</sup> on different US companies found evidence that those backed by venture capital saw an increase in productivity

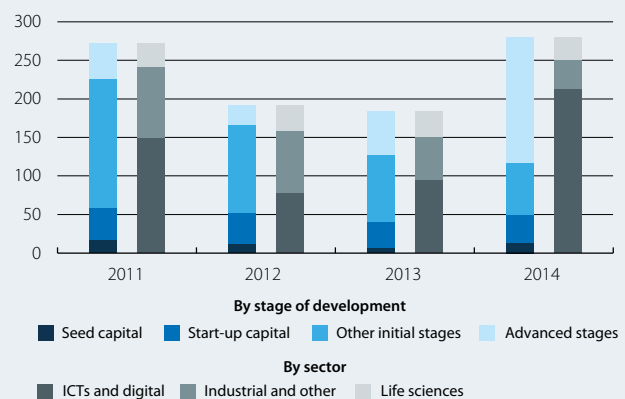
in the first two years of the investment that was 2 pps higher than firms lacking such support. Lastly, being companies with a high technological content and strong growth potential, they are more likely to internationalise. In fact, these firms are created, right from the start, with a global vision and venture capital funds help them to achieve the necessary size for this to be possible.

Although there seem to be clear benefits from financing via venture capital this market is still relatively undeveloped in Spain. Venture capital investment in Spanish firms totalled 280 million euros (0.03% of GDP) in 2014, clearly below the volumes of the US (0.17% of GDP). However, it is important to note that, in spite of this modest figure, the country has now returned to the levels of 2011 thanks to an increase in the number of international funds attracted by Spanish firms in the development stage. This improved situation is also being helped by a highly favourable economic context for the country, by large amounts of global liquidity which make it easier to finance new investments and by revitalizing industry by means of public funds. Specifically, Spanish government's fund of funds, FOND-ICO Global, which has distributed a total of 755 million euros since it was set up in 2013. However, in spite of all the aforementioned support, this market is still very young in Spain so we expect it to gain weight over the coming years as pension funds invest in venture capital funds, as already happens in other countries, and as the managers of these funds achieve maturity and successful track records.

In conclusion, considering the potential advantages of venture capital funds for certain sectors of the economy with high growth potential, any initiatives to encourage the development of this market, such as the one recently set in motion by the European Commission as part of the CMU, are more than welcome.

### Venture capital investment by the company's stage of development and by sector

Million euros



Source: "la Caixa" Research, based on data from ASCRI (Spanish Venture Capital Association)

1. Seed firms are those that have just been created and whose products are in the definition stage. Start-ups are companies that have just been set up but have not yet begun to produce or distribute their product.
2. Popov, A. and Roosenboom, P. (2009), «Does private equity investment spur innovation? Evidence from Europe», ECB.
3. Davis, S. et al. (2009), «Private Equity, Jobs and Productivity», Globalization of Alternative Investments Working Papers, World Economic Forum.

## KEY INDICATORS

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

### Activity indicators

	2013	2014	2014 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15	06/15
<b>Industry</b>									
Electricity consumption	-2.1	-0.1	1.0	0.4	-1.6	1.2	0.3	-0.6	...
Industrial production index	-1.5	1.3	2.6	0.6	0.3	1.5	2.3	...	...
Indicator of confidence in industry (value)	-13.9	-7.1	-8.2	-5.7	-5.3	-3.2	0.2	1.4	1.2
Manufacturing PMI (value)	48.5	53.2	53.4	53.1	53.7	54.4	54.2	55.8	...
<b>Construction</b>									
Building permits (cumulative over 12 months)	-36.3	-7.7	-11.2	-2.1	4.0	12.1	15.7	...	...
House sales (cumulative over 12 months)	0.4	-5.6	-8.5	-5.1	0.3	8.9	9.8	...	...
<b>Services</b>									
Foreign tourists	5.8	7.2	7.8	7.6	5.4	5.2	2.8	6.8	...
Services PMI (value)	48.3	55.2	55.7	56.7	54.3	56.7	60.3	58.4	...
<b>Consumption</b>									
Retail sales	-3.7	1.0	0.7	0.4	2.9	2.5	3.8	3.3	...
Car registrations	5.6	18.4	23.2	17.0	21.7	31.4	3.2	14.0	...
Consumer confidence index (value)	-25.3	-8.9	-6.1	-7.9	-9.6	-0.6	3.6	1.5	-0.4

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

### Employment indicators

	2013	2014	2014 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15
<b>Registered as employed with Social Security<sup>1</sup></b>								
Employment by industry sector								
Manufacturing	-4.3	0.1	0.0	0.6	0.9	1.5	2.0	2.3
Construction	-12.1	-1.6	-2.3	-0.5	1.6	4.6	5.6	6.0
Services	-2.0	2.2	2.2	2.6	2.8	3.5	3.8	3.8
Employment by professional status								
Employees	-3.8	1.4	1.4	1.9	2.3	3.0	3.8	3.9
Self-employed and others	-0.6	2.2	2.3	2.5	2.5	2.4	2.3	2.2
<b>TOTAL</b>	<b>-3.2</b>	<b>1.6</b>	<b>1.5</b>	<b>2.0</b>	<b>2.3</b>	<b>2.9</b>	<b>3.5</b>	<b>3.6</b>
<b>Employment<sup>2</sup></b>	<b>-2.8</b>	<b>1.2</b>	<b>1.1</b>	<b>1.6</b>	<b>2.5</b>	<b>3.0</b>	<b>-</b>	<b>...</b>
<b>Hiring contracts registered<sup>3</sup></b>								
Permanent	-14.2	18.8	24.0	21.5	23.0	24.1	0.7	7.5
Temporary	6.4	13.1	14.2	11.1	7.7	12.2	12.2	7.9
<b>TOTAL</b>	<b>4.0</b>	<b>13.4</b>	<b>15.0</b>	<b>11.8</b>	<b>8.8</b>	<b>13.2</b>	<b>11.1</b>	<b>7.9</b>
<b>Unemployment claimant count<sup>3</sup></b>								
Under 25	-6.2	-8.2	-10.9	-5.5	-6.9	-9.8	-8.2	-9.1
All aged 25 and over	3.7	-5.3	-5.9	-5.9	-5.7	-6.1	-7.4	-7.7
<b>TOTAL</b>	<b>2.7</b>	<b>-5.6</b>	<b>-6.4</b>	<b>-5.9</b>	<b>-5.8</b>	<b>-6.5</b>	<b>-7.5</b>	<b>-7.8</b>

