MR07

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

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ECONOMIC & FINANCIAL ENVIRONMENT

DOSSIER: IN SEARCH OF HAPPINESS

CaixaBank Research

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK
July-August 2017

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The economics of happiness

The Dossier in this *Monthly Report* for July and August is devoted to happiness. We have not been struck down by summer fever nor has the thought of our impending holidays made us frivolous. For years now many economists, with the collaboration mainly of psychologists, have been analysing what makes us happy, using surveys that ask respondents to state their degree of life satisfaction. These are the happiness economists and, in this issue, we explain some of their key findings.

Naturally, one of the focuses of this research has been to explore the relationship between income or wealth and happiness. And the results are very interesting: in any particular country at a certain point in time, people with larger incomes tend to report higher levels of happiness. This positive correlation between income and happiness has also been found in comparisons across countries, although it is not very strong. But, paradoxically, a country's level of happiness scarcely alters over the long term. Twenty years ago, 78% of Spanish people stated they were very or quite satisfied with their lives. Today the proportion is just above 80%, although GDP per inhabitant has grown by 25% and unemployment has fallen slightly. The fact is, once our basic needs are met, our satisfaction does not seem to depend on absolute income but rather on IB relative level.

The human mind uses comparison as a way to assess different situations. In the case of our standard of living, we compare our circumstances with those around us, with our own most recent past and with the expectations or aspirations we had formed for the present. When the economy is booming, the bar is raised, both in social and individual terms. Consequently, more income does not significantly affect happiness. It does have a temporary effect but this only lasts until our aspirations adjust to the new circumstances. Several studies have shown that a large lottery win has a fleeting effect on happiness: after six months or a year, the winners once again report the same degree of satisfaction with their lives as before the win. For the same reason, it might not be a good idea to accept a job simply because it pays better. The opportunities it provides for self-realisation, both on a personal and professional level, its work-life balance and, of course, a good boss are all more important than income.

So if money cannot buy happiness, what makes us happy? The findings of many studies point to other factors being equally or more important than money: especially relations with family, friends and the community around us (ultimately, we are social animals); a stable, rewarding job; good health; individual freedom and our values (Aristotle claimed that happiness depends on the cultivation of virtue).

These lessons are fundamental when designing public policies. Based on these, for example, education, healthcare and combating unemployment should all underpin a welfare state whose aim is to make its citizens happy. Also important are policies that promote a good work-life balance and encourage people to become more involved in society, as well as respect for individual freedoms.

In any case, I hope you read this Dossier while enjoying a pleasant holiday. Of course, also with prudence and temperance.

Enric Fernández
Chief Economist
30 June 2017

CHRONOLOGY

JUNE 2017

8 The Conservative Party wins the elections in the UK but loses its absolute majority in parliament.
14 The US Federal Reserve raises the benchmark interest rate by 25 bp to 1%-1.25%.
18 In France, President Macron's party, La République En Marche (LRM), secures an absolute majority in the National Assembly.

MAY 2017

7 Emmanuel Macron is elected President of France.
24 Moody's downgrades China's sovereign credit rating by one notch, from Aa3 to A1.
25 OPEC agrees to extend its oil production cuts until March 2018.

APRIL 2017

16 Turkey ratifies its proposed constitutional reform in a referendum.
19 The British parliament votes in favour of an early general election on 8 June.

MARCH 2017

1 The European Commission presents its White Paper on the future of Europe, proposing five possible scenarios for the EU-27 in 2025.
16 The Federal Reserve raises the fed funds rate by 25 bp to 0.75%-1%.
29 The UK triggers article 50 of the Lisbon Treaty to begin negotiations to leave the EU.

JANUARY 2017

23 Donald Trump signs an executive order formally withdrawing the US from the Trans-Pacific Partnership (TPP).

AGENDA

JULY 2017

4 Registration with Social Security and registered unemployment (June).
7 Industrial production index (May).
14 Financial accounts (Q1).
18 Loans, deposits and NPL ratio (May).
20 Governing Council of the European Central Bank.
21 International trade (May).
26 Fed Open Market Committee.
27 Labour force survey (Q2).
28 Flash CPI (July).
GDP flash estimate (Q2).
Economic sentiment index of the euro area (July).
US GDP (Q2).
31 State budget execution (June).
Balance of payments (May).

AUGUST 2017

1 GDP of the euro area (Q2).
2 Registration with Social Security and registered unemployment (July).
4 Industrial production index (June).
14 GDP of Japan (Q2).
18 Loans, deposits and NPL ratio (June).
22 International trade (June).
24 Quarterly national accounts (Q2).
30 Flash CPI (August).
Economic sentiment index of the euro area (August).
31 Balance of payments (June).
State budget execution (July).

A good first half of the year

The global economy is speeding up. One year ago, the world was facing a wave of uncertainty: against (almost) all expectations, the United Kingdom was embarking on a course that will result in the country leaving the EU. The first six months of this year, however, see global growth around 3.4%, considerably faster than the average growth for 2016, namely 3.1%, and very low financial volatility. Both the advanced and emerging economies are enjoying this expansion. In Q1, the US grew by 2.0% in year-on-year terms; Japan, by 1.6%; China, 6.9%, and India, 6.1%. Its key supports are evident. First, a monetary policy in the advanced countries that is still accommodative in spite of the US Fed starting its normalisation, once again raising the fed funds rate in June, from 1.0% to 1.25%. Second is the moderate recovery in commodities. This might come as some surprise. Although OPEC announced, at the end of May, that it would be prolonging its production caps, oil prices fell sharply in June. Nevertheless, commodity prices in general are now 6% higher than a year ago (and a steady rise is still on the cards, both for black gold and many other commodities). Key emerging countries are also exiting their recessions. A case in point is Brazil which, after going through a painful economic crisis and although still immersed in considerable institutional problems, managed to achieve its first positive quarter-on-quarter growth since 2014.

This macroeconomic bonanza has been accompanied by a prolonged climate of relative calm in the financial markets. Stock markets have made gains this year so far and, as already noted, the volatility of financial assets is still very low. This trend reflects the aforementioned acceleration in the world economy and also a certain reduction in downside risks in the short term. A large part of public discussion during the first six months of the year was dominated by the uncertainty surrounding the electoral outcomes in several European countries and the stance ultimately adopted by the US administration, as well as various sources of geopolitical risk. But the election results in the Netherlands and France, and even the first few actions taken by the US government, have been far from extreme. Although this does not mean there are no sources of political risk in the medium term (protectionism, populism, Brexit, etc.), it is true that the pressure has eased for the time being.

Europe is growing, and growth is more widespread than before. Within this context of less compromising short-term risks, the first six months of the year have confirmed that growth in the euro area is getting stronger. The region's GDP rose by 1.7% year-on-year in Q1, a positive tone that was prevalent across countries, with particularly good performances by Spain (3.0%) and Portugal (2.8%) but also in core countries such as Germany (1.7%). Available indicators point to this good rate of economic activity continuing in Q2. But perhaps one of the newest features of Europe's current situation is the decision taken regarding the liquidation of two medium-sized Italian banks. Since their liquidation was deemed not to have a significant impact on financial stability, the Single Resolution Mechanism has not been applied but rather Italian bankruptcy law. The Italian government has also been authorised to use state funds to support the process. European Banking Union is being constructed and this decision serves to mark its boundaries. Also related to European construction, the outcome of the British general election has increased the likelihood of a «soft» Brexit, helping the UK to maintain reasonable access to Europe's single market.

The Spanish economy is capitalising on the improved external environment. After posting good growth figures in Q1 (0.8% quarter-on-quarter), the Q2 figures suggest Spain's economic activity has remained strong. This can be seen, for example, in the CaixaBank Research GDP nowcasting, forecasting very similar quarter-on-quarter growth to Q1. This good rate of GDP growth in 2017 is essentially due to improvements in the external environment. As we have mentioned, there are three major factors: less political uncertainty after crucial elections in France and the Netherlands; a stronger mandate for a «soft» Brexit by the UK and, in economic terms, the likelihood of a more moderate rise in oil prices than previously expected. This particularly benefits the Spanish economy as it is highly dependent on oil imports. The country should therefore take advantage of this situation to continue promoting an ambitious agenda of structural reforms to underpin the economy's capacity to withstand any future storms.

FORECASTS

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

International economy

	2015	2016	2017	2018	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017
GDP GROWTH										
Global	**3.4**	**3.1**	**3.5**	**3.6**	**3.1**	**3.3**	**3.5**	**3.5**	**3.5**	**3.5**
Developed countries	***2.1***	***1.7***	***2.0***	***2.0***	***1.7***	***1.9***	***2.0***	***2.1***	***2.0***	***2.0***
United States	2.6	1.6	2.2	2.4	1.7	2.0	2.1	2.4	2.2	2.3
Euro area	1.9	1.7	1.9	1.8	1.8	1.8	1.9	2.0	2.0	1.9
Germany	1.5	1.8	1.8	1.7	1.7	1.8	1.7	1.7	1.9	1.9
France	1.0	1.1	1.4	1.6	0.9	1.2	1.1	1.5	1.7	1.5
Italy	0.7	1.0	1.2	0.9	1.0	1.1	1.2	1.3	1.2	1.0
Portugal	1.6	1.4	2.5	1.8	1.7	2.0	2.8	2.7	2.2	2.2
Spain	3.2	3.2	3.1	2.5	3.2	3.0	3.0	3.0	3.1	3.0
Japan	1.1	1.0	1.4	0.9	1.0	1.6	1.3	1.4	1.5	1.4
United Kingdom	2.2	1.8	1.6	1.4	2.0	1.9	2.0	1.8	1.6	1.2
Emerging countries	***4.2***	***4.1***	***4.5***	***4.8***	***4.1***	***4.3***	***4.5***	***4.5***	***4.5***	***4.6***
China	6.9	6.7	6.6	6.1	6.7	6.8	6.9	6.6	6.5	6.4
India	7.5	7.9	7.0	7.6	7.5	7.0	6.1	7.1	7.3	7.6
Indonesia	4.9	5.0	5.3	5.5	5.0	4.9	5.0	5.2	5.4	5.5
Brazil	–3.8	–3.6	0.7	2.1	–2.9	–2.5	–0.4	0.3	1.0	2.0
Mexico	2.7	2.3	1.8	2.1	2.0	2.3	2.8	2.2	1.2	1.0
Chile	2.3	1.6	1.9	2.6	1.8	0.5	1.5	1.9	2.1	2.2
Russia	–2.8	–0.2	1.3	1.6	–0.4	0.3	0.5	1.0	1.6	1.9
Turkey	6.0	2.9	3.5	3.2	–1.3	3.5	5.0	3.2	3.0	2.9
Poland	3.9	2.7	3.5	3.1	2.2	2.9	4.1	3.4	3.4	3.1
South Africa	1.3	0.4	0.6	1.6	0.7	0.5	0.7	0.2	0.5	0.9
INFLATION										
Global	**2.8**	**2.8**	**3.3**	**3.4**	**2.7**	**2.9**	**3.2**	**3.2**	**3.3**	**3.5**
Developed countries	***0.3***	***0.8***	***1.7***	***1.8***	***0.7***	***1.2***	***1.9***	***1.7***	***1.7***	***1.6***
United States	0.1	1.3	2.1	2.2	1.1	1.8	2.5	2.0	2.0	1.8
Euro area	0.0	0.2	1.5	1.4	0.3	0.7	1.8	1.5	1.4	1.4
Germany	0.1	0.4	1.7	1.5	0.4	1.0	1.9	1.6	1.6	1.5
France	0.1	0.3	1.3	1.4	0.4	0.7	1.5	1.0	1.4	1.3
Italy	0.1	0.0	1.4	1.2	–0.1	0.2	1.4	1.6	1.3	1.2
Portugal	0.5	0.6	1.6	1.4	0.7	0.8	1.4	1.9	1.6	1.4
Spain	–0.5	–0.2	1.8	1.4	–0.2	1.0	2.7	2.0	1.6	1.1
Japan	0.8	–0.1	0.6	1.0	–0.5	0.3	0.3	0.5	1.0	0.7
United Kingdom	0.0	0.7	2.6	2.4	0.7	1.2	2.1	2.8	2.6	2.7
Emerging countries	***4.7***	***4.4***	***4.4***	***4.5***	***4.3***	***4.1***	***4.2***	***4.3***	***4.4***	***4.9***
China	1.4	2.0	2.1	2.3	1.7	2.2	1.4	2.0	2.1	3.0
India	4.9	4.9	4.0	5.1	5.2	3.7	3.6	2.6	4.1	5.7
Indonesia	6.4	3.5	4.0	4.5	3.0	3.3	3.6	4.2	3.9	4.1
Brazil	9.0	8.8	4.2	4.3	8.7	7.1	4.9	3.7	3.6	4.5
Mexico	2.7	2.8	5.3	3.6	2.8	3.2	5.0	5.8	5.4	5.0
Chile	4.3	3.8	2.9	3.1	3.5	2.8	2.8	2.8	2.9	3.0
Russia	15.5	7.1	4.3	4.6	6.8	5.7	4.6	4.1	4.2	4.1
Turkey	7.7	7.8	10.0	7.9	8.0	7.6	10.2	11.1	10.0	8.8
Poland	–0.7	–0.2	2.0	2.3	–0.4	0.4	1.7	2.0	2.1	2.1
South Africa	4.6	6.3	5.7	5.4	6.0	6.6	6.3	5.4	5.4	5.7

Forecasts

Spanish economy

	2015	2016	2017	2018	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017
Macroeconomic aggregates										
Household consumption	2.8	3.2	2.3	2.1	3.0	3.0	2.5	2.3	2.4	2.1
General government consumption	2.0	0.8	0.7	0.8	0.8	0.0	0.1	1.0	0.7	1.1
Gross fixed capital formation	6.0	3.1	4.5	3.7	2.6	2.2	3.8	3.7	5.0	5.4
Capital goods	8.8	5.0	5.6	3.8	4.2	2.6	4.9	4.6	5.9	7.0
Construction	4.9	1.9	3.5	3.6	1.6	1.9	3.0	3.0	3.9	4.2
Domestic demand (contr. Δ GDP)	3.3	2.8	2.4	2.1	2.5	2.2	2.2	2.4	2.5	2.4
Exports of goods and services	4.9	4.4	7.9	4.6	2.9	4.4	8.4	6.3	9.0	8.0
Imports of goods and services	5.6	3.3	6.4	3.6	1.0	2.3	6.4	4.7	7.8	6.9
Gross domestic product	**3.2**	**3.2**	**3.1**	**2.5**	**3.2**	**3.0**	**3.0**	**3.0**	**3.1**	**3.0**
Other variables										
Employment	3.0	2.9	2.5	2.2	2.9	2.7	2.5	2.5	2.4	2.7
Unemployment rate (% labour force)	22.1	19.6	17.5	16.1	18.9	18.6	18.8	17.7	16.8	16.8
Consumer price index	–0.5	–0.2	1.8	1.4	–0.2	1.0	2.7	2.0	1.6	1.1
Unit labour costs	0.2	–0.4	0.5	1.2	–0.3	–0.2	–0.1	0.3	0.6	1.0
Current account balance (cum., % GDP)[1]	1.4	2.0	2.0	1.8	1.8	2.0	2.1	2.1	2.1	2.1
Net lending or borrowing rest of the world (cum., % GDP)[1]	2.0	2.2	2.6	2.4	2.2	2.1	2.3	2.7	2.7	2.7
Fiscal balance (cum., % GDP)[2]	–5.1	–4.3	–3.1	–2.4						

