MR09

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

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ECONOMIC & FINANCIAL ENVIRONMENT

DOSSIER: THE GLOBALISATION OF MONETARY POLICY

CaixaBank Research

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK
September 2016

CaixaBank, S.A.
Strategic Planning and Research

Av. Diagonal, 629, torre I, planta 6
08028 BARCELONA
www.caixabankresearch.com
research@caixabank.com

Subscription to printed publications:
publicaciones@caixabankresearch.info

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Enric Fernández
Corporate Director,
Strategic Planning and Research

Oriol Aspachs
Director, Macroeconomics

Avelino Hernández
Director, Financial Markets

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Are interest rate hikes imminent in the US?

Over the coming weeks and months all eyes will be on the Federal Reserve (Fed) and the repercussions of its actions within and outside the United States. Will it resume its interest rate hikes before the end of the year? Or even this very September?

Although economic activity has grown relatively modestly in the last few quarters, labour market indicators have continued to improve and the unemployment rate has consolidated below 5% (for all to envy!). In turn, core inflation, which does not take food or energy into account, is now above 2%. Given this situation it would not make much sense to postpone an interest rate hike. Indeed several members of the Fed have acknowledged this, more or less explicitly, over the last few weeks.

Neither can we underestimate the risks of delaying too long before gradually removing monetary stimuli. The most obvious risk would be a possible outbreak of inflationary pressures, forcing the Fed to accelerate future hikes and thereby making the financial markets jittery with upswings in long-term interest rates and outflows of capital to emerging countries. In order for stimuli to be withdrawn gradually, which is what the Fed wants and what would be desirable to help economic agents to adjust, action cannot be postponed for too long.

Very low interest rates may also fuel bubbles in certain financial assets or encourage excessive exposure to risk by investors searching for yield. In this respect some observers have argued that monetary policy should be kept relatively independent from issues of financial stability as this is the responsibility of the bank supervisory system and macroprudential policies. However, such a view is somewhat naive given that, among other reasons, not all investors come under such intense supervision as banks (for example, the so-called shadow banking) and also because the effectiveness of macroprudential policies has yet to be proven.

Even if the Fed decided to resume its interest rate hikes, it would be exaggerated to expect monetary conditions to get back to normal very quickly. Monetary policy is still going to be far from what was «normal» before 2008. The rules historically followed by the Fed suggest that interest rates should now be around 1.5% but its current plan is to raise rates to this level only towards the end of next year. On the other hand the Fed has yet to take the decision to reduce the size of its balance sheet, which is five times larger than before the crisis, and is still reinvesting assets as they mature. Monetary policy will clearly be unorthodox for some time to come.

In fact, Janet Yellen, the Fed Chairman, explained a few weeks ago in Jackson Hole (at the annual economic policy symposium) that she expects the mass purchase of assets and forward guidance regarding the future trend of interest rates and other monetary stimuli to continue being very important monetary policy tools, complementary to any changes in benchmark interest rates.

If we examine the speech made by J. Yellen more closely, it becomes clear that she is preparing the ground to raise interest rates sooner rather than later and, if everything goes according to plan, several times next year. This may catch some people by surprise but it will not because such action is unwarranted or they have not been warned.

Enric Fernández
Chief Economist
31 August 2016

CHRONOLOGY

AUGUST 2016

4 The Bank of England cuts its official interest rate to 0.25% and surprises by introducing more expansionary measures than expected.

JULY 2016

11 The Japanese Prime Minister, Shinzo Abe, approves a new package of fiscal stimuli.
27 The European Council annuls its fines on Spain and Portugal for not having taken effective measures to correct their excessive deficits and sets new budget targets.
29 The results of the EBA's stress tests are published.

JUNE 2016

23 The United Kingdom votes to leave the EU, causing huge turbulence in international markets.
26 Early general elections are held in Spain.
29 The ECB restores the eligibility of Greek sovereign debt as collateral in the central bank's regular financing operations and acknowledges the Greek government's commitment to applying the agreed adjustment measures.

MAY 2016

11 The Brazilian Senate temporarily suspends President Dilma Rousseff from office, intensifying the country's political instability.
18 The European Commission proposes new public deficit targets for Spain, of 3.7% of GDP in 2016 and 2.5% in 2017, whose approval is postponed to July, together with the decision regarding a penalty for not meeting the 2015 deficit target.
24 The Eurogroup approves the first review of financial assistance for Greece and payment of the second tranche (10.3 billion euros). It also agrees to extend repayment dates and delay the payment of interest on public debt, but without providing any details.

APRIL 2016

29 The Government presents the 2016-2019 Stability Programme, with a more relaxed fiscal consolidation target. Specifically, the deficit for 2016 has been raised by 0.8 pps to 3.6% while the target of bringing the deficit below the figure of 3% set by the Stability and Growth Pact has been postponed to 2017.

AGENDA

SEPTEMBER 2016

2 Registration with Social Security and registered unemployment (August).
8 Governing Council of the European Central Bank.
9 Industrial production index (July).
16 Quarterly labour cost survey (Q2).
19 Loans, deposits and NPL ratio (July).
20-21 Fed Open Market Committee
22 Foreign trade (July).
Economic sentiment index of the euro area (September).
27 State budget execution (August).
29 Flash CPI (September).
30 Balance of payments (July).
Net international investment position (Q2).
Household savings rate (Q2).

OCTOBER 2016

4 Registration with Social Security and registered unemployment (September).
7 Industrial production index (August).
14 Financial accounts (Q2).
18 Loans, deposits and NPL ratio (August).
20 International trade (August).
Governing Council European Central Bank.
20-21 European Council.
22 Economic sentiment index of the euro area (October).
25 State budget execution (September).
27 Labour force survey (Q3).
28 Flash CPI (October).
Flash GDP (Q3).
US GDP (Q3).
31 Balance of payments (August).
GDP of the euro area (Q3).

After a calm summer, what comes next?

The summer months have provided a relatively peaceful season in macroeconomic and financial terms. Unlike previous years (the memory of 2015's turbulent August still reverberates, when a badly explained decision regarding China's foreign exchange policy led to a period of intense financial volatility that continued until October), in July and August financial volatility remained contained. This is a logical response to a battery of macroeconomic data that essentially confirms a scenario of slight global economic acceleration (3.2% world growth in 2016 compared with 3.1% in 2015), moreover occurring in a clearer context as far as two key elements are concerned: the future path of US monetary normalisation and the economic consequences of Brexit. The latest messages from the Federal Reserve (Fed) point more decisively towards a second hike in the benchmark interest rate this year. With regard to Brexit, European economic indicators suggest that, so far, its negative impact appears to be essentially limited to the British economy.

The emerging economies appear to be following the expected path. This more constructive view taken by investors is also based on the fact that the indicators posted by the emerging economies have tended to be positive. The Asian emerging economies appear to be performing well (China grew by 6.7% in 2016 Q2 and India by 7.1%) and, with the exception of Brazil, Latin America is also stabilising. These dynamic figures reinforce the CaixaBank Research forecast that, in 2016, the emerging countries will grow significantly more than the 4% achieved in 2015. In response to this flow of indicators, and within a global financial context of investors clearly searching for yield, financial capital inflows towards the emerging countries have tended to pick up over the last few months. This is important news but it should also be noted that there are still doubts regarding their sustainability, especially as the time approaches for the Fed to once again tighten up its monetary conditions.

The outlook is positive but contained in the advanced economies, with the US exemplifying this situation. Although its growth figures for Q2 were slightly worse than expected, both the composition (a bad trend in stock is the main reason for the relative lack of dynamism in GDP) and the fact that support factors are still active (in particular, monetary conditions and lower oil prices than a year ago) suggest that the second half of 2016 will see an acceleration. The temporary nature of this slowdown, the upward outlook for inflation and the solidity of the labour market fully justify the Fed making a move at the end of the year. For its part Japan had a disappointing Q2 with zero quarter-on-quarter growth. Given this situation, it has been speculated that, after the new fiscal stimuli approved in July, the BoJ might extend its rate of quantitative easing in September although there are many doubts regarding the effectiveness of this means of stimulating economic growth. In Europe, and as mentioned above, the latest indicators are confirming the CaixaBank Research scenario that Brexit will have a localised impact: relatively strong in the UK but weak in the rest of the EU. One factor that is contributing to this moderate effect is the fact that, before the shock, the euro area was already in a reasonably dynamic phase of expansion (judging by the Old Continent's standards). Growth was 0.3% quarter-on-quarter (1.6% year-on-year) in 2016 Q2, with a particularly positive tone for Germany and Spain.

Positive momentum for the Spanish economy. Spain actually outperformed all its neighbours in terms of rates of growth, up by 0.8% quarter-on-quarter (3.2% year-on-year) in Q2 thanks to robust domestic demand via private consumption (supported by strong job creation) and investment. It should also be noted, and this is new, that the foreign sector contributed positively to the rise in GDP in Q2, a result of exports performing brilliantly (their quarter-on-quarter growth is the highest since 1997) and a certain moderation in imports. With regard to other economic areas, we should also note that inflation is recovering rapidly, as had been expected, due to the disappearance of the base effect caused by the slump in oil prices at the end of 2015 and beginning of 2016. Another dimension that is also getting back to normal is banking activity. The results of the stress tests carried out by the European Banking Authority and the ECB, announced in July, confirmed that Spain's banking sector is more solvent and resilient than in previous years, helping to boost the supply of credit: in June, consumer credit and loans to buy housing grew by 14% and 38% year-on-year, respectively. CaixaBank Research expects a very gradual slowdown for the coming quarters, with a 3.1% rise in GDP in 2016 and 2.4% in 2017. Given this favourable situation, the main task facing the country is to tackle fiscal consolidation more decisively, as witnessed by the difficulty in achieving its successive public deficit targets.

FORECASTS

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

International economy

	2014	2015	2016	2017	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2
GDP GROWTH										
Global	3.4	3.1	3.2	3.6	3.2	3.2	3.2	3.3	3.5	3.6
Developed countries	*1.8*	*1.9*	*1.6*	*1.8*	*1.6*	*1.5*	*1.5*	*1.7*	*1.8*	*1.9*
United States	2.4	2.6	1.7	2.2	1.6	1.2	1.7	2.3	2.5	2.6
Euro area	0.9	1.6	1.4	1.3	1.7	1.6	1.4	1.1	0.9	1.1
Germany	1.6	1.5	1.7	1.4	1.8	1.7	1.7	1.6	1.3	1.3
France	0.7	1.2	1.3	1.0	1.4	1.4	1.3	1.1	0.8	1.1
Italy	–0.3	0.6	0.9	0.7	1.0	0.7	0.8	0.9	0.7	0.9
Spain	1.4	3.2	3.1	2.4	3.4	3.2	3.1	2.9	2.7	2.4
Japan	–0.1	0.6	0.5	0.9	0.1	0.6	0.3	1.0	0.8	1.0
United Kingdom	3.1	2.2	1.5	0.4	2.0	2.2	1.4	0.6	0.2	–0.2
Emerging countries	*4.6*	*4.0*	*4.4*	*4.8*	*4.3*	*4.4*	*4.4*	*4.5*	*4.8*	*4.9*
China	7.3	6.9	6.6	6.3	6.7	6.7	6.6	6.5	6.5	6.5
India [1]	7.2	7.6	7.4	7.6	7.9	7.1	7.4	7.4	7.6	7.6
Indonesia	5.0	4.8	5.1	5.4	4.9	5.2	5.2	5.3	5.3	5.4
Brazil	0.1	–3.8	–3.3	1.1	–5.4	–3.8	–2.7	–1.3	0.5	1.2
Mexico	2.2	2.5	2.6	3.1	2.4	2.5	2.6	2.7	2.9	3.0
Chile	1.9	2.3	1.7	2.5	2.2	1.5	1.7	1.5	2.2	2.4
Russia	0.7	–3.7	–0.8	1.3	–1.2	–0.6	–0.7	–0.6	1.0	1.3
Turkey	3.1	4.0	2.6	3.1	4.8	2.7	1.4	1.6	2.4	2.9
Poland	3.3	3.6	3.3	3.5	2.6	3.1	3.7	3.7	3.6	3.6
South Africa	1.7	1.2	0.5	1.3	–0.5	0.8	0.9	1.0	1.1	1.2
INFLATION										
Global	3.2	2.8	3.3	3.6	3.4	3.2	3.2	3.4	3.6	3.6
Developed countries	*1.4*	*0.3*	*0.8*	*1.9*	*0.7*	*0.6*	*0.8*	*1.2*	*1.9*	*1.9*
United States	1.6	0.1	1.3	2.4	1.1	1.1	1.2	1.7	2.4	2.4
Euro area	0.4	0.0	0.3	1.5	0.0	–0.1	0.2	0.8	1.5	1.5
Germany	0.8	0.1	0.3	1.6	0.1	0.0	0.4	0.9	1.6	1.6
France	0.6	0.1	0.3	1.5	0.0	0.1	0.4	0.8	1.5	1.5
Italy	0.2	0.1	0.1	1.4	0.0	–0.3	0.0	0.7	1.4	1.4
Spain	–0.1	–0.5	–0.2	1.8	–0.7	–0.9	–0.1	0.8	2.1	2.1
Japan	2.8	0.8	–0.2	0.8	0.0	–0.3	–0.5	0.0	0.7	0.6
United Kingdom	1.5	0.0	0.7	2.1	0.3	0.4	0.8	1.2	1.6	2.0
Emerging countries	*4.7*	*4.7*	*5.6*	*5.8*	*5.8*	*5.6*	*5.5*	*5.5*	*5.8*	*5.9*
China	2.0	1.4	2.0	2.0	2.1	2.1	1.6	2.0	1.5	2.0
India	6.6	4.9	5.5	5.4	5.3	5.7	5.6	5.3	6.5	5.7
Indonesia	6.4	6.4	3.7	4.3	4.3	3.5	3.4	3.8	3.6	4.8
Brazil	6.3	9.0	8.8	6.5	10.2	9.2	8.4	7.3	6.7	6.5
Mexico	4.0	2.7	3.0	3.2	2.7	2.6	3.3	3.5	3.3	3.2
Chile	4.4	4.3	4.0	3.2	4.6	4.2	3.8	3.3	3.0	3.1
Russia	7.8	15.5	7.3	5.7	8.3	7.3	7.0	6.5	5.7	5.8
Turkey	8.9	7.7	7.5	6.3	8.6	6.9	7.7	6.8	6.5	6.3
Poland	0.2	–0.9	–0.4	1.9	–1.1	–1.1	–0.4	1.0	1.5	1.7
South Africa	6.1	4.6	6.8	6.4	6.5	6.2	6.5	7.7	7.0	6.2

Note: *1. Annual figures represent the fiscal year.*

Forecasts

Spanish economy

	2014	2015	2016	2017	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2
Macroeconomic aggregates										
Household consumption	1.2	3.1	3.4	2.4	3.7	3.6	3.3	3.1	2.7	2.6
General government consumption	0.0	0.5	0.1	0.1	0.5	0.0	–0.1	–0.1	–0.2	0.2
Gross fixed capital formation	3.5	6.4	3.9	3.2	5.1	4.0	3.5	3.0	3.6	3.1
Capital goods	10.7	10.1	7.0	3.2	9.3	7.8	6.1	4.8	4.6	2.8
Construction	–0.1	5.3	2.3	3.4	3.1	2.1	2.0	2.1	3.3	3.2
Domestic demand (contr. Δ GDP)	1.6	3.7	2.9	2.1	3.7	3.0	2.4	2.4	1.9	2.2
Exports of goods and services	5.1	5.4	5.7	5.2	3.8	6.8	5.8	6.2	7.8	4.4
Imports of goods and services	6.4	7.5	5.4	4.6	5.4	6.6	4.2	5.2	5.9	4.2
Gross domestic product	**1.4**	**3.2**	**3.1**	**2.4**	**3.4**	**3.2**	**3.1**	**2.9**	**2.7**	**2.4**
Other variables										
Employment	1.1	3.0	2.7	2.0	3.2	2.9	2.3	2.2	1.8	2.1
Unemployment rate (% labour force)	24.4	22.1	19.8	18.4	21.0	20.0	19.1	19.2	19.5	18.4
Consumer price index	–0.1	–0.5	–0.2	1.8	–0.7	–0.9	–0.1	0.8	2.1	2.1
Unit labour costs	–0.8	0.3	0.0	0.6	–0.2	0.4	0.0	0.0	0.0	0.3
Current account balance (cum., % GDP)[1]	1.0	1.4	1.8	1.6	1.4	1.8	1.9	1.8	1.8	1.7
Net lending or borrowing rest of the world (cum., % GDP)[1]	1.4	1.9	2.4	2.2	2.0	2.4	2.5	2.4	2.4	2.3
Fiscal balance (cum., % GDP)[2]	–5.8	–5.0	–4.6	–3.8						

Financial markets

INTEREST RATES										
Dollar										
Fed Funds	0.25	0.26	0.52	1.06	0.50	0.50	0.50	0.58	0.83	1.00
3-month Libor	0.23	0.32	0.70	1.31	0.62	0.64	0.72	0.82	0.99	1.20
12-month Libor	0.56	0.79	1.25	1.69	1.17	1.25	1.27	1.29	1.42	1.60
2-year government bonds	0.44	0.67	0.83	1.63	0.85	0.77	0.74	0.95	1.22	1.49
10-year government bonds	2.53	2.13	1.76	2.41	1.92	1.75	1.56	1.83	2.06	2.29
Euro										
ECB Refi	0.16	0.05	0.01	0.00	0.03	0.00	0.00	0.00	0.00	0.00
3-month Euribor	0.21	–0.02	–0.26	–0.21	–0.19	–0.26	–0.29	–0.29	–0.27	–0.24
12-month Euribor	0.48	0.17	–0.03	0.05	0.01	–0.02	–0.05	–0.05	–0.03	0.01
2-year government bonds (Germany)	0.05	–0.24	–0.53	–0.24	–0.46	–0.52	–0.62	–0.52	–0.43	–0.34
10-year government bonds (Germany)	1.23	0.53	0.10	0.71	0.30	0.12	–0.11	0.08	0.24	0.51
EXCHANGE RATES										
$/€	1.33	1.11	1.11	1.07	1.10	1.13	1.11	1.09	1.07	1.06
¥/€	140.42	134.35	118.22	115.37	127.28	122.00	113.20	110.42	111.10	113.64
£/€	0.81	0.73	0.82	0.83	0.77	0.79	0.85	0.85	0.85	0.84
OIL										
Brent ($/barrel)	99.45	53.61	45.94	65.58	35.72	47.35	48.22	52.46	58.49	64.39
Brent (€/barrel)	74.54	48.30	41.42	61.38	32.38	41.94	43.36	47.99	54.76	60.63

Note: *1. Four quarter cumulative. 2. Cumulative over four quarters. Does not include aid to financial institutions.*

Forecasts

FINANCIAL OUTLOOK · **Signs of strength in an environment affected by political uncertainty**

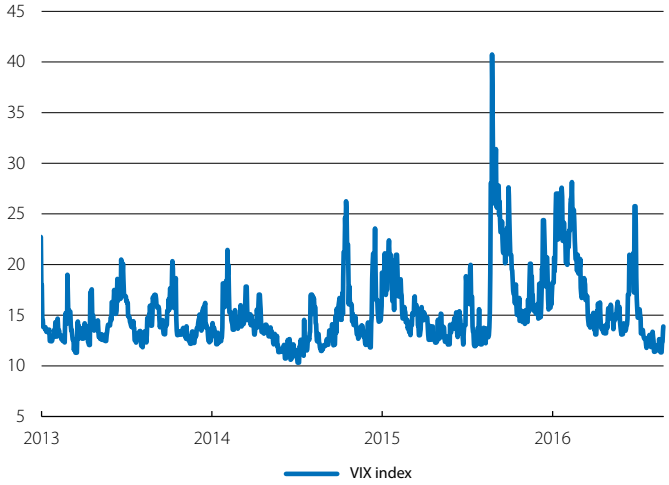
Stability has been the predominant note in the global financial environment during the summer, contrasting with the experience of previous years. Perhaps the most notable aspect is the speed with which risky asset prices have recovered after the initial unease following the outcome of the referendum in the United Kingdom (Brexit), as well as the low levels of implied volatility resulting from the slump recorded in the weeks following this event. In fact, the response by global markets to such a shock of uncertainty was, in broad terms, orderly. Unlike past episodes of stress (the collapse of Lehman Brothers in 2008 and the European sovereign debt crises in 2011 and 2012), this time the mechanisms that amplify and fuel such turbulence were not activated, leading investors to discriminate based on asset type and geography according to Brexit's expected impact on the underlying fundamentals of each asset and the political risk of each region. This situation can be observed in the achievement of new stock market records in the US and the lethargy of the European stock markets, affected by renewed pressure on the banking sector.

The recovery in asset prices is spreading although the rates of increase vary. Most international stock markets are now above their pre-referendum levels (23 June) and the risk premia for corporate debt have reversed their post-Brexit upswings. The US stock market has recorded growth of 2.6% since then and the UK stock market has gained 3.4% while, in the euro area, the stock market has fallen slightly by –0.5%. We should particularly note the trend in emerging stock markets, much less exposed to developments regarding the UK's place in Europe, with gains of close to 8%. Nonetheless other spheres of the markets are finding it more difficult to make up their losses, although the underlying trend is positive. This is the case of the peripheral stock markets such as Italy (–7.5%) and Spain (–3.5%), as well as the banking sector of the euro area (–9.3%). Meanwhile the price of a barrel of Brent oil fell again to 42 dollars but then recovered, reaching around 50 dollars by the end of August. Nonetheless these recent fluctuations in crude oil are due more to changes in expectations regarding the rebalancing of oil supply and demand than to Brexit-related events.

There is a lot of «noise» and uncertainty resulting from Brexit but global macroeconomic fundamentals remain relatively solid. The realisation by investors that the economic slowdown resulting from Brexit will be limited almost entirely to the United Kingdom has provided clear support for the positive tone in markets. In this respect cyclical indicators have come as a positive surprise in the euro area and the US, in spite of the latter's weak GDP figures for 2016 Q2.