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

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

### Prices

	2013	2014	2014 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15	06/15
<b>General</b>	<b>1.4</b>	<b>-0.1</b>	<b>0.2</b>	<b>-0.3</b>	<b>-0.5</b>	<b>-1.0</b>	<b>-0.6</b>	<b>-0.2</b>	<b>0.1</b>
Core	1.5	0.0	0.1	0.0	0.0	0.2	0.3	0.5	...
Unprocessed foods	3.6	-1.2	-2.3	-4.1	0.8	0.3	0.2	2.3	...
Energy products	0.1	-0.8	2.4	-0.2	-4.3	-9.7	-7.2	-6.4	...

Source: "la Caixa" 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 Q2	2014 Q3	2014 Q4	2015 Q1	03/15	04/15
<b>Trade of goods</b>								
Exports (year-on-year change)	5.2	2.5	-2.0	4.8	4.3	4.4	12.5	6.5
Imports (year-on-year change)	-1.3	5.7	3.7	7.3	5.0	2.5	6.3	6.3
<b>Current balance</b>	<b>15.1</b>	<b>8.4</b>	<b>8.1</b>	<b>7.0</b>	<b>8.4</b>	<b>10.3</b>	<b>10.3</b>	<b>10.8</b>
Goods and services	35.7	26.9	29.1	27.5	26.9	28.3	28.3	28.4
Primary and secondary income	-20.6	-18.5	-21.1	-20.5	-18.5	-18.0	-18.0	-17.6
<b>Net lending (+) / borrowing (-) capacity</b>	<b>22.0</b>	<b>12.9</b>	<b>14.5</b>	<b>12.8</b>	<b>12.9</b>	<b>14.0</b>	<b>14.0</b>	<b>14.7</b>

Source: "la Caixa" 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 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	05/15
<b>Net lending (+) / borrowing (-) capacity</b>	<b>-6.8</b>	<b>-5.8</b>	<b>-3.3</b>	<b>-3.6</b>	<b>-5.8</b>	<b>-0.7</b>	-	...
Central government <sup>1</sup>	-4.8	-3.8	-2.5	-3.1	-3.8	-0.9	-1.1	-2.0
Autonomous regions	-1.5	-1.7	-1.0	-1.0	-1.7	-0.2	-0.3	...
Local government	0.5	0.5	0.1	0.3	0.5	0.1	-	...
Social Security	-1.1	-1.1	-0.1	0.0	-1.1	0.3	0.3	...
<b>Public debt (% GDP)</b>	<b>92.1</b>	<b>97.7</b>	<b>96.4</b>	<b>96.8</b>	<b>97.7</b>	<b>98.0</b>	-	...

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

Source: "la Caixa" 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 Q2	2014 Q3	2014 Q4	2015 Q1	04/15	Balance 04/15 <sup>1</sup>
<b>Financing of non-financial sectors<sup>2</sup></b>								
Private sector	-8.2	-4.9	-5.0	-4.4	-4.6	-5.0	-4.5	1,684.0
Non-financial firms	-10.6	-4.8	-4.9	-3.9	-4.7	-5.6	-4.9	946.6
Households <sup>3</sup>	-5.0	-5.1	-5.2	-5.0	-4.6	-4.2	-4.1	737.4
General government <sup>4</sup>	16.8	6.9	6.6	5.9	6.7	5.0	4.4	1,032.5
<b>TOTAL</b>	<b>-1.1</b>	<b>-0.9</b>	<b>-1.1</b>	<b>-0.9</b>	<b>-0.7</b>	<b>-1.4</b>	<b>-1.3</b>	<b>2,716.5</b>
<b>Liabilities of financial institutions due to firms and households</b>								
Total deposits	2.1	-0.9	-0.8	-1.2	-1.7	-1.3	-0.5	1,156.2
On demand deposits	4.2	10.8	7.4	13.6	14.8	17.9	21.7	348.0
Savings deposits	-0.1	5.8	5.9	6.9	6.8	10.5	12.0	228.5
Term deposits	1.7	-7.6	-6.1	-9.4	-11.3	-13.5	-14.6	557.3
Deposits in foreign currency	16.8	1.1	0.1	0.3	5.2	8.9	11.2	22.5
Rest of liabilities <sup>5</sup>	-16.8	-8.2	-8.3	-6.8	-6.8	-11.4	-13.0	109.0
<b>TOTAL</b>	<b>-0.2</b>	<b>-1.7</b>	<b>-1.6</b>	<b>-1.7</b>	<b>-2.2</b>	<b>-2.3</b>	<b>-1.7</b>	<b>1,265.2</b>
<b>NPL ratio (%)<sup>6</sup></b>	<b>13.6</b>	<b>12.5</b>	<b>13.1</b>	<b>13.0</b>	<b>12.5</b>	<b>12.1</b>	<b>12.0</b>	-
<b>Coverage ratio (%)<sup>6</sup></b>	<b>58.0</b>	<b>58.1</b>	<b>59.4</b>	<b>59.1</b>	<b>58.1</b>	<b>58.5</b>	<b>58.7</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.