Financial markets

INTEREST RATES										
Dollar										
Fed Funds	0.26	0.51	1.12	1.94	0.50	0.55	0.79	1.08	1.25	1.33
3-month Libor	0.32	0.74	1.30	1.99	0.79	0.92	1.07	1.20	1.37	1.55
12-month Libor	0.79	1.37	1.87	2.43	1.46	1.62	1.75	1.75	1.91	2.07
2-year government bonds	0.67	0.84	1.47	2.50	0.72	1.00	1.23	1.29	1.55	1.80
10-year government bonds	2.13	1.84	2.50	3.31	1.56	2.13	2.44	2.26	2.54	2.77
Euro										
ECB Refi	0.05	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-month Euribor	–0.02	–0.26	–0.32	–0.21	–0.30	–0.31	–0.33	–0.33	–0.31	–0.30
12-month Euribor	0.17	–0.03	–0.11	0.05	–0.05	–0.07	–0.10	–0.13	–0.13	–0.08
2-year government bonds (Germany)	–0.24	–0.58	–0.69	–0.29	–0.64	–0.71	–0.78	–0.74	–0.67	–0.58
10-year government bonds (Germany)	0.53	0.10	0.41	0.85	–0.12	0.11	0.34	0.31	0.40	0.59
EXCHANGE RATES										
$/€	1.11	1.11	1.10	1.12	1.12	1.08	1.07	1.10	1.11	1.11
¥/€	134.33	120.30	124.17	123.42	114.26	117.96	121.05	122.22	125.17	128.25
£/€	0.73	0.82	0.87	0.85	0.85	0.87	0.86	0.86	0.89	0.89
OIL										
Brent ($/barrel)	53.64	45.04	52.77	59.21	46.98	51.13	54.68	51.40	51.00	54.00
Brent (€/barrel)	48.33	40.73	48.17	52.82	42.09	47.46	51.35	46.95	45.88	48.48

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

Forecasts

FINANCIAL OUTLOOK · **Financial market gains slow down slightly**

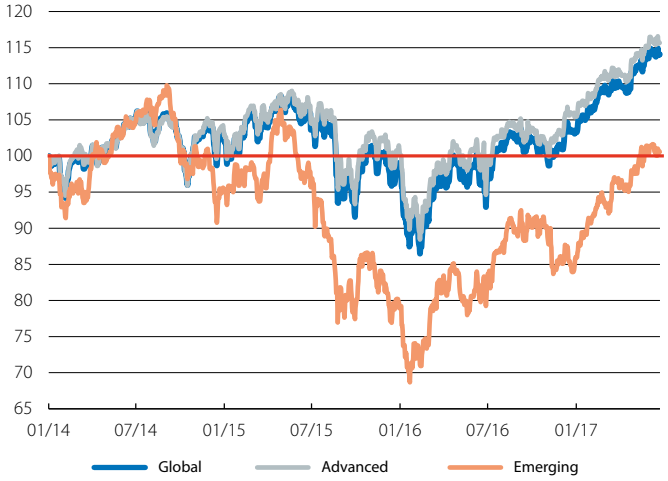
International markets have remained largely constructive although slightly less than in the past few months and with some notable exceptions. With volatility at an all-time low, the main risky assets still performed positively. The key factors behind this pause in the upward trend were lower political risk after Macron's party won the French elections and solid economic activity indicators. Neither the Fed's interest rate hike, nor its announcement that it would start reducing its balance sheet before year-end, nor weak oil prices have triggered any great alarm in the markets, at least for the time being. However, the financial sector's poor performance has acted as a brake in Europe, while the Brazilian and Russian stock markets were notably weak in the emerging bloc.

But this calm financial climate is not without its risks and sources of uncertainty. The slight slowdown in stock prices observed over the past two weeks serves as a reminder of the risks present in the global financial environment, warranting caution regarding future asset trends. Four factors will become crucial over the coming months. First, the disappearance of doubts regarding the maturity of the US economic cycle. This has been encouraged by the US's recent weak inflation figures and will be of vital importance for the US markets to remain positive. Second, high equity prices in the US, for instance with the S&P 500 achieving new record highs this month, are still a source of concern insofar as they are sensitive to any changes in investor sentiment. For example, although contained and relatively short-lived, the drop in tech stocks at the beginning of the month is a sign of the potential nervousness of investors given the high share prices. Third, the UK's negotiations to leave the EU, which started officially in June, are likely to be a source of uncertainty for Europe's markets. Fourth, the dip in oil prices in spite of OPEC's efforts to reduce the excess supply could once again become a significant source of risk, particularly for the energy industry and emerging assets.

The ECB notes the euro area's firmer economic activity and adopts a less accommodative tone. Although it has not introduced any changes to its monetary policy parameters, the ECB has acknowledged the strength of the euro area economy in the past few quarters. This could be seen in the slight upgrade made once again by the institution to its growth forecasts, used to justify a less accommodative stance in its communication. Nevertheless, the ECB is still doubtful about the medium-term recovery in inflation. Consequently its President, Mario Draghi, repeated that the asset purchase programme (QE) could be extended, if necessary. Finally, regarding monetary policy normalisation, Draghi called for caution, stating that the Governing Council had not discussed a possible reduction in the monetary authority's balance sheet.

International stock markets by region

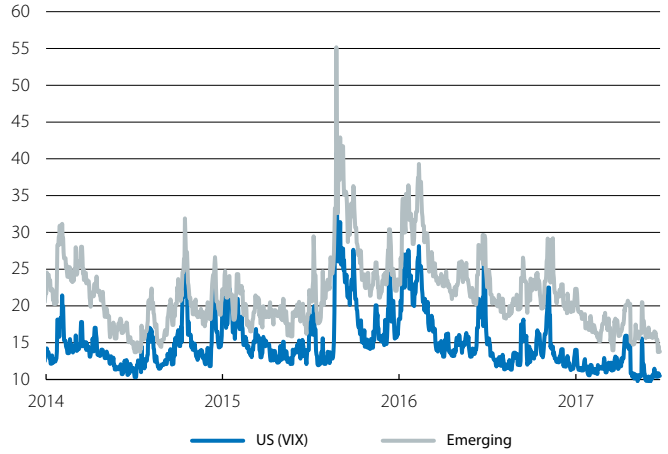
Index (100 = January 2014)



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

US and emerging: implied stock market volatility

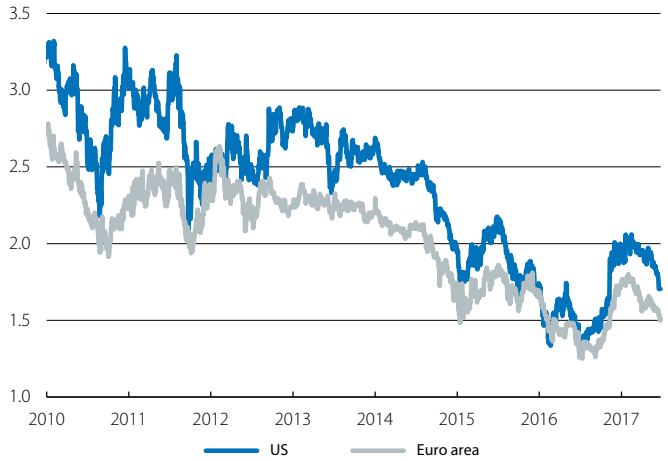
(%)



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

*Inflation expectations: * US and euro area*

(%)



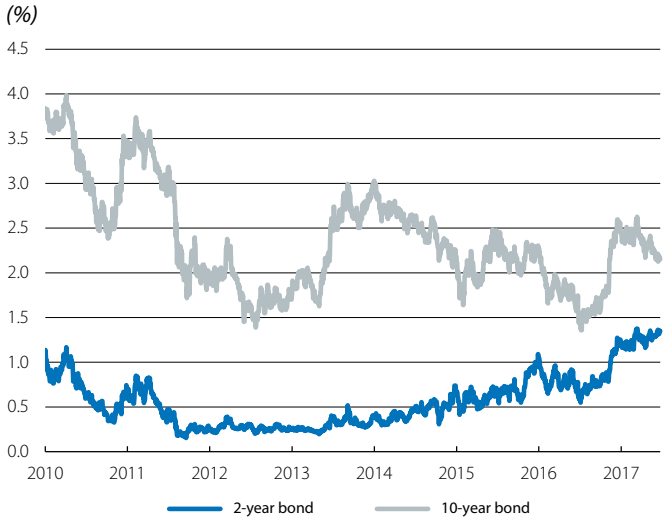
Note: ** Inflation swap forward 5Y5Y.*
Source: *CaixaBank Research, based on data from Bloomberg.*

The Fed increases the fed funds rate again and presents its strategy to reduce its balance sheet. For the third time in six months, and as the market had expected, the Fed increased the target range for the federal funds rate by 25 bp to 1.00%-1.25%. Regarding its price stability objective, the US monetary authority did not pay much attention to the recent weakness in inflation, confirming it would stick to its plan and carry out an additional hike this year and three more in 2018. Lastly, the central bank also provided details on how it was going to reduce the size of its balance sheet. Normalisation will be gradual and largely predictable although the institution did not specify when it would start the process beyond stating that it would be this year. Specifically, the Fed stated that it would stop reinvesting USD 6 billion of public debt and USD 4 billion of debt and mortgage-backed securities per month, this gradually rising over the course of a year to USD 30 billion and 20 billion respectively. Global asset markets did not react too strongly to the Fed's actions and messages.

Long-term yields on US Treasury bonds fell again while those for the German bund remained stable overall. Yield on 10-year US Treasury bonds has fallen back to 2% over the past few weeks, mainly due to doubts caused by the drop in inflationary pressures observed in recent months. Two elements will be key for long-term US Treasury bond yields to return to an upward trend. First, the capacity of Trump's government to implement their ambitious economic reforms, particularly tax reform. This will be crucial to avoid a correction in the upturn in yields observed after last November's election. Second, a recovery in inflationary pressures, which have recently looked weak, will also be vital for yields to rise again. In Europe, the yield on the German bund, which had remained stable below 0.3%, picked up strongly in the last week of June. This was in response to a speech by the ECB President. Draghi sent a message of greater confidence in the euro area's recovery, which investors interpreted as a sign of possible monetary policy adjustment in the coming months. The risk premia for most countries continued to fall, however, following a trend that started last month when political risk declined after the French elections.

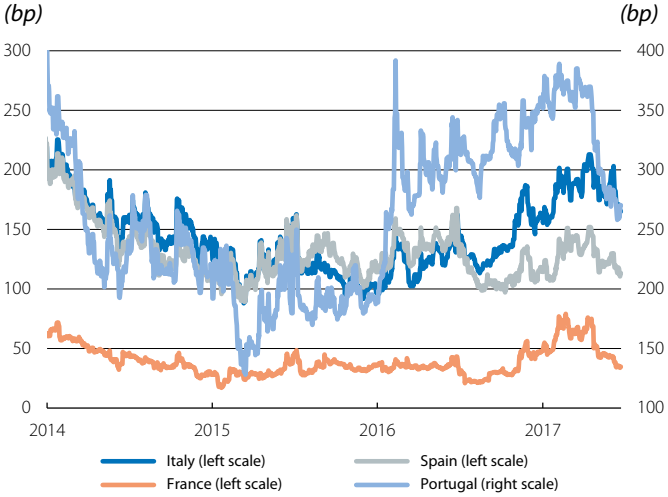
Most of the emerging countries have remained firm. The MSCI global index for the emerging stock market recorded a rise of almost 1%, slightly less than the previous month. This slowdown is largely due to the weakness of two particular markets. On the one hand, the Brazilian stock market remained weak due to yet another corruption scandal involving President Temer. On the other hand, the Russian stock market suffered large losses this month, with drops close to 5%, given fears that US sanctions will become tougher. Stock markets continued their upward trend in the rest of the markets, however, with moderate gains. In short, the relatively strong economic growth predicted for most of the emerging economies will be the main factor providing solid support for emerging assets, although weak oil prices

US: Treasury bond yields



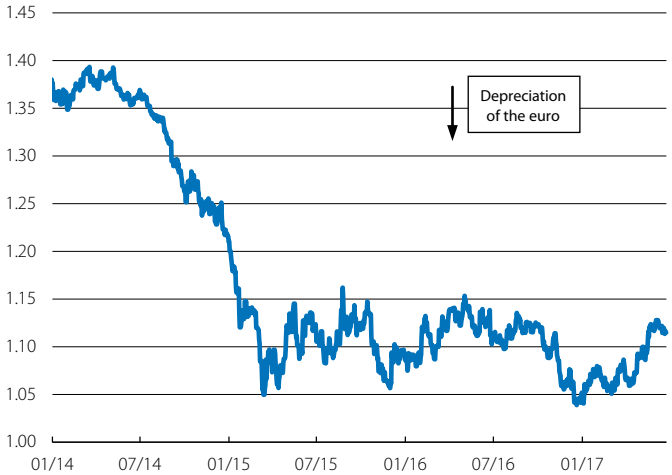
Source: *CaixaBank Research, based on data from Bloomberg.*

Euro area: risk premia on 10-year public debt



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

Dollar-euro exchange rate



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

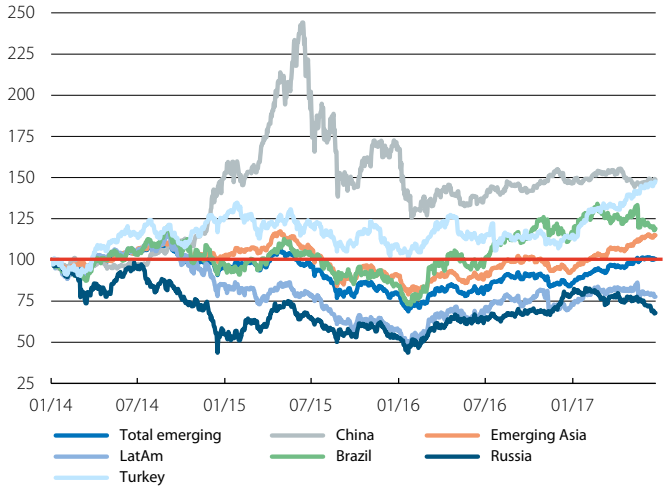
might become a significant risk factor again. In the developed bloc, while US markets remained firm in spite of a weak tech sector, most European markets suffered slight losses after the optimism shown in May. Doubts regarding the financial sector, such as the resolution of Banco Popular in Spain, were once again the main reason for this hiatus in European stock markets. The impact appears limited, however (for more details, see the Focus «The resolution of Banco Popular» in this *Monthly Report*).

The euro remains strong against the dollar in the forex market. The euro area's currency, stable at around USD 1.12 throughout the month, rose to USD 1.14 in the last week of June after the aforementioned upturn in yields on euro area public debt. We expect the euro to appreciate slightly over the medium term as the ECB begins monetary policy normalisation. In the emerging bloc, the main currencies remained relatively stable in June in spite of weak oil prices and another interest rate hike by the Fed. Affected by the same factors as the equity markets, the Brazilian real continued to lose ground against the dollar, while the hardest hit of the emerging currencies was Russian rouble.

Doubts grow regarding OPEC's ability to reduce the oil supply, resulting in a sharp slump in oil prices. In spite of the announcement at the end of May that the OPEC agreement would be extended, continuing production caps until March 2018, oil prices fell sharply again, down to their lowest level this year, with a Brent barrel costing less than USD 45. Concerns regarding excess supply are once again the main reason for this slump. The upswing in production in Nigeria and Libya, OPEC members but exempt from the cuts, particularly sparked doubts regarding the effectiveness of the oil cartel's agreement. Given the market's reaction since the agreement was extended, CaixaBank Research has slightly lowered its short-term forecasts but has kept the medium and long-term outlook the same, as we still expect a slight adjustment in the excess supply in the second half of this year. In the longer term, this effect should ease due to an upturn in production and particularly US shale production.