Implied volatility of US stock markets

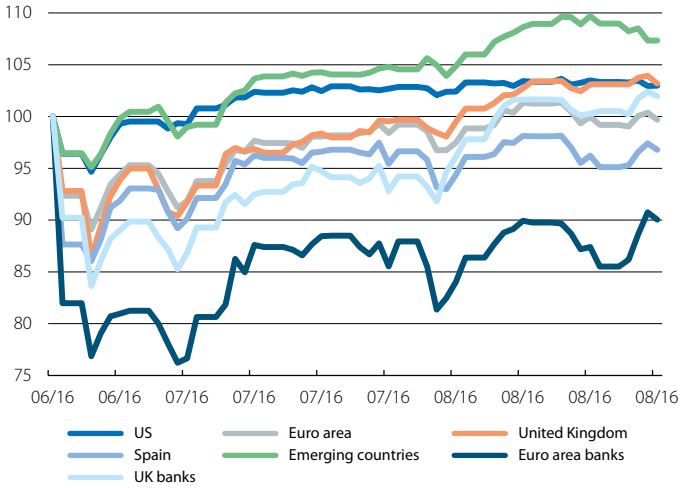
(%)



Source: *CaixaBank Research, based on Bloomberg data.*

Stock market trends since Brexit

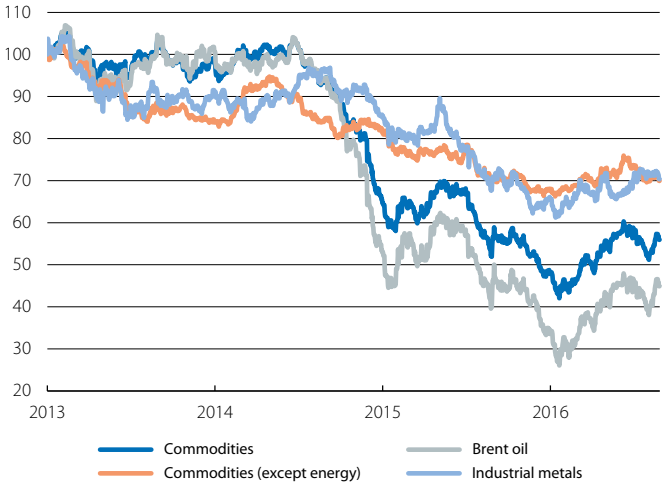
Index (100 = 23 June 2016)



Source: *CaixaBank Research, based on Bloomberg data.*

Commodities

Index (100 = January 2013)



Source: *CaixaBank Research, based on Bloomberg data.*

Two additional factors have also helped this positive climate. Firstly, the absence of surprises in the activity data from key countries such as China. Secondly, the messages and actions of central banks during the summer which, although they have not essentially altered their respective strategies, have acted as a safety net.

In the sphere of central banks, the Bank of England (BoE) surprised by announcing an ambitious package of monetary stimuli. After delaying action until it had more information at its meeting early in June, the British monetary authority did not hesitate at its latest meeting. The BoE announced it would launch various expansionary measures with the aim of putting an end to the risks hanging over the country's economy. The governor of the BoE, M. Carney, announced a 25 bps cut in the official interest rate to 0.25%, widely discounted by the market. But the actions taken in the sphere of unconventional monetary policy came as a greater surprise. The BoE will resume its sovereign and corporate bond purchases, totalling 70 billion pounds, and will set up a loan facility for banks of 100 billion. A series of measures similar to those recently implemented by the ECB except for one important difference: Carney stated he was against adopting a negative interest rate policy, a stance which calmed down the financial sector in the stock markets.

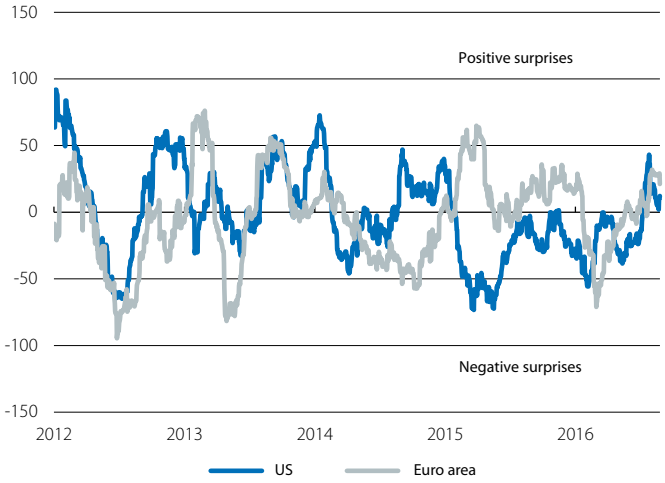
For its part the Federal Reserve (Fed) has adopted a conservative stance and stressed that normalisation will take place very gradually. The US central bank's meeting at the end of July did not provide any huge surprises. In spite of the official memorandum's conservative tone, the Fed noted the decline in risks resulting from Brexit and underlined the strength of the labour market. This suggests the Fed is keeping the door open to raise interest rates before the end of the year, in line with our scenario which places the second Fed funds rate hike in December. Yellen also spoke along the same lines at the annual economic policy symposium in Jackson Hole (US), where she stressed that the conditions to carry out another interest rate hike (the trend in employment and inflation) have strengthened over the last few months.

On the other side of the Atlantic, the ECB decided to remain on hold although Draghi repeated its willingness and capacity to act if necessary. The European authority preferred not to rush matters and mentioned the need to gather more information regarding the impact of Brexit on the euro area's macroeconomic scenario. It will be at the beginning of September when the ECB updates its forecasts for growth and inflation. However, we do not expect the authority to announce any new accommodative measure beyond possibly introducing some adjustments to the programmes already implemented.

In the area of sovereign bonds, risk-free interest rates continue to fall. Unlike the stock markets, long-term sovereign yields for the US, Germany and the United Kingdom

Index of economic surprises

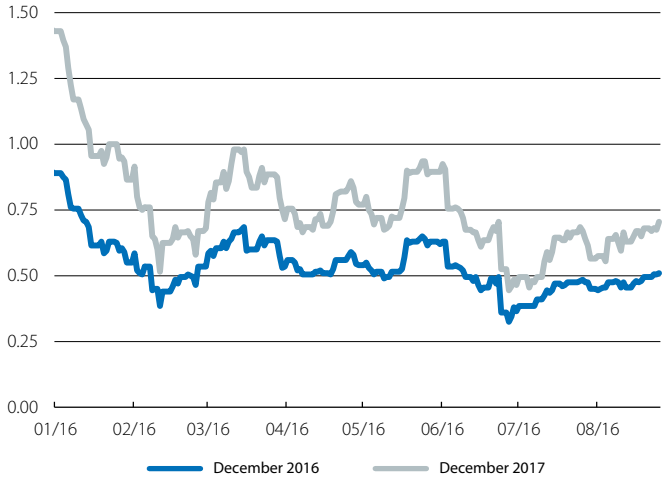
Level



Source: *CaixaBank Research, based on data from Bloomberg and Citigroup.*

US: fed funds futures

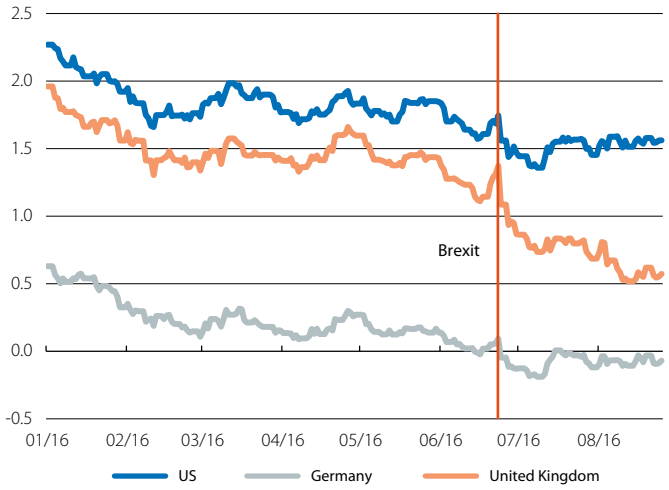
(%)



Source: *CaixaBank Research, based on Bloomberg data.*

Yield on 10-year public debt

(%)



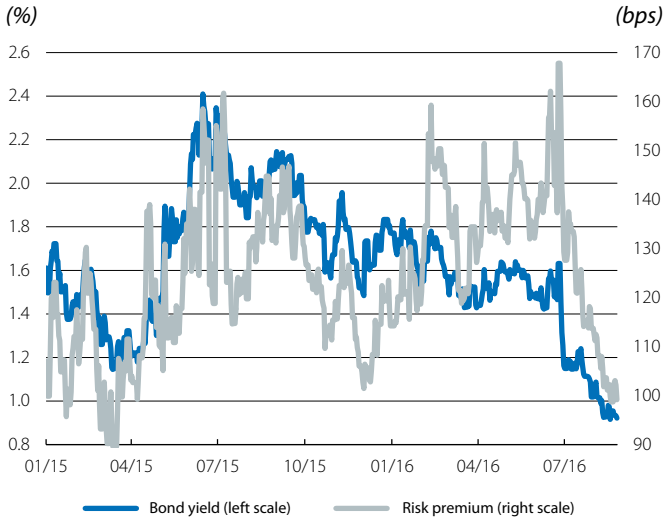
Source: *CaixaBank Research, based on Bloomberg data.*

have not managed to completely reverse the sharp falls observed after Brexit. In these last two countries, yields on 10-year bonds in secondary markets have once again reached all-time lows of –0.19% and 0.54%, respectively. It therefore comes as no surprise that, given this situation, sovereign bond assets have produced considerable returns. Peripheral debt in general, and Spanish debt in particular, have also been affected by this sharp drop in interest rates. For the first time in its history the yield on Spanish 10-year bonds has fallen below 1% and the risk premium for the same maturity is around 100 bps. It should be noted that these last two developments have occurred in spite of the current context of political uncertainty and warnings by the European Commission regarding challenges for the country in terms of budgetary adjustment.

The stock markets embark on the last part of the year with a combination of hope and caution. There has been a considerable chain of unfavourable events on the international financial scene throughout 2016 while their timing has coincided with a relatively substantial corrective phase in US corporate earnings. However, the panorama is expected to be more promising in the short and medium term with an increasingly positive contribution from corporate earnings for the coming quarters. In fact technical and sentiment indicators point to the US stock market's rally in the summer representing the start of a sustained upward phase rather than a temporary upswing. The situation has been clearly less favourable in Europe, however. In addition to its cyclical lag compared with the US market there are another two factors: firstly the poor performance by corporate earnings and, secondly, the legacy of uncertainty due to Brexit, which has exacerbated the fragility of investor sentiment towards the banking sector, although it is important to note that this is not so much related to the solvency of banks. In this respect, the stress tests of the European Banking Authority (EBA) have confirmed appreciable levels of resilience, the weak links being limited to a few Italian banks. The main source of doubt is primarily the sector's difficulty in generating acceptable levels of profit in the current monetary-financial and regulatory environment.

Geopolitical risks emerge as an important factor for volatility in the short and medium term. The predominantly calm climate in international markets should not make us forget the long, complex negotiation process that will end up with the United Kingdom effectively leaving the EU. At the same time an autumn full of potentially destabilising political events will more than likely keep political uncertainty at a high level (regarding this issue, see the Focus «Uncertainty and stock markets» in this *Monthly Report*). Specifically, repeated elections in Austria, referendums on immigration policy in Hungary, the reform of the Italian Senate and presidential elections in the US suggest we should not let down our guard.

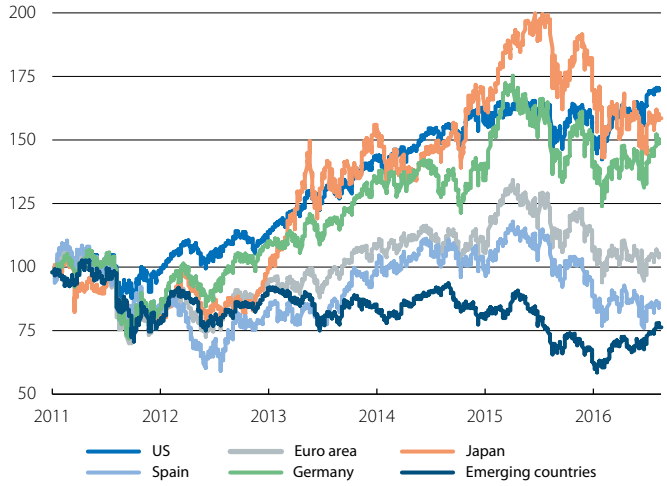
Spain: 10-year public debt



Source: *CaixaBank Research, based on Bloomberg data.*

Main international stock markets

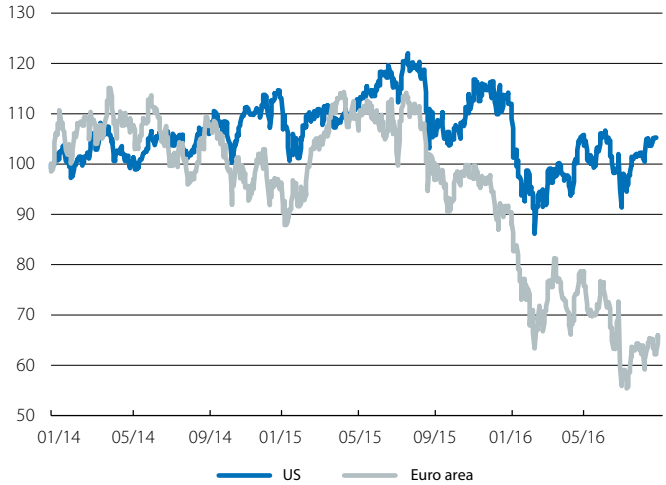
Index (100 = January 2011)



Source: *CaixaBank Research, based on Bloomberg data.*

Banking sector: share prices

Index (100 = January 2014)



Source: *CaixaBank Research, based on Bloomberg data.*

FOCUS · Uncertainty and stock markets

The British referendum on the EU has been one of the big focuses of attention for stock market investors, leading to large gains and losses in shares. Questions regarding the terms and conditions for the country's exit, the populist tone of the debate and the possibility of «contagion» to other countries have helped to increase uncertainty regarding economic policy in Europe as a whole.[1] Gauging to what extent this variable affects stock markets is a complex task but a preliminary analysis points to its influence increasing considerably over the last few years.

As might be expected, and as illustrated in the first graph, an increase in the uncertainty index is associated with a drop in the European stock market index. In other words, the (unconditional) correlation between both variables is negative. Naturally uncertainty is not the only element affecting how the stock market behaves. Consequently our analysis must be enhanced by including other factors that help to explain the trend in stock market returns over time. To this end, we have explained the monthly returns of the Eurostoxx according to three variables.[2] The first is a «macroeconomic factor» (M), which aims to capture investor expectations regarding the future trend in fundamental variables, and ultimately corporate earnings. This factor, in turn, combines several variables associated with the economic cycle, such as the euro's real effective exchange rate, the euro area's real interest rate and the relative share price among cyclical, defensive companies. The second is an index of «financial conditions» (FC) which attempts to measure the stress levels in the financial system. The third is the aforementioned «European Economic Policy Uncertainty Index» (PU).

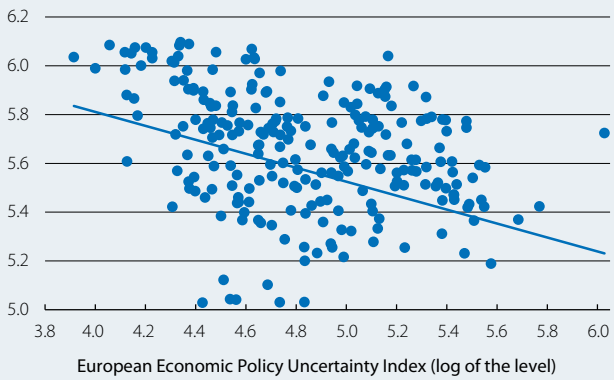
It is not surprising that the variable associated with macroeconomic fundamentals has been the key determining factor in European stock market performance during the period 1999-2016. More specifically, and as can be seen in the second graph, the contribution of this variable to explaining Eurostoxx returns is 90%. However, what is noteworthy is that the relative importance of the three components has altered substantially in the last three years. Specifically, since 2013 the contribution made by the variables FC and PU has increased dramatically to 60% and 10% respectively, while the contribution by M has fallen to 30%. On the one hand, this highlights the importance of more accommodative financial conditions in the euro area (attributable mainly to the ECB's expansionary policies) in sustaining returns on equity. On the other hand it also shows the modest but growing relevance of policy uncertainty as a factor behind recent stock market performance.

The political agenda over the next few quarters is packed with important events, such as the formation of a government in Spain, Italy's constitutional referendum in the autumn, German and French elections in 2017 and the Brexit negotiations themselves. Undoubtedly the stock market would appreciate the European authorities, both nationally and supranationally, reducing the current level of uncertainty regarding the direction of Europe's economic policy.

1. European Economic Policy Uncertainty Index, produced by Baker, Bloom and Davis. For more details, see the Focus «Post-Brexit uncertainty and its impact on economic growth» in this *Monthly Report*.
2. Formally, the lineal regression is as follows:
$Ln(\frac{S_t}{S_{t-1}}) = \beta Ln(\frac{M_t}{M_{t-1}}) + \gamma Ln(\frac{FC_t}{FC_{t-1}}) + \alpha Ln(\frac{PU_t}{PU_{t-1}}) + \varepsilon_t$. Where S_t is the level of the Eurostoxx index on date t, M_t the level of the macroeconomic factor, FC_t the level of the financial conditions index and PU_t the level of the policy uncertainty index. Lastly, ε_t is a random error term.

*Relationship between the stock market and uncertainty in Europe **

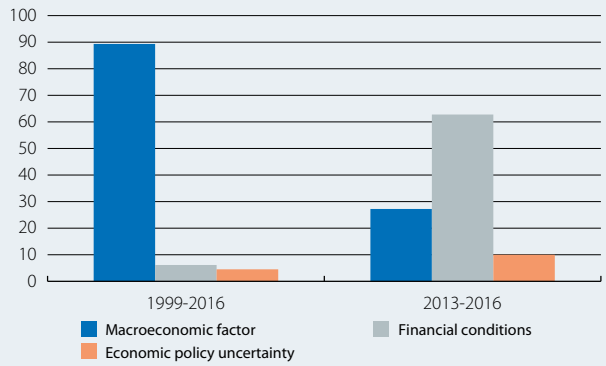
Eurostoxx index (log of the level)



Note: ** Monthly observations for the period 1999-2016.*
Source: *CaixaBank Research, based on Bloomberg data.*

Factors behind euro area stock market returns

Contribution of each factor (% of the total)



Note: *The explained variance of the monthly returns for the Eurostoxx index is 52% for the whole of the sample (1999-2016) and 40% for 2013-2016.*
Source: *CaixaBank Research.*

FOCUS · Sovereign bond yields and risk

Investors tend to see the sovereign bonds of developed countries as a kind of asset that offers modest but reasonably higher yields than cash at a low risk. In fact, unlike shares, sovereign bonds are usually labelled as «safe assets» that provide a «risk-free return». However, today's particular situation invites us to review this trait.

On the one hand, the expected return on public bonds (measured via their internal rate of return or IRR) is at an all-time low. A basket of 1 to 10-year bonds from the G7 countries yields an IRR of barely 0.3%, almost the level of the official interest rates of the central banks. On the other hand there are serious reasons to doubt that the market is currently an efficient judge of economic prospects and risks: distortions resulting from the mass purchases made by central banks (quantitative easing or QE), the presence, in its wake, of investors with momentum strategies looking for short-term capital gains (hedge funds), the existence of forced buyers for regulatory or statutory reasons (pension funds), as well as the herd behaviour adopted by many traditional investors when a certain asset is in vogue. Consequently bonds can entail a higher risk than at first glance. To analyse this area, it is useful to break the IRR for nominal bonds into four elements that can be affected by corresponding risks.

First, «inflation compensation» to preserve purchasing power. This is made up of two parts: the average «expected inflation» rate during the lifetime of the bond and an «inflation risk premium» to offset the possibility of the effective rate being higher from the expected rate. At present investors expect inflation to remain between 1% and 2% for years, clearly below central bank targets. This expectation, however, ignores the slow but sustained rise recorded in US core inflation over several months now, already standing at 2.3% and inflation expectations could go up dramatically in the future. Moreover, if this occurred without a parallel increase in expectations of economic growth, the stock markets are very likely to suffer losses. In this respect we should note that, over the last few years, the inflation risk premium has been very low and even negative as investors have seen bonds as a hedge («insurance») against a scenario of economic crisis and deflation. This hinges on the expectation that bonds have a negative correlation to shares, which in turn respond to expectations of the pro-cyclical behaviour of inflation. If this comes about, there is likely to be a notable rise in the inflation risk premium.

Second, the «real return», which is also made up of two parts: the average «expected real short-term interest rate» during the lifetime of the bond and a «real term premium» to offset the risk of effective interest rates being higher than expected. Interest rate risk is also considerable at present. Investors seem convinced that real short-term interest rates will remain ultra-low for several years within a scenario of secular stagnation. Any small positive surprises in global economic growth could therefore be enough to trigger an upward shift in this expectation, leading to bond losses. Moreover the powerful downward effect of QE on the «real term premium» (pushing it into negative terrain) would disappear if this economic recovery convinced central banks to reverse their policy.

Third, a «default risk premium» to offset the risk of the issuer not paying back coupons and capital in full. All sovereign bonds entail credit risk although this may be very low. The ECB's QE has undoubtedly contributed to pushing down Europe's public debt risk premia, mainly that of the peripheral countries. But once QE comes to an end, the assessment of the sustainability of public accounts will become more important in establishing the risk premium.

And four, a «liquidity premium» against the risk of not being able to sell bonds before maturity, on the desired date and at the desired volume, due to no counterparty being willing to buy them. Liquidity risk has increased in the last few years due to the regulatory restrictions imposed on banks when operating as market creators, and due to QE itself, although the perception of this risk by investors is intermittent. We have witnessed a couple of storms (in 2013 due to the Fed's tapering and in 2015 after the ECB's measures) when the initial rise in the IRR triggered a sell-off due to a combination of poor liquidity conditions and the large number of bonds in the portfolios of many investors. Both episodes were short-lived but might well happen again and push up the «liquidity premium».

Given this horizon of risks a 0.3% IRR does not seem very attractive. Perhaps we should start paying more attention to those who have been warning for some time that sovereign bonds now offer «risk without return».