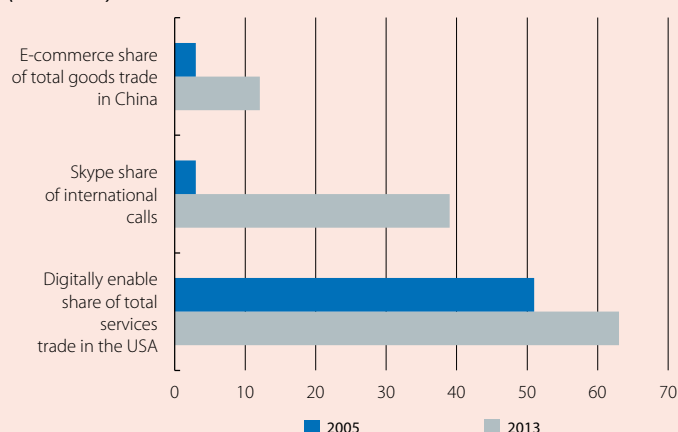
Source: "la Caixa" Research, based on data from the Bank of Spain.

## THE DIGITAL ECONOMY

## The digital economy: the global data revolution

In 1800 John Adams, the second President of the United States of America, signed a law creating a library containing «such books as may be necessary for the use of Congress». By 1815 the Library of Congress had 6,487 books; today it has 158 million documents, among them 32 million books. Its function is no longer limited to meeting Congress's demand for information but it has also been the country's legal depository since the mid-19th century. It is therefore a repository of almost everything that has been published in the United States in the last 150 years. No matter how you look at it, that is a huge amount of information.

### Digital component of certain global flows (% of total)



Source: "la Caixa" Research, based on data from the McKinsey Global Institute.

But Walmart, the US retailing giant, handles information, on its own, equivalent to that of the Library of Congress every 22 seconds. That is right: one million transactions take place every hour at Walmart and the information is entered into the company's database.<sup>1</sup> Nevertheless, impressive as this figure is, it pales into insignificance when we broaden our focus. IBM estimates that 90% of the data available in the world in 2013 had been created in the previous two years while Eric Schmidt, CEO of Google, claimed in 2010 that, every two days, the quantity of information created is the same as the total amount generated since the dawn of time up to 2003. These are such huge figures they suggest the birth of a revolutionary way of creating and managing information; a new paradigm resulting from the digitalisation of information, i.e. encoding it into digital format. Once digitalised, it can be reproduced and disseminated at almost zero marginal cost: hence the information explosion.

This paradigmatic shift must necessarily have economic effects and also, logically, an effect on business.<sup>2</sup> But to examine this issue conceptually we need to define what we mean by the digital economy: it is an economy characterised by the use of digital technology and which, according to a widely accepted definition, namely the one by Mesenbourg (2001), it relies on three essential components: infrastructure (hardware, software, networks, etc.), organisational processes (e-business) and flows of goods and services (e-commerce).<sup>3</sup>

Thus defined, to a greater or lesser degree the digital economy is permeating almost all companies as digital technologies are used in many stages in their value chain. However, there are still differing degrees in this process which we are useful to theoretically identify three groups of sectors or companies. The sectors we call «pure» are those whose very essence is the digital economy; they have been created within this environment, could not exist without digitalisation and form an integral part of the digital world. Companies such as Google and Facebook are an example of this category. We have named a second group the «revolutionised» sectors. These are industries that, although they existed prior to digital revolution, have transformed entirely with digitalisation, both in terms of their basic product and also other stages in their value chain. Sectors such as telecommunications, publishing, education, the media and music belong in this category. Lastly, the companies whose value chain has not essentially been altered we call the «traditional» sectors.

The pure and revolutionised sectors share three economically relevant aspects: *i)* the cost of producing an additional unit has shrunk dramatically, in some cases coming close to zero; *ii)* the cost of accessing their products has also fallen sharply and *iii)* distribution and transport costs are also a lot lower than previously. In fact, for many pure or revolutionised products the distinction between access and distribution is irrelevant: once produced, an app or digital book can be downloaded (and a download is both access and distribution at the same time) worldwide at almost zero cost.

1. See «Data, data everywhere: A special report on managing information». The Economist, 27 February 2010.

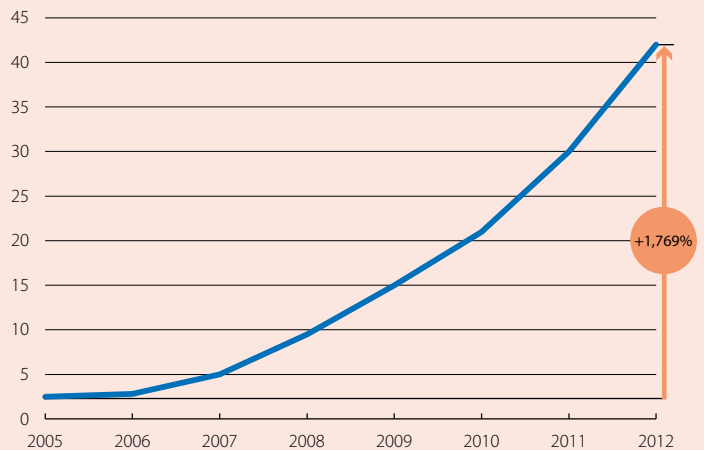
2. On the economic impact in aggregate terms, see the article «The digital era and its role in the economy» in this Dossier. The effect on sectors and business is discussed further in the article «Digitalise or die: the digital transformation of industries and companies» in this Dossier.