Emerging stock markets by region

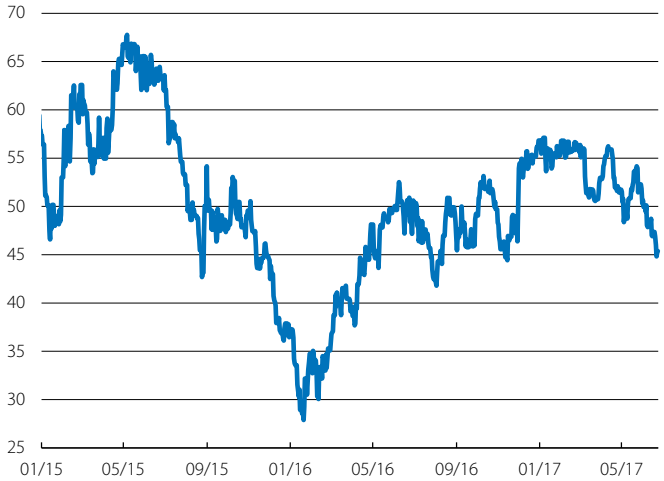
Index (100 = January 2014)



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

Brent oil price

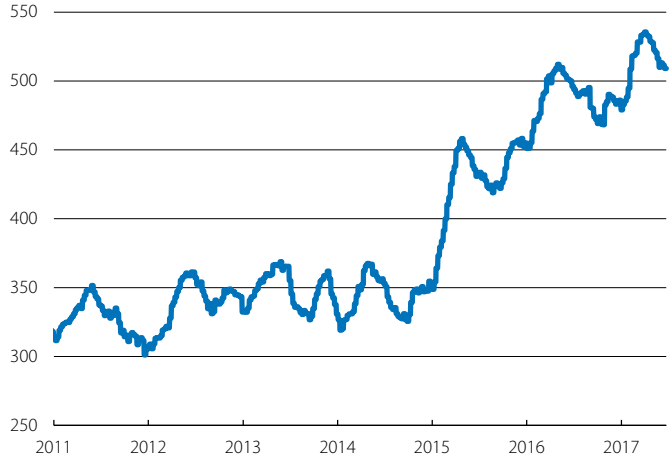
(Dollars per barrel)



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

*Crude stocks in the US **

(Million barrels)



Note: ** Excluding strategic reserves.*
Source: *CaixaBank Research, based on data from Bloomberg.*

FOCUS · Emerging monetary policy and domestic macroeconomic conditions

A recurring theme in the debate regarding emerging monetary policy is the dependence of emerging central banks on their US peer. This has become even more important in the current context of US monetary policy normalisation. Emerging countries have become increasingly integrated within the world economy. Consequently, the monetary policy implemented by their central banks has also become more sensitive to the Fed's.[1] But emerging monetary policy also largely depends on each country's domestic macroeconomic conditions, particularly now that their exchange rates tend to be more flexible. In this article we look at the macroeconomic conditions of the main emerging economies and the implications in terms of the right monetary policy for their central banks.

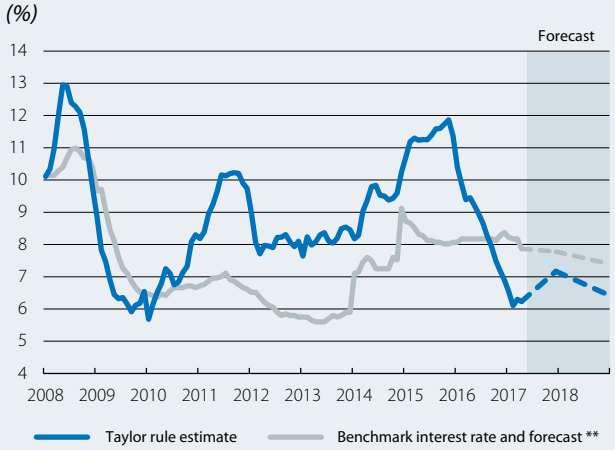
One tool often used to assess whether a country's monetary policy is appropriate for its economic conditions is the Taylor rule, named after the US economist who developed it in the 1990s. Essentially, this rule estimates the level at which a central bank should set its interest rate given the country's macroeconomic conditions.

The Taylor rule estimate[2] for five of the main emerging central banks highlights several aspects of the trend in emerging monetary policy over the last ten years. First, in the period from the end of 2008, just after the crisis, up to the end of 2010, the benchmark rates set by the central banks and the rate provided by the Taylor rule were notably similar. As from 2010, however, these benchmark rates fell below the Taylor rule estimate. This suggests the emerging central banks implemented a more accommodative monetary policy than warranted by their domestic macroeconomic conditions. Since the end of 2016 there has also been a relatively large gap between the benchmark rates and the level recommended by the Taylor rule but this time in the opposite direction, suggesting emerging monetary policy is becoming more restrictive than necessary (see the chart).

One of the main reasons for these differences since the financial crisis between the monetary policies implemented in emerging countries and those recommended by the Taylor rule is actually the monetary policy implemented in the US. For instance, between 2010 and 2016 the incredibly accommodative measures taken by the Fed forced emerging central banks to adopt a more accommodative stance than warranted by the macroeconomic conditions in their respective countries. If they had not brought their monetary policy at least partly in line with the financial conditions encouraged by the Fed's stance, their currencies would have appreciated, eroding exports and pushing down inflation. Conversely, since the Fed started to normalise its monetary policy, emerging central banks have taken a more restrictive stance than warranted by their countries' macroeconomic conditions to stop their currencies from depreciating further.

The monetary policy adopted by the main emerging central banks is expected to be somewhat more accommodative in the future. In any case, the continued normalisation of monetary conditions in the US means that emerging central banks will have maintain a slightly more restrictive stance than desired.

Emerging monetary policy according to the Taylor rule *



Notes: ** Simple average of the five emerging central banks chosen (Brazil, China, Mexico, Russia and Turkey). ** CaixaBank Research forecast for benchmark rates.*
Source: *CaixaBank Research, based on data from Bloomberg and Thomson Reuters Datastream.*

1. For more details, see the Focus «Which emerging central banks will have to follow in the Fed's footsteps?» in MR05/2017.
2. The specific model used is the following: $i = r^* + \pi + 0.5\,(\pi - \pi^*) + 0.5\,c\,(u - u^*)$, where i is the nominal benchmark interest rate, r^* the equilibrium real interest rate, π the inflation rate, π^* the inflation target, c is a coefficient to be estimated, u the current rate of unemployment and u^* the full-employment level (non-accelerating inflation rate of unemployment or NAIRU).

FOCUS · Measuring sovereign debt risk in Europe

There has been a dramatic fall in the sovereign risk of the peripheral countries since the peak reached during the crisis. The rates of descent have varied greatly, however, especially over the past two years with the re-emergence of some local sources of risk.

The difference between the yield on a country's 10-year bond and that on the German bund is normally used to analyse the trend in sovereign debt risk. This is known as the risk premium. But this variable also reflects other aspects apart from agents' perception of sovereign risk, such as changes in investor risk aversion and how liquid the bond markets may be. Alternatively, statistical techniques can be used to estimate which part of the variation in sovereign yields is due to factors in common with other countries (such as monetary policy in the case of euro area countries) and which is due to each country's own particular factors, such as perceived political risk.

This approach is adopted by the index presented in the first chart.[1] As can be seen, the sovereign risk index rose dramatically at the height of the euro area's debt crisis. It then fell considerably after the famous press conference given by the ECB President, M. Draghi in July 2012, when he promised to do whatever it takes to sustain the euro. More recently, the index has seen a modest rise, albeit from very low levels, pending the outcome of the French elections.

The case of Spanish sovereign debt is particularly notable. Over the past few years, its trend has been less affected by idiosyncratic factors related to country risk and more by common factors. On the other hand, idiosyncratic factors continue to weigh heavily on the sovereign risk premium of Italy and Portugal.

To gauge the perceived sovereign risk of Spanish public debt it is also useful to compare the 10-year interest rate observed in the market with the interest rate forecast by the model that takes both common and idiosyncratic factors into account. As can be seen in the last chart, the actual yield is lower than the yield suggested by the estimated trend in common and idiosyncratic factors. This is not the case in other peripheral countries and could point to an improvement in the economy's outlook and, in short, in the perceived risk of Spain's sovereign debt.

1. Specifically, the principal components analysis. The chart shows the trend in the harmonised second principal component, associated with idiosyncratic factors.

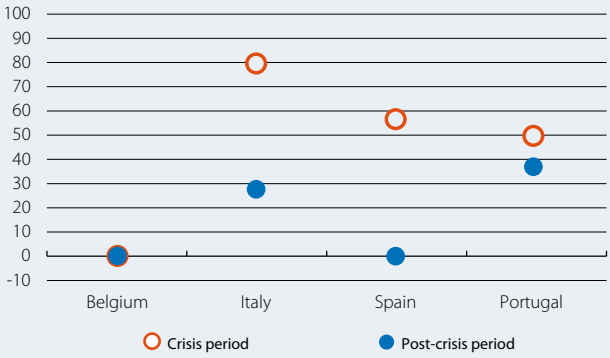
Euro area sovereign risk index *

Index (0 = minimum debt market fragmentation; 100 = maximum fragmentation)

Note: ** Index calculated based on the second principal component of 10-year sovereign bond yields for Germany, Belgium, Spain, Finland, France, Netherlands, Italy and Portugal.*
Source: *CaixaBank Research, based on data from Bloomberg.*

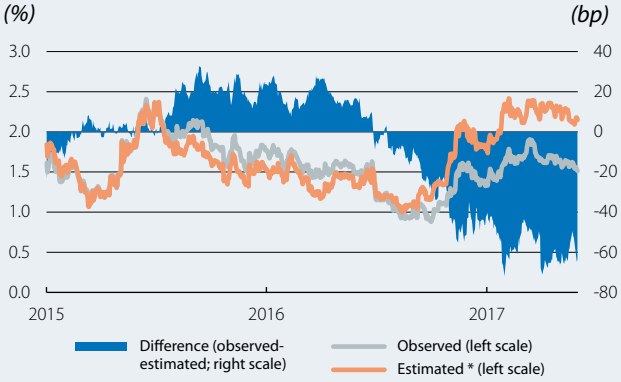
10-year sovereign bond yields: variance due to each country's idiosyncratic component *

(% of the total variance)



Note: ** The crisis period is from 2010 to 2013 and the post-crisis period from 2015 to 2017.*
Source: *CaixaBank Research, based on data from Bloomberg.*

Spain: 10-year sovereign bond yield



Note: ** The estimated yield corresponds to the 10-year sovereign bond yield according to its first three principal components. This specification explains 93% of the variance with the observed yield.*
Source: *CaixaBank Research, based on data from Bloomberg.*

KEY INDICATORS

Interest rates (%)

	30-June	31-May	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Euro area					
ECB Refi	0.00	0.00	0	0.0	0.0
3-month Euribor	–0.33	–0.33	0	–1.2	–4.9
1-year Euribor	–0.16	–0.13	–3	–7.8	–10.9
1-year government bonds (Germany)	–0.65	–0.75	10	15.1	–4.9
2-year government bonds (Germany)	–0.57	–0.71	14	19.6	8.3
10-year government bonds (Germany)	0.47	0.30	17	26.2	59.6
10-year government bonds (Spain)	1.54	1.55	–1	15.6	28.3
10-year spread (bps) [1]	107	125	–18	–10.3	–31.0
US					
Fed funds	1.25	1.00	25	50.0	75.0
3-month Libor	1.30	1.21	9	30.2	65.4
12-month Libor	1.74	1.72	2	5.4	52.4
1-year government bonds	1.23	1.15	8	41.9	77.7
2-year government bonds	1.38	1.28	10	19.2	74.3
10-year government bonds	2.30	2.20	10	–14.4	78.5

Spreads corporate bonds (bps)

	30-June	31-May	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	56	62	–6	–16.2	–31.1
Itraxx Financials Senior	53	70	–17	–40.6	–64.8
Itraxx Subordinated Financials	133	158	–25	–88.4	–111.0

Exchange rates

	30-June	31-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
$/€	1.143	1.124	1.6	8.6	2.7
¥/€	128.400	124.560	3.1	4.4	12.2
£/€	0.877	0.872	0.6	2.8	5.8
¥/$	112.390	110.780	1.5	–3.9	9.3

Commodities

	30-June	31-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	446.6	434.2	2.9	5.6	8.1
Brent ($/barrel)	47.9	50.3	–4.8	–15.7	–5.3
Gold ($/ounce)	1,241.6	1,268.9	–2.2	7.7	–5.9

Equity

	30-June	31-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	2,423.4	2,411.8	0.5	8.2	17.0
Eurostoxx 50 (euro area)	3,441.9	3,554.6	–3.2	4.6	21.5
Ibex 35 (Spain)	10,444.5	10,880.0	–4.0	11.7	28.9
Nikkei 225 (Japan)	20,033.4	19,650.6	1.9	4.8	28.7
MSCI Emerging	1,010.8	1,005.3	0.5	17.2	23.0
Nasdaq (USA)	6,140.4	6,198.5	–0.9	14.1	28.5

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

ECONOMIC OUTLOOK · **The global economy continues to perform well**

Global economic activity indicators remain positive in Q2. In May, the global composite business sentiment index (PMI) (i.e. aggregating manufacturing and services) was in a comfortable expansionary zone at 53.7 points (above the 50-point threshold). It should be noted that this index is above 50 points both for the advanced and the emerging economies. This endorses the CaixaBank Research scenario which predicts that world growth will speed up moderately from 3.1% in 2016 to 3.5% in 2017.

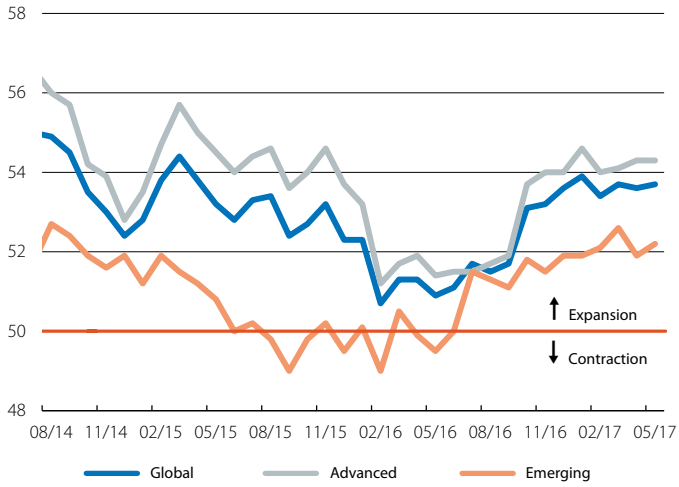
Falling inflation and political factors are still risk factors to be taken into account. In particular, global inflation has followed a clearly downward trend over the past months with a lot of countries reporting lower figures than expected, both for headline and core inflation. A key question over the coming months will therefore be whether this is a prolonged or temporary phenomenon. Should it represent an underlying trend, it could alter the current monetary policy scenario given that monetary normalisation relies on a gradual recovery in inflation towards the target. On the other hand, there are still some sources of political uncertainty. In the US, the Trump administration's ambitious agenda of reforms is still locked in stalemate; no progress has been made in the area of tax and the Senate has had to postpone voting on health reforms due to lack of agreement. The difficulty in achieving enough consensus to pass these reforms suggests that the legislative process will be slow and fraught with problems (many analysts believe that the earliest the tax reform will be passed is at the end of 2017). In Europe, uncertainty comes mostly from the start of Brexit negotiations between the EU and UK. The emerging countries also face significant downside risks, both global (tougher financial conditions, lower commodity prices than expected...) and local in specific countries (see the Focus «Emerging risks: a cocktail made up of the Federal Reserve, commodities and politics» in this *Monthly Report*).