KEY INDICATORS

Interest rates (%)

	31-Aug	29-Jul	Monthly change (bps)	Year-to-date (bps)	Year-on-year change (bps)
Euro area					
ECB Refi	0.00	0.00	0	–5.0	–5.0
3-month Euribor	–0.30	–0.30	0	–16.8	–26.6
1-year Euribor	–0.05	–0.05	0	–11.0	–21.0
1-year government bonds (Germany)	–0.60	–0.60	0	–22.2	–36.6
2-year government bonds (Germany)	–0.62	–0.63	1	–27.5	–41.7
10-year government bonds (Germany)	–0.07	–0.12	5	–69.9	–86.8
10-year government bonds (Spain)	1.01	1.02	–1	–76.1	–109.9
10-year spread (bps) [1]	108	114	–6	–6.4	–23.4
US					
Fed funds	0.50	0.50	0	0.0	25.0
3-month Libor	0.63	0.76	–14	1.2	–21.7
12-month Libor	1.21	1.43	–22	3.2	–34.9
1-year government bonds	0.59	0.49	10	–0.7	21.3
2-year government bonds	0.81	0.66	15	–23.8	7.3
10-year government bonds	1.58	1.45	13	–68.9	–63.8

Spreads corporate bonds (bps)

	31-Aug	29-Jul	Monthly change (bps)	Year-to-date (bps)	Year-on-year change (bps)
Itraxx Corporate	68	68	–1	–9.5	–3.7
Itraxx Financials Senior	90	92	–1	13.4	9.1
Itraxx Subordinated Financials	203	203	1	47.7	40.1

Exchange rates

	31-Aug	29-Jul	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
$/€	1.116	1.117	–0.1	2.7	–0.5
¥/€	115.400	114.060	1.2	–11.7	–15.1
£/€	0.849	0.845	0.5	15.2	16.2
¥/$	103.430	102.060	1.3	–14.0	–14.7

Commodities

	31-Aug	29-Jul	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	401.2	408.1	–1.7	7.1	–1.3
Brent ($/barrel)	46.2	41.0	12.6	29.2	–9.9
Gold ($/ounce)	1,309.0	1,351.0	–3.1	23.3	15.3

Equity

	31-Aug	29-Jul	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	2,171.0	2,173.6	–0.1	6.2	10.1
Eurostoxx 50 (euro area)	3,023.1	2,990.8	1.1	–7.5	–7.5
Ibex 35 (Spain)	8,716.8	8,587.2	1.5	–8.7	–15.0
Nikkei 225 (Japan)	16,887.4	16,569.3	1.9	–11.3	–10.6
MSCI Emerging	893.7	873.5	2.3	12.5	9.2
Nasdaq (USA)	5,213.2	5,162.1	1.0	4.1	9.1

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

ECONOMIC OUTLOOK · The expansion continues but downside risks remain

After a calm summer the world economy continues its moderate upward trend. The latest indicators tend to confirm that the world economy is en route to growing by 3.2% in 2016. This is a moderate rate of acceleration compared with 2015 when GDP growth was 3.1%, occurring within a context of notable geopolitical uncertainty and risks that growth will finally be somewhat less than predicted. Nonetheless the fact that the Federal Reserve (Fed) is implying, a little more decisively, that it will return to monetary normalisation this year and the confirmation that, to date, the negative impact of Brexit seems to be essentially limited to the British economy, have helped some investor concerns to diminish. Also positive is the fact that the emerging economies are once again looking dynamic after a worrying 2015 (although there is still concern in cases such as Brazil's).

UNITED STATES

The US economy is going through the mature stage of its cycle. The slight downward revision of the historical series of GDP figures carried out in July and especially the disappointing growth figures for 2016 Q2 have led some media and analysts to doubt the actual point in the cycle reached by the US economy and even whether the Fed should delay its interest rate hike for longer. In our opinion the diagnosis is clear: the country's macroeconomic conditions more than justify continuing the process of monetary normalisation started last December. This opinion is based essentially on three elements: the temporary nature of the slowdown in Q2, the upward outlook for inflation and the consolidation of the labour market.

Temporary slowdown in Q2. The US economy advanced by 0.3% quarter-on-quarter in 2016 Q2 (1.2% year-on-year), a lower figure than predicted and only marginally higher than the weak Q1 when GDP grew by just 0.2%. This disappointing GDP growth was largely due to the sizeable negative contribution made by the accumulation of stock, deducting 0.3 pps, when the reduction had been just 0.1 pps in the four preceding quarters. This factor alone suggests there will probably be an upswing in activity in the coming quarters. Also very positive is the trend in private consumption which grew by 1.1% quarter-on-quarter, a rate that has not been recorded since 2014 Q4. The dynamism of consumption comes from a resistant base that will help growth to speed up in the second half of 2016. The trend in investment raises more doubts, however. Its sharp decline (–2.5%) has been mainly due to the bad performance by residential investment, halting its recovery since the beginning of 2014. Apart from the GDP figures for Q2, available indicators for Q3 point to the

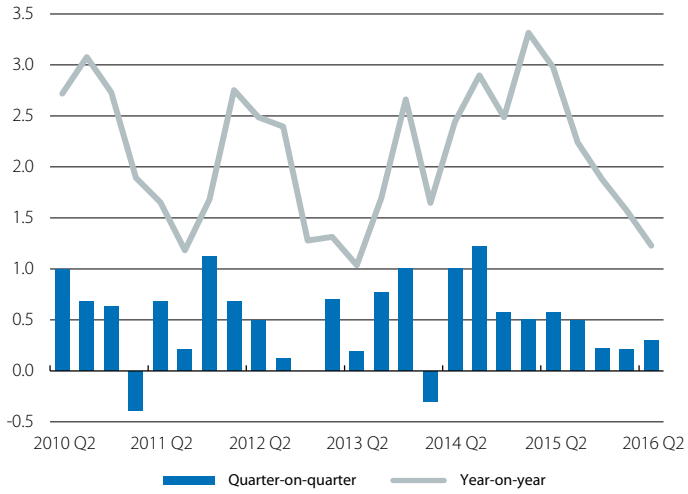
Global financial economic environment: current situation

Economic outlook	US	
	Japan	
	Euro area	
	China	
	India	
	Russia	
	Brazil	
	Turkey	
Financial markets	Emerging currencies and stock markets	
	Commodities	
	Developed countries stock markets	
	US and German public debt	
	Euro against the dollar	

Source: *CaixaBank Research.*

US: GDP

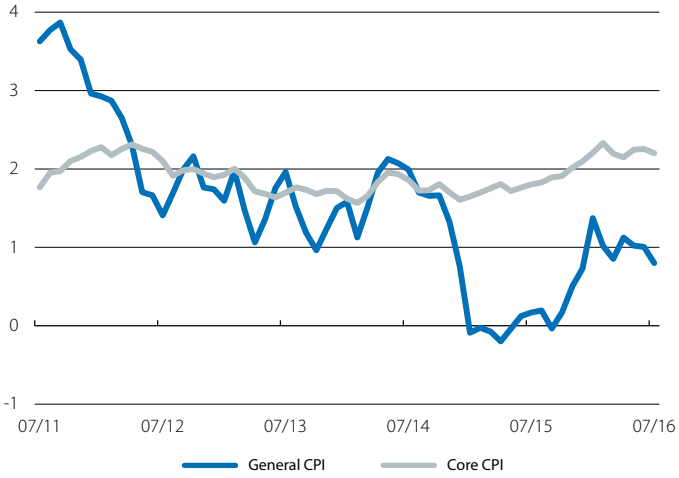
Quarter-on-quarter and year-on-year change (%)



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

US: CPI

Year-on-year change (%)



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

emergence of a scenario of acceleration. In particular, in July business sentiment indices (ISM), both for manufacturing and services, stood above the 50-point threshold that denotes expansion in the rate of activity.

Inflation, on the point of rising. In July the CPI grew by 0.8% year-on-year, 0.2 pps less than the previous month, due to a drop in the energy component, while core inflation stood at 2.2% (2.1% in June). This tone of contained inflation is about to change because, as from August, the base effect of oil will start to disappear. According to CaixaBank Research forecasts, by December 2016 the general index will be around 1.9% year-on-year, going above 2.5% in the first part of 2017.

A solid labour market, another symptom of the mature stage of the cycle. The trend in the labour market, to which the Fed pays great attention, is consistent with an economy going through a mature phase in the cycle. 255,000 jobs were created in July, above the bar of 200,000, while unemployment remained at a low 4.9% and wages continued to rise significantly (2.6% year-on-year), representing an added factor of inflationary pressure.

The Fed's second hike is approaching. Given this domestic macroeconomic context, and with a relatively stable international environment, according to CaixaBank Research forecasts the Fed is very likely to raise its benchmark rate by the end of the year, a move which will open the door to a more continual, albeit gradual process of interest rate hikes in 2017 and 2018 (75 bps in each of these years).

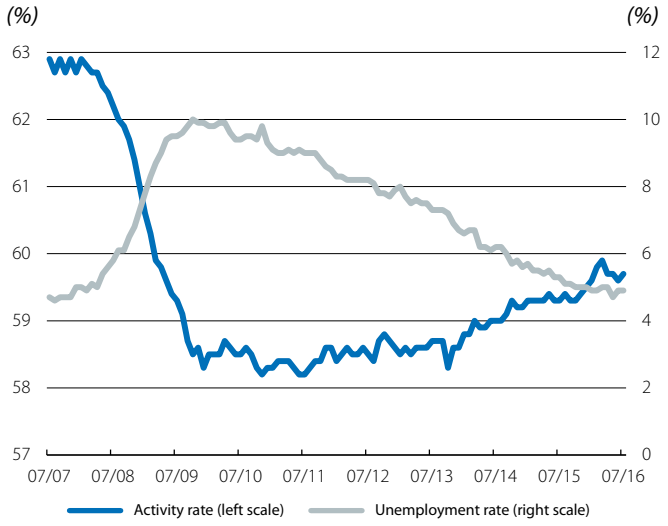
JAPAN

A slip-up in Q2. In 2016 Q2 GDP grew by 0.05% quarter-on-quarter (0.6% year-on-year) compared with 0.5% in Q1 due to the lethargy shown by private consumption and weak exports to the US and China. This poor tone in household spending can also be seen in inflation. In July the general index fell by 0.5% year-on-year, worse than the already weak figure posted in June (–0.3% year-on-year). Core inflation did not escape this inflationary lethargy either, with a minimal rate of growth in July, namely 0.3% year-on-year, half the average recorded in the first half of 2016. Given this situation there is speculation that, after the new fiscal stimulus approved in July, the BoJ might expand its rate of quantitative easing in September. Nonetheless there are many doubts regarding the effectiveness of further monetary expansion measures (see the Focus «Japan: monetary policy under scrutiny» in this *Monthly Report*).

EMERGING ECONOMIES AND COMMODITIES

A better tone in the emerging economies though sources of uncertainty still remain. The latest macroeconomic figures have tended to be positive, reinforcing the view that the emerging Asian economies are still in good shape and that, except for Brazil, Latin America is stabilising. In response to this flow of more constructive indicators, and within a global

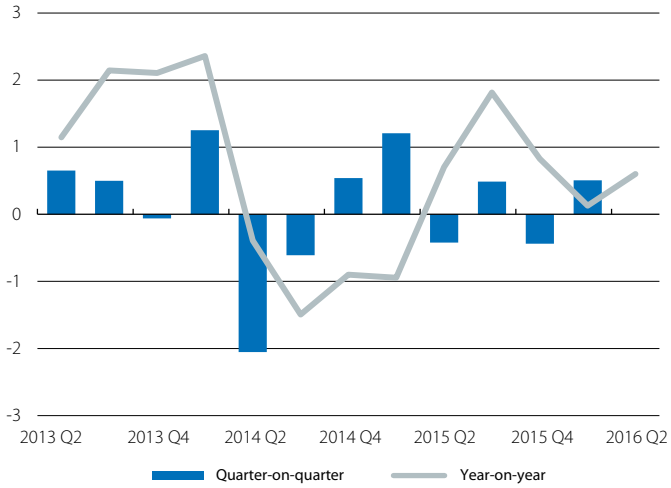
US: labour market



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

Japan: GDP

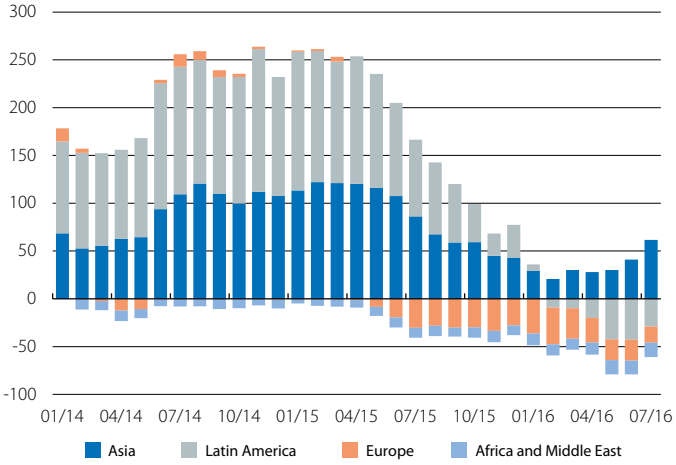
Quarter-on-quarter and year-on-year change (%)



Source: *CaixaBank Research, based on data from the Department of Trade.*

*Emerging countries: portfolio capital inflows **

Cumulative over 12 months (billion US dollars)



Note: ** Flows of equity and debt.*
Source: *CaixaBank Research, based on data from the IIF.*

financial context of investors clearly searching for yield, the financial capital inflows aimed at emerging economies have tended to pick up over the last few months.

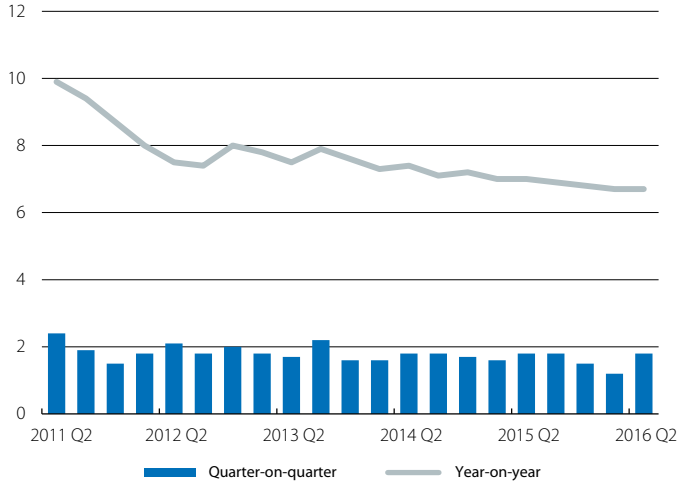
Asia: the Chinese and Indian economies remain firm in Q2. The Chinese economy grew by 6.7% year-on-year in Q2 with no change in its rate of growth compared with Q1, while India's GDP rose by 7.1%, significant growth in spite of being below the figure of 7.9% posted the previous quarter. In the case of China, the data from its national accounts system, together with the latest indicators announced, point to the economy slowing down at a gentle rate at the same time as progress is being made in the complex transformation of its production model (in which consumption and services will play a more important role instead of the traditional two-way model of exports-investment and industry). In the case of India, its notable rate of growth is still apparent, mainly due to domestic factors (in particular to dynamic consumption). One immediate challenge for India will be to ensure the change in management of its central bank does not impinge on the institution's high credibility.

Brazil, Mexico, Turkey and Russia, four countries facing different emerging dilemmas. In Brazil, confirmation of President Rousseff's impeachment, already relieved from her position, and doubts regarding the government's ability to implement the necessary public adjustment, have kept its political situation as a source of uncertainty. As a result, the country's exit of its recession is still complicated, as shown by the 0.6% drop in GDP in Q2 (–0.4% in Q1). Mexico's national accounts system GDP figure was not positive either, surprising analysts by posting –0.2% quarter-on-quarter in Q2 (+0.5% in Q1). Nonetheless this should be seen as a temporary glitch, reflecting the Mexican economy's twofold dependence (on the US and on oil). Turkey's economy has also become a cause for concern due to uncertainty regarding future institutional developments in the country after the attempted coup in July, as well as other important geopolitical pressures. Lastly, in Russia the 0.6% year-on-year decline in GDP for Q2 was slightly less than expected, suggesting the country is gradually moving away from the severe phase of its recession, although the underlying sensation is still one of a fragile recovery.

Commodities: a halt in the upswing in prices. During the summer, commodity prices tended to consolidate their rally of the previous months. This overall development includes the upward trend in base metals (see the Focus «Base metal prices: a flimsy recovery» in this *Monthly Report*), the downward trend for many agricultural commodities and the more lateral movement of energy commodities. In particular this last group stands out for the ups and downs recorded in oil. A barrel of Brent quality crude oil stood at 50 dollars on 30 June, fell to 43 dollars at the beginning of August (fundamentally due to an observed increase in supply) then almost returned to its starting point by the end of August (when speculation increased regarding a possible OPEC agreement to adjust supply in the autumn).

China: GDP

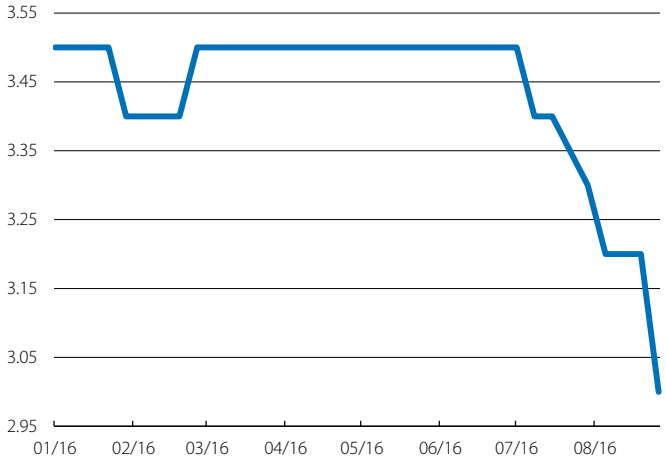
Quarter-on-quarter and year-on-year change (%)



Source: *CaixaBank Research, based on data from the Chinese National Statistics Office.*

Turkey: GDP growth predicted for 2017

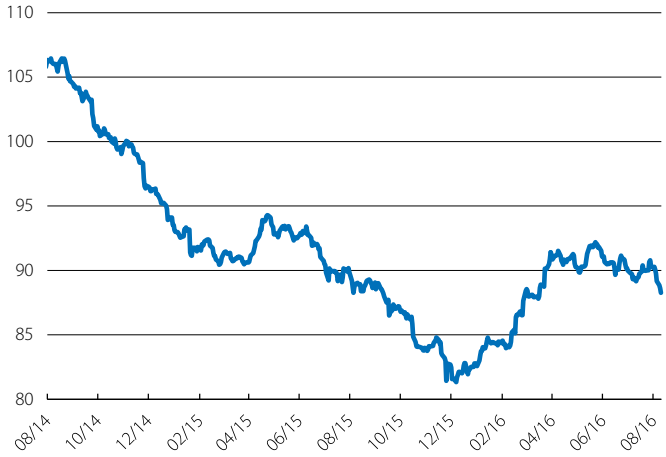
(% annual change)



Note: *Consensus of analysts (Bloomberg).*
Source: *CaixaBank Research, based on Bloomberg data.*

Commodities: contributions

Index (100 = 1/1/2014)



Note: *CRB commodity index.*
Source: *CaixaBank Research, based on CRB data.*

FOCUS · Japan: monetary policy under scrutiny

The Bank of Japan (BOJ) is battling hard to allay the risk of deflation. The official interest rate is currently –0.1% and the BOJ's assets have gone from 147 trillion yen (30% of GDP) in 2012 to 436 (87% of GDP), and are expected to reach 110% of GDP by 2017.[1]

In spite of the forcefulness of the BOJ's measures, a brief review of the main indicators for the Japanese economy does not provide a very reassuring view of their effectiveness. Core inflation stood at a moderate 0.3% in July and, although this is higher than the average figure reached between 2000 and 2012 (–0.6%), it is still clearly below the 2% target set by the BOJ itself in February 2013. Moreover, inflation expectations are still far below this target.

The trend in demand indicators, both domestic and external, is not encouraging either, particularly the relative lack of dynamism in private consumption and exports. These figures are especially worrying because financial costs and the exchange rate have certainly reacted to the BOJ's measures. The 10-year sovereign bond's interest rate went from 0.8% at the end of 2012 to –0.25% in July 2016 while the yen depreciated in effective nominal terms by 25% between the end of 2012 and mid-2015, despite the most recent appreciation due to the ECB's QE and the delay in the Fed's interest rate hike.

To assess the effectiveness of the BOJ's measures we must remember that other factors may have also played against them and neutralised their impact. For example, core inflation would be higher if oil prices had not fallen (due to indirect and second round effects), the trend in consumption would have been slightly more vigorous without the VAT hike and exports would have performed better if the Chinese economy had not slowed down. However, even after taking these and other setbacks into account, the impact of the measures still seems limited.[2]

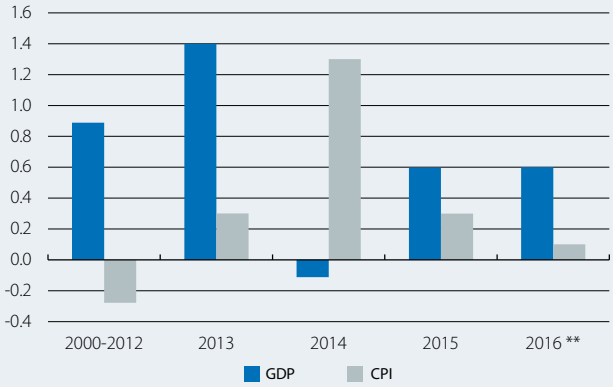
There is a long list of factors that can explain this limited effectiveness. In particular, the limited credibility of the BOJ itself after decades spent attempting to boost inflation and whose actions over the last few years have trailed behind events. The country's high level of debt, both public and private, has also meant that lower interest rates have not managed to stimulate credit.[3]

Moreover, for the large number of Japanese savers a reduction in the interest rate makes them save even more in order to achieve the future level of capital they want, an important characteristic in the Japanese economy given the ageing of its population. Lastly, the fact that other central banks have also implemented policies that are just as expansionary as the BOJ's has not helped the situation either, limiting the impact of QE on Japanese exports.

In summary, the bulk of the evidence available suggests that the focus should now shift from the monetary front to structural reforms, another of the pillars of Abenomics which, to date, has not received enough attention. Unfortunately, this does not seem likely to happen in the near future.