3. See Mesenbourg, T. L. (2001), «Measuring the Digital Economy», US Bureau of the Census.

Data show that pure and revolutionised sectors are substantially growing in importance. In particular, there is a great deal of evidence of considerable growth in global data flows. According to a study by McKinsey (2014),<sup>4</sup> between 2008 and 2013 flows of international data grew by 700%. Although colossal, this figure is amply exceeded by the increase in cross-border traffic on the internet, which multiplied by 17 between 2005 and 2012. Although providing undeniable evidence of the paradigmatic shift taking place in information at an international level, concrete proof is obtained when we analyse the data from the perspective of products and sectors. McKinsey (2014) identifies the digital component of different global flows via specific examples and states that their share has increased considerably in goods but even more so in services and in data and communications. It is not implausible to suggest that the pure and revolutionised sectors are becoming global via the flows of these last two areas as they are undoubtedly easier to digitalise than goods, which are probably the last bastion of traditional industries (at least for the moment, as the internet of things promises to shake them up as well).<sup>5</sup>

### Cross-border internet traffic

(Terabits per second)



Source: "la Caixa" Research, based on data from the McKinsey Global Institute.

To end, let us broaden our focus of analysis even further and reflect on what this substantial growth in global flows of data and information means in globalisation terms. In particular, does this new metamorphosis of globalisation (which has gone, in just over half a century, from being restricted to movements of goods and people to include capital and now digital content) that the world is at last «flat»? A flat world, according to the meaning popularised at the time by Thomas Friedman, is one in which geographical distances and barriers have become incredibly small. In short, a highly globalised world. So far Friedman's conclusion can only be taken as a partial description of the situation today. Pankaj Ghemawat has resolutely claimed that globalisation is not as extensive as sometimes assumed. According to his measurements, most flows of goods, capital, people and information are domestic: only between 10%-20% of flows are international and, of these, 40% occur within a continental-sized region and are not global.<sup>6</sup> So the world would only be flat by regions. Nonetheless, and accepting the theory of partial or regional globalisation, the growth figures for cross-border information flows are so huge that, in the area of the digital economy, perhaps the world will flatten out much more quickly than we imagine. Because in the time you have taken to read this article (less than 10 minutes for an average reader), Walmart will have handled approximately 20 new Libraries of Congress and it is not unreasonable to suppose that something from this process of generating, storing and using information will spill over national borders. And that «something», given the volumes mentioned, is not exactly small.

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4. See «Global flows in a digital age: How trade, finance, people, and data connect the world economy», McKinsey Global Institute, April 2014.

5. The internet of things or objects refers to the digital interconnection of physical objects with the internet. For more information on this area, see the article «Digitalise or die: the digital transformation of industries and companies» in this Dossier.

6. See Ghemawat, P., Altman, S. (2014), «DHL Global Connectedness Index: Analyzing global flows and their power to increase prosperity».



## The digital era and its role in the economy

The industrial revolution marked a turning point in economic history: there was a shift from the economic stagnation of several centuries to sustained growth in per capita income and an improvement in society's standards of living. This unprecedented change meant that, for example, per capita GDP in the United States grew by almost 50% in half a century. Although this is a huge increase, per capita GDP rose by the same amount in half the time as from 1980, boosted in part by the proliferation of digital technologies. These figures confirm the extent and speed of the digital revolution's effect on society, the latest revolution that is changing and will continue to change the structures of the economy as we know it. In this article we take a closer look at the macroeconomic impact of the digital revolution and the determining factors required to create an ecosystem that serves as a basis for digital expansion.

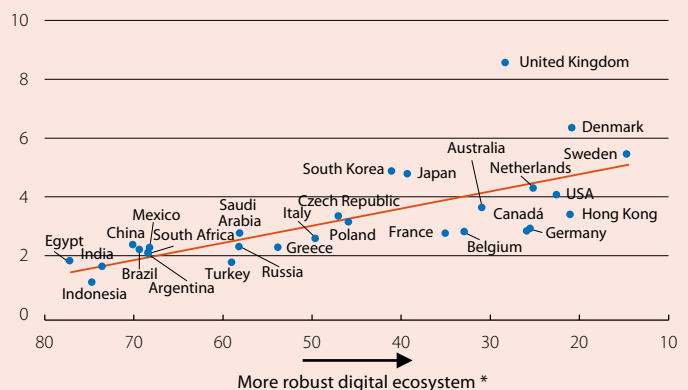
The positive effects of the digital economy can be seen on countless fronts, from increased economic activity to improved quality of life in society. The flagship of the digital revolution has been the invention of the internet, interconnecting the world and promoting globalisation. By way of example, to quantify the significance of the digital revolution for the economy, the relative weight of the internet and related sectors<sup>1</sup> reached 3.4% of GDP in 2009 for a group of 13 countries.<sup>2</sup> With this figure, the internet has now overtaken classic sectors such as agriculture, utilities and education and has become one of the main drivers of economic growth with a contribution of 7 pps in the 15 years prior to the crisis. This role now played by the internet and the rest of the digital technologies in economic activity has not only appeared in the «pure» sectors born in the digital revolution (for example Google and Facebook) but its impact has been felt even further, affecting all sectors. According to a report by the OECD,<sup>3</sup> the capital of information and communication technologies (ICTs) helped to increase the value added of economic sectors as a whole by between 0.4 and 1.0 pps annually between 1995 and 2007. In addition to the direct effect of this capital as a production factor, digitalisation has also played its part in considerably improving total factor productivity, helping to generate more production with the same units of capital and labour.