UNITED STATES

Economic activity and sentiment indicators suggest a positive tone after slim growth in the first quarter. Q1 GDP growth was revised slightly upwards after the third and last estimate, although the economy still posted a slowdown compared with Q4 2016. Growth was 0.4% quarter-on-quarter (2.1% year-on-year), a moderate figure but 0.1 pp higher than the previous estimate (and 0.2 pp higher than the first). Recent economic activity and sentiment data therefore point to a positive trend on the whole, suggesting a Q2 upswing in growth. Labour market figures were particularly good (138,000 jobs were created in May and the unemployment rate stood at 4.3%). Business confidence indicators (ISM) for manufacturing and services were still comfortably above the 50-point threshold. The Conference Board consumer

Economic activity indicators: Composite PMI

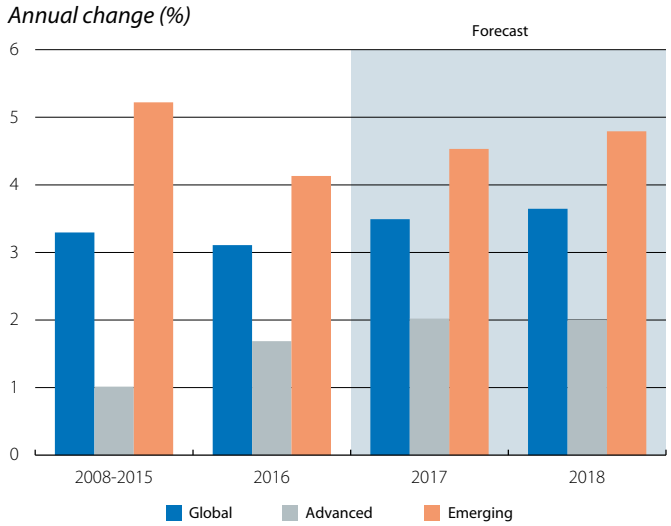
Level



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

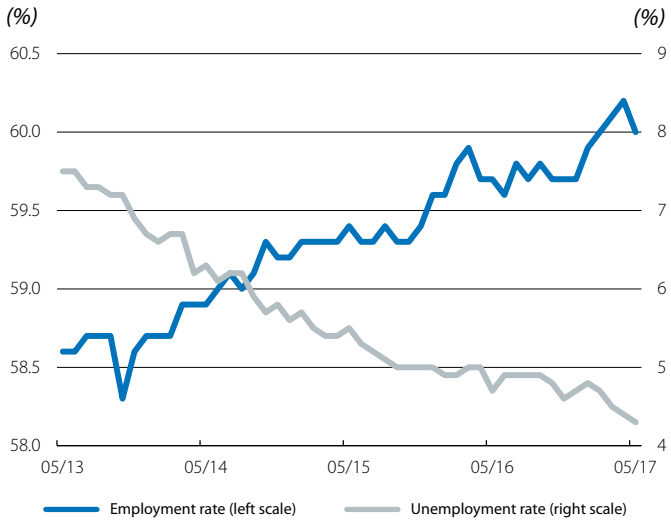
World GDP

Annual change (%)



Source: *CaixaBank Research.*

US: labour market



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

confidence index remained high and even rose slightly, from 117.6 points in May to 118.9 points in June.

Inflation is once again surprisingly low. Headline inflation posted year-on-year growth of 1.9% in May, 0.3 pp lower than the consensus of analysts and April's figure. Core inflation stood at 1.7%, 0.2 pp lower than the previous month. With these figures, headline inflation has been surprisingly low for the past three months and core inflation for two out of the last three. The big question for US economic debate is whether inflation will remain weak over the coming months or there will be a change in trend. A flatter Phillips curve (inflation reacting less strongly to lower unemployment), the dollar's appreciation and second-round effects of weak oil prices could all lie behind this recent trend in inflation. Given May's figures, CaixaBank Research has lowered its inflation forecasts: in 2017 headline inflation has been changed from 2.3% to 2.1%, while core inflation has been changed from 2.0% to 1.9%. The 2018 forecast for both types of inflation has been lowered by 1 pp.

The Fed raises interest rates in June. At its June meeting, the Fed raised the federal funds rate by 25 bp to the range of 1.00%-1.25%. One of the main focuses of attention was precisely the institution's interpretation of the weak inflation figures mentioned above. The Fed noted the drop in prices over the past few months but showed remarkable confidence by stating that, in the medium term, inflation would converge towards the 2% target. The Fed also highlighted the strength of the labour market and the positive trend in private consumption and corporate capital expenditure.

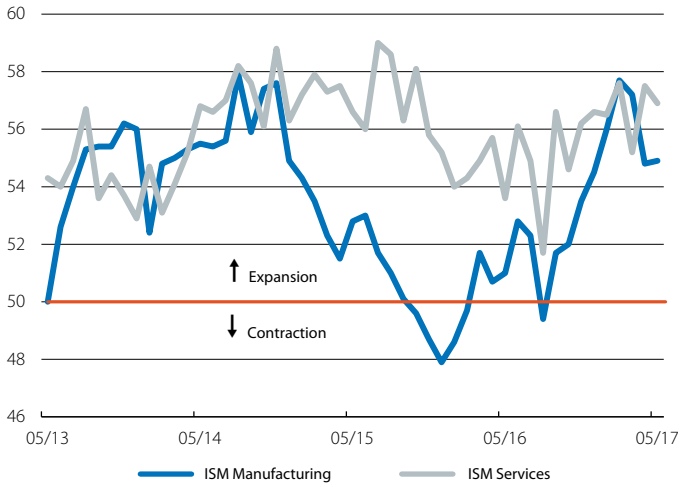
The legislative process gets underway to achieve greater financial deregulation. The lower chamber passed the Financial Choice Act, a bill that aims to limit the scope of the Dodd-Frank Act, containing financial regulatory measures introduced by the Obama administration after the 2008 financial crisis. The bill will now be debated in the Senate, where the Republicans have a very small majority. It includes measures such as the elimination of the Orderly Liquidation Authority (OLA), created to ensure the quick and orderly resolution of complex financial institutions. However, many see the OLA as a way of institutionalising bail-outs, reinforcing the view that some banks are too big to fail. There is also an important proposal to allow institutions with a leverage ratio above 10% not to comply with some of the Dodd-Frank Act requirements. This could particularly benefit community banks.

EMERGING ECONOMIES

The emerging economies continue to grow apace. The good shape of the emerging economies was reflected in the IIF emerging market growth tracker, which reached 5.6% growth in May (annualised quarter-on-quarter). Although this index has slowed down over the past two months, its increase is still remarkable (0.3 pp higher than the average growth for the

US: economic activity indicators

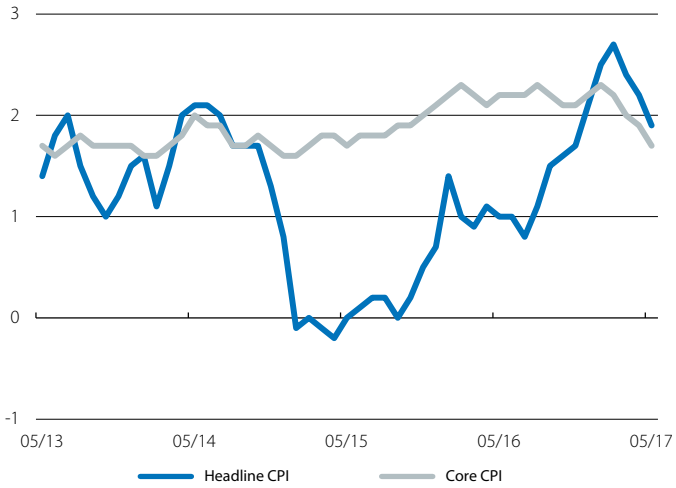
Level



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

US: CPI

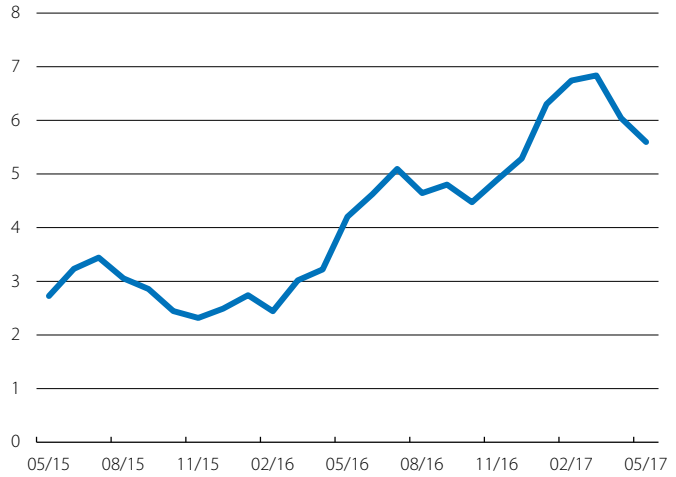
Year-on-year change (%)



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

Emerging economies: IIF growth tracker

Annualised quarter-on-quarter growth, three-month average (%)



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

indicator in the past 12 months). We should also remember that this indicator was at an abnormally high level at the start of the year. Reinforcing this positive scenario, in June the emerging economies reported sizeable net portfolio inflows (debt and shares) totalling USD 17.8 billion.

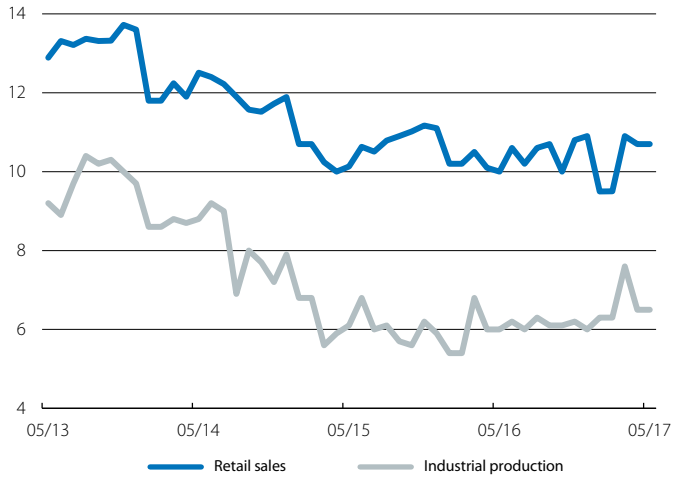
China: no news from the front. The Asian giant's latest economic activity indicators point to the economy continuing to grow at a good rate in Q2. The business sentiment index (PMI) remained in the expansionary zone while both retail sales and industrial production maintained their April growth rates (10.5% and 6.5%, respectively). The IMF has interpreted these economic figures quite optimistically, forecasting growth of 6.7% in 2017 (CaixaBank Research predicts 6.6% growth) and 6.4% between 2018 and 2020. This has been accompanied by a call to speed up the rebalancing of the economy to ensure financial stability and balanced growth in the medium term.

Brazil: the good and the bad. Positive news has come from the economic front: the country came out of recession with 1.0% quarter-on-quarter growth in Q1 2017, the first quarterly advance since the end of 2014. This recovery in growth was largely due to the incredible performance by exports, boosted by an exceptional harvest. Nevertheless, CaixaBank Research has not altered its macroeconomic scenario and growth forecasts have therefore remained unchanged (0.7% in 2017 and 2.1% in 2018). In spite of this economic improvement, however, bad news continues to come from the high political uncertainty. President Temer is once again facing an uncertain future after being formally accused of alleged corruption by Brazil's public prosecutor at the end of June. The appointment of a new President is therefore likely before the 2018 elections.

Mexico and Turkey, two countries exemplifying different emerging dilemmas. Mexico is managing to resist the shock of uncertainty related to US policy quite well, at least for the time being. The revised GDP figure for Q1 2017 places year-on-year growth at 2.8%, 0.4 pp higher than the first estimate. But any celebration would still be hasty. Uncertainty regarding the policies of the Trump administration, high inflation and upcoming presidential elections in 2018 (which could be won by the populist left-wing candidate, López Obrador) are factors that warrant caution. The Turkish economy, on the other hand, posted surprisingly strong growth in Q1 2017 with GDP up by 4.9% year-on-year (3.5% in Q4 2016), supported by a substantial increase in public expenditure. Given this good figure, CaixaBank Research has improved its growth forecasts for the Turkish economy from 2.5% to 3.5% in 2017 and from 3.0% to 3.2% in 2018. Nevertheless, the current growth rate is unlikely to be sustainable in the medium term due to high political uncertainty, the country's external vulnerabilities and high inflation.

China: economic activity indicators

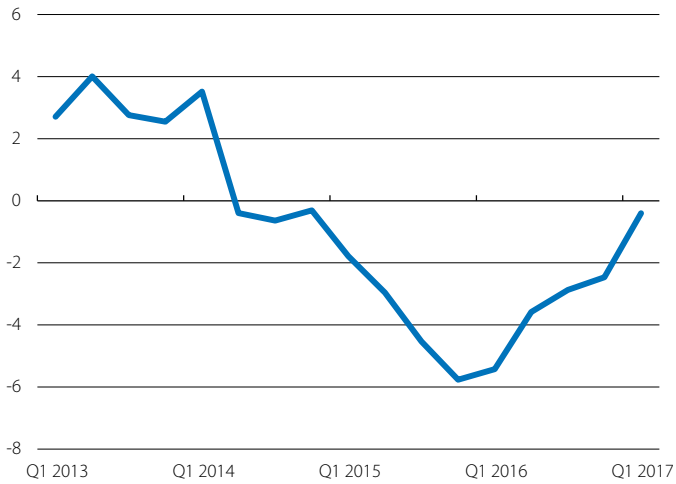
Year-on-year change (%)



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

Brazil: GDP

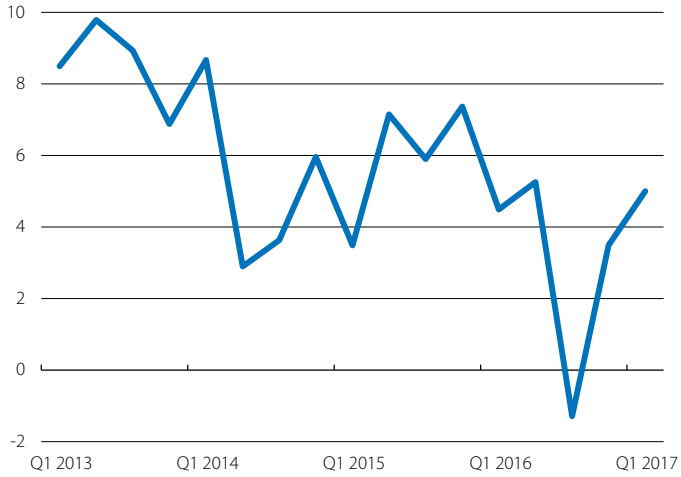
Year-on-year change (%)



Source: *CaixaBank Research, based on data from the Brazilian Institute of Geography and Statistics.*

Turkey: GDP

Year-on-year change (%)



Source: *CaixaBank Research, based on data from the Turkish Statistics Institute.*

FOCUS · Emerging risks: a cocktail made up of the Federal Reserve, commodities and politics

The emerging economies are about to post two positive years. According to CaixaBank Research forecasts, average growth for the 20 benchmark emerging economies (see the list of countries in the chart) will be 3.0% in 2017 and 3.4% in 2018, compared with 2.6% in 2016. This faster growth in economic activity will go hand in hand with a moderate rise in inflation, from 5.0% in 2016 to 5.5% in 2018. Nevertheless, these countries will not take advantage of their expansion to decisively tackle pending macroeconomic imbalances. In particular, there is little sign of fiscal consolidation or deleveraging, neither public nor private. Even so, the overall perception is favourable. Given this context, what risks do these countries face? Is the situation of the past few months, with significant global sources of uncertainty, still threatening the so-called «fragile emerging economies»? Unfortunately, the answer is that downside risks are still considerable.