Japan: GDP and CPI *

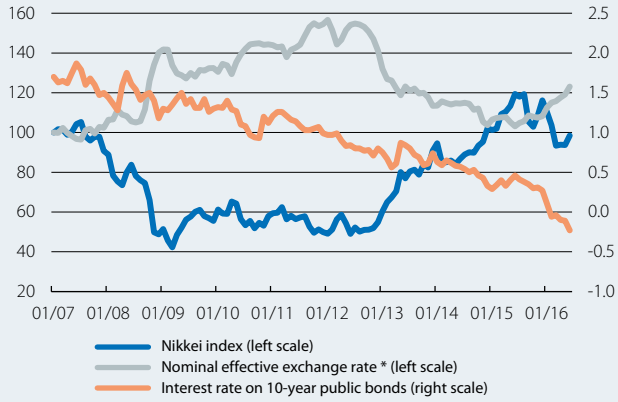
Annual change (%)



Notes: ** The annual change in the CPI does not include the VAT hike from 5% to 8% in April 2014. ** Forecast.*
Source: *CaixaBank Research, based on data from Thomson Reuters Datastream.*

Japan: financial markets

Index (100 = January 2007)



Note: ** An increase indicates the yen has appreciated against a broad basket of currencies.*
Source: *CaixaBank Research, based on data from Thomson Reuters Datastream and the BIS.*

1. This forecast was raised over the summer after the announcement of an increase in equity purchases and will probably be raised again in the coming months when further measures are announced.
2. See Hausman, Joshua K. and Johannes F. Wieland (2015), «Overcoming the Lost Decades?: Abenomics after Three Years.» Brookings Papers on Economic Activity 2015.2: 385-431. And Andrea De Michelis and Matteo Iacoviello (2016), «Raising an inflation target: The Japanese experience with Abenomics.» European Economic Review.
3. Public debt stands at 250% of GDP and private debt at 165%.

FOCUS · Base metal prices: a flimsy recovery

For the year to date, the price of all the industrial metals known as «base metals» (aluminium, copper, nickel, lead, zinc and tin) has risen by 9.5%, with substantial increases in the price of zinc (42.4%), tin (25.6%) and nickel (15.8%). These figures contrast with the downward trend in prices in preceding years and have stimulated debate as to whether we are witnessing the end of the adjustment in base metal prices or merely an (upward) interruption in a (downward) path.

To answer this question we must first apply the appropriate timeframe. Metals, like other commodities, tend to move in long-term cycles sometimes called «supercycles». Specifically, the current long-term cycle is believed to have started in 2003. As can be seen in the graph, base metals quadrupled their price between 2003 and 2007, then went through a slump due to the Great Recession in 2008-2009 and afterward recovered their cyclical peaks in 2011. Afterwards prices plummeted by 50% up to the end of 2015.

Having situated prices within the right timeframe, we need to examine whether the factors determining the long-term cycle for base metals are still the same or are fading. From the point of view of demand, the essential aspect to take into account is the shift towards the emerging economies and particularly towards China. According to the World Bank's figures, the Asian giant went from consuming 17% of all the world's refined metals in 2003 to 51% in 2016. For this reason, changes in Chinese demand for metals largely condition the trend in their world consumption: while, in the upward phase of the supercycle (2003-2007), Chinese demand for refined metals grew by 20% per year on average (and the global total by 6%), in the period of adjustment of 2012-2015, Chinese consumption rose by 10% and global demand by 5%.

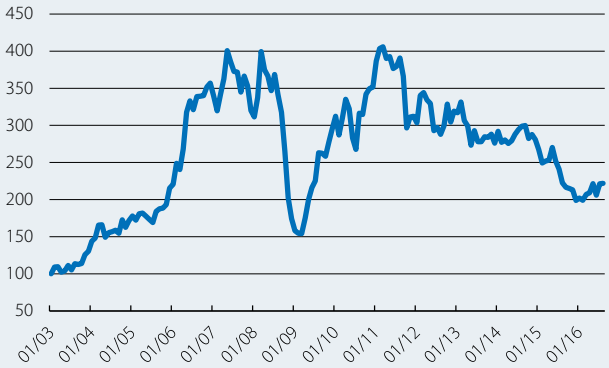
So how has supply reacted to this growth in China's consumption of base metals? By placing an increasing amount of product on the market. Between 2003 and 2015 the production of aluminium increased by 110%, that of iron by 80%, lead by 72%, copper and nickel by 47% and zinc by 45%. This is the result of considerable investment, with the top 10 firms in the metal production industry investing less than 10 billion dollars in 2003 but 400 billion in 2014. However, and in response to the more contained outlook for demand, this upward trend in investment has gradually adjusted in the second half of the supercycle. For example, investment by the top 10 companies fell by 20% between 2012 and 2014. With regard to production, the response is much more selective as appreciable reductions have been recorded in the production of iron ore and copper but not in aluminium, nickel or zinc, which has actually continued to increase.

Given this situation, what lies behind the change in 2016? Since the supply conditions have not varied substantially, the explanation must lie in demand. The demand forecast for 2016 is slightly different to the slowdown recorded in previous years. In particular, demand is expected to be strong in the three metals with the largest growth (zinc, tin and nickel), something which has been interpreted as a result of the impact of the infrastructure programmes and measures to boost credit in China.[1]

Does this situation imply a long-term change in the underlying fundamentals of metal prices? Probably not. If we look at the prospects for China's metal demand based on the route map established in its Five Year Plan for 2016-2020, we can see that the two most important metals (iron and copper) will not benefit greatly from an economy that is transitioning towards a model with a greater share of services and consumption. However, some of the light metals which are already posting surprisingly strong increases (in particular zinc) will see their demand grow in the future.[2] Nevertheless, given that these metals make up a smaller share of the total, the outlook for the group is still downward, a conclusion that is reinforced when we compare the current long-term cycle with other previous cycles. This does not mean that, in the short-term, the rally observed will not last for some time but it will be highly focused on specific metals.

Base metals: prices

Index (100 = January 2013)



Note: *Weighted index of the cash prices for aluminium, copper, nickel, lead, zinc and tin.*
Source: *CaixaBank Research, based on data from the London Mercantile Exchange.*

1. Financial factors have also been put forward, such as greater investor appetite for commodities in general and expectations of the Fed delaying its monetary normalisation, weakening the dollar.
2. Zinc is used especially in industries related to electronics, which will be intensified in China's expected transformation towards a more technological economy with greater development of urban transport infrastructures and a larger share of consumption.

KEY INDICATORS

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

UNITED STATES

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	07/16	08/16
Activity								
Real GDP	2.4	2.6	2.2	1.9	1.6	1.2	–	...
Retail sales (excluding cars and petrol)	4.5	4.2	4.1	3.5	4.0	–118.9	3.8	...
Consumer confidence *(value)*	86.9	98.0	98.3	96.0	96.0	94.8	96.7	101.1
Industrial production	2.9	0.3	0.1	–1.6	–1.6	–1.1	–0.5	...
Manufacturing activity index (ISM) *(value)*	55.6	51.3	51.0	48.6	49.8	51.8	52.6	...
Housing starts *(thousands)*	1,001	1,108	1,156	1,135	1,151	1,156	1,211	...
Case-Shiller home price index *(value)*	171	179	179	183	187	188	...	...
Unemployment rate *(% lab. force)*	6.2	5.3	5.2	5.0	4.9	4.9	4.9	...
Employment-population ratio *(% pop. > 16 years)*	59.0	59.3	59.3	59.4	59.8	59.7	59.7	...
Trade balance[1] *(% GDP)*	–2.8	–2.8	–2.8	–2.8	–2.7	–2.7	...	...
Prices								
Consumer prices	1.6	0.1	0.1	0.5	1.1	1.1	0.8	...
Core consumer prices	1.7	1.8	1.8	2.0	2.2	2.2	2.2	...

Note: *1. Cumulative figure over last 12 months.*
Source: *CaixaBank Research, based on data from the Department of Economic Analysis, Department of Labor, Federal Reserve, Standard & Poor's, ISM and Thomson Reuters Datastream.*

JAPAN

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	07/16
Activity							
Real GDP	–0.1	0.6	1.8	0.8	0.1	0.6	–
Consumer confidence *(value)*	39.3	41.3	41.0	42.2	41.4	41.2	41.3
Industrial production	2.1	–1.2	–0.4	–1.1	–3.2	–1.7	–0.5
Business activity index (Tankan) *(value)*	13.5	12.8	12.0	12.0	6.0	6.0	–
Unemployment rate *(% lab. force)*	3.6	3.4	3.4	3.3	3.2	3.2	3.0
Trade balance[1] *(% GDP)*	–2.6	–0.6	–1.0	–0.6	–0.2	0.1	0.4
Prices							
Consumer prices	2.8	0.8	0.1	0.2	0.0	–0.3	–0.5
Core consumer prices	1.8	1.0	0.6	0.7	0.6	0.6	0.3

Note: *1. Cumulative figure over last 12 months.*
Source: *CaixaBank Research, based on data from the Communications Department, Bank of Japan and Thomson Reuters Datastream.*

CHINA

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	07/16
Activity							
Real GDP	7.3	6.9	6.9	6.8	6.7	6.7	–
Retail sales	12.0	10.7	10.7	11.1	10.3	10.2	10.2
Industrial production	8.3	6.1	5.9	5.9	5.9	6.1	6.0
PMI manufacturing *(value)*	50.7	49.9	49.8	49.7	49.5	50.1	49.9
Foreign sector							
Trade balance[1] *(value)*	383	635	610	635	600	601	610
Exports	6.0	–1.1	–6.4	–5.2	–16.1	–4.8	–5.4
Imports	0.4	–14.2	–14.5	–11.8	–13.7	–6.8	–12.5
Prices							
Consumer prices	2.0	1.4	1.7	1.5	2.1	2.1	1.8
Official interest rate[2] *(value)*	5.60	4.35	4.60	4.35	4.35	4.35	4.35
Renminbi per dollar *(value)*	6.2	6.3	6.3	6.4	6.5	6.5	6.7

Notes: *1. Cumulative figure over last 12 months. Billion dollars. 2. End of period.*
Source: *CaixaBank Research, based on data from the National Bureau of Statistics of China and Thomson Reuters Datastream.*

ECONOMIC OUTLOOK · The effects of Brexit in the euro area are contained

The scenario continues of a gradual recovery in the euro area although the risks are still high. Brexit has occurred within a relatively favourable economic context for the euro area with growth that, although not brilliant, is gradually consolidating at moderate levels. Household consumption, spurred on by the measures taken by the ECB, has not been affected by the temporary increase in uncertainty and remains one of the pillars of the recovery. That is why the reduction in the forecasts made by CaixaBank Research, and by most international bodies, has been very moderate. The IMF, for example, has only reduced its growth forecasts for 2017 by a few tenths of a percentage point and has actually raised its 2016 forecast because the figures from the first half of the year have been better than expected. Nevertheless, and as described in the Focus «Post-Brexit uncertainty and its impact on economic growth» in this *Monthly Report*, the effect of Brexit will certainly be significant in the United Kingdom.

The recovery continued in Q2 at different speeds. The pace of growth of GDP in the euro area just before Brexit was 0.3% quarter-on-quarter, a rate in line with expectations and similar to that of the last three quarters. However, and as tends to be the case now, the different countries in the euro area advanced at different rates. Spain still stands out positively, maintaining a strong rate of growth in the last three quarters, as well as Germany, but Portugal, France and Italy are still lagging behind. Although to differing degrees, in Q2 exports contributed positively to growth in both Germany and France while domestic demand made a negative contribution due to a temporary dip in investment and stock. We predict that, in the coming quarters, domestic demand will regain its key role as support for growth in both countries. The UK's GDP grew by 0.6% in Q2, boosted by the good performance of domestic demand, a support which the British economy is unlikely to be able to count on in the next few quarters due to the uncertainty generated by Brexit.

The post-Brexit figures point to the euro area's rate of growth continuing in the second half of the year. The composite PMI for the euro area reached 53.3 points in August, its highest level in the last seven months, while the economic sentiment index fell slightly to 103.5 points in the same month, albeit still at levels similar to those of the first half of the year. The upswing in France's PMI should be noted, up to 51.6 points (50.1 in July), as well as its economic sentiment index, up to 100.9 points (100.1 in July). Both indicators are now moving away from the recessionary zone which the economy had approached in the last few months and are at levels more in line with the advances which the

Euro area: GDP forecasts of the IMF

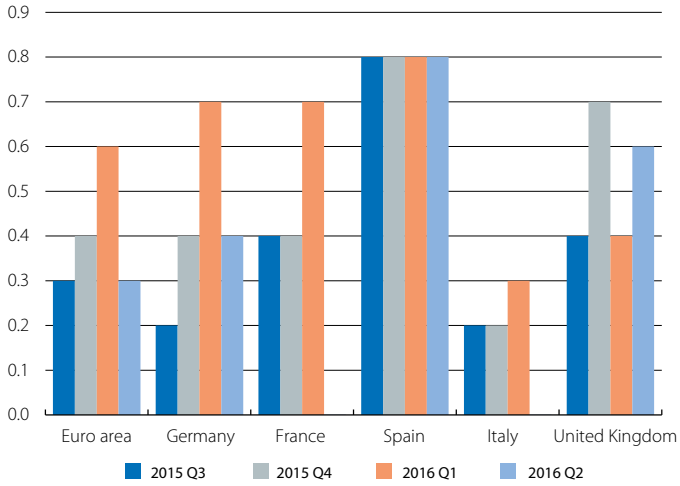
Annual change (%)

	Forecast			Change compared with forecast April 2016	
	2015	2016	2017	2016	2017
Euro area	1.7	1.6	1.4	▲ 0.1	▼ –0.2
Germany	1.5	1.6	1.2	▲ 0.1	▼ –0.4
France	1.3	1.5	1.2	▲ 0.4	▼ –0.1
Italy	0.8	0.9	1.0	▼ –0.1	▼ –0.1
Spain	3.2	2.6	2.1	= 0.0	▼ –0.2
United Kingdom	2.2	1.7	1.3	▼ –0.2	▼ –0.9

Source: *CaixaBank Research, based on IMF data (WEO, July 2016).*

GDP

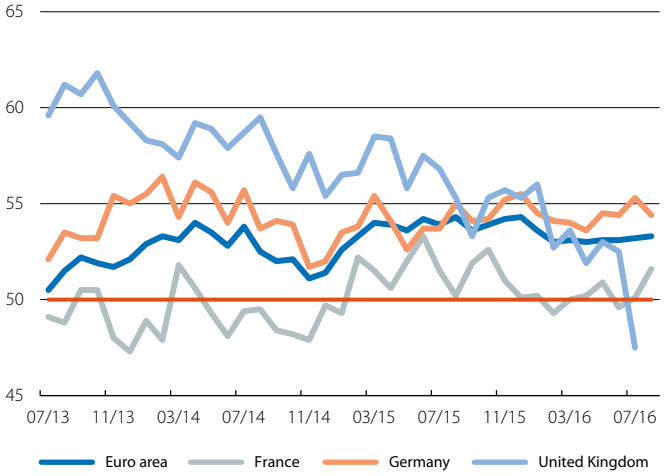
Quarter-on-quarter change (%)



Source: *CaixaBank Research, based on Eurostat data.*

Euro area: composite PMI

Level



Source: *CaixaBank Research, based on data from Markit.*

French economy has posted and is very likely to continue posting: positive but modest rates of growth. In the case of the United Kingdom, after Brexit the composite PMI fell to 47.7 points in July (52.4 in June), in the zone of contracting activity. This reflects the negative impact of the increase in uncertainty regarding the British economy.

Household consumption continues to advance at a firm rate. Retail sales rose by 1.6% year-on-year in June, a rate similar to that of the previous two months (average growth of 1.5% in Q2). Although the trend over the last few quarters has clearly been downwards, the rate of growth has remained above the historical average of 0.7%, so private consumption is still one of the main supports for the economic recovery. The data available for Q3 continue to be encouraging. For example, the consumer confidence index stood at –8.2 points in July and August on average, levels similar to the first two quarters of the year. Unemployment held steady at 10.1% in July, 0.7 pps below the level one year ago.

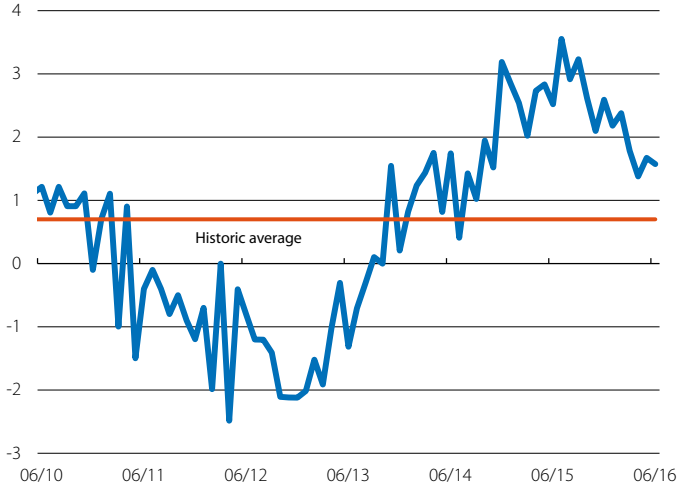
Inflation continues to be positive. Both in July and August, inflation held steady at 0.2% thanks to a smaller drop in its energy component and the boost provided by food prices. It posted its third consecutive month in positive terrain since January and left behind the negative rates from the first half of the year. Over the coming months we expect inflation to continue its gradual recovery with the advance made by activity and the disappearance of the effect from the oil price slump.

The Bank of England reacts to Brexit in the UK. The trend for the pound sterling is one of the indicators that best show the impact of the uncertainty generated by Brexit, depreciating by more than 10% against the dollar and the euro. Given this scenario, the reaction by the Bank of England was quick and categorical, announcing a broad package of stimulus measures. Specifically, it cut the benchmark interest rate by 25 bps to 0.25% (and opened the door to further cuts over the coming months), expanded its sovereign bond purchase programme by 60 billion pounds for six months, and launched a corporate bond purchase programme totalling 10 billion pounds for one year and a half. It also set up a new funding facility for the banking sector of 100 billion pounds at the official interest rate to encourage new loans and alleviate the unwelcome effects on the banking sector of an environment of ultra-low interest rates (a similar instrument to the scheme created by the ECB in March). Moreover, it considerably adjusted its macroeconomic forecast for the United Kingdom. The Bank of England now predicts 0.8% growth in 2017 and 1.8% in 2018, considerably lower figures than the forecast before Brexit (2.3% for both years).

Political risks remain high in the EU. Over the coming quarters, the process for the UK to leave the EU will gradually become more defined. One of the key events in the short term in which we will start to glimpse the tone to be taken by

Euro area: retail sales

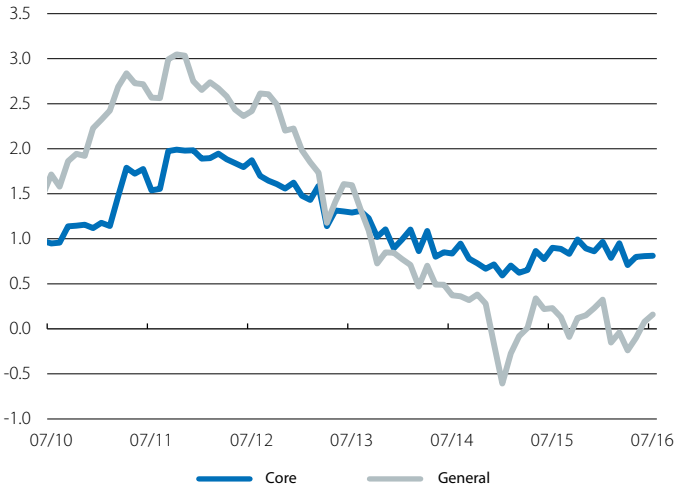
Year-on-year change (%)



Source: *CaixaBank Research, based on Eurostat data.*

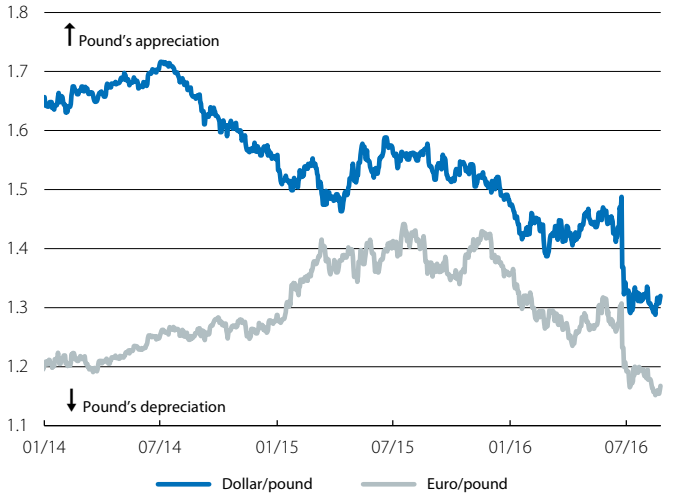
Euro area: Harmonised CPI

Year-on-year change (%)



Source: *CaixaBank Research, based on Eurostat data.*

United Kingdom: exchange rate of the pound sterling against the euro and dollar



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

negotiations is the summit occurring in mid-September among the different EU countries and which, for the first time, the UK will not attend. At present the bulk of the evidence available suggests that the packed electoral calendar over the coming quarters at a European level will put these negotiations on the backburner.

The solvency of European banks has improved although Italian banking is still a cause for concern. The results of the stress tests carried out by the EBA and ECB have shown that the sector now enjoys a considerable degree of resilience. At the end of 2015 European banks had a fully-loaded CET1 ratio of 12.6%, a much more comfortable situation than in previous years. The capital ratio in the stress test's adverse scenario was also at a positive 9.2%. However, the case of Italian banking sector requires attention given the large proportion of doubtful loans on the balance sheets of some of its banks. Specifically, in an adverse scenario such as the one assumed in the stress test, the capital ratio would fall by almost 4 pps in gross terms. But there are notable differences between banks. The most extreme case is that of Monte dei Paschi di Siena, which would suffer a drop in its capital ratio of up to –2.4%. The reaction was rapid and a plan has already been announced to improve this situation, including the sale of a considerable package of doubtful loans and capital enlargement totalling 5 billion euros. This plan, and the one announced by other institutions, are not exempt from risks so there are still doubts regarding the speed and size of the adjustment to be carried out by Italy's banks.

Portugal, a peripheral economy that is attracting attention. An increased perception of risk has once again put pressure on Portugal's financing costs. On the one hand the Portuguese economy grew at a slower rate than expected by analysts on the whole (0.8% year-on-year in Q2 compared with the 1.2% forecast) but there is also concern regarding the solidity of the government and the state of the country's finances. The EC concluded that Portugal did not take enough steps to correct its public deficit in 2014 and 2015. However, it did not impose a fine and relaxed the deficit adjustment to be carried out over the next few years (although, in order to achieve this, an additional budgetary adjustment will still have to be made). Lastly, analysts are also concerned about Portuguese banks and especially the situation of Caixa Geral de Depósitos. Its recapitalisation plan was approved in August, dependent on cost cuts, changes in corporate governance and reinforcement of its management team. Given this situation, the ratings agency DBRS (the only one that still rates Portuguese debt as investment grade) stated that, although its outlook was still «stable», it was concerned about the country's situation and might revise its rating come October.