These figures are even more impressive if we remember that they are based on national accounts data, a statistic that does not entirely reflect all the benefits provided by the internet and digitalisation to society. This limitation is due to the fact that GDP only reflects the production of goods and services when money is exchanged so that free goods and services are excluded from the measurement. Given that digitalisation will continue to push down the marginal cost of producing many goods and services and therefore their price, this calculation error in GDP will increase, making the figure an increasingly worse reflection of the well-being of society. For instance, a study for the US economy<sup>4</sup> has quantified the value of these free digital services by calculating how much money consumers would have to receive for their level of well-being to be the same without using these services: this figure reaches 106 billion dollars a year, on average, between 2007 and 2011, which would correspond to an increase of 0.7 pps in GDP.

The expansion of a country's digital economy is only possible if it has a robust digital ecosystem. Specifically, the development of the digital economy will depend on three factors: digital infrastructure, human capital and institutional quality. Just as infrastructure played a key role in the first industrial revolution with the invention of the telegraph, making it easier to distribute information, and the railway network, which radically changed transport, infrastructure is also crucial for the digital revolution. Digital infrastructure consists of all the infrastructures required to support digital business, including companies that produce hardware and software, communication networks and providers of payment services and digital content. Although these infrastructures

### Relationship between the robustness of the digital ecosystem and the size of the digital economy

Gross value added of the digital economy in 2013 (% of GDP)



Note: \* Based on the e-friction index in 2013 that measures frictions limiting the digital ecosystem (at the level of infrastructure, industry, individuals and information).

Source: "la Caixa" Research, based on data from the Boston Consulting Group.

1. Includes internet activities by providers of telecom services, hardware and software firms and similar.

2. Study by McKinsey Global Institute, «Internet matters: The Net's sweeping impact on growth, jobs, and prosperity». The countries analysed are Germany, Canada, USA, France, Italy, Japan, United Kingdom, Russia, China, India, Brazil, Sweden and South Korea.

3. Spiezia, V. (2012), «ICT investments and productivity: measuring the contribution of ICTs to growth», OECD Journal: Economic Studies, Vol. 2012/1.

4. Brynjolfsson & Oh, «The attention economy: measuring the value of free digital services on the internet», 33rd international conference on information systems, 2012.



are already developed in most advanced economies, in some countries there is still a long way to go before eliminating sources of friction that limit the digital economy's growth potential. The most complex limitation is the availability of mobile spectrum (the network via which mobile data traffic moves). The allotment of spectrum needs to be unified within the European Union, thereby satisfying the increasing growth in data traffic of mobile services and improving competition and efficiency in this industry.<sup>5</sup> Another barrier that sometimes restricts growth in the digital economy is the lack of investment in its infrastructure, highlighted by the recent debate regarding who should meet the costs, communication network providers or digital content providers, who also benefit.

There is not only a lack of investment in the infrastructures supporting the digital economy but also in digital R&D. Investment in ICT research and development in Spain is far below the rest of the countries of the euro area. This limited capitalisation in information and communication technologies can be explained by three factors: the larger share of small firms, which are less likely to innovate; the limited development of alternative financial markets such as venture capital (widely used by new technological firms) and relatively unqualified workers.

The second pillar of the digital ecosystem is human capital. While, during the first industrial revolution, a large amount of unskilled labour was required to work in factories, the quality of human capital has become more important in the new digital revolution. A knowledge of ICTs and the internet has become a basic requirement for most jobs. Specifically, in 2012, 55% of the jobs in Spain demanded a basic knowledge of computing. This change in the skills of labour in demand could accentuate polarisation in the labour market, making it difficult for some workers to find jobs, especially unskilled workers and those with skills related to very specific sectors such as construction.

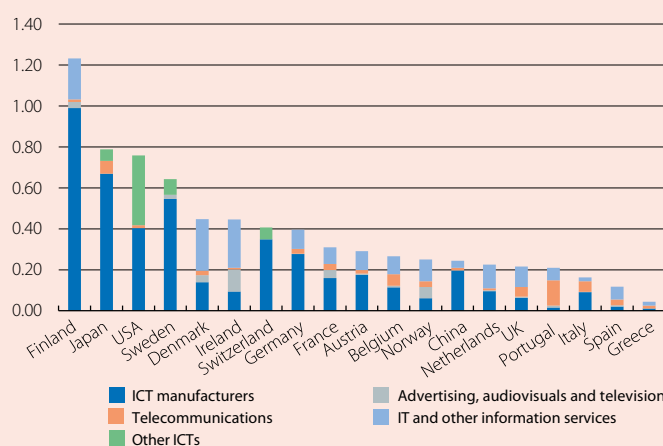
The last pillar of the digital ecosystem is institutional quality. Continuing our comparison with the industrial revolution, one key element in its success was a legal regime that guaranteed the right to private property and provided suitable incentives for all economic agents. Today the function of institutions must still be one of establishing the rules of play and, in particular, safeguarding certain rights that have become even more important in the digital economy, such as protecting privacy and copyright, as well as ensuring the suitable environment to promote investment and innovation in the digital ecosystem (see the article «The challenges facing the State in the new digital economy» in this Dossier).