Before analysing the risk factors for these economies in more detail, we should note that the risk assessment presented here reflects the likelihood of the macroeconomic scenario for the different emerging economies being different from the scenario forecasted by CaixaBank Research for each of these economies. Specifically, both the probability of the risk occurring and its impact on the base scenario make up a qualitative index for each economy during the period 2017-2018.[1] This index ranges from 0 (lowest level of risk) to 6 (highest level of risk). Although many different risk factors affect the different countries, we can identify two broad categories: global risks and idiosyncratic risks. The impact of the former is typically broad or across a large number of economies. For example, tighter international financial conditions than expected due to the US Federal Reserve's monetary normalisation policy. Idiosyncratic risks, however, originate in and affect just one country. An example would be political uncertainty caused by domestic issues affecting a specific country.

The average risk for the whole group of emerging countries analysed is 4.0. Global factors weigh slightly more heavily in this figure than idiosyncratic factors (54% compared with 46%, respectively). But it is important to note that idiosyncratic factors appear to be more important in the five countries with the highest level of risk, although global risk factors are still significant.

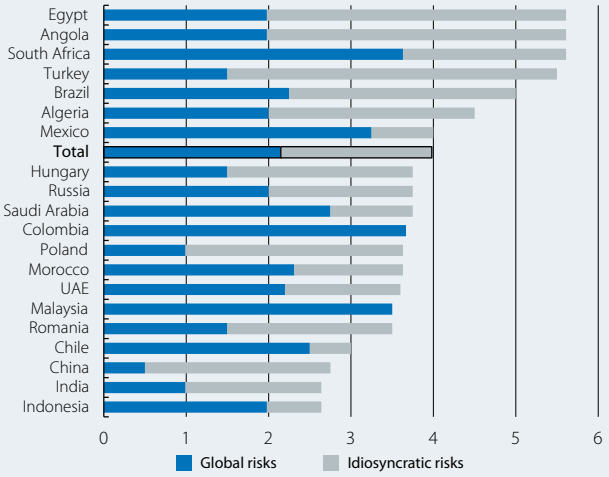
We should therefore look at what these risk factors are. To tackle this question, we need to establish two criteria. The first is frequency; i.e. the number of countries that could be affected by the risk in question. The second could be called intensity; i.e. the mean level of risk obtained from averaging the extent of the risk in question in those countries where it is present. By far the two main global risks are tighter international financial conditions (which could affect 13 of the 20 emerging countries and with a high intensity of 4.6) and lower commodity prices than expected (affecting 10 countries, all commodity exporters, with an intensity of 4.3).

A similar analysis can be carried out of the idiosyncratic risks, grouping them by type. One first block could be called «political-institutional». This contains risks such as populism, lack of political predictability and institutional deterioration. This risk category affects 10 countries with a high intensity (4.5). Intensity is also high in the next group, namely «geopolitical», affecting 7 economies with an intensity of 3.8. Finally, a third block of idiosyncratic risks is related to public finances. Here we find just 5 countries, albeit with high intensity (4.4).

In short, two major conclusions can be drawn from a risk assessment of the emerging economies in question. The first is that we need to keep a close eye on idiosyncratic risks, albeit without neglecting risks of a global nature. This conclusion is particularly useful since very often attention, and debate, regarding the emerging countries focuses extensively on their vulnerability to global sources of risk, to some extent ignoring the role that might be played by idiosyncratic factors. The above data suggest that, although global factors are certainly a source of risk, domestic weak fronts are also far from negligible. The second conclusion is that political factors are a major source of idiosyncratic risk in a large number of emerging countries.

Global and idiosyncratic risks in emerging economies

*Index (0 to 6) **



Note: ** The risk scale goes from 0 (least risk) to 6 (most risk).*
Source: *CaixaBank Research.*

1. This Focus summarises the risk assessment of 20 emerging economies carried out in the CaixaBank Research publication «Fichas país»», number 4, June 2017.

FOCUS · South Africa, attracting market attention

South Africa is one of the emerging countries that have been catching the eye of analysts' for some time now. This is thanks to its importance for the region (it is Africa's second largest economy with important links with the rest of the Sub-Saharan countries). But the main reason it has taken center stage is due to its economic slowdown (from growth rates around 4% early in the millennium to 0.4% in 2016) and its increasing macroeconomic imbalances. Of particular concern is the country's great dependence on external financing and the sharp rise in public debt, reaching 50.5% of GDP in 2016.

The departure, at the end of March, of its renowned Finance Minister and other senior public figures who formed part of the most reformist section of the government, and subsequent credit rating downgrades by S&P and Fitch, have complicated the country's already deteriorating economic prospects even further. The fact is international investors' confidence in the country's desire to carry out reforms was largely dependent on the now-departed Finance Minister, Pravin Gordhan, who had announced an important fiscal consolidation plan.

Although growth is expected to speed up slightly over the coming years and approach 2%, this declining confidence in the South African economy is dangerous, especially given the country's external vulnerability which makes it highly sensitive to investor sentiment. Specifically, South Africa has a high current account deficit, averaging 4.3% of GDP over the past three years. Moreover, external financing tends to be through portfolio flows and other investment different from foreign direct investment (FDI), the latter much more stable over time. The country's rating downgrade to speculative grade could therefore result in sudden foreign capital outflows and considerably push up financing costs. Gross external debt has also increased significantly, reaching a considerable 45% of GDP (from around 22% in 2007). The country's international reserves, a cushion for external crises, are too close to what is considered to be a minimally safe level: they cover 4.2 months of imports of goods and services and 117% of short-term external debt.[1]

Nevertheless, there are a few positive notes in this bleak external panorama. Such as the country's flexible exchange rate and the fact that a significant proportion of its external debt is rand-denominated. Specifically, 50% of its external debt is foreign currency-denominated compared with over 75% for most emerging countries.

Most of this is also corporate debt and companies are usually better able to handle exchange rate risk since most debt is held by commodity exporters. On the other hand, the government has primarily issued bonds in rand: over 85% according to data from the Institute of International Finance (IIF).

Hence, the fact that the country's rating downgrade has been for foreign currency-denominated debt and not rand-denominated (at least by the two most renowned agencies), provides some relief, at least in the short term. However, in order to regain investor confidence, South Africa needs to present an action plan that ensures the sustainability of its public finances in the medium term, as well as an agenda of structural reforms to improve the country's growth prospects.

South Africa's Credit Ratings

		Debt in local currency	Debt in foreign currency
S&P	*Rating*	BB+	BBB–
	Outlook	Negative	Negative
	Relative to investment grade *	–1	+1
Fitch	*Rating*	BB+	BB+
	Outlook	Stable	Stable
	Relative to investment grade *	–1	–1
Moody's	*Rating*	Baa3	Baa3
	Outlook	Negative	Negative
	Relative to investment grade *	+1	+1

Note: ** Number of notches above (+) or below (–) investment grade.*
Source: *CaixaBank Research, based on data from the different credit rating agencies.*

1. According to the IMF, the standard limits for reserves tend to be 3 months of imports and 100% of short-term external debt.

KEY INDICATORS

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

UNITED STATES

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17	06/17
Activity									
Real GDP	2.6	1.6	1.3	1.7	2.0	2.1	–	...	–
Retail sales (excluding cars and petrol)	4.3	3.8	4.2	3.4	3.4	4.0	3.9	3.6	...
Consumer confidence *(value)*	98.0	99.8	94.8	100.7	107.8	117.5	119.4	117.6	118.9
Industrial production	–0.7	–1.2	–1.3	–1.2	–0.1	0.6	2.1	2.2	...
Manufacturing activity index (ISM) *(value)*	51.4	51.5	51.5	51.1	53.3	57.0	54.8	54.9	...
Housing starts *(thousands)*	1,107	1,177	1,158	1,150	1,248	1,238	1,156	1,092	...
Case-Shiller home price index *(value)*	179	189	188	189	192	197	198	...	...
Unemployment rate *(% lab. force)*	5.3	4.9	4.9	4.9	4.7	4.7	4.4	4.3	...
Employment-population ratio *(% pop. > 16 years)*	59.4	59.7	59.7	59.8	59.7	60.0	60.2	60.0	...
Trade balance [1] *(% GDP)*	–2.8	–2.7	–2.7	–2.7	–2.7	–2.8	–2.8	...	...
Prices									
Consumer prices	0.1	1.3	1.0	1.1	1.8	2.5	2.2	1.9	...
Core consumer prices	1.8	2.2	2.2	2.2	2.2	2.2	1.9	1.7	...

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17
Activity								
Real GDP	1.1	1.0	0.9	1.0	1.6	1.3	–	...
Consumer confidence *(value)*	41.3	41.7	41.2	42.1	42.2	43.4	43.2	43.6
Industrial production	–1.2	–0.2	–1.5	1.0	2.8	3.9	7.2	5.0
Business activity index (Tankan) *(value)*	12.8	7.0	6.0	6.0	10.0	12.0	–	...
Unemployment rate *(% lab. force)*	3.4	3.1	3.2	3.0	3.1	2.9	2.8	3.1
Trade balance [1] *(% GDP)*	–0.5	0.7	0.1	0.5	0.7	0.7	0.9	0.9
Prices								
Consumer prices	0.8	–0.1	–0.3	–0.5	0.3	0.3	0.4	0.4
Core consumer prices	1.4	0.6	0.7	0.4	0.2	0.1	0.0	0.1

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17
Activity								
Real GDP	6.9	6.7	6.7	6.7	6.8	6.9	–	...
Retail sales	10.7	10.4	10.2	10.5	10.6	10.0	10.7	10.7
Industrial production	6.1	6.0	6.1	6.1	6.1	6.8	6.5	6.5
PMI manufacturing *(value)*	49.9	50.3	50.1	50.2	51.4	51.6	51.2	51.2
Foreign sector								
Trade balance [1] *(value)*	608	512	575	554	512	468	466	462
Exports	–2.3	–8.4	–7.5	–7.0	–5.3	8.2	8.0	8.7
Imports	–14.2	–5.7	–7.1	–4.7	2.1	24.0	11.8	14.7
Prices								
Consumer prices	1.4	2.0	2.1	1.7	2.2	1.4	1.2	1.5
Official interest rate [2] *(value)*	4.35	4.35	4.35	4.35	4.35	4.35	4.35	4.35
Renminbi per dollar *(value)*	6.3	6.6	6.5	6.7	6.8	6.9	6.9	6.9

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.*

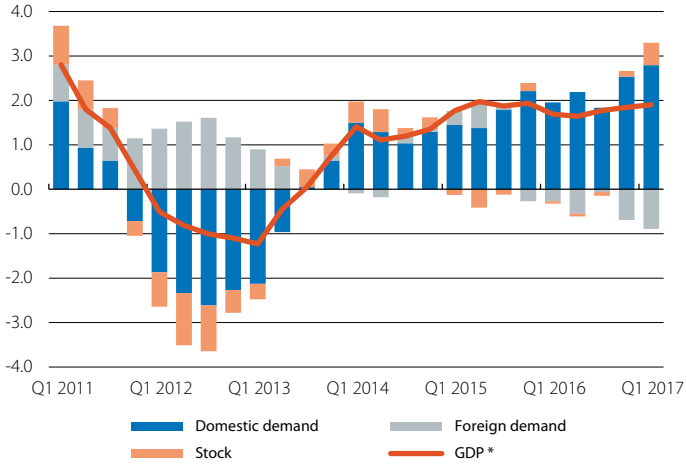
ECONOMIC OUTLOOK · **Economic activity in the euro area is gathering pace**

The economic recovery is spreading across countries and uncertainty is fading. Euro area GDP growth accelerated in Q1. Real GDP rose by 0.6% quarter-on-quarter, the fastest pace since early 2015 and 0.1 pp above the flash estimate, after the upward revisions of France, Italy and Greece to 0.4% quarter-on-quarter. This stronger Q1 growth rate reflects the sustained improvement of economic sentiment indicators we have seen since the end of 2016. As a result, the ECB revised its euro area GDP growth forecasts for the second time this year, from 1.8% to 1.9% for 2017 and from 1.7% to 1.8% for 2018 (in line with CaixaBank Research forecasts). In addition to this favourable outlook, some of the political risk that was affecting the euro area since last year has disappeared. In that sense, Emmanuel Macron's party winning of absolute majority in the French parliament is particularly important, as it will make it easier to implement its agenda of reforms and could boost the European integration process. Also, the Eurogroup reached an agreement with Greece for the next disimbursement of funds under the third bail-out programme. This will help the country meet its debt repayments over the coming months although there are still doubts regarding the long-term sustainability of debt. However, despite the reduction of political uncertainty, some sources of risk remain. Some euro area countries will hold elections over the coming months (Germany and Italy). Moreover, Brexit negotiations started on 19 June and these are bound to be long and complex. On the other hand, the Italian government started the liquidation process of the regional banks Veneto and Popolare di Vincenza after the Single Resolution Board (SRB) decided that a resolution was not necessary (given that a liquidation would have no significant impact on financial stability). The European Commission authorised the Italian government to inject public funds to support the liquidation process, given the potential impact on the Veneto region's economy if liquidation were made in a disorderly manner. The liquidation will be carried out by selling healthy assets to Intesa Sanpaolo and transferring non-performing assets to a state-supported «bad bank».

Economic activity indicators point to solid growth in Q2. Economic sentiment indicators continue to rise, and reached their highest level in the past few years. The composite business sentiment index (PMI) for the euro area as a whole stood at 55.7 points in June, slightly below May's figure (56.8). Nevertheless, the average index for Q2 was 56.4 points, higher than the previous quarter (55.6) and clearly in the expansionary zone (above 50 points). The economic sentiment index (ESI) also rose to 111.1 points in June, its highest level since August 2007. Across countries, Germany performed particularly well, with an average PMI from April to June of

Euro area: GDP

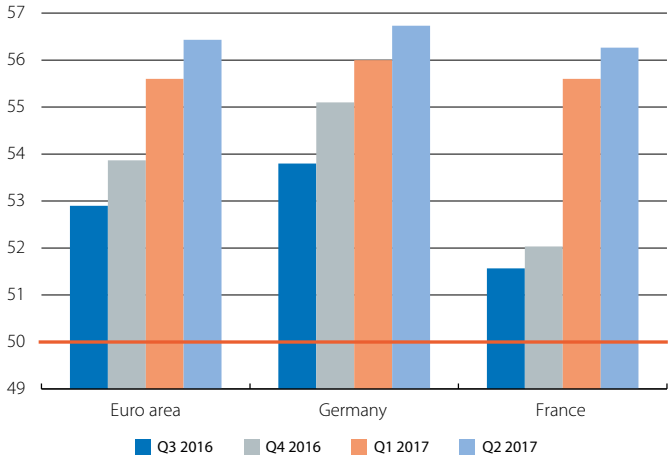
Contribution to year-on-year growth (pp)



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

Euro area: composite PMI economic activity indicators

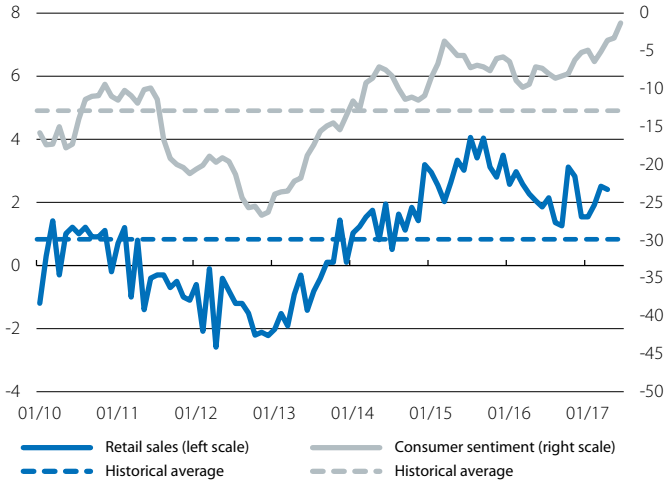
Level



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

Euro area: consumption indicators

Year-on-year change (%) *Level*



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

56.7 points and an IFO business sentiment indicator that reached an all-time high.