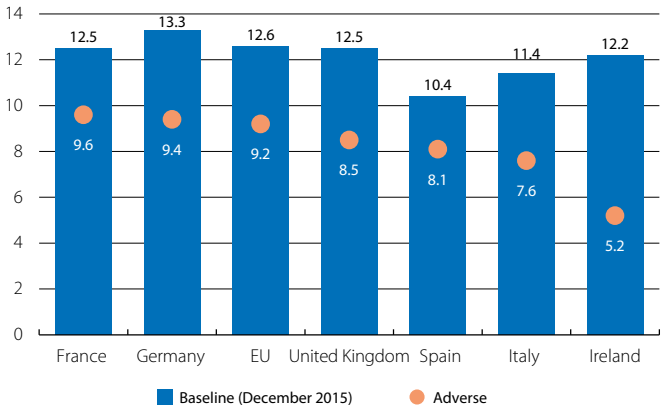
Euro area: main political events in Europe over the next few months

2016	2 October	Austria	Presidential election (repeated)
	2 October	Hungary	Referendum on EU immigration rules
	October (date to be decided)	Italy	Referendum on constitutional reform
2017	15 March	Netherlands	Parliamentary elections
	April (date to be decided)	Hungary	Presidential elections
	23 April and 4 May	France	Presidential elections (1st and 2nd round)
	11 June and 18 June	France	Parliamentary elections (1st and 2nd round)
	October (before 22)	Germany	Parliamentary elections
	Throughout the year	United Kingdom/EU	Brexit negotiations

Source: *CaixaBank Research.*

Capital ratio in the baseline and adverse scenario of the EBA's stress test

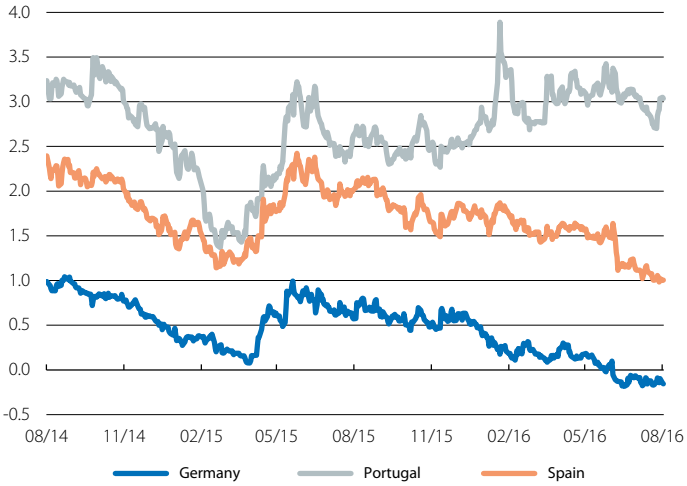
(%)



Note: *Fully-loaded CET1 capital ratio including all regulatory requirements up to 2019 but using current data.*
Source: *CaixaBank Research, based on data from the European Banking Authority (EBA).*

Yield on 10-year public debt

(%)



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

FOCUS · Post-Brexit uncertainty and its impact on economic growth

Brexit has surprised the British and foreigners alike and has placed future relations between the United Kingdom and the EU in limbo. Beyond the long-term economic impact of any agreement reached with the EU, in the short term uncertainty will make it difficult for the British economy to grow. Companies will delay decisions to invest and hire workers while households will reduce spending or postpone house purchases.

Analysing the impact of uncertainty is an arduous task. To begin with, it is quite difficult to measure. One of the indications used by analysts and economists is the economic policy uncertainty index developed by the economists S. Baker, N. Bloom and S. Davis. This index is based on the number of times the word «uncertainty» (or a similar word) is mentioned in the press.[1] The idea is simple: if, in the month of June 2016, the word «uncertainty» appeared more often than in May 2016, uncertainty is likely to have increased. The authors have found that this index has a correlation with other methods used to measure uncertainty and that it is a reliable indicator of such episodes. As can be seen in the first graph, the largest spikes in the index coincide with 9/11, the failure of Lehman Brothers, the European sovereign debt crisis and the Brexit referendum.

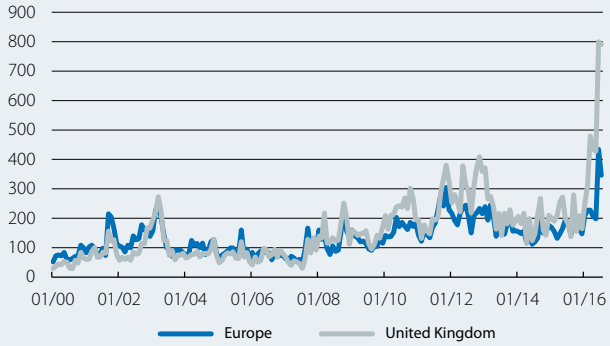
However, once we have measured uncertainty, it is still quite complicated to analyse its impact on growth. To quantify its influence, we have analysed the historical relationship between the uncertainty index and British GDP[2] using statistical techniques similar to those of Baker, Bloom and Davis for the United States.[3] In June 2016, after the result of the referendum, the shock of uncertainty observed in the United Kingdom was large, equivalent to six times the standard deviation for the series. This increase in uncertainty will have a significant effect on growth. As shown by the second graph, according to our calculations it will bring about a 0.7 pps reduction in the level of GDP six months after the shock. Uncertainty might also affect the UK's stock market, in line with the arguments presented in the Focus «Uncertainty and stock markets» in this *Monthly Report*.

1. The Times of London and the Financial Times are used for the United Kingdom. For more details on the construction and an exact definition of the Economic Policy Uncertainty Index (EPU), see http://www.policyuncertainty.com/.
2. A first-moment vector autoregression is estimated that includes monthly data from uncertainty indices for the United Kingdom and for Europe, the log of the FTSE 250, the yield on British 10-year bonds and log employment, as well as log GDP, in that order. Including the European uncertainty index allows us to differentiate between uncertainty due solely to the British economy and that due to the EU.
3. Baker, S., Bloom, N. and Davis, S., «Measuring Policy Uncertainty», NBER Working Paper 21633, October 2015.

In summary, it will be crucial to reduce uncertainty during the long negotiation period that is just starting in order to minimise its negative impact on the economy. It would be better if it did not take 10 years, as was the case between Switzerland and the EU, to develop an agreement via a series of bilateral agreements.

Uncertainty index in the EU and in the UK

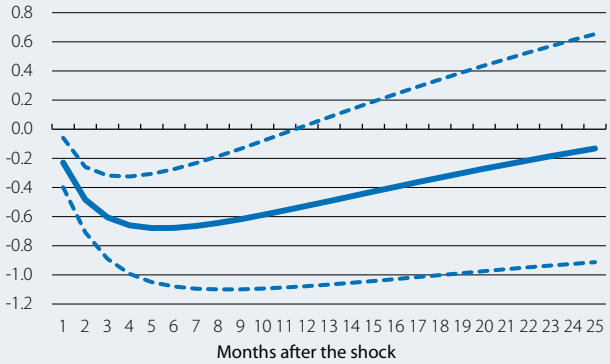
Level



Note: *The uncertainty index is calculated based on the number of times the word «uncertainty» or a similar word is mentioned in the press.*
Source: *CaixaBank Research, based on Economic Policy Uncertainty Index.*

United Kingdom: GDP response to a shock of uncertainty

(bps)



Note: *shock of uncertainty observed in June 2016 (equivalent to six times the standard deviation). The broken lines represent an 80% confidence interval.*
Source: *CaixaBank Research.*

FOCUS · Should the ECB react to the low inflation?

In the last few years the euro area's inflation rate has remained below the 2% target set by the ECB. However, today's low rates are occurring within an environment of falling oil prices and a slow economic recovery. Given these circumstances, is inflation's current behaviour so abnormal?

The first step in answering this question is to estimate the level of inflation that would have occurred had the price of crude oil not fallen. To this end we have constructed a general price index that excludes the components affected directly or indirectly by oil.[1] As can be seen in the first graph, which shows the trend in the actual and estimated rate for headline inflation, if there had been no fluctuations in the price of oil, since 2015 we would have witnessed year-on-year rates of around 1.3% on average.

Eliminating the effects of oil on inflation, the rate would therefore be clearly higher. Although it would still be below the ECB's target of 2%, we should remember that the activity of the euro area economies is still recovering so we should expect inflation to be weaker than in a more expansionary phase of the economic cycle. In fact, and as shown by the last two graphs, if we compare current inflation without the effects of oil and the inflation we might expect given the historical relationship between inflation and the cyclical position of the economy, we can see that today's rates are in line with the historical trend.

Consequently, having taken into account the behaviour of oil prices since 2014 and the cyclical position of the economy, both in the euro area and in Spain, we are witnessing reasonable rates of inflation.[2] We can therefore expect that, as the economic recovery advances and the base effect of the slump in oil prices disappears, headline inflation will return to values close to the ECB's target.

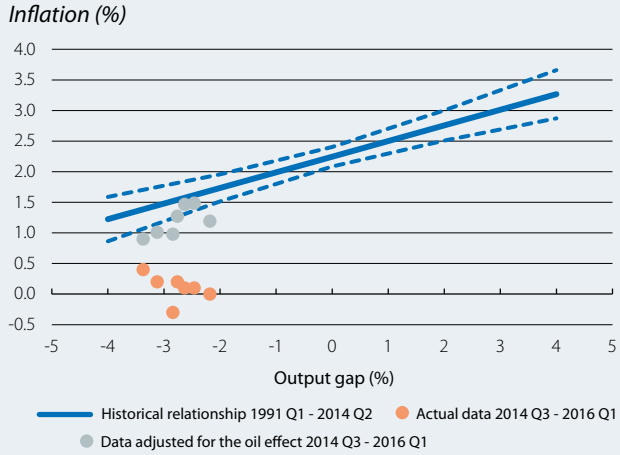
In view of this scenario, the fact that part of this low inflation is due to the slow recovery of the economy justifies an expansionary monetary policy that helps activity to achieve its potential. Nevertheless, given that the current situation is in line with the historical relationship between activity and inflation, the current low level of inflation is not such a strong argument for implementing additional measures of monetary stimulus.

1. Based on 94 components, we have excluded those whose year-on-year inflation is significantly correlated with the current or past variation in the oil price (with a maximum of three months' difference).
2. In Spain, estimated inflation is slightly below the historical confidence interval although close to it. This is compatible with a structural change in the economy which allows it to grow with less inflationary pressure.

Headline inflation: direct and indirect effects of oil

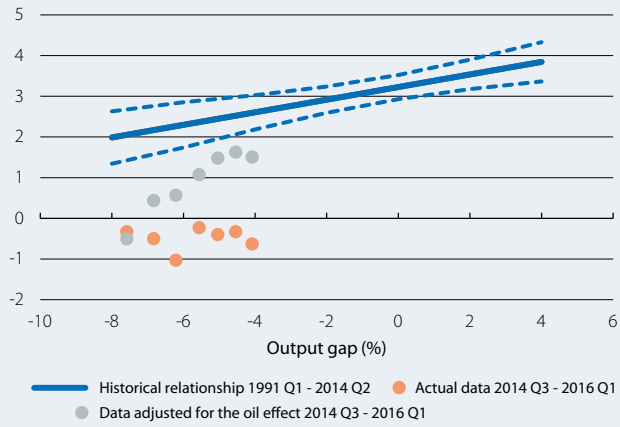
Source: *CaixaBank Research, based on Eurostat data.*

Euro area: activity and inflation



Note: *The dashed lines represent a 95% confidence interval.*
Source: *CaixaBank Research, based on Eurostat data.*

Spain: activity and inflation



Note: *The dashed lines represent a 95% confidence interval.*
Source: *CaixaBank Research, based on Eurostat data.*

KEY INDICATORS

Activity and employment indicators

Values, unless otherwise specified

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	07/16	08/16
Retail sales *(year-on-year change)*	1.4	2.7	3.3	2.4	2.1	1.4	...	...
Industrial production *(year-on-year change)*	0.9	2.1	2.6	1.8	1.3	0.8	...	...
Consumer confidence	–10.2	–6.2	–7.0	–6.4	–8.3	–7.8	–7.9	–8.5
Economic sentiment	101.5	104.2	104.5	106.2	104.0	104.3	104.5	103.5
Manufacturing PMI	52.3	52.4	52.3	52.8	51.8	51.8	51.4	...
Services PMI	53.9	54.6	54.4	54.5	53.5	53.0	51.5	...
Labour market								
Employment (people) *(year-on-year change)*	0.6	1.1	1.1	1.3	1.4	...	–	...
Unemployment rate: euro area *(% labour force)*	11.6	10.9	10.7	10.5	10.3	10.1	10.1	...
Germany *(% labour force)*	5.0	4.6	4.6	4.5	4.3	4.3	4.2	...
France *(% labour force)*	10.3	10.4	10.5	10.2	10.2	10.0	10.3	...
Italy *(% labour force)*	12.6	11.9	11.5	11.6	11.6	11.5	11.4	...
Spain *(% labour force)*	24.5	22.1	21.6	21.0	20.5	20.1	19.6	...

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

Foreign sector

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

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	04/16	05/16	06/16	07/16
Current balance: euro area	**2.6**	**3.4**	**3.3**	**3.4**	**3.4**	**3.6**	**3.5**	**3.6**	**3.6**	**...**
Germany	7.3	8.5	8.3	8.5	8.6	9.0	8.8	9.0	9.0	...
France	–1.1	–0.2	–0.1	–0.2	–0.8	–0.9	–0.9	–0.9	–0.9	...
Italy	1.9	2.2	2.2	2.2	2.4	...	2.5	2.6	...	...
Spain	1.0	1.4	1.4	1.4	1.4	1.9	1.7	1.8	1.9	...
Nominal effective exchange rate [1] *(value)*	**101.8**	**92.3**	**92.7**	**92.4**	**94.1**	**94.8**	**94.8**	**95.0**	**94.7**	**94.9**

Note: *1. Weighted by flow of foreign trade. Higher figures indicate the currency has appreciated.*
Source: *CaixaBank Research, based on data from the Eurostat, European Commission and national statistics institutes.*

Financing and deposits of non-financial sectors

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

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	04/16	05/16	06/16	07/16
Private sector financing										
Credit to non-financial firms [1]	–2.6	–0.4	–0.1	0.4	1.1	1.6	1.3	1.6	1.7	1.9
Credit to households [1, 2]	–0.1	0.7	1.0	1.3	1.5	1.6	1.5	1.6	1.8	1.8
Interest rate on loans to non-financial firms [3] *(%)*	2.0	1.6	1.5	1.5	1.4	1.4	1.4	1.3	1.4	...
Interest rate on loans to households for house purchases [4] *(%)*	2.6	2.1	2.1	2.0	2.0	1.8	1.9	1.9	1.8	...
Deposits										
On demand deposits	6.0	11.0	12.0	11.4	11.2	10.1	10.7	10.0	9.6	9.3
Other short-term deposits	–2.0	–3.9	–4.6	–4.0	–2.6	–2.1	–2.8	–2.0	–1.5	–1.4
Marketable instruments	–7.2	2.8	1.9	0.7	–1.0	2.5	–1.8	3.0	6.5	4.9
Interest rate on deposits up to 1 year from households *(%)*	1.3	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	...

Notes: *1. Data adjusted for sales and securitization. 2. Including NPISH. 3. Loans of more than one million euros with a floating rate and an initial rate fixation period of up to one year. 4. Loans with a floating rate and an initial rate fixation period of up to one year.*
Source: *CaixaBank Research, based on data from the European Central Bank.*

ECONOMIC OUTLOOK · **The good momentum continues in spite of political uncertainty**

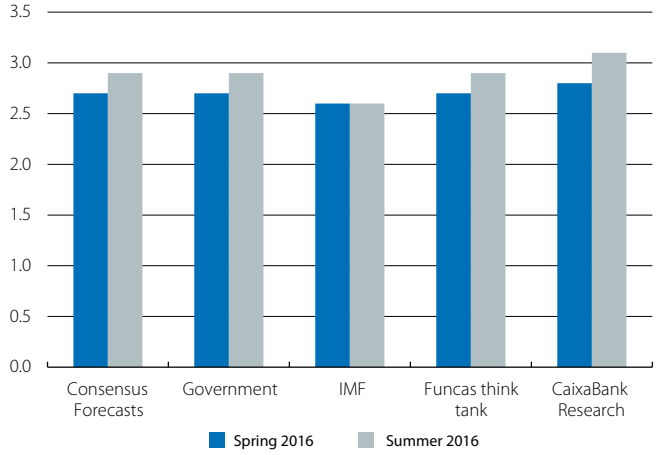
The increase in GDP surprised positively and analysts improve their growth forecasts for 2016. In Q2 the Spanish economy maintained its growth rate and, for the fourth consecutive quarter, advanced by 0.8% quarter-on-quarter while a slight slowdown had been expected in the pace of growth. This good figure, together with activity indicators for Q3 that are still very robust, have led many analysts to revise upwards their GDP growth forecast for 2016 to rates close to 3%. For example, CaixaBank Research predicts growth of 3.1%. It should be noted that this improvement in the growth prospects for Spain's economy has occurred within an uncertain political environment at a domestic level. The excellent tourist season and stability in financial markets (the yield on Spanish sovereign bonds reached an all-time low during the summer) may have helped to maintain a favourable climate of confidence.

The drop in domestic demand was larger than expected but exports contributed positively. The breakdown of GDP in terms of demand shows that the contribution made by domestic demand to year-on-year growth in Q2 (3.2%) fell to 3.0 pps, 0.8 pps less than in the previous quarter. This dip can be explained by an extremely sharp fall in public consumption in real terms (–1.6% quarter-on-quarter). However, this has not been reflected in greater fiscal adjustment as public consumption in nominal terms increased by 0.4% quarter-on-quarter, partly because of the refund of 50% of the extraordinary pay withheld in 2012 for civil servants. External demand made a positive contribution of 0.2 pps to year-on-year growth in GDP (–0.4 pps in Q1) thanks to the good trend in exports and more contained growth in imports. These data indicate that the Spanish economy is gradually shifting towards a more balanced model of growth in which the rise in domestic demand is compatible with a positive contribution by the foreign sector.

The main engines of the recovery, private consumption and business investment, are still very strong. The rate of increase in private consumption fell by 0.3 pps in quarter-on-quarter terms but remains at a strong 0.7% and is still the driving force behind GDP growth. This dynamism can be explained by the good performance of the labour market and, specifically, by job creation as wages are still very contained. Among the other factors helping to boost consumption are the improved borrowing conditions, partly due to the ECB's accommodative monetary policy and banks' greater capacity to grant loans to households. Also positive is the trend for investment in capital goods (2.3% quarter-on-quarter in Q2), proving that business confidence is still looking healthy in spite of the political uncertainty, while investment in

GDP growth forecasts in 2016

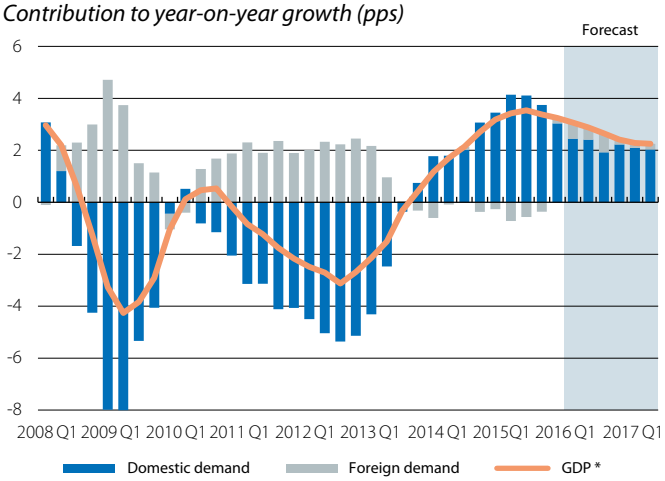
Annual change (%)



Source: *CaixaBank Research, based on data from Consensus Forecasts, Ministry of Finance, Funcas and the IMF.*

GDP

Contribution to year-on-year growth (pps)



Note: ** Year-on-year change (%).*
Source: *CaixaBank Research, based on INE data.*

Breakdown of GDP

Quarter-on-quarter change (%)

	2015 Q3	2015 Q4	2016 Q1	2016 Q2
GDP	**0.8**	**0.8**	**0.8**	**0.8**
Private consumption	1.1	0.8	1.0	0.7
Public consumption	0.5	0.4	0.7	–1.6
Investment (GFCF)	1.3	1.1	0.3	1.3
Capital goods investment	2.6	1.9	0.9	2.2
Investment in construction	0.7	0.6	–0.2	0.9
Exports	1.8	0.9	–0.4	4.3
Imports	3.1	0.3	0.4	2.7

Source: *CaixaBank Research, based on INE data.*

construction is gradually gaining traction (0.9% quarter-on-quarter).

On the whole, the labour market trend is positive, beyond the seasonal nature of Q2. According to the LFS, job creation was notable in Q2 (up by 271,400 people, placing the number of employees at 18.3 million) although somewhat lower than expected after the number of registered workers affiliated to Social Security had suggested a higher figure. The year-on-year rate of change for employees therefore slowed down to 2.4% (3.3% in Q1). In terms of full-time equivalent jobs (FTE) in the National Accounts system, the year-on-year rate also slowed down to 2.9% (3.2% in Q1). This rise in employment helped the unemployment rate to fall considerably to 20.0%, 1.0 pp less than the previous quarter. This substantial drop in unemployment is typical in Q2 as it coincides with the start of the tourist season but it should be noted that the recovery in the labour market is generalised throughout all sectors of activity. The private sector created the most jobs (2.7% year-on-year) while the public sector saw more modest growth (1.3% year-on-year). Some improvement can also be seen in the quality of the jobs being created: full-time employment grew more than part-time (3.0% and –0.6% year-on-year, respectively) and permanent employment contracts continued to increase (2.0% year-on-year in Q2 compared with 1.8% in Q1).