In short, to be able to make the most of digitalisation there must be commitment to long-term growth of the digital economy, eliminating the obstacles to expanding its infrastructures and modernising policies and regulations in order to boost investment and innovation in the digital ecosystem. Aware of its importance, the European Commission recently presented a strategy for a single digital market that aims to correct some of these obstacles and standardise regulations at a European level. This initiative is likely to be the first of many. The digital revolution has come to stay and will transform the economy as we know it.

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### R&D by information industry

(% of GDP)



**Note:** Data from 2011 except for the United States, from 2008; Finland, Germany and Switzerland, from 2012; and China, from 2009.

**Source:** "la Caixa" Research, based on OECD data.

5. See «Delivering Digital Infrastructure. Advancing the Internet Economy», World Economic Forum and The Boston Consulting Group 2014.

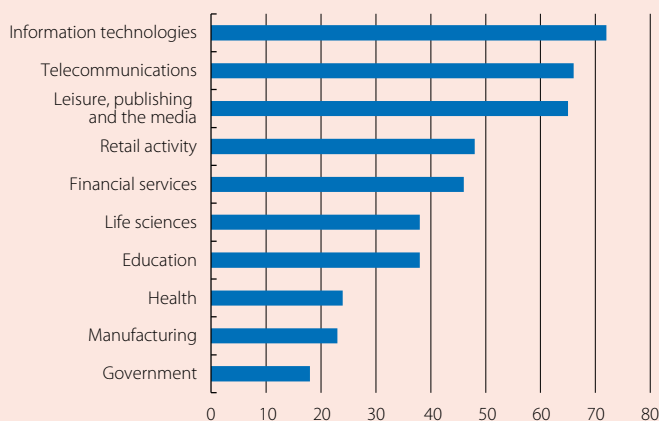
## Digitalise or die: the digital transformation of industries and companies

Charles Darwin's theory on the evolution of the species is based on the observation that those individuals that adapt best to the environment, rather than the strongest, have the best chances of survival. New digital technologies have radically transformed the context in which companies operate so that, applying the theory of evolution to business, it could be claimed that only those firms that adapt best to the new digital environment will survive. In this article we analyse how this digital transformation is affecting them.

Although all companies without exception must adjust to the new environment sooner or later, it is true that digitalisation has not affected all sectors of business in the same way nor has it offered them the same opportunities (see the first graph and the article «The digital economy: the global data revolution» in this Dossier for a taxonomy of sectors according to the digital economy's degree of impact). Firstly there are the so-called «pure» or «native» sectors whose business model is designed to be carried out in a digital environment. Then there are the «revolutionised» industries such as music and the media whose business models have been displaced by the emergence of new technologies. In these sectors the internet has led to the appearance of new digital firms with totally innovative business models at the same time as revolutionising existing firms with a radical transformation in all the stages of their value chain, from production, distribution and pricing policy to consumer relations and advertising. In this respect we could say that the digital metamorphosis of these sectors is now largely complete.

### Industries most affected by digital transformation

(% of executives indicating a big impact)



Source: "la Caixa" Research, based on data from Oxford Economics.

More recently we have seen digitalisation spreading inexorably to the rest of the production sectors which are no longer «traditional» but gradually joining the «revolutionised» industries, an irrefutable sign that the digital economy is maturing. The disruptive effect of digital technology can be seen in an increasing number of sectors including manufacturing, agriculture, energy and health. Although it is true that digital technology does not affect the fundamental essence of these industries, adopting new technologies has become vital to continue improving their production efficiency and competitiveness. Using big data,<sup>1</sup> cloud computing<sup>2</sup> and social media is no longer the exclusive terrain of companies that form an intrinsic part of the digital world but even the most traditional economic sectors are taking advantage of the opportunities offered by digitalisation to increase their productivity. A study by The Boston Consulting Group<sup>3</sup> clearly shows this: companies

at the forefront of using big data generate 12% more income than those who don't use big data.

There are many applications of digital technology in traditional sectors and they have the potential to improve a large number of processes carried out by all firms. Smart factories are a case in point. These factories use big data to ensure total control of the flow of information generated in real time at production plants and points of sale (see the second graph). This information is analysed using advanced statistical techniques to improve the decisions taken at different stages in the value chain, decisions which in many cases require no human intervention but are taken automatically. One example of this is a large textile producer and distributor that adjusts the items distributed to each shop depending on the specific demand of each location, for instance by using an algorithm that predicts the sizes most sold by each store. Another innovation that has revolutionised manufacturing, as well as other sectors, is the proliferation of the «internet of things».<sup>4</sup> The installation of sensors in machines and in various components of the product provides valuable information on the performance of different devices and downtime between processes. This helps optimise the production process in real time, reducing the need for stock and maximising production with the available resources. The challenge facing firms is to grasp the potential offered by digitalisation and they must therefore

1. Big data is the term used for information systems that handle large amounts of data.

2. Cloud computing refers to the practice of transferring IT services, such as computer applications and data storage, to a remote location accessible via the internet.

3. «A Digital Disconnect in Innovation?» The Boston Consulting Group, October 2014.