Consumption continues to drive economic growth. This can be seen in the evolution of euro area's retail sales, which were up 2.5% year-on-year in April, the same rate as the previous month. Also, the consumer confidence index for the euro area reached –1.3 points in June, the highest figure since May 2007. This suggests that private consumption is still one of the driving forces for the euro area's recovery, which should continue over the coming months given the low interest rates and improvements in the labour market.

The faster growth rate is having a greater effect on job creation than wages. Euro area employment rose by 0.4% quarter-on-quarter in Q1, and the number of employed reached 154.8 billion, an all-time high. There was widespread growth in employment across countries, particularly in Portugal (1.0%), Spain (0.7%) and Germany (0.5%). The increase was more moderate in France and Italy, however, where the economic recovery is somewhat weaker. Nevertheless, wages remain contained in spite of the growth in employment. Hourly labour costs in the euro area as a whole increased by 1.4% year-on-year in Q1 2017, a similar rate to the previous two quarters. Across countries, wages rose more sharply in Germany (1.9% year-on-year), France (2.0%) and Portugal (3.0%) and at a slower rate in Italy (0.6%), while there was zero increase in Spain.

Inflation continues to increase very gradually. In June, euro area headline inflation, as measured by the harmonised index of consumer prices (HICP), stood at 1.3%, 0.1 pp lower than the previous month due to a smaller contribution from the energy component and unprocessed food. Core inflation, which excludes the more volatile components (energy and unprocessed food) and therefore indicates medium-term inflationary trends, rose in June to 1.2%, 0.2 pp above the figure for the previous month. We expect core inflation to continue its gradual recovery over the coming months supported by the recovery in economic activity and the improvements in the labour market.

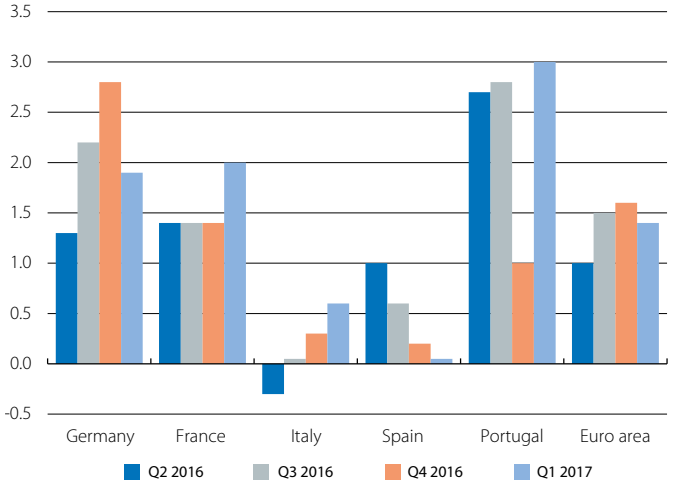
The current account balance is shrinking but remains positive. The euro area's current account surplus (cumulative over 12 months) totalled EUR 349.9 billion in April. This is equivalent to 3.2% of GDP and lower than the EUR 358.6 billion posted in April 2016. The lower figure was due to the smaller surplus in the services account (falling from EUR 70.4 billion to 57.8) but also in goods (from EUR 359.5 billion to 357.2). We expect the external surplus to continue shrinking over the next few quarters as imports increase with the recovery in investment.

PORTUGAL

The economic recovery is gaining traction. After Portugal's strong growth figure in Q1 (1.0% quarter-on-quarter, 2.8% year-on-year), economic activity indicators for April and May

Euro area: wages

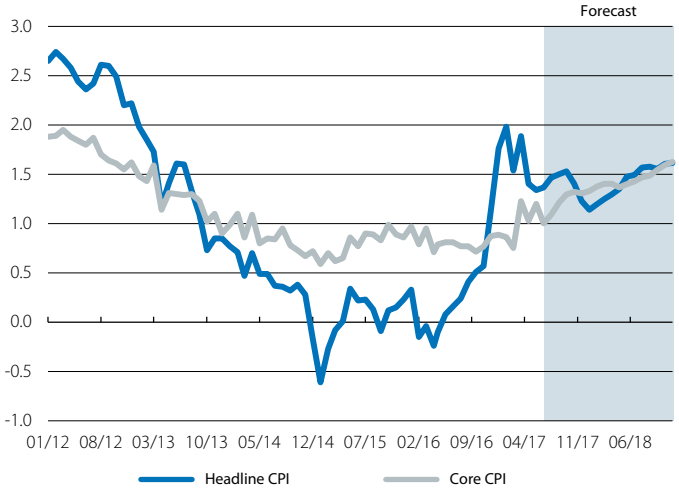
Year-on-year change (%)



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

Euro area: Harmonised index of consumer prices

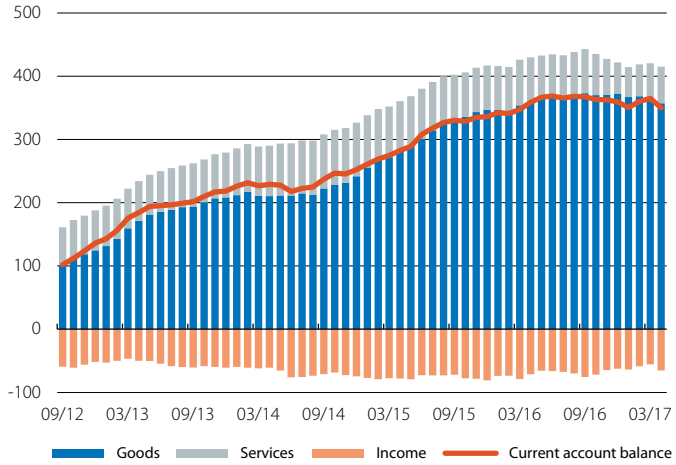
Year-on-year change (%)



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

Euro area: current account

Cumulative over 12 months (EUR billion)



Note: *Seasonally adjusted.*
Source: *CaixaBank Research, based on data from the ECB.*

suggest that economic activity will continue to expand at a good pace in Q2. As a result, Banco de Portugal increased its growth forecasts, from 1.8% to 2.5% for 2017 and from 1.7% to 2.0% for 2018 (in line with CaixaBank Research forecasts). Over the coming months, growth will be supported by domestic demand, which will remain solid thanks to the gradual recovery in the labour market, improved business confidence and accommodative financial conditions. External demand will also boost growth on the back of strong export performance, which will benefit from a more favourable external environment and the competitiveness gains of the past few years.

Investment is starting to pick up. Although it is still 30% below its pre-crisis level, the investment component (GFCF) has gradually come to the fore over the past few quarters. In Q1 it increased by 2.1% quarter-on-quarter (8.9% year-on-year). This can be explained by a faster growth rate of construction investment (5% quarter-on-quarter) and, to a lesser extent, of investment in machinery and other equipment (1.2%). We expect this trend in investment to continue over the coming quarters, reflecting the recovery in public investment (boosted by larger European funds) and the good performance of corporate GFCF. Investment is therefore likely to be one of the key supports for Portugal's economic growth in 2017.

Public finances benefit from the economic situation. In Q1 the public deficit stood at 1.7% of GDP (cumulative over 12 months), significantly below the figure for Q1 2016 (3.7%). This is due to higher revenue growth, which was up 1.1% compared to the same period in 2016, as well as a 3.1% reduction in total expenditure. For the rest of the year, the economic recovery, lower financing costs, and fiscal consolidation measures should help to bring the deficit close to (or below) the target agreed with Brussels (1.6% of GDP). Given this, and after the public deficit fell below 3% of GDP in 2016, the European Council allowed Portugal to exit the Excessive Deficit Procedure. This should help to improve the country's financing conditions. Portugal's low public deficit and sustained nominal GDP growth should also help to gradually reduce its debt ratio over the next few years (by approximately 2 pp per year). Because of this improvement in public finances, the ratings agency Fitch revised the outlook of Portugal's sovereign debt from stable to positive. This opens the door to a rating upgrade should the favourable situation continue over the coming quarters.

Projections of Banco de Portugal

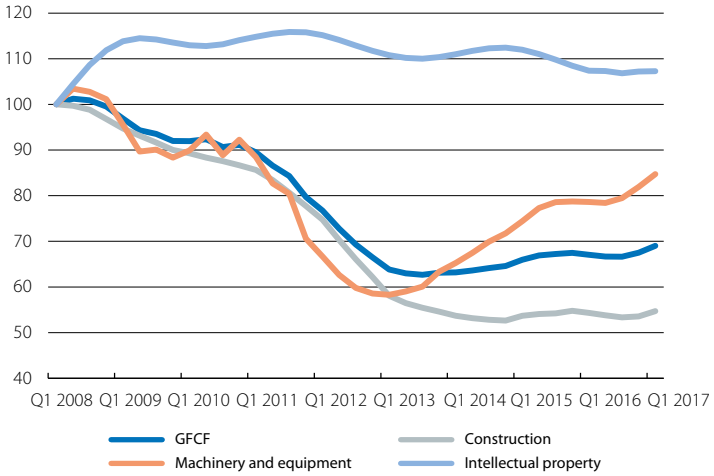
Annual rate of change (%)

	Projection		Rate of change regarding March 2017 projection (pp)	
	2017	2018	2017	2018
GDP	2.5	2.0	▲ 0.7	▲ 0.3
Private consumption	2.3	1.7	▲ 0.2	▲ 0.3
Public consumption	0.4	0.6	▲ 0.2	▲ 0.1
Investment (GFCF)	8.8	5.3	▲ 2.0	▲ 0.3
Exports	9.6	6.8	▲ 3.6	▲ 2.0
Imports	9.5	6.9	▲ 2.2	▲ 2.1

Source: *CaixaBank Research, based on data from the Banco de Portugal (Economic Bulletin, June 2017).*

*Portugal: Investment (GFCF) and components **

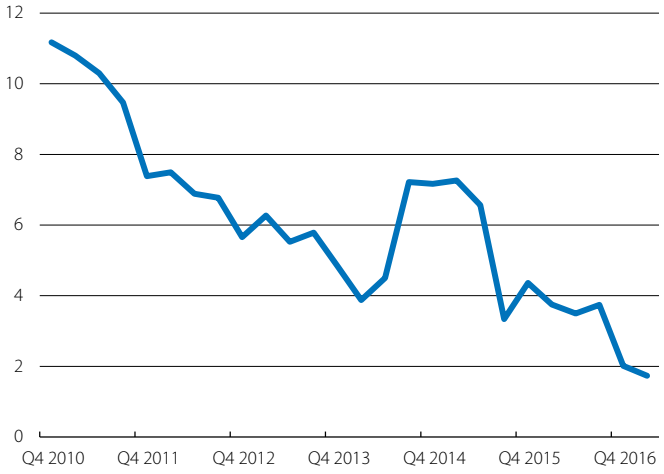
Index (100 = Q1 2008)



Note: ** Cumulative over four quarters.*
Source: *CaixaBank Research, based on data from the INE.*

Portugal: general government deficit

(% of GDP)



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

FOCUS · Job polarisation in the euro area

The euro area's labour market is recovering strongly. The number of people in a job reached the all-time high of 154.8 billion in Q1 2017 while the unemployment rate has been falling for the past four years, down to 9.4% in Q1 2017.

Nevertheless, Europe's labour market is also increasingly polarised: employment has risen particularly in high-skilled and high-wage occupations[1] and also in low-skilled and low-wage occupations. Specifically, between 1995 and 2015 the share of high-skilled jobs out of total employment rose by 8.1 pp and by 3.4 pp for low-skilled jobs. In contrast, the share of middle-skilled jobs fell by 11.5 pp. This polarisation has occurred across all euro area countries, as well as in the US, but to a different extent depending on the country in question (see the first chart).

To understand the factors behind this job polarisation, Acemoglu and Autor,[2] among others, have analysed for the US the characteristics of the jobs that have gained and lost share of total employment. They characterised the different tasks involved in each job and the intensity. For instance, depending on whether tasks are routine or not, cognitive or manual, or whether they can be offshored. Finally, they categorised the different jobs according to the tasks carried out in each one.

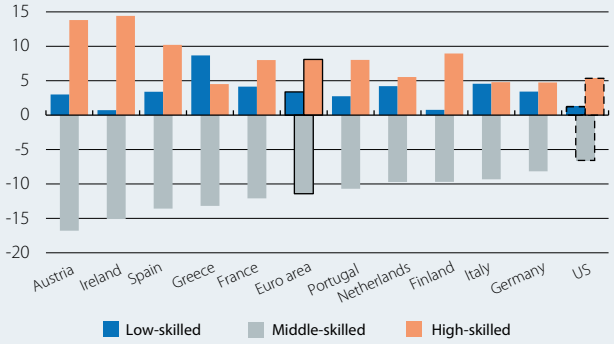
Carrying out the same exercise for the European labour market, we can see that middle-skilled jobs, which have lost a share of total employment, are typically routine and offshorable (see the second chart). On the other hand, in low and high-skilled jobs, the tasks carried out are mostly non-routine, both cognitive and manual.