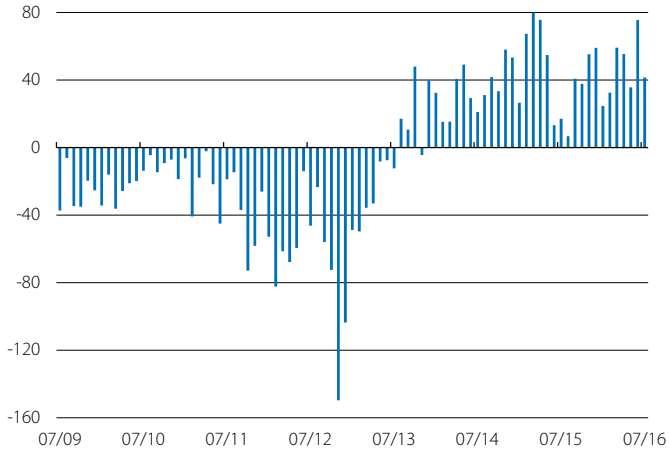
The good performance by the labour market continues in the second half of the year. The rate of increase for registered workers affiliated to Social Security speeded up in July to 3.1% year-on-year, posting its largest rise in the month of July since the start of the crisis. Meanwhile the rate of decrease in registered unemployment speeded up to –9.0% (–8.6% in June) and the number of unemployed stood at its lowest figure since August 2009. Over the coming months we expect a moderate slowdown in the growth rate of workers affiliated to Social Security, as happened with employees according to the LFS in Q2 and in line with the more restrained growth in GDP expected in the second half of the year.

Inflation is picking up quickly, as expected. The CPI posted a year-on-year change of –0.1% in August, 0.5 pps above July's figure, confirming the prediction that inflation will rise rapidly over the coming months as the base effect disappears of the slump in oil prices at the end of 2015 and beginning of 2016. Pending details by component, this variation can be explained by fuel prices (diesel and petrol) falling less than last year, as well as by the increase in electricity prices compared with the drop in 2015. Core inflation (0.7% in July) will also continue its modest upward trend, boosted by the dynamism in private consumption.

The trend in the foreign sector is highly favourable. Specifically, exports of goods grew by 2.1% year-on-year in June thanks to a solid performance by non-energy exports (4.0% year-on-year). Imports of goods, however, decreased by 0.9% year-on-year, helped by the slump in energy imports

*Registered workers affiliated to Social Security **

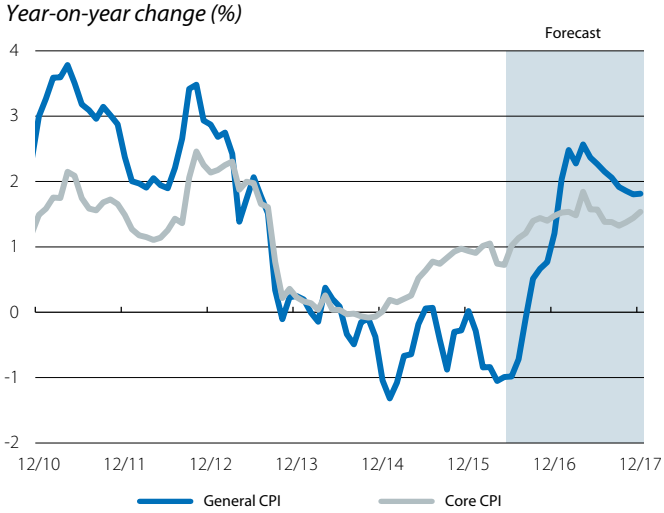
Month-on-month change (thousands)



Note: ** Series seasonally adjusted.*
Source: *CaixaBank Research, based on data from the Ministry of Employment and Social Security.*

CPI

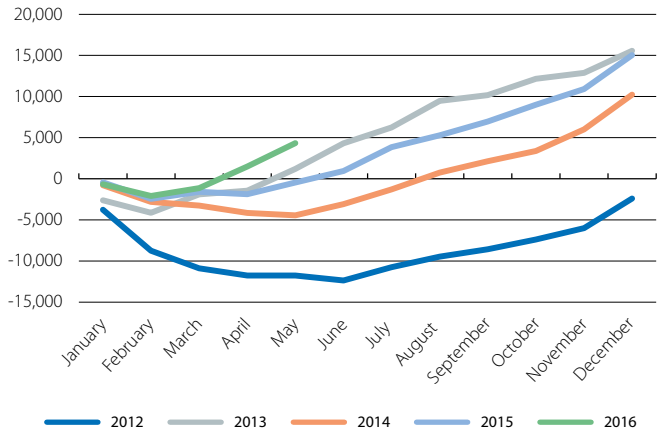
Year-on-year change (%)



Source: *CaixaBank Research, based on INE data.*

Current balance

Cumulative figures for the year to date (billion euros)



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

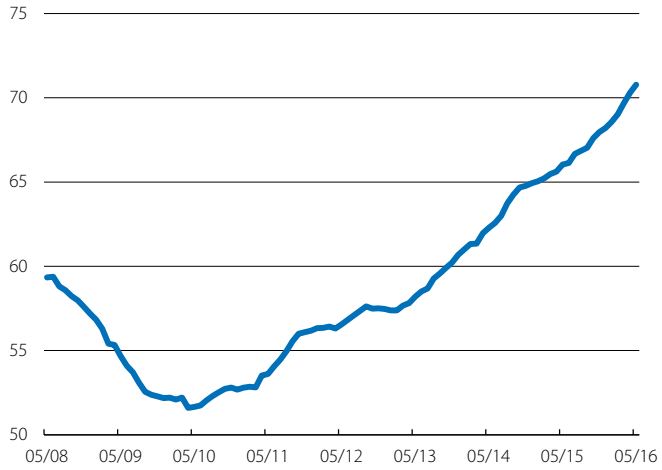
(–77% year-on-year) as a consequence of low oil prices. Consequently, the balance of goods from January to June (–7,878 million euros) improved significantly compared with the same period in 2015. In addition to the balance of trade, also notable was the improvement in the income balance thanks to low interest rates and much higher exports of services, reflecting the good tourist season, with arrivals of international tourists increasing by 11.1% year-on-year in July (cumulative figures over 12 months), reaching 42.4 million for the year to date. In summary, the good data for the foreign sector in the first half of the year suggest that the current account will once again post a surplus for the year and is very likely to exceed the figure of 25.6 billion euros (1.4% of GDP) recorded in 2015.

The European Commission allows two more years to reduce the public deficit below 3% of GDP. Within this favourable economic climate, on 12 July the European Commission concluded that Spain had not taken effective measures to correct its deficit in 2015. However, on 27 July the European Council decided not to impose a fine on Spain (or on Portugal either) and relaxed the pace of fiscal adjustment required. The new deficit target proposed for 2016 (4.6% of GDP) seems feasible but new measures will have to be approved to consolidate Spain's public accounts in order to achieve the target agreed for 2017, an effort that should not be postponed given the relentless rise in public debt (100.6% of GDP in Q2).

The banking sector, more solvent and resilient, is granting more loans. On 29 July the results were published from the EBA's stress tests in order to assess the resilience of European banks to a severe deterioration in the macroeconomic situation. Spanish banks passed this test easily and were notable for the moderate impact of the adverse scenario, demonstrating the results of restructuring and rebalancing efforts made in the past by the sector. In fact, progress is still being made in this area: the NPL ratio fell to 9.4% in June and the balance of doubtful loans fell to 122.5 billion euros, accumulating a decline of 38% since the peak reached in January 2014. Spanish banks are therefore improving their capacity to increase the flow of credit to households and firms, as confirmed by the figures for new loans up to June. Specifically, consumer credit and loans for housing purchases increased by 14% and 38% year-on-year, respectively. In the case of non-financial firms, while loans to SMEs continued to flow (8.9% year-on-year), new loans to large firms decreased sharply (–11.8% year-on-year) due to the better conditions offered by financing via corporate bonds. This trend will continue over the coming months thanks to the ECB's expansionary monetary policy, which will help to improve bank funding conditions and the corporate bond market.

Foreign visitor arrivals

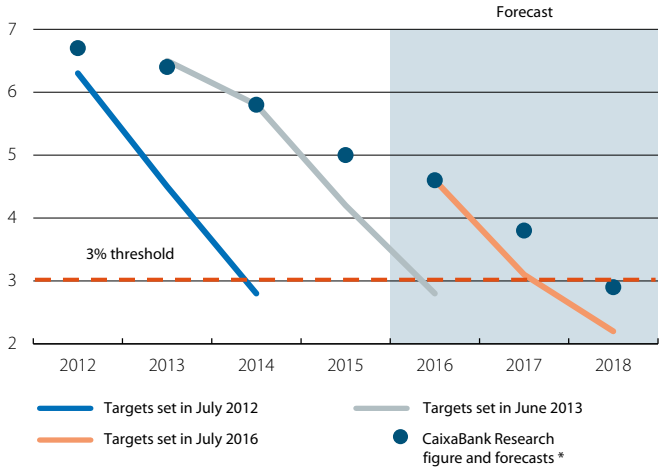
Cumulative figures over 12 months (millions)



Source: *CaixaBank Research, based on INE data.*

Path in public deficit targets

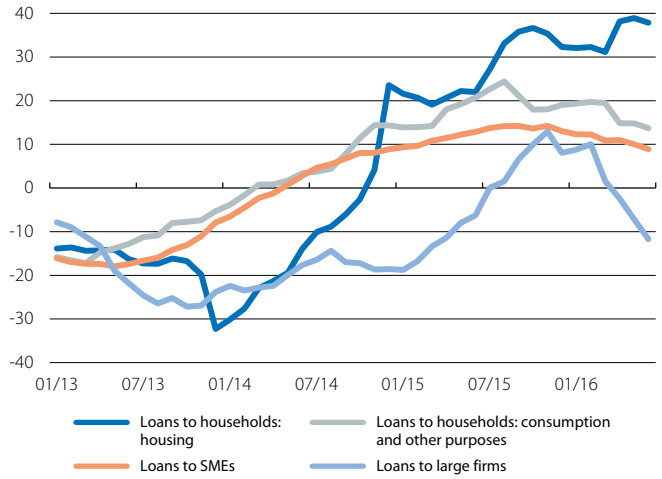
(% of GDP)



Note: ** Excludes bank restructuring costs.*
Source: *CaixaBank Research, based on European Commission data.*

New loans granted

Year-on-year change, cumulative over 12 months (%)



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

FOCUS · House prices are on the rise

The real estate sector continues to enjoy a tailwind, as can be seen in the most recently published data for the sector: in June house sales grew by 14.7% (cumulative over 12 months) while prices increased by 2.4% in 2016 Q1 in year-on-year terms.[1] Activity is also progressing at a healthy rate, as shown by the permits granted for new builds which have enjoyed double-digit growth for the last 15 months,[2] although these still represent just one tenth of the permits recorded in 2003.

The economic recovery, increasing the disposable income and wealth of households and raising consumer confidence, together with the continuation of favourable financial conditions, will carry on boosting sales over the coming years. This trend, combined with the still incipient recovery in supply, will push up house prices. Specifically, we estimate that house prices will grow by around 3% this year and that this rate will increase, reaching 5.5% by 2018.

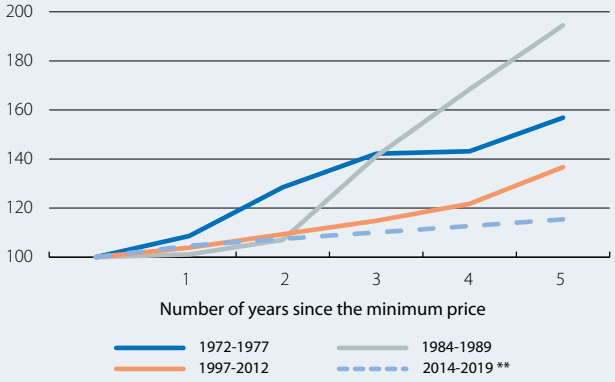
These forecasts may seem high after the adjustment undergone by the sector but it should be noted that the real estate sector is extremely cyclical. An analysis of the expansionary phases of the last few real estate cycles in Spain shows that prices in real terms grew by more than 5% for 6 consecutive years on average (see the first graph). At the same time, this expected growth in prices over the coming years is conservative when compared with the trend seen in countries also undergoing a drastic correction in recent times, such as Ireland, the US and United Kingdom (see the second graph).

Given that we expect this increase in house prices to occur within a favourable economic environment, we believe that, for the population as a whole, housing affordability will remain at similar levels to the present. The third graph shows the expected trend in two benchmark indicators: the ratio between house prices and gross disposable income per household and the ratio between the mortgage payments required to finance a property during the first year and the annual disposable income of an average household. After a considerable correction in these indicators since the peak reached in 2007, in the coming years we expect a gentle upward trend to begin, although the continued improvement in household disposable income will keep housing affordability far below the peaks reached between 2006 and 2008.

1. House prices published by the Ministry of Public Works based on the valuation.
2. Cumulative growth over 12 months.

Spain: house prices in expansionary cycles *

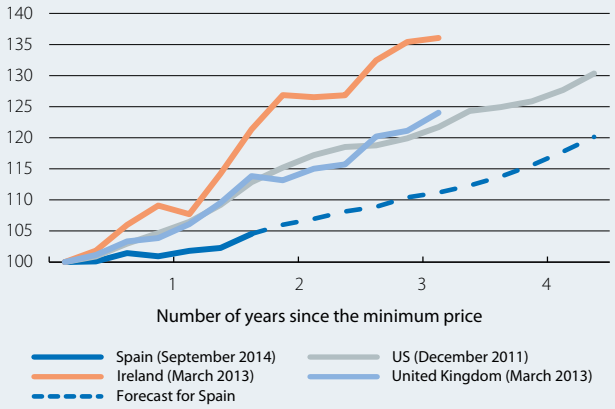
Index (100 = minimum)



Notes: ** Price in real terms. ** Projected data as from 2016.*
Source: *CaixaBank Research, based on data from the Ministry of Public Works and the Bank for International Settlements.*

International comparison of house prices

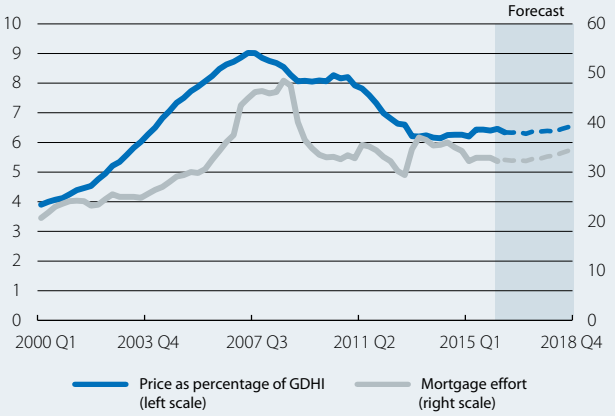
Index (100 = minimum)



Source: *CaixaBank Research, based on data from the INE and the Bank for International Settlements.*

Spain: affordability ratios

House price as percentage of GDHI (ratio) — *GDHI allocated to mortgage payments in the first year (%)*



Note: *GDHI is the gross disposable household income.*
Source: *CaixaBank Research, based on data from the Bank of Spain.*

FOCUS · Inflation expectations for 2016-2017: a sustained rise

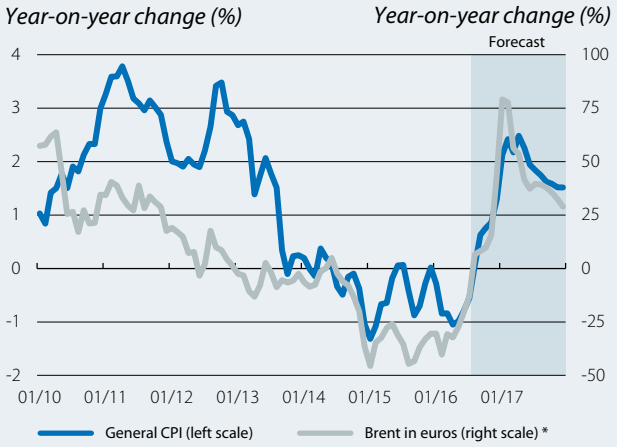
Inflation has embarked on a recovery which will gain in strength in the second half of 2016 and the first few months of 2017. This will take the general CPI into positive terrain as from August and to above 2% temporarily in 2017 Q1. Although the general index was still posting negative rates of change in June, accumulating 29 months of negative or zero inflation, inflation's recovery had already started to improve in October 2014 when core inflation ended its downward trend, supported by the improvement in private consumption. Over the coming months, this upward direction will consolidate thanks to a combination of two factors: oil prices and the sustained dynamism of the economy.

The first factor, and also the most easily observable, is the disappearance of the base effect of the sharp slump in oil prices last summer. Whereas, in February 2016, the price of Brent oil in euros had fallen by 40.3% year-on-year, in June this drop had already been reduced to half (–20.5%). According to our forecasts, the year-on-year rate of change for the price of crude oil will become positive in August and continue rising up to values in the order of 50% by April 2017, when we expect crude to reach around 59 euros a barrel. Note that this upward movement of the year-on-year rate of change does not require any sharp rise in the price of oil compared with its current level (around 45 euros per barrel) as this is already far above the average for 2016 Q1 (32.6 euros). This trend in oil will push the energy component of the CPI (which accounts for 11.4% of the total CPI) from a year-on-year drop of 11.7% in June to double-digit positive increases by the end of the year. So unless there is a drastic change in the oil price trend, the contribution made by the energy component to general inflation will exceed 1 pp in 2017 Q1. If the oil price remained at 45 euros per barrel, this contribution would be 0.6 pps in 2017 Q1.

The upward effects of the second factor, namely growth in the Spanish economy, are gentler but more sustained and significant for the medium-term trend in inflation. The recovery of the Spanish economy is gradually consolidating with growth in GDP expected to reach around 3% in 2016 and more than 2% in 2017. This notable rate will help to close the output gap (the difference between an economy's observed GDP and the potential GDP achieved if all its production resources were used). A positive output gap is generally associated with an increase in inflationary pressure as the production resources available are in shorter supply. In this respect, the forecasts by the European Commission point to the output gap going from –8.3% in 2013 to –1.5% in 2016 and a positive figure of 0.3 in 2017. This greater use of production resources can also be seen in more tangible activity indicators such as industrial capacity utilization, now at a level above its historical average. The improved labour market will also support a sustained rise in the core CPI. Although it is true that the labour market is still far from full employment (the unemployment rate is close to 20%) and substantial pay rises are therefore unlikely in the short term, the strong job creation rate (2.4% year-on-year in Q2) is supporting a recovery in the aggregate disposable income of households and this is helping to boost private consumption (3.6% year-on-year in 2016 Q2), a trend which will continue throughout 2017.

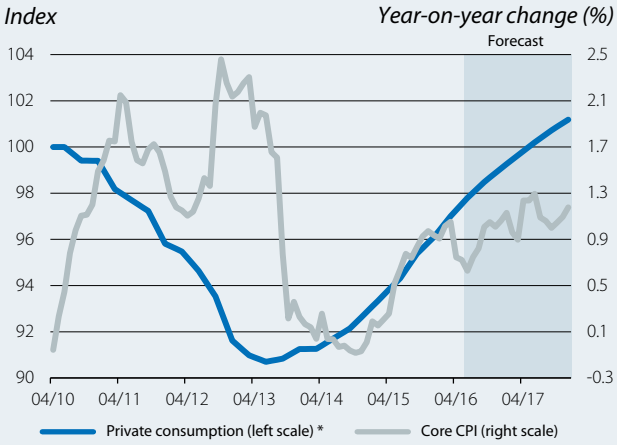
The upshot of all this is that, in the next few quarters, the CPI will see a notable upswing due to the effect of oil prices while the core CPI, which provides a better indication of the economy's position in the cycle, will gradually approach the ECB's target.

General CPI and oil prices



Note: ** Brent oil price in euros per barrel.*
Source: *CaixaBank Research, based on data from the INE and Thomson Reuters Datastream.*

Core CPI and private consumption



Note: ** Base 100 = 2010 Q2, start of the drop in private consumption.*
Source: *CaixaBank Research, based on INE data.*

FOCUS · The economy's external position: how can it be corrected?

In the last few years the Spanish economy has made some crucial advances in correcting its external imbalance. Indeed, the balance of the current account has gone from a deficit of 9.6% of GDP in 2007 to a surplus of 1.3% of GDP on average in the years 2013-2015. But in spite of these achievements it is worrying to note that part of this correction could reverse when the temporary elements that have been supporting this improvement in the current account disappear.

Firstly, the slump in oil prices contributed significantly to reducing the energy deficit: while in 2012, at a price of 87 euros per barrel, the energy balance accounted for –4.5% of GDP, in 2015, with a barrel costing 48 euros, this fell to –2.5%. With a view to the future, we expect oil prices to rise steadily to 70 euros per barrel by 2020, pushing up the energy deficit to slightly above 3% of GDP.

A second element that has helped to improve the current account surplus has been the reduction in interest rates. Given the large volume of external debt, interest rate changes have considerable impact on external interest payments. External assets, on the other hand, are composed mostly of foreign direct investment and not so much of debt instruments, so that income from Spanish investment abroad has been less affected by low interest rates than payments associated with liabilities. Consequently, the primary income deficit has fallen dramatically from –2.7% of GDP in 2008 to –0.1% in 2015, an improvement that could well continue for several years to come. Once interest rates start to rise again, the volume of external debt will be smaller thanks to the deleveraging of the Spanish economy and this will help to contain external payments although it will not stop the primary income account from deteriorating slightly.

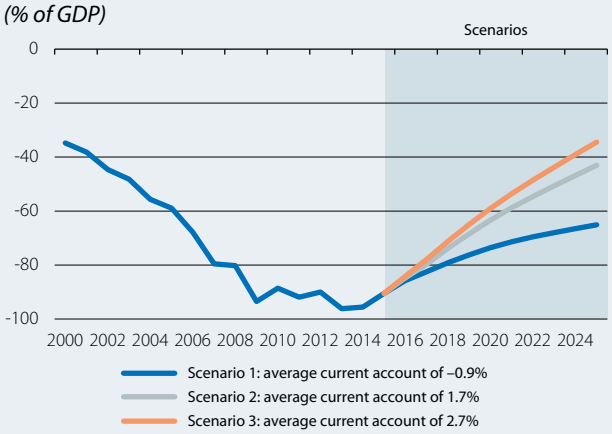
But in addition to the two aforementioned temporary supports, it should also be noted that the current account balance has been corrected largely due to factors of a structural nature that are boosting exports, such as the gains achieved in competitiveness over the last few years and the considerable internationalisation efforts made by Spanish firms. Such dynamic exports have helped to redirect external flows (current account) but the Spanish economy is still highly in debt with the rest of world in terms of stock, with its net international investment position (NIIP) amounting to –90.8% of GDP in 2016 Q1, one of the largest debt positions in the world. To highlight the need to maintain a sustained current account surplus that results in a gradual reduction of the NIIP to levels considered to be more sustainable (–35% according to the European Commission), we have constructed different scenarios for the trend in such variables.[1]

In the first and most conservative scenario we assume the current account will once again be slightly in deficit. Here the NIIP falls very gradually thanks to growth in nominal GDP but still stands at –65% of GDP in 2025. In the second scenario we assume the current account remains at similar levels to the present, so the NIIP falls gradually to –43% of GDP in 2025. Lastly, in the third scenario, we assume an average current account surplus of 2.7% of GDP, the figure required to reduce the NIIP to –35% of GDP in 10 years.