4. The internet of things refers to the digital interconnection of physical objects with the internet.

develop systems to process the growing amount of data being handled and their capacity to use these data.<sup>5</sup>

In addition to information generated in the company itself, it is increasingly important to integrate companies' information systems with those of their suppliers and clients. One critical aspect is to have a sufficiently flexible production structure to be able to quickly adapt to the changing preferences of end consumers. Within a context where value chains are increasingly more globalised and fragmented, using data on client companies (for example on their stock levels or price and promotion policy) could improve demand predictions and thereby optimise production planning, while after-sales information can also be highly valuable to design new products more in line with consumer preferences. For example, the data obtained from sensors on the use of different characteristics of a product can focus efforts on improving the most frequently used features by consumers at the same time as eliminating those least used to reduce costs.

### Impact of big data on the value chain

	R&D and product design	Supplier relations	Production	Marketing and sales	After-sales services
Databases to improve product design	✓				
Client collaboration platforms	✓			✓	
Predictions of demand and required inputs		✓	✓	✓	
Production chain simulations to optimise it			✓		
After-sales data collection via sensors			✓	✓	✓

Source: "la Caixa" Research, based on data from the McKinsey Global Institute.

Adopting digital technologies also entails significant organisational changes within firms. Large multinationals are becoming globally integrated organisations with specialised production units in different places in the world to take advantage of different costs, skills and access to natural resources. The advances made in information technologies and smart business help to control performance at different locations while the use of team tools and cloud computing facilitates interaction between individuals forming part of the organisation. Digitalisation also encourages organisational change towards a more flexible, decentralised model. For example, edge-based organisations are made up of many different independent units that interact directly with clients. These teams are noted for self-management, making them able to adapt quickly to changes in the environment.<sup>6</sup>

Digitalisation has also transformed how companies compete with each other. On the one hand it has notably lowered the cost of entry in many sectors and thereby increased competition. On the other hand digital technology is characterised by network externalities; i.e. the value one user gets from consuming a product or service increases with the number of users of this product or service. Under such circumstances the normal trend is towards a single network, platform or standard, resulting in «winner takes all» situations or a natural monopoly. Having a dominant position in the market, some companies have carried out certain practices that could enter into conflict with anti-trust laws. For example, the European Commission is currently investigating a case against Google for systematically favouring its own products in price comparisons on its search results pages.

In short, new digital technologies are radically transforming the environment in which companies operate, also affecting the different stages in their production and how they relate and compete with each other. Given this challenge, there is no alternative: companies must develop a strategy of digital transformation to ensure their survival and future development.

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5. For more information on the use of big data in other production sectors, see «Big data: the next frontier for innovation, competition and productivity», McKinsey Global Institute, May 2011.

6. See «The new digital economy: How it will transform your business» Oxford Economics, June 2011.

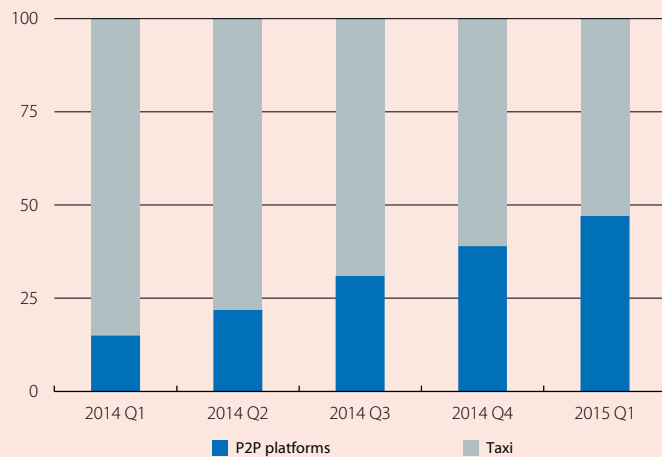
## The challenges facing the State in the new digital economy

The adoption of new digital technologies has represented a revolution for both firms and individuals, changing the way in which they are organised, how they relate to each other and also how they shop. Nevertheless such changes also entail significant challenges for the State as it has to regulate activities that previously did not exist or for which the current legislation is not appropriate. In this article we will analyse the role played by the State in terms of competition, tax revenue and global governance in a digitalised world.

Starting with competition, it is important to note that new digital technologies can reduce competition or even encourage monopolies. Traditionally, when a firm (technological or otherwise) achieves considerable market share and has a leading standard platform it may be tempted to abuse its dominant position by restricting competition. Technological advances in the digital era have helped several technology giants (Microsoft, Google, Apple, etc.) to take up such an advantageous situation. However, new digital technologies also open the door to competition as they allow new rivals to appear on the scene by simplifying the process required to become a provider of goods and services. For example, new apps for mobiles have made peer-to-peer or P2P transactions easier in regulated sectors such as rented accommodation and passenger transport, which have experienced a boom in the last few years.

### ***Trips by taxi and via P2P platforms in the USA***

(% total business trips)



Source: "la Caixa" Research, based on data from Certify.

This increased supply as a consequence of better technology has a positive side for consumers as it increases existing competition thanks to the greater number and variety of goods and services offered and can also reduce the price. However, the disruptive appearance of new agents can also lead to unfair competition regarding existing service providers which, unlike the new kids on the block, have had to respect the rules regarding security, safety and quality standards or obtain licences to operate, among other issues. Technological innovation makes it possible for new agents to do business and it is impossible (and surely not at all desirable) to restrict this completely. But they should have to comply with some basic requirements, both at the start of the business (for example, following consumer protection requirements) and while carrying out the activity (for example, paying tax), and they should also operate legally. Legislation also needs to adapt to the new business model and technological improvements. For example, the need to pass a test proving a

thorough knowledge of the streets in a city to obtain a passenger transport licence may no longer be appropriate, now that there are mobile phones with GPS and anyone can take people to a precise address without having to memorise all the different routes (as well as facilitating contact with clients via a P2P app). In short, the State needs to develop a more flexible, broader regulatory framework that responds to this new situation but does not make it unnecessarily difficult for new agents to enter the market.