These findings are very similar to those for the US, suggesting that job polarisation is at least partly due to global factors. There are two specific factors that play a significant role in polarising employment: globalisation and new technologies. The first of these factors reduces the relative weight of those jobs that are easier to offshore.[3] As has already been noted, these jobs tend to be middle-skilled. The impact of new technologies is also greater in jobs where routine tasks are carried out since these can be replaced by robots or computer algorithms. This type of task is also more typical in middle-skilled jobs.[4]

It is very tempting to conclude that, in order to combat job polarisation, we must implement a protectionist trade policy and penalise technological development, for instance by taxing robots. But although such policies aim to protect a specific section of the population, they would actually end up reducing the well-being of all citizens. Since both open trade and technological progress are beneficial for society as a whole, public policies are necessary to help to distribute these benefits more fairly, with educational, social and labour policies.[5]

Job polarisation in the euro area (1995-2015)

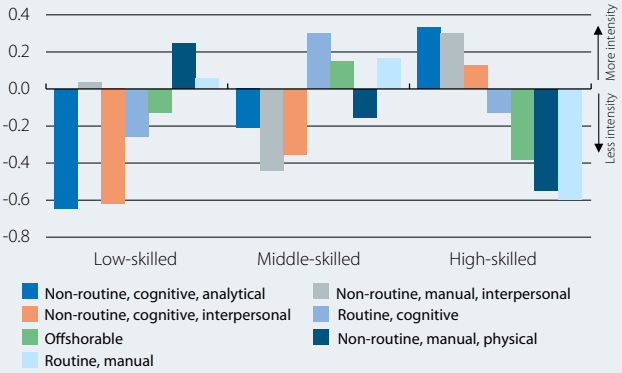
Change in share of total employment (pp)



Note: *High-skilled corresponds to employment in occupations such as legislators, senior and managers; and professionals; technicians and associate professionals (categories 1, 2 and 3 in the ISCO-88 classification). Middle-skilled corresponds to clerks; craft and related skilled trades workers; plant and machine operators and assemblers(categories 4, 7 and 8). Low-skilled corresponds to service workers and shop and market sales workers; and elementary occupations (categories 5 and 9).*
Source: *CaixaBank Research, based on data from the OECD (2017, «OECD Employment Outlook», Chapter 3).*

Task intensity * by skill level of employment in the euro area (2016)

Index (average task intensity = 0)



Note: ** Task intensity is a standardised variable for the workforce as a whole, with mean 0 and standard deviation 1. Values above (below) zero indicate more (less) intensity than the average. The occupations included according to the ISCO-88 classification are: high-skilled (categories 1, 2 and 3), middle-skilled (categories 4, 7 and 8) and low-skilled (categories 5 and 9).*
Source: *CaixaBank Research, based on data from the EU-LFS and Acemoglu and Autor (2011).*

1. Skill refers to the professional abilities required to carry out a job, acquired through training and work experience. Examples of high-skilled jobs are doctors and executive directors; middle-skilled would be office personnel and customer service staff; low-skilled, cleaners or labourers.
2. Acemoglu, D. and Autor, D. (2011), «Skills, Tasks and Technologies: Implications for Employment and Earnings», Handbook of Labour Economics.
3. Blinder, A. (2007), «How Many US Jobs Might be Offshorable?» Princeton University Center for Economic Policy Studies, Working Paper No. 142.
4. Goos, M., Manning, A. and Salomons, A. (2014), «Explaining Job Polarization: Routine-Biased Technological Change and Offshoring», American Economic Review, Vol. 104, No. 8.
5. See the Dossier «Education: more crucial than ever» in MR05/2017 and «New technologies and the labour market» in MR02/2016.

FOCUS · The correction of Portugal's current account: temporary or structural?

Portugal has considerably reduced its external imbalances over the past few years. Its current account has gone from a deficit of 10% of GDP in 2010 to a surplus of 0.8% of GDP in 2016. The extent of this correction is similar to that of euro area countries, such as Spain and Greece, and is considered to be one of the Portuguese economy's great achievements in recent years. In terms of composition, this improvement is due to a substantial adjustment in the trade deficit of 5.8 pp, a significant increase in the services account surplus of 3.5 pp, and a 1.7 pp reduction in the income account deficit. We will now look more closely at the trend in each of these components.

Firstly, the trade deficit evolution of each of the components of the balance of payments fell from 10.7% of GDP in 2010 to 4.9% in 2016. This was essentially due to the improvement in the non-energy goods account between 2010 and 2012 and, from 2013 onwards, to the smaller deficit in the energy goods account. Between 2010 and 2012, the non-energy goods deficit shrank from 7% to 1% of GDP on the back of the strong growth in exports, which averaged 11% per year,[1] and weak imports resulting from a drop in domestic demand. Since 2013, however, the non-energy goods balance has worsened slightly because of the recovery in imports, although exports have continued to grow at a good rate (4% per year). Lower oil prices have also helped to improve the trade balance over the past two years. In fact, the negative deficit in the energy goods account has almost been halved,[2] a very similar trend to that of other countries heavily dependent on hydrocarbon imports, such as Spain. However, as oil prices are expected to rise slightly, the energy deficit is also likely to increase in the future.

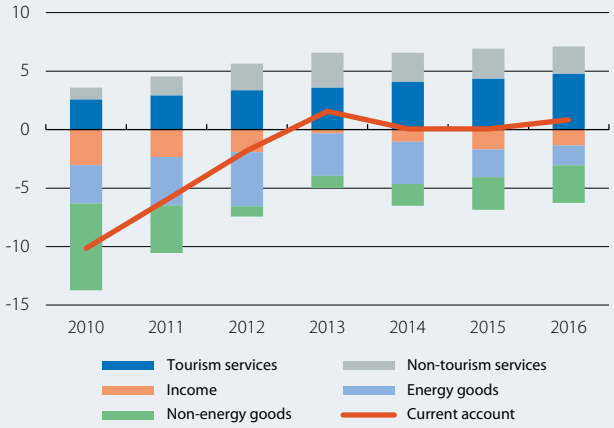
Secondly, the increase in the services account surplus from 3.6% of GDP in 2010 to 7.1% in 2016 has been supported the tourism boom. Over the past six years, income from tourism services has increased almost 70% and the tourism services surplus has gone from 2.6% of GDP in 2010 to 4.8% of GDP in 2016. The non-tourism services surplus has also gained importance with non-tourism service exports, increasing their share of GDP by 2.0 pp since 2010.

Lastly, the correction in the income account from –3% of GDP to –1.4% in 2016 was mainly due to a lower primary income deficit owing to the favourable conditions for the financial aid received and to the ECB's accommodative monetary policy.

To sum up, the recent improvement in the current account has been partly supported by temporary factors, such as low oil prices, the ECB's monetary policy and the reduction in imports caused by the recession. However, exports' good performance, which increased their share of GDP from 30% in 2010 to 40% in 2016, can be put down to the Portuguese economy's gains in competitiveness. On the one hand, unit labour costs fell, on average, by almost 1% per year between 2010 and 2016. Also, as some studies suggest,[3] there is also increasing support from factors that are not related to price, such as a greater emphasis on innovation and product differentiation.

Composition of the current account

(% of GDP)



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

1. In nominal terms.
2. From 3.6% of GDP in 2014 to 1.7% in 2016.
3. Bank of Portugal (2016), «Economic Bulletin. October 2016».

KEY INDICATORS

Activity and employment indicators

Values, unless otherwise specified

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17	06/17
Retail sales *(year-on-year change)*	3.2	2.2	2.0	1.4	2.6	2.0	2.5	...	...
Industrial production *(year-on-year change)*	2.1	1.5	1.1	1.1	2.3	1.4	1.4	...	...
Consumer confidence	–6.3	–7.8	–7.9	–8.3	–6.5	–5.5	–3.6	–3.3	–1.3
Economic sentiment	104.2	104.8	104.2	104.2	106.9	108.0	109.7	109.2	111.1
Manufacturing PMI	52.2	52.5	52.0	52.1	54.0	55.6	56.7	57.0	57.3
Services PMI	54.0	53.1	53.1	52.6	53.4	55.1	56.4	56.3	54.7
Labour market									
Employment (people) *(year-on-year change)*	1.0	1.4	1.4	1.3	1.4	1.5	–	...	–
Unemployment rate: euro area *(% labour force)*	10.9	10.0	10.2	9.9	9.7	9.4	9.3	...	...
Germany *(% labour force)*	4.6	4.2	4.2	4.1	3.9	3.9	3.9	...	...
France *(% labour force)*	10.4	10.0	10.1	10.0	10.0	9.6	9.5	...	...
Italy *(% labour force)*	11.9	11.7	11.7	11.6	11.8	11.6	11.1	...	...
Spain *(% labour force)*	22.1	19.6	20.2	19.3	18.6	18.2	17.8	...	...

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17
Current balance: euro area	**3.4**	**3.6**	**3.7**	**3.7**	**3.6**	**3.7**	**3.5**	**...**
Germany	8.6	8.3	8.9	8.6	8.3	8.3	7.9	...
France	–0.4	–0.9	–0.8	–1.1	–0.9	–1.1	–1.1	...
Italy	1.4	2.6	2.2	2.5	2.6	2.5	2.5	...
Spain	1.4	1.9	1.7	1.8	1.9	1.9	1.7	...
Nominal effective exchange rate [1] *(value)*	**92.3**	**94.7**	**94.8**	**95.1**	**94.8**	**94.2**	**94.1**	**96.0**

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

Financing and deposits of non-financial sectors

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17
Private sector financing								
Credit to non-financial firms [1]	–0.3	1.8	1.7	2.0	2.1	2.1	2.4	2.4
Credit to households [1, 2]	0.7	1.7	1.7	1.8	1.9	2.3	2.4	2.6
Interest rate on loans to non-financial firms [3] *(%)*	1.6	1.4	1.4	1.3	1.3	1.3	1.4	...
Interest rate on loans to households for house purchases [4] *(%)*	2.1	1.8	1.8	1.8	1.8	1.8	1.7	...
Deposits								
On demand deposits	11.1	10.0	10.1	9.5	9.3	9.5	10.2	10.3
Other short-term deposits	–3.8	–1.8	–1.8	–1.2	–2.0	–2.2	–2.8	–2.9
Marketable instruments	2.5	2.8	2.3	5.4	4.5	6.5	1.7	3.1
Interest rate on deposits up to 1 year from households *(%)*	0.8	0.5	0.6	0.5	0.4	0.4	0.4	...

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 Spanish economy is sailing in more favourable waters

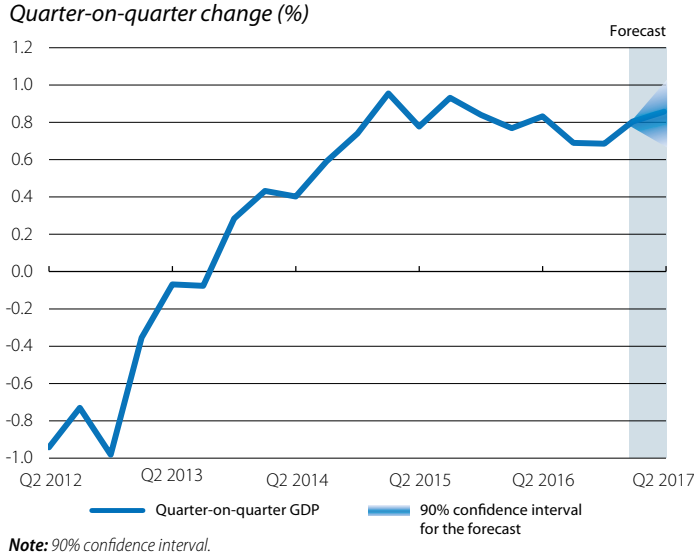
Growth is surprisingly high in the first six months. The information available for the April-June period, still very incomplete, shows that economic growth remained high in Q2. The CaixaBank Research leading indicator predicts 0.8% quarter-on-quarter growth, very similar to Q1's figure. This year's strong growth rate is largely due to improvements in the external environment. The high political uncertainty hovering over the main euro area countries has gradually diminished, especially after the French elections with President Macron's party, La République en Marche, winning an absolute majority in the parliament. The outcome of the UK general election has also made a «soft» Brexit more likely, ensuring an orderly transition with the UK keeping reasonable access to Europe's single market. The trend in oil prices has also been surprisingly downward. Prices were expected to rise after the OPEC agreement to prolong its oil production caps until March 2018 but this has not happened so far. In fact, the Brent barrel price in euros fell by 8.7% in June. Given its high dependence on oil imports, Spain's economy particularly benefits from this new scenario of a more moderate increase in oil prices than previously expected.

Growth forecasts are revised upwards - again. Strong economic activity figures for the first six months and a more favourable international environment have encouraged another wave of upward revisions in growth forecasts for the Spanish economy this year. The average of the forecasts by various analysts and institutions, such as the OECD, IMF and Bank of Spain, has increased to 3.0% for 2017, 0.4 pp higher than three months earlier. However, CaixaBank Research has kept its forecast unchanged at 3.1% as this was already revised upwards by 0.3 pp the previous month. This will therefore be the third consecutive year that Spain's GDP has grown by more than 3%. Given this positive situation, it would be advisable to continue implementing an ambitious agenda of structural reforms to underpin the Spanish economy's capacity to withstand any future storms.

Private consumption picks up again after slowing down in Q1. Private consumption indicators have recovered after looking relatively weak at the beginning of the year. Retail sales grew by 1.6% year-on-year in April, clearly higher than the Q1 average of 0.8%, while consumer confidence reached 2.2 points in May, up on Q1 (–2.2 points). Owing to continued improvements in financing conditions and gross disposable household income, private consumption increased by 2.2% year-on-year in Q1. The savings rate therefore reached 7.0% of gross disposable income in Q1, somewhat below its historical average of 9.6%.

GDP

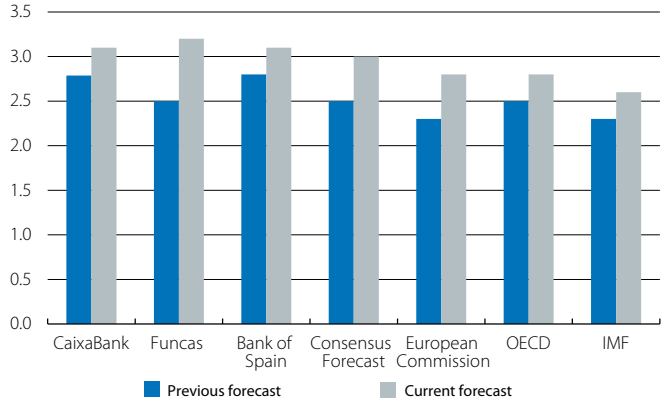
Quarter-on-quarter change (%)



Note: *90% confidence interval.*
Source: *CaixaBank Research, based on data from the INE.*

GDP growth forecasts in 2017

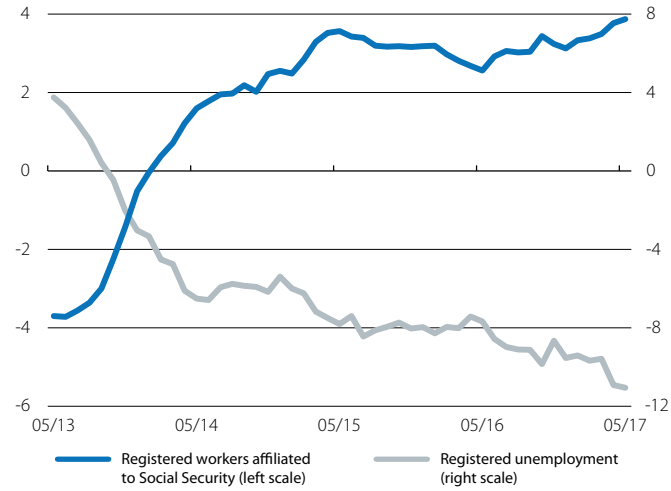
Annual rate of change (%)



Note: *Current forecast corresponds to June 2017 except for European Commission (May) and IMF (April). Previous forecast corresponds to March except for Bank of Spain (April), European Commission (February) and IMF (January).*
Source: *CaixaBank Research, based on data from the Bank of Spain, European Commission, Consensus Economics, Funcas, OECD and IMF.*

Registered workers affiliated to Social Security and registered unemployment

Year-on-year change (%) *Year-on-year change (%)*



Source: *CaixaBank Research, Ministry of Employment and Social Security.*

Job creation is very dynamic. In May, the number of registered workers affiliated to Social Security speeded up its growth rate to a high year-on-year figure of 3.9%. Although a lot of jobs tend to be created in May as it coincides with the start of the tourist season, the seasonally adjusted series, corrected for this seasonal factor, was also very positive with 60,608 additional people, a larger increase than the same month the previous three years. Registered unemployment fell by 111,908 people (not seasonally adjusted) while the rate of decline in registered unemployment is still high (–11.1% year-on-year).

Wages remain contained. The harmonised labour cost index, which measures labour cost per hour worked while keeping the structure by activity branches constant, remained flat in quarterly terms between Q1 2017 and Q4 2016 (–0.1% in year-on-year terms). The wage rises contained in agreements reached in May were 1.3% on average. These data confirm that wage rises are still moderate, in a context in which the collective bargaining agreement for this year have yet to be reached between employers and trade unions.