The correction of the current balance over the last few years has been a first step in stabilising the Spanish economy's external position but the country will have to persevere to reduce its external debt.

Net international investment position (NIIP)

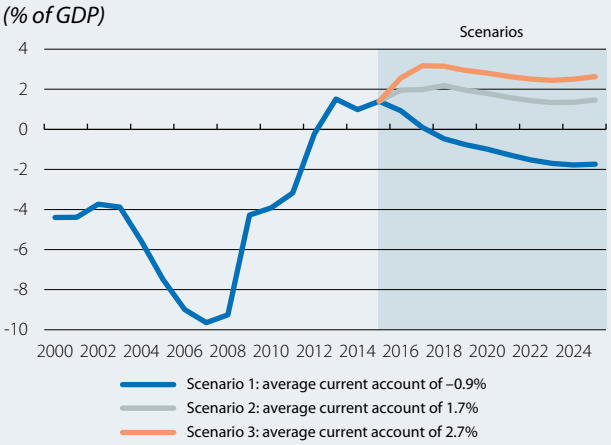
(% of GDP)



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

Current account

(% of GDP)



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

1. All the scenarios assume 4% growth in nominal GDP, an average income balance of –1.1% of GDP, a capital account of 0.6% of GDP and neutral valuation effects. See the Working Paper Series 02/16 «La posición externa de la economía española: claves para reducirla» for the return sensitivity of assets and liabilities regarding the trend in the NIIP.

KEY INDICATORS

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

Activity indicators

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	07/16	08/16
Industry								
Electricity consumption	–0.1	1.6	2.5	2.5	–0.5	0.9	–3.1	...
Industrial production index	1.3	3.3	4.0	4.2	2.6	1.4	...	...
Indicator of confidence in industry *(value)*	–7.1	–0.3	0.7	0.3	–1.9	–2.8	–3.1	–5.2
Manufacturing PMI *(value)*	53.2	53.6	52.8	52.5	54.3	52.5	51.0	...
Construction								
Building permits *(cumulative over 12 months)*	–7.7	20.0	19.7	31.1	45.2	...	...	...
House sales *(cumulative over 12 months)*	–5.6	10.9	12.5	11.9	10.6	14.1	...	...
House prices	–2.4	1.1	1.4	1.8	2.4	...	–	...
Services								
Foreign tourists *(cumulative over 12 months)*	7.2	5.6	5.0	4.8	5.9	7.4	8.5	...
Services PMI *(value)*	55.2	57.3	58.1	55.9	54.7	55.5	54.1	...
Consumption								
Retail sales	1.0	3.0	3.3	3.4	3.8	3.8	4.7	...
Car registrations	18.4	21.3	23.1	17.1	8.0	17.8	4.3	...
Consumer confidence index *(value)*	–8.9	0.3	–1.3	1.6	–2.5	–3.2	–5.8	–5.2

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

Employment indicators

	2014	2015	2015 Q3	2015 Q4	2016 Q1	04/16	05/16	06/16	07/16
Registered as employed with Social Security [1]									
Employment by industry sector									
Manufacturing	0.1	2.2	2.4	2.7	2.8	2.8	2.6	2.7	2.7
Construction	–1.6	4.7	4.6	4.1	2.6	2.2	1.6	2.4	2.5
Services	2.2	3.5	3.5	3.4	3.1	2.9	2.9	3.2	3.3
Employment by professional status									
Employees	1.4	3.5	3.6	3.6	3.4	3.0	2.9	3.4	3.5
Self-employed and others	2.2	1.9	1.7	1.4	1.2	1.1	1.0	0.9	0.9
TOTAL	**1.6**	**3.2**	**3.3**	**3.2**	**3.0**	**2.7**	**2.6**	**2.9**	**3.1**
Employment [2]	**1.2**	**3.0**	**3.1**	**3.0**	**3.3**	**–**	**2.4**	**–**	**–**
Hiring contracts registered [3]									
Permanent	18.8	12.3	9.7	7.6	8.3	18.2	17.0	17.0	10.9
Temporary	13.1	11.2	9.7	11.8	6.2	6.0	10.6	10.8	0.4
TOTAL	**13.4**	**11.3**	**9.7**	**11.5**	**6.4**	**7.0**	**11.1**	**11.3**	**1.1**
Unemployment claimant count [3]									
Under 25	–8.2	–11.0	–13.4	–11.7	–10.9	–10.7	–12.4	–12.8	–14.3
All aged 25 and over	–5.3	–7.2	–7.7	–7.5	–7.8	–7.1	–7.2	–8.2	–8.5
TOTAL	**–5.6**	**–7.5**	**–8.2**	**–7.9**	**–8.1**	**–7.4**	**–7.7**	**–8.6**	**–9.0**

Notes: *1. Mean monthly figures. 2. LFS estimate. 3. Public Employment Offices.*
Source: *CaixaBank Research, based on data from the Ministry of Employment and Social Security, INE and Public Employment Offices.*

Prices

	2014	2015	2015 Q3	2015 Q4	2016 Q1	2016 Q2	07/16	08/16
General	**–0.1**	**–0.5**	**–0.4**	**–0.3**	**–0.7**	**–0.9**	**–0.6**	**–0.1**
Core	0.0	0.6	0.8	0.9	1.0	0.7	0.7	...
Unprocessed foods	–1.2	1.8	2.3	2.5	2.1	2.7	5.7	...
Energy products	–0.8	–9.0	–9.7	–10.2	–13.1	–13.6	–12.0	...

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

Foreign sector

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

	2014	2015	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	04/16	05/16	06/16
Trade of goods										
Exports *(year-on-year change)*	2.5	4.3	5.4	3.4	3.8	0.2	4.3	6.3	4.7	2.1
Imports *(year-on-year change)*	5.7	3.7	5.8	3.3	3.3	–0.7	–0.3	–1.2	1.2	–0.9
Current balance	**10.2**	**15.0**	**14.3**	**15.1**	**15.0**	**15.5**	**20.4**	**18.4**	**19.8**	**20.4**
Goods and services	26.0	25.6	27.1	26.5	25.6	25.2	29.3	27.1	28.2	29.3
Primary and secondary income	–15.7	–10.5	–12.8	–11.4	–10.5	–9.7	–8.8	–8.6	–8.3	–8.8
Net lending (+) / borrowing (–) capacity	**14.7**	**21.0**	**18.4**	**20.8**	**21.0**	**21.4**	**25.1**	**23.6**	**24.3**	**25.1**

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

Public sector

Percentage GDP, cumulative in the year, unless otherwise specified

	2014	2015	2015 Q2	2015 Q3	2015 Q4	2016 Q1	04/16	05/16
Net lending (+) / borrowing (–) capacity [1]	**–5.9**	**–5.1**	**–2.9**	**–3.1**	**–5.1**	**–0.7**	**–**	**...**
Central government	–3.7	–2.6	–1.8	–2.1	–2.6	–0.8	–1.2	–2.1
Autonomous regions	–1.7	–1.7	–0.8	–1.1	–1.7	–0.1	–0.2	–0.4
Local government	0.6	0.4	0.2	0.3	0.4	0.1	...	...
Social Security	–1.0	–1.3	–0.4	–0.3	–1.3	0.2	0.1	0.2
Public debt *(% GDP)*	**99.3**	**99.2**	**99.8**	**99.7**	**99.2**	**100.5**	**–**	**...**

Note: *1. Includes aid to financial institutions.*
Source: *CaixaBank Research, based on data from the IGAE, Ministry of Taxation and Bank of Spain.*

Financing and deposits of non-financial sectors

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

	2014	2015	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	04/16	05/16	06/16	Balance 06/16 [1]
Financing of non-financial sectors [2]											
Private sector	–6.2	–3.9	–3.9	–4.0	–3.1	–3.6	–3.6	–4.2	–3.6	–2.9	1,627.5
Non-financial firms	–7.1	–4.0	–4.0	–4.3	–3.0	–4.0	–4.2	–5.1	–4.2	–3.3	903.4
Households [3]	–5.1	–3.7	–3.7	–3.6	–3.3	–3.1	–2.7	–3.0	–2.8	–2.4	724.1
General government [4]	6.9	4.7	4.6	4.3	4.3	3.5	4.3	3.9	4.1	4.7	1,107.3
TOTAL	**–1.8**	**–0.7**	**–0.8**	**–1.0**	**–0.3**	**–0.9**	**–0.6**	**–1.1**	**–0.6**	**0.0**	**2,734.8**
Liabilities of financial institutions due to firms and households											
Total deposits	–0.9	–1.0	–1.2	–1.1	–0.5	–0.4	–0.3	–0.7	0.1	–0.4	1,159.8
On demand deposits	10.8	18.5	19.5	18.8	17.7	16.2	16.0	15.7	17.0	15.4	421.8
Savings deposits	5.8	12.9	12.3	13.7	15.2	13.4	12.1	13.1	12.0	11.4	269.3
Term deposits	–7.6	–15.3	–15.5	–16.3	–15.8	–15.4	–16.4	–16.3	–16.3	–16.4	446.8
Deposits in foreign currency	1.1	5.6	10.5	5.1	–2.3	–4.0	1.6	–6.4	12.6	–1.5	21.9
Rest of liabilities [5]	–8.2	–13.0	–11.5	–14.0	–15.1	–16.7	–16.3	–14.8	–20.1	–14.0	96.5
TOTAL	**–1.7**	**–2.2**	**–2.2**	**–2.3**	**–1.9**	**–1.9**	**–1.7**	**–1.9**	**–1.7**	**–1.6**	**1,256.3**
NPL ratio *(%)* [6]	**12.5**	**10.1**	**11.0**	**10.7**	**10.1**	**10.0**	**9.4**	**9.9**	**9.8**	**9.4**	**–**
Coverage ratio *(%)* [6]	**58.1**	**59.2**	**60.0**	**60.6**	**59.2**	**59.0**	**58.7**	**59.0**	**59.2**	**58.7**	**–**

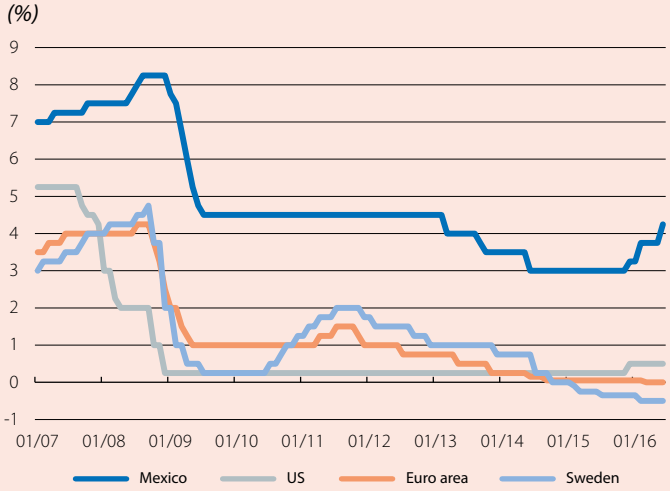
Notes: *1. Billion euros. 2. Resident in Spain. 3. Including NPISH. 4. Total liabilities (consolidated). Liabilities between different levels of government are deduced. 5. Aggregate balance according to supervision statements. Includes asset transfers, securitized financial liabilities, repos and subordinated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

THE GLOBALISATION OF MONETARY POLICY

Monetary dilemmas in an interdependent world

The current monetary panorama is considerably complex and with few precedents, if any at all. The fact that many central banks have set negative interest rates (Japan, Sweden, Denmark, Switzerland and the euro area itself) is an anomaly in historical terms. Also unprecedented is the extremely varied assortment of public and private assets accumulated by many central banks, and up to exceptional levels (note that the Bank of Japan's annual public debt purchases are equivalent to 16% of the country's GDP). Since we generally call this whole battery of measures simply «unconventional monetary policy», perhaps we have become somewhat desensitised to the atypical nature of the situation and have tended to ignore the risks involved. Risks that affect not only the countries carrying out such policies but also those within their environment.

Central banks: benchmark rate



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

In fact, in a globalised financial world the monetary policy implemented by countries at the core of the international financial system has a huge effect on their peripheral partners. This is the case, for instance, between the financial centre par excellence, the US, and the countries of Latin America. Or between the euro area and its neighbours in the EU which do not share the single currency. Given this situation, when the knot begins to tighten (i.e. when full monetary normalisation begins), what some countries feel as gentle pressure will perhaps be more like strangulation in others. Such a situation is particularly likely to occur in those economies benefitting from ample capital inflows under highly beneficial conditions (typically in dollars or euros, which have tended to depreciate against their own currency and at slightly lower interest rates than the national one), debt which they will have to repay or refinance within a context of more adverse international financial conditions.

Is such concern exaggerated? In order to answer this question we need to accurately calibrate the channels (both real and financial) through which monetary policy is transmitted internationally, an exercise carried out by the article «Monetary policy: from independence to interdependence» in this Dossier. We must also examine in depth the role played by the banking sector in this transmission, a task undertaken by the article «Bank globalisation and the international transmission of monetary policy» in this Dossier. Clear instances of how extensively monetary policy can be passed on from one country to another are provided by the recent cases of Sweden and Mexico.

Regarding the Scandinavian country, by mid-2010 it had already recovered quite well from the shock of the Great Recession of 2008-2009 (growth in 2010 would end up being 6% compared with 2.1% in the euro area) and evidence of inflationary pressure building up (at the beginning of 2010 Sweden's inflation was 2.7% year-on-year while it was just 0.9% in the euro area) justified a gradual but continued hike in the official interest rate by its central bank (from 0.25% to 2.0%). This measure notably diverged from the ECB's accommodative monetary policy which, in 2010, kept the benchmark rate at 1%. The immediate result was substantial appreciation in the Swedish krona of approximately 20%. However, at the end of 2011 the Riksbank, Sweden's central bank, made a U-turn and, although national conditions did not seem to warrant it, embarked on a process of monetary accommodation which has taken the benchmark interest rate to –0.50%. Given this situation, there are growing concerns that such ultra-accommodative monetary conditions could jeopardise the country's financial stability, especially as the resulting liquidity is fuelling an economy that already has high levels of private debt (237% of GDP in 2015) and a sharp increase in asset prices (growth in Swedish house prices in 2016 Q1 was 12.5% year-on-year, the third highest in the EU).

This is a clear case of monetary policy in the core economically affecting close countries, a factor that impacts and even erodes the monetary independence of the central banks of peripheral and smaller economies. And in the emerging countries? Does the core's monetary policy also have such a decisive effect? The answer is also in the affirmative. One case in point is Mexico. Mexico

obviously has very close economic ties with the US, to the extent that there is a strong correlation between both countries' activity cycles. But this general evidence does not mean that US monetary policy is right for Mexico all the time. In particular, since 2014 the asymmetrical impact of the slump in oil prices has required a different response by monetary policy. While the US is currently within mature phases of the cycle, with upward inflation expectations and incipient wage tensions, Mexico has recorded lower growth than predicted with inflation clearly below the forecasts (in fact it is at an all-time low). In spite of this situation, which would suggest that, although the Fed may continue with its monetary normalisation, Banxico should keep its monetary policy more accommodative for some time, it is true that the overwhelming consensus among analysts is that Mexico simply has no option than other to follow in the footsteps of the Fed to prevent the peso from depreciating dramatically against the dollar. Once again the main reason does not come from domestic conditions: it is due to the importance of commercial and financial relations between the US and Mexico.

In the last few years, and in particular since the Great Recession of 2008-2009, Mexico has undergone a twofold process that has tightened its financial ties with the US and, to a lesser extent, with the rest of the world's investors. The first is the rise in the country's capital inflows. As explained in the article «Monetary policy: from independence to interdependence» in this Dossier, this is the main channel for transmitting monetary policy at a global level and, in the last few years, capital movements seem to have become more sensitive to expectations of changes in monetary policy in the core of the system. The trend in capital flows towards Mexico have followed the same pattern, a trend reflected in variables such as external debt which has gone from 17.3% of GDP in 2006 to almost 46% of GDP ten years later. A second factor, related to the previous one, is that the Mexican peso is now being used more widely internationally, especially in the financial area: according to the BIS, whereas it was the fourteenth most widely-used currency in 2001, by 2013 it had climbed to eighth position. Taken as a whole, these two elements have made the Latin American country's monetary policy less independent. Banxico itself implicitly assumes that it cannot oppose this restrictive context on repeating in its communication that two crucial aspects in its monitoring of the financial situation are following the interest rate spread with the US and the trend in exchange rates (a key variable in international monetary transmission). Just as important is the assertion made by the central bank on more than one occasion that delaying monetary tightening could jeopardise the country's financial stability.

This risk for financial stability could increase if it occurs within a local context of excessive debt. We should note that this is the situation of many emerging economies that have seen strong growth in private debt over the last few years. This situation gets even worse when debt increases via financing in a strong currency (the dollar in the case of Latin America, the euro in that of emerging Europe). This is the situation of China and Brazil, among others, which have recorded strong growth in corporate debt in dollars precisely in response to more accommodative financing conditions resulting ultimately from the Fed's monetary policy. As the US monetary normalisation progresses, some companies will find it increasingly difficult to repay or refinance this debt.

This situation is repeated in emerging Europe but with two particular features. Firstly, here households have also taken out mortgages in foreign currencies (euros and Swiss francs) in addition to corporate debt. The second characteristic is that, in this zone, the risk of financial instability has gone from highly diffused to very high. Poland exemplifies this situation. At the beginning of 2016 close to 45% of all outstanding mortgages was in euros in Swiss francs, equivalent to 9.3% of Polish GDP. As a result of the zloti's depreciation against the euro and Swiss franc, the government is facing the dilemma of allowing consumers to handle this increase in financial pressure or to pass on such costs towards its banking sector, forcing mortgages to be converted into zloties under favourable conditions for households. Initial proposals point to an extreme version of this second solution which, should it be applied, most Polish banks would simply not be able to afford.

It is important to remember that the excessive accumulation of debt is, among other factors, the result of economic agents responding to the incentives produced by the anomalous monetary situation we mentioned at the beginning of this article. This is not the only unwelcome result of the ultra-accommodative monetary policy implemented by advanced countries but it certainly is one of the most tangible outcomes. Given the uncertainty surrounding the move into unknown territory represented by the exit of unconventional monetary policy, is there any way to mitigate the risks to global financial stability? The most obvious would be for a greater degree of coordination between central banks and, at a broader level, between the economic policies of the main economies. At a regulatory level, and as argued in the article «Policies to coordinate the monetary and financial system» in this Dossier, coordination would be highly desirable. Unfortunately, and also as this article concludes, it is reasonable to doubt whether such coordination can actually be achieved.

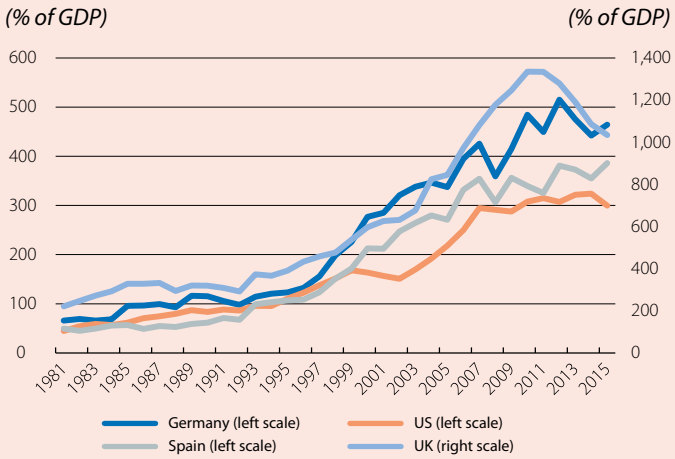
Àlex Ruiz
Macroeconomics Unit, Strategic Planning and Research Department, CaixaBank

Monetary policy: from independence to interdependence

22 May 2013, Congress of the United States of America, Washington DC. Ben Bernanke, at that time Fed Chairman, suggested he might start reversing the accommodative stance of monetary policy might in the near future thanks to the good performance of the US economy. In the ensuing weeks, his statements led to violent movements in global markets and especially in the emerging economies, which saw their currencies depreciate considerably, as well as suffering higher risk premia, stock market losses and a reduction in capital inflows. This episode, known as the «taper tantrum», illustrates how the effects of the monetary policy of one of the largest financial centres in the world are felt far beyond its own national borders. But why should Bernanke's domestic decision affect the rest of the world's economies? And through which mechanisms do the words of the Fed Chairman impact the economies in the rest of the world?

Traditionally trade has been the main channel for transmitting monetary policy between countries. On the one hand, when a central bank such as the Fed lowers its benchmark interest rate, the currency, in this case the dollar, tends to depreciate, making imports from the rest of the world more expensive and thereby weakening demand.[1] On the other hand, monetary accommodation stimulates domestic demand in the US, thereby boosting demand for these imports. Although this second effect takes longer to appear, historically it has been stronger than the first and, consequently, the net commercial effect on the rest of the world has been positive.[2] However, under the current circumstances there are reasons to assume that aggregate demand is less sensitive to monetary stimuli so that positive net effects are no longer guaranteed: specifically, the heavy borrowing of advanced economies makes it difficult for monetary policy to result in higher demand for foreign imports (since those agents with higher levels of debt tend to increase their consumption less).