Another important issue is consumer protection legislation and quality and safety standards, whose compliance must be guaranteed by the State, a complicated task in a digital economy which, by its very nature, has no borders. Legislative harmonisation between the different countries in the European Union (EU) and also within them would be an improvement in this respect as it would increase consumer protection at the same time as boosting the digital economy. In Spain, for example, there are different regulations related to tourist apartments depending on the autonomous community and even the municipality, making it difficult to control this activity and also to develop it.

In the fiscal area, the challenge facing the State is how to tax online business. Some large technological firms have managed to reduce their tax bill by placing their sales in countries with lower taxes instead of the country where the buyer is actually making the transaction. Similarly, in order to avoid paying tax in countries with higher rates, they transfer part of their profits to subsidiaries in countries with lower rates. To do so they use transfer pricing arrangements that shift most of the profits to another domicile. The European Commission is analysing the possible distortion of competition of various tax breaks granted by, among others, Ireland (in the case of Apple) and Luxembourg (in the case of Amazon). Harmonised legislation, at least between EU countries,

would reduce this problem, as well as the effective supervision of transfers between subsidiaries to ensure they comply with the law. On the other hand, at present tax cannot be levied on part of the income obtained for providing goods and services via digital media as actual legislation is not adapted. For example, drivers using passenger transport apps, which have yet to be legalised, do not pay VAT on their transactions. However, P2P apps could help to improve tax payment since they increase the traceability of transactions, making it difficult for commercial exchanges to remain off the record.

Lastly, the third area of utmost importance for the State is the global governance of digital flows. We shall use the internet as a case in point as this helps to make a debate that is sometimes too generic a little more concrete, as well as the fact that it is the medium through which a large part of digitalised globalisation is occurring. The internet owes its success to being a single, global system, in particular its main protocols and infrastructures. But today there are two points of friction that could erode these principles: net neutrality and cybersecurity.

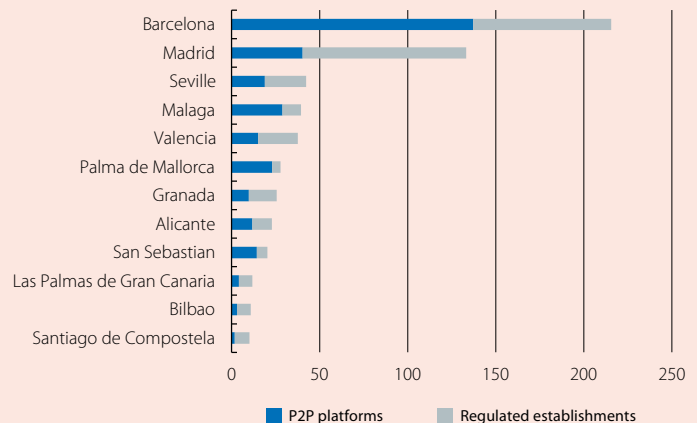
Net neutrality means that all data must be treated equally, without discrimination due to origin or content; consequently the internet is sometimes seen as a single service instead of a network with different categories. In practice this means, for instance, prohibiting the firm that owns the infrastructure to charge for some data to be transmitted more quickly. However, it also reduces companies' incentives to innovate and invest as they lose a way of getting a return on their investment. Individual users want to access all information without filters but they also want improvements and innovation in the infrastructures they use, at the lowest cost possible.

Lastly, cybersecurity is a critical issue for governments: the size of cybercrime is now comparable in volume with drug trafficking.<sup>1</sup> It is not easy to balance internet security (which should be desirable for all parties) with internet control to ensure national and international security. For some governments the internet might represent a political risk or they may want to use it as a means of controlling their citizens. In any case using the internet to achieve national political goals damages its integrity and functionality. One relatively optimal solution from a theoretical point of view would be to create a neutral zone where the internet backbone were «governed» by a multilateral body incorporating all parties (governments, companies, consumers, etc.). However, it seems difficult to put this idea into practice due to the differing economic interests and the political disparity of the agents involved.

In conclusion, although technological innovations represent an important step forward for society they are also a source of crucial challenges for States. It is important for them to be regulated appropriately to increase the well-being of the population by taking their preferences into account. But it would be a mistake if excessive or obsolete regulation restricted the resulting possibilities for growth.

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**Urban lodgings in regulated establishments and via P2P platforms in Spain (2015 Q1)**  
(Number of lodgings, thousands)



Source: "la Caixa" Research, based on data from Exceltur.

1. Javier Solana, «Cyber War and Peace», Project Syndicate, 30 April 2015.



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As of December 31, 2014

### Financial activity

MILLION €

Customer funds	271,270
Receivable from customers	195,809
Profit attributable to Group	622

### Commercial activity and resources

Customers (million)	13.4
Staff	32,590
Branches in Spain	5,251
Self-service terminals	9,544

### Community projects: budget for activities in 2015

MILLION €

Social	336
Science and environmental	56
Cultural	67
Educational and research	41

### TOTAL BUDGET

500

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Design and production: [www.cege.es](http://www.cege.es)

Legal Deposit: B. 21063-1988 ISSN: 1134-1920