Financial globalisation: assets and liabilities taken out with the rest of world *



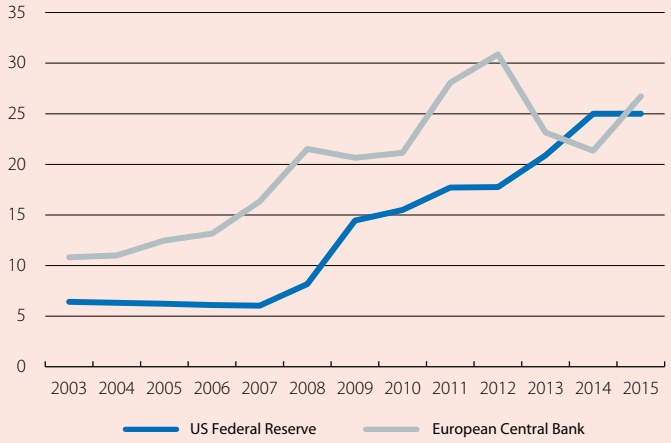
Note: ** Gross international investment position.*
Source: *CaixaBank Research, based on IMF data.*

But it is not only the situational factors related to the commercial channel that are jeopardising the positive trend in monetary policy externalities. In fact, as seen in the first graph, since the 1980s there has been extensive financial globalisation with an increase in international capital flows and higher gross external borrowing by economies. As it creates an international market for investment and savings, financial globalisation offers an external source of financing at an international interest rate which is nevertheless influenced by the world's major financial centres such as the US due to their relative importance for the world economy.[3] International capital flows have therefore become an important channel for transmitting monetary policy. For example, a drop in the US interest rate results in heavier capital flows towards those foreign economies with the highest returns, whose monetary authorities therefore face two choices: tolerate the substantial appreciation in their currency to reduce the inflow of capital or limit exchange rate fluctuations and accept heavy capital inflows. Moreover, both alternatives entail additional negative consequences: while strong appreciation in a currency damages exports and can lead to deflationary pressure (as it brings down the cost of imports), capital inflows can relax credit conditions more than is desirable and therefore increase the risk of financial instability. As we will see, one way of reducing both the appreciation of a currency and heavy capital inflows consists of adjusting the domestic interest rate by imitating the foreign monetary policy: by offering similar yields, abrupt movements in capital and exchange rate pressure are avoided but, in exchange, authorities lose control of their monetary policy.

1. This effect has led to the coining of the term «currency war» to describe situations in which central banks implement accommodative policies to depreciate the currency and boost the competitiveness of exports.
2. See the speech by Rajan on 12 March 2016 in New Delhi, «Towards rules of the monetary game», and Blanchard (2016), «Currency wars, coordination, and capital controls», NBER Working Paper. However, as pointed out by Blanchard, this effect also depends on each country's characteristics, such as the share of its exports to the US or how sensitive its economy is to commodity prices.
3. Another important factor that explains the influence of the US is the use of the US dollar as a medium of exchange around the world and as a source of bank funding. See the article «Bank globalisation and the international transmission of monetary policy», in this Dossier.

Balance sheet of the major central banks *

(% of GDP)



Note: ** Total assets.*
Source: *CaixaBank Research, based on data from the ECB and the Federal Reserve of St. Louis.*

Although financial globalisation is no recent phenomenon, given the current situation there is an additional factor that increases its impact on the externalities of monetary policy. In the last few years the main central banks of the advanced economies (the Fed, ECB, Bank of England and Bank of Japan) have relaxed their monetary policies to unprecedented levels in order to boost the recovery in domestic demand after the financial crisis. As their benchmark rates are close to 0%, they have also implemented unconventional measures that have resulted in a significant injection of liquidity (see the second graph). With some advanced economies in a low-yield environment, this ample liquidity has flowed towards other neighbouring economies. With the aim of avoiding sharp appreciations in their currencies and minimising the disruption of capital inflows, the economies receiving this liquidity have also opted to relax their monetary conditions, setting lower interest rates than warranted by their domestic needs. Although, in the short term, the activity of these economies benefits from such favourable financial conditions, the situation is not appropriate for the economy's domestic requirements, thereby increasing the risk of financial instability, and the effects over the medium to long term can be negative, as happened with the real estate bubble that fuelled the previous phase of growth in some advanced economies. Moreover, as explained in the article «Bank globalisation and the international transmission of monetary policy» in this Dossier, the system of global banks that channels some of these capital flows, through which a parent bank obtains resources in advanced economies, benefitting from easier credit conditions, and then distributes these resources to branches or local entities in the emerging economies, creates a source of systemic risk. However, central banks argue that their measures have been crucial for the recovery of economies and that economic externalities would be much more negative if the US had more anaemic growth or the euro area's economy were still at a standstill.

So the externalities of more accommodative monetary policy in the world's major financial centres are transmitted via a traditional commercial channel and a financial channel that passes on the easy financial conditions to the rest of the world. But what is the relative importance of all this? According to the Fed's estimates,[4] in response to measures that reduce the 10-year interest rate for US debt by 25 bps: (i) the dollar's depreciation pushes down the GDP of the rest of world by 0.05%, (ii) US domestic demand increases by 0.5%, it boosts imports and pushes up the GDP of the rest of the world by 0.05%, and (iii) foreign interest rates fall by 10 bps, increasing the GDP of the rest of the world by 0.25%. So, according to the Fed's estimates, the commercial channel would currently have a zero net effect. Consequently, externalities would only be visible through the financial channel which, although it has a positive effect in the short term, introduces financial instability over the medium to long term.

In conclusion, the dominant role taken on by monetary policy as a means of stimulating advanced economies has revived debate about its international externalities. At present the financial links between economies have been strengthened to the extent that capital flows and risky assets have significant global determining factors. In practice this means a loss of capacity to implement independent monetary policies,[5] so it is therefore essential to review the opportunities for cooperation and coordination within the international monetary system, something which is examined in the article «Policies to coordinate the monetary and financial system» in this Dossier. Another alternative to lessen such externalities is for fiscal policy and structural reforms to help boost the economy and complement monetary policy to a greater extent.

Adrià Morron Salmeron
Macroeconomics Unit, Strategic Planning and Research Department, CaixaBank

4. John Ammer, Michiel De Pooter, Christopher Erceg and Steven Kamin, 2016, «International Spillovers of Monetary Policy», Federal Reserve Board of Governors International Finance Discussion Papers Note.
5. Hélène Rey (2015), «Dilemma not trilemma: the global financial cycle and monetary policy Independence», NBER Working Paper.

Bank globalisation and the international transmission of monetary policy

The 1990s saw the start of intensive bank internationalisation: in 1995 the percentage of foreign banks out of the total number of banks worldwide was 20%, whereas by 2009 this figure had doubled.[1] Global banks emerged as a result of this process and the international interbank market developed, creating a more globalised and interconnected banking architecture with significant implications for the transmission of monetary policy: the monetary stimuli issued by a central bank no longer affect solely the financial conditions of the country itself but also have an impact far beyond its national borders via global banks. This article examines the workings of the global banking system and its role in the international transmission of monetary policy.

Before we analyse the international aspect in more detail we should remember that banks play a fundamental role in transmitting monetary policy at a domestic level: when the central bank adopts an accommodative monetary policy by lowering the official interest rate, its aim is to encourage real economic activity (consumption and investment) by increasing the supply of bank loans granted to households and companies. This transmission mechanism is called the bank lending channel. The bank risk-taking channel also plays its part as more accommodative monetary policy reduces returns from safe assets, encouraging banks to relax their credit standards and invest in assets with a higher return but also higher risk (known as a search for yield).

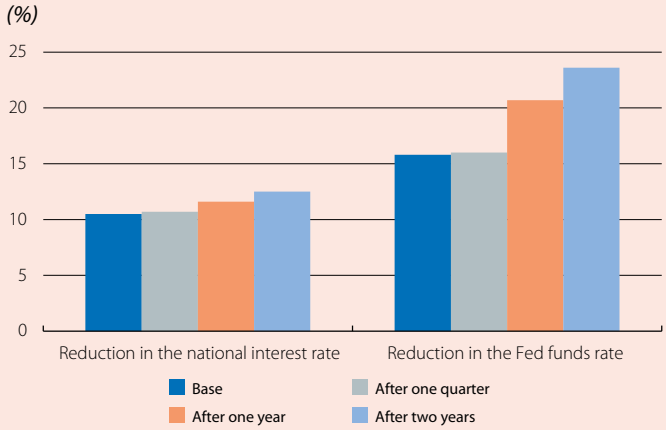
As we have already mentioned, these transmission channels for monetary policy operate at a domestic level. However, in the case of the central banks of the main advanced economies, and as a result of bank globalisation, these channels also operate at a global level. This international transmission of monetary policy through the banking system occurs in the following way. Firstly, the relaxation of monetary policy in an advanced economy such as the US allows global banks to obtain funding under more favourable terms, either directly from the central bank or by issuing financial instruments to private investors at a lower cost, generally short-term loans in dollars.[2] Global banks then use this liquidity to lend directly to the real economy, through their subsidiaries or branches in different countries (and here the internal capital market of each bank also comes into play),[3] or they offer liquidity to other banks through the international interbank market. Lastly, the banks receiving these interbank loans can, in turn, pass on more favourable borrowing conditions to their local customers.

The main consequence of this transmission of monetary policy at an international level is that the supply of credit and bank risk-taking in a particular economy no longer depend solely on the specific factors of the country in question, such as domestic macroeconomic conditions or institutional quality, known as pull factors, but also on global or push factors.[4] The importance of push factors in a particular country will depend on several conditioning factors although the structure of bank financing is fundamental. When global financial conditions change, those banking systems that depend more on wholesale or interbank funding and less on customer deposits tend to change their loan supply more compared with systems that are less dependent on wholesale funding. Foreign banks, which usually find it more difficult to attract retail deposits in the local market, will tend to reduce the loan supply even further in response to negative external shocks and, consequently, push factors become more relevant in those countries with a larger share of foreign banks.[5] However, it should be noted that this behaviour changes depending on whether global banks operate through subsidiaries or branches. On the one hand subsidiaries enjoy a large degree of autonomy in the management of capital and liquidity, are subject to the banking regulations of the domestic country and usually obtain more funding by attracting local deposits, factors which make it easier for subsidiaries to mitigate international shocks (or shocks affecting their parent bank). On the other hand international branches form part of a more centralised model that depends on the parent bank and are therefore more susceptible to global fluctuations. Consequently, international monetary policy is less likely to be transmitted through the banking channel in those countries where foreign bank subsidiaries predominate, such as in Latin America, than in Eastern European countries where the branch model is more widespread.

1. See Claessens and Van Horen (2014), «Foreign banks: Trends and impact», Journal of Money, Credit and Banking, vol. 46 (1).
2. Global banks issue many different financial instruments, generically called wholesale funding, ranging from short-term instruments such as repos and commercial paper to longer-term instruments such as bonds.
3. See Cetorelli and Goldberg (2012), «Banking Globalization and Monetary Transmission», Journal of Finance, 67 (5), for a detailed analysis of the factors that determine the distribution of liquidity between the parent and subsidiaries of global banks.
4. Calvo, Leiderman and Reinhart (1993) coined the terms push and pull factors to explain international flows of capital towards emerging economies in the 1990s.
5. De Haas, Ralph, 2014, «The dark and the bright side of global banking: a (somewhat) cautionary tale from emerging Europe», Comparative Economic Studies.

Another crucial factor that affects the intensity of the international transmission of monetary policy is the currency in which bank transactions are carried out. And here there is no argument: the US dollar is the currency par excellence although other currencies are also used frequently in some jurisdictions, such as the Swiss franc and the euro in Eastern Europe. However, the US currency is so important that the value of assets issued in dollars held by banks outside the US is roughly equal to the total value of the financial assets of US banks, namely around 10 trillion dollars. Nevertheless, the importance of the dollar is not the same as a dollarized economy. For example, it is notable that around 20% of the bonds issued by European banks are Yankee bonds.[6]

Bank leverage ratio after a reduction in the federal funds rate *



Note: ** Bank leverage ratio (median) based on data from 22 countries between 1998 and 2014. Impact after a 100 bps reduction in the Federal funds rate.*
Source: *CaixaBank Research, based on data from Cecchetti, Mancini, Griffoli and Narita (2015).*

In a highly dollarized global banking system, the decisions taken by the Federal Reserve (Fed) have a direct effect on banks' loan supply and risk appetite throughout the rest of the world. A recent study by the IMF is highly illustrative of this situation. The study compares the impact of accommodative monetary policy on the leverage ratio (assets to capital) of credit institutions in 22 countries during the period 1998-2014. The findings show that the impact on the leverage ratio is very limited in the short term (one quarter after a 100 bps cut in the official interest rate of the bank's own country). However, the effect is much greater if the accommodative monetary policy continues for some time: the leverage ratio typically increases from 10.5 to 12.5 in two years. But the most significant finding is that the impact is much greater in response to the Fed's policy than the country's own policy. In particular, banks located outside the US see a much larger spike in their leverage ratio, from 15.8 to 23.6, after two years of expansionary monetary policy by the Fed (see the graph). These findings corroborate the argument presented by Bruno and Shin,[7] namely that the risk appetite of global banks plays a crucial role in the international transmission of monetary policy.

As the sources of funding for global banks are highly dollarized, it comes as no surprise that, in response to the Fed lowering the Fed funds rate, a significant part of the new flow of credit out of the US should also be in dollars. Although this can be beneficial as it increases the availability of credit to the private sector at lower interest rates, it is also true that this practice results in borrowers taking on an exchange rate risk that is difficult to hedge against. Empirically, McCauley et al (2015)[8] find that, since 2008, a 100 bps reduction in the Fed funds rate increases credit in dollars in other countries.

In summary, the risks related to spillovers of ultra-accommodative monetary policy in the main advanced economies are not to be ignored. Proof of this is the strong growth in bank loans in foreign currencies in many emerging countries since the Fed relaxed its monetary policy in 2008. In the last few years macroprudential policies have been adopted to mitigate such risks but their effectiveness has yet to be confirmed. Given this situation, greater coordination of monetary policy at an international level would be beneficial, something which, as discussed in the article «Policies to coordinate the monetary and financial system» in this Dossier, does not seem viable in the near future.

Judit Montoriol Garriga
Macroeconomics Unit, Strategic Planning and Research Department, CaixaBank

6. Bonds in dollars issued by institutions located outside the US. See Azahara, Luna and Roma González, 2016, «The Drivers of European Banks' US Dollar Debt Issuance: Opportunistic Funding in Times of Crisis?», Bank of Spain Working Paper.
7. Bruno, Valentina and Hyun Song Shin, 2015, «Capital flows and the risk-taking channel of monetary policy», Journal of Monetary Policy.
8. McCauley, Robert, Patrick McGuire and Vladyslav Sushko, 2015, «Global dollar credit: links to US monetary policy and leverage», BIS Working Papers No. 483.

Policies to coordinate the monetary and financial system

Very aggressive expansionary monetary policies have been implemented in the advanced economies after the economic and financial crisis of 2008, crucial in order to alleviate the impact of the crisis. However, as documented in the rest of the articles in this Dossier, the effects of these policies have been felt beyond the borders of each particular country, highlighting the need to improve the coordination of economic policy at an international and especially a monetary level. Such a challenge is not new but seems to be increasingly necessary.

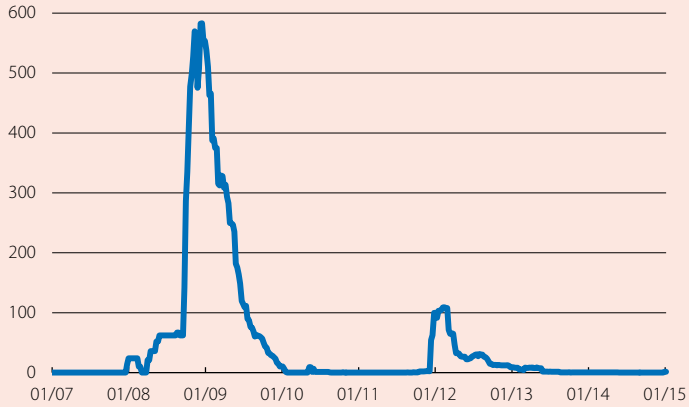
Looking back in time, the Bretton Woods agreements were created in 1944 after the Great Depression of the 1930s and two devastating World Wars. These paved the way for an international monetary and financial system based, among others elements, on a system of fixed exchange rates. The aim was to prevent competitive devaluations. This system lasted for 27 years until Richard Nixon decided to end dollar convertibility to gold in 1971. In spite of the far-reaching change this decision represented, the coordination of monetary policy was not a central issue in the debate as the economy was not globalised and monetary policies were carried out by increasingly independent central banks that did not try to promote competitive devaluations but rather focused on price stability.

So what has changed in the last few years to make the coordination of central banks more necessary? As noted in the articles «Monetary policy: from independence to interdependence» and «Bank globalisation and the international transmission of monetary policy» in this Dossier, financial globalisation and the growing importance of global banks mean that the monetary policy implemented by the main central banks now has a much greater effect on the rest of the economies. The quantitative easing employed by the main monetary authorities also has a greater impact on the rest of the economies.

Nevertheless, progress in the international coordination of monetary policy has been very specific in nature, in response to the needs of the time. For example, after the subprime crisis in 2008 the Fed made 620 billion dollars available to the central banks of 12 countries in the form of swaps to provide them with liquidity (see the first graph). Similarly, in 2009 the G-20 countries decided to coordinate their response to the crisis through the Financial Stability Board and, at the same time, the International Monetary Fund (IMF) strengthened its multilateral supervisory mechanisms. There is currently a *de facto* two-headed structure for the cooperation of macroeconomic and financial policy at a global level, with the IMF providing general recommendations for coordination policies and the G-20 taking strategic decisions in times of crisis.

Fed liquidity to other central banks

(Trillion dollars)

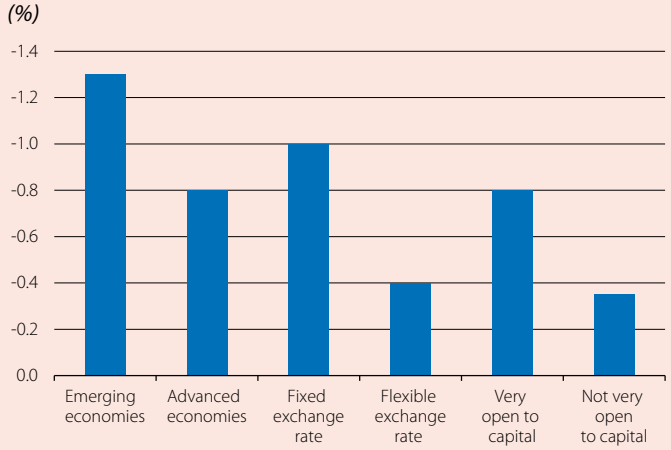


Note: *Liquidity refers to the dollar liquidity swap lines provided by the Fed to the central banks of other countries.*
Source: *CaixaBank Research, based on data from the Board of Governors of the Federal Reserve System.*

One of the keys to improving coordination lies in a better understanding and more precise measurement of the external effects caused by monetary policy. This is an arduous task, however. For example, and as we can see in the second graph, the impact of US monetary policies on credit growth abroad differs depending on each country's characteristics, with less of an effect if the country is developed, has a flexible exchange rate or is not very open to foreign capital. This graph highlights the importance of taking considerably complex macroeconomic factors into account when designing coordination mechanisms. With the aim of making progress in this area, economists Raghuram Rajan and Prachi Mishra[1] have proposed the creation of an expert committee to classify the specific monetary policies of different countries into three categories: green, orange and red. The first are beneficial policies that entail gains for all countries while orange are policies that should be used with caution and only in the short-term, and red are those domestic policies with a very low positive impact in the country promoting them but which severely damage other countries. An example of a red policy would be unconventional monetary policies resulting in a weak recovery in the developed economy implementing them but causing huge financial instability in the emerging countries. Rajan and Mishra's proposal is ambitious because, as acknowledged by its authors, the aim would be to classify the specific

1. See Mishra, P. and Rajan, R. (2016), «Rules of Monetary Game».

Impact of an increase in the US interest rate on the growth in credit in other countries



Note: *Average impact of a 100 bps increase in the nominal interest rate in the US on the real growth in bank lending in 20 economies between 1969 and 2008.*
Source: *CaixaBank Research, based on IMF data.*

monetary policies observed in reality instead of abstractly giving a number of recommendations. To this end, an analytical framework would be required to evaluate the external effects of these policies, also taking into account their effects over time. Once each policy has been classified, the idea would be to favour green policies while attempting to end red policies.

However, appropriate institutional mechanisms also need to be designed for these measures to be carried out effectively. Since achieving a high degree of cooperation between central banks is not realistic and could even harm their credibility at a domestic level,[2] it seems obvious that the necessary coordination can only be brought about through a strong supranational body responsible for multilateral coordination, which could draw up a series of guidelines, recommendations and warnings on policy design to avoid the negative externalities of domestic policies. This body should be capable of thoroughly evaluating the consequences of the domestic monetary and financial policies in question for other countries and act as a neutral third party in order to advise and guide the different countries to improve the coordination of monetary and financial policies.

Two natural candidates to take on this role are the IMF and the Bank for International Settlements (BIS). If the IMF wishes to take on this role then it would have to become more active since it currently lacks a clear mandate to tackle the implications of its members' domestic policies for global financial stability,[3] and it should also become independent from governmental powers. The other candidate is the BIS, the body known as the «central banks' bank», which was founded by the Hague Agreements in 1930. This institution is responsible for promoting financial and monetary cooperation and is owned by numerous central banks. For this reason, the BIS might be in a prime position to facilitate the coordination of various central banks and take on a dominant role in the international coordination of monetary policies. Moreover, it also enjoys a solid international reputation and would help central banks remain independent. It should be added that several observers[4] have suggested the G-20 could also take on the role of coordinating monetary policy. However, the G-20 does not seem the ideal candidate as it is a political and not a technical forum and suffers from problems of representativeness.

By way of conclusion, it should be noted that there is widespread consensus in the international community regarding the need for greater coordination in international monetary and financial policies. However, there are also reasonable doubts as to whether any progress can be made in this area. The short-term focus of monetary authorities, the difficulties of getting different countries with diverging interests to agree and the challenges posed by a modification of the current monetary and financial architecture at a global level are not encouraging signals. As Olivier Blanchard[5] said in 2013, when he was Chief Economist of the IMF, «International policy coordination is like the Loch Ness monster: much discussed but rarely seen».

Javier Garcia-Arenas
Macroeconomics Unit, Strategic Planning and Research Department, CaixaBank

2. See Clarida, R. (2016), «National monetary policies often correlate, sometimes coordinate, rarely cooperate», Global Central Bank Focus.
3. See Knight, M. (2014), «Reforming the Global Architecture of Financial Regulation: The G20, the IMF and the FSB», CIGI Papers No. 42.
4. See Bradford, C. and Lim, W. (2011), «Global Leadership in Transition: Making the G20 More Effective and Responsive», Korean development Institute and Brookings Institution Press.
5. See Blanchard, O., Ostry, J. D. and Gosh, A.R. (2013), «International Policy Coordination: The Loch Ness Monster», IMFdirect.

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	MILLION €
Customer funds	296,599
Receivable from customers	206,437
Profit atributable to Group	814
Market capitalisation	18,702
Customers (million)	13.8
Staff	32,242
Branches in Spain	5,211
Self-service terminals	9,631

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	MILLION €
Social	308.8
Research and education	61.3
Spreading culture and knowledge	129.9
TOTAL BUDGET	**500**

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