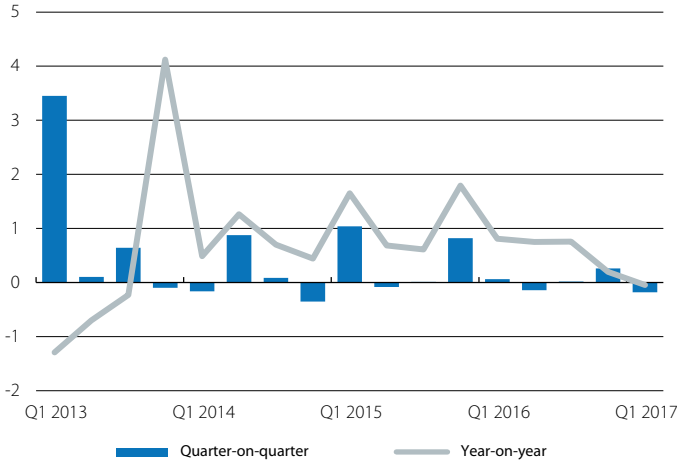
Inflation eases due to the trend in oil prices. Headline CPI increased by 1.5% year-on-year in June (1.9% in May), slowing down considerably after posting 3.0% rises at the beginning of the year. This is largely due to the slowdown in fuel prices in year-on-year terms. Weak oil prices over the coming months will continue to push down headline inflation, so it is likely to end the year below 1%. Core inflation (headline inflation without unprocessed food or energy products) fell to 1.0% in May, 0.2 pp below its April figure. It is expected to remain at this level in the second half of the year. The high level of underutilised production resources is the reason for this absence of inflationary pressures in spite of dynamic economic activity.

The more moderate rise in oil prices will also boost Spain's current account. In April, the current account totalled EUR 19.1 billion in cumulative terms over 12 months (1.7% of GDP), higher than the figure of April 2016 (EUR 17.7 billion) owing to a larger services surplus. Regarding international trade, customs figures show a higher trade deficit in cumulative terms from January to April (EUR –8.4 billion) compared with the same period in 2016 (EUR –5.6 billion). This is entirely due to the worse performance by the energy component. We expect the current account to remain in surplus throughout the rest of the year. The lower growth expected in oil prices in year-on-year terms will keep any increases in the energy bill in check. Exports of non-energy goods will also continue to perform well (4.3% year-on-year growth in April, cumulative over 12 months). This good performance is due to higher growth in export markets, particularly the euro area, which receives 66% of Spain's exports. International tourist arrivals continue to beat the records set in 2016 with 11.7% growth year-on-year in May.

House prices gain traction. The real estate sector, one of the industries hardest hit by the crisis, is recovering apace.

*Labour cost per hour **

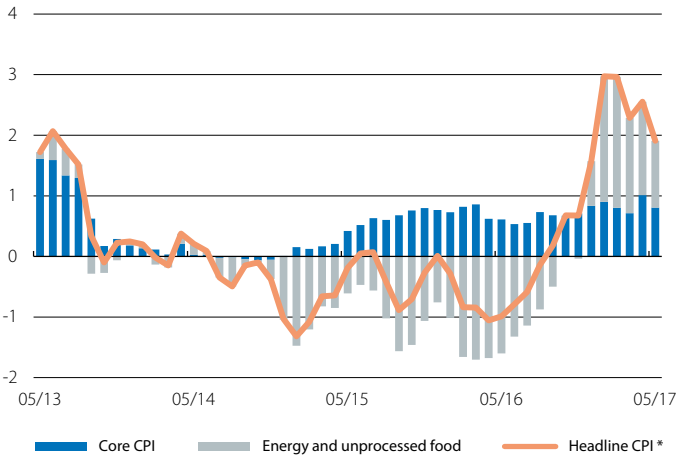
Change (%)



Note: ** Data adjusted for seasonal and calendar effects.*
Source: *CaixaBank Research, based on data from the INE (ICLA).*

CPI

Contribution to year-on-year growth (pp)



Note: ** Year-on-year change.*
Source: *CaixaBank Research, based on data from the INE.*

Destination of Spanish exports

(% of total)

	2006	2016	Q1 2017
Europe	70.1	65.4	66.0
Russia	0.9	0.6	0.7
North Africa	2.8	4.9	4.4
North America	6.6	6.6	6.4
LatAm	2.1	2.8	2.8
East Asia	3.3	5.3	5.6

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

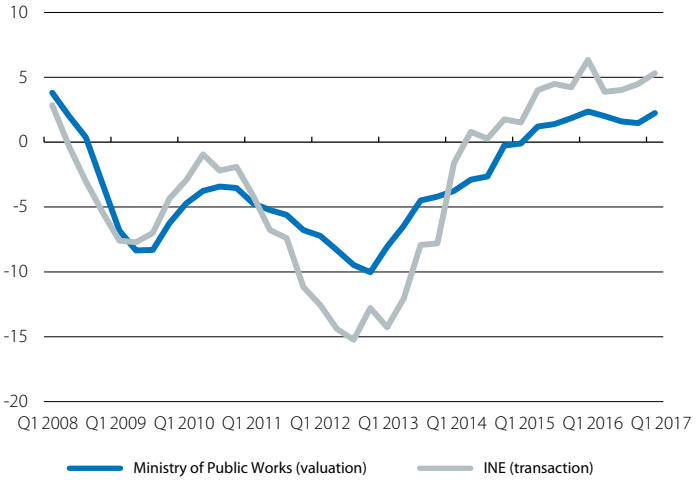
Investment in residential housing picked up in Q1 and house sales looked very dynamic thanks to the effect of positive factors such as job creation, the consequent boost to household income and improved access to credit. House prices therefore grew by 5.3% in year-on-year terms in Q1 2017 (2.3% quarter-on-quarter). Land prices also rose by 6.2% year-on-year in Q1 2017. This positive trend in land prices, which tend to indicate the future trend in house prices, points to the upward trend continuing over the coming months.

Solid economic growth helps to improve public finances. The consolidated general government deficit was 0.4% of GDP in Q1. In other words, compared with Q1 2016, the deficit fell by 0.4 pp out of the 1.2 pp required to achieve the target of 3.1% of GDP for 2017. General government debt reached 100.4% of GDP in Q1 2017. By sector, central government debt rose to 87.8% of GDP (87.0% in Q4 2016), autonomous communities debt remained almost unchanged at 24.8% of GDP, and local government corporation debt fell slightly to 2.8% of GDP. This high level of debt shows that it is important to continue fiscal consolidation efforts.

Bank credit improves further while bad debt shrinks. A breakdown of credit for Q1 2017 shows that consumer loans are still increasing apace while credit for the rest of the segments is still falling, albeit at an ever-slower rate. The NPL ratio continued to fall across all segments (except consumer loans). Nevertheless, the NPL ratios in construction and developer loans are still very high. In the medium term, improvements in economic activity and the labour market will help to reduce the NPL ratio further, as well as sales of portfolios with non-performing assets.

Price of non-subsidised housing

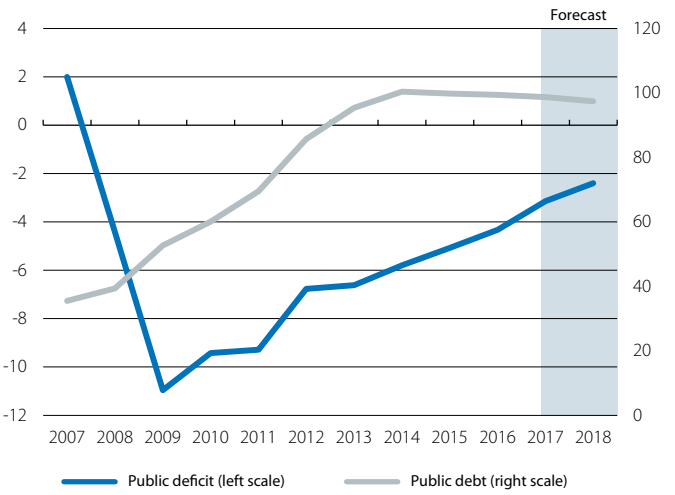
Year-on-year change (%)



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

Public deficit and debt

(% of GDP) *(% of GDP)*



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

Loans and NPL ratio in Q1 2017

	Balance (billion euros)	Year-on-year change (%)	NPL ratio (%)
Households (housing)	531	–2.8	4.8
Households (consumption)	117	4.7	9.0
Productive activities	598	–2.9	12.4
Construction	39	–9.0	27.2
Developers	119	–7.8	24.1
Services	313	–1.0	7.7
Industry	109	–1.5	8.7
Agriculture	19	3.1	8.9
Total *	1,246	–2.2	8.8

Note: ** The total balance does not include loans to NPISH or non-classified loans.*
Source: *CaixaBank Research, based on data from the Bank of Spain.*

FOCUS · The resolution of Banco Popular

The evening of 6 June 2017, the authorities established that Banco Popular was non-viable and declared its resolution after suggering from a severe liquidity crisis during the previous weeks. Despite the quick ending for liquidity reasons, over the past few months the bank's financial situation had deteriorated steadily. It had announced important losses in 2016 after making large provisions, reducing its solvency position in spite of a capital increase undertaken the same year. Investor uncertainty regarding the real value of its non-performing assets and its solvency gradually reduced the bank's stock price.

The resolution of Banco Popular is particularly relevant because this is the first time the European Bank Recovery and Resolution Directive (BRRD), set up in 2014, has been applied to a large bank. Unlike an ordinary insolvency procedure, this new framework aims to resolve a bank quickly and with a minimum impact on the real economy and public finances.

The BRRD establishes that a resolution process can only be initiated when a bank is failing or likely to fail in the near future, when there are no alternative private solutions or supervisory actions that would prevent its failure, and when a resolution action is necessary in the public interest. The ECB, the authority responsible for supervising Banco Popular, determined that the bank was failing on 6 June because it did not have nor was it capable of obtaining the liquidity required to pay its debts or other liabilities as they fell due. In turn, the European resolution authority with direct responsibility on Banco Popular, the Single Resolution Board (SRB), decided in cooperation with the ECB that there were no private alternatives (such as a capital increase) to prevent the bank from failing within the necessary periods. The SRB also decided that the bank's resolution, rather than its liquidation, was the best option for financial stability (to avoid the risk of contagion to other banks and preserve the continuity of services provided to families and firms, etc.).

Before starting the resolution process for Banco Popular, the SRB received an economic valuation by an independent expert confirming that the aforementioned conditions had been met for its resolution. This valuation also determined losses of between EUR –2 billion (base scenario) and EUR –8 billion (stressed). Based on this, the resolution process of Banco Popular consisted, firstly, of imposing these losses on the bank's shareholders and junior bondholders and, secondly, its sale via competitive tender. The resolution proposed by the SRB was officially approved by the European Commission.

As executive resolution authority for Spain, the FROB was responsible for implementing the decision and it began the competitive tender process of the bank's sale. It was decided to sell Banco Popular for one euro to Banco Santander, which was required to guarantee, from the outset, all Banco Popular's solvency and liquidity obligations. Santander therefore announced it would make provisions (around EUR 8 billion) to cover Banco Popular's assets and will carry out a capital increase of EUR 7 billion which, once Banco Popular has been integrated within the group, will help maintain similar solvency levels to the current ones (see the table).

Some lessons can be learned from the process carried out with Banco Popular regarding the new resolution framework for European banks. On the one hand, this has been carried out remarkably quickly and with agility, without any negative impact on financial stability or public resources, wich to some extent demonstrates the effectiveness of the new resolution mechanism. On the other hand, there are questions concerning the criteria used for the expert's (provisional) valuation (beyond the law requiring that that this must be «fair, prudent and realistic»). In this respect, to ensure one of the general principles governing the whole resolution process is fulfilled, namely that no creditor should be worse off than if the bank is liquidated, an *ex post* valuation is still pending to assess whether the shareholders and creditors would have fared better under liquidation (in which case the Single Resolution Fund would compensate them).

Another lesson for future cases concerns the sale process of the bank. Given the urgency of the situation, very conditioned by the little time avalaible it was difficult to maximise the sale price. There are also questions regarding the supervisor's real capacity to adopt early intervention measures when a bank's financial situation is deteriorating brickly (the head of the ECB on supervisory matters stated that these were not used in the case of Banco Popular). Lastly, considering the bank's severe liquidity problems, it should be explored whether such pressures would have been relieved by providing state guarantees on the liquidity operations with the ECB.

Resource availability and use

Resources available	Use of resources
Internal funds EUR ~8.1 billion (capital and junior debt)	Provisions EUR 7.9 billion
External funds EUR 7 billion (capital increase)	Recapitalisation EUR ~7.2 billion

FOCUS · The primary balance: crucial for stable public debt

Spain's public debt has been around 100% of GDP since 2014, 10 pp higher than the euro area average. This high debt makes the Spanish economy vulnerable as it means public sector borrowing is high and could limit fiscal policy's room to manoeuvre should the economy begin to slow down. This has not always been the case, however. Between 2005 and 2008, public debt was around 40% of GDP, about 30 pp below the euro area average.

A large part of this increase is due to the primary deficit remaining high over the past few years. Because of the crisis, public expenditure increased at the same time as public revenue plummeted. This pushed the primary deficit to around 7% of GDP between 2009 and 2012 (without bank restructuring costs), 4 pp higher than the euro area average. Since then, the primary deficit has fallen significantly, reaching 1.5% of GDP in 2016.

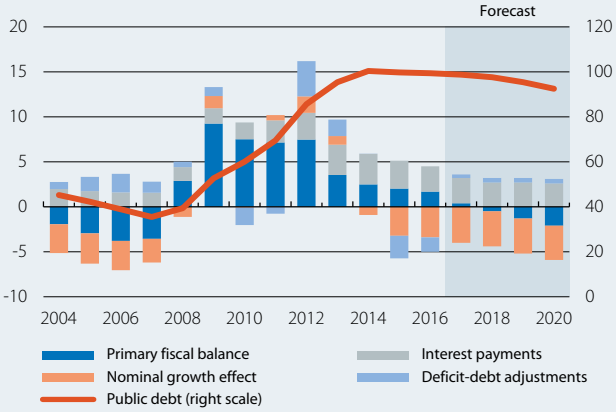
Since 2014, the level of debt has stabilised at around 100% of GDP thanks to efforts to reduce the public deficit and also to the economic recovery. Low interest rates have also lowered interest payments on debt as a percentage of GDP.

Over the coming years, the challenge will be to start reducing public debt. Between 2017 and 2020, the government expects public debt to fall by 1.7 pp per year on average, reaching 92.6% of GDP.[1] According to these forecasts, three major factors will support this reduction: the good trend in GDP, which will post nominal growth of around 4% year-on-year; the correction of the primary balance, with a surplus of 2.1% of GDP forecast by 2020, and the ECB's accommodative monetary policy, which will help to keep debt interest payments relatively low, at 2.7% of GDP.[2]

Longer term, and based on a debt level of 92.6% of GDP in 2020 forecast by the government, if a 2% primary surplus were maintained, the country would still take two decades to bring its public debt below 60% of GDP.[3] Moreover, maintaining a primary surplus of this magnitude is no easy task. In fact, a look at the countries around us shows that a primary surplus in excess of 2% has not been commonplace. Between 1980 and 2016, euro area countries had a primary surplus above 2% in 18% of cases and only Belgium and Finland managed to maintain this level for 10 consecutive years. A significant reduction in the public deficit is the first step to stabilising public finances but returning public debt to pre-crisis levels will require a lot of hard work and perseverance.

Spain: public debt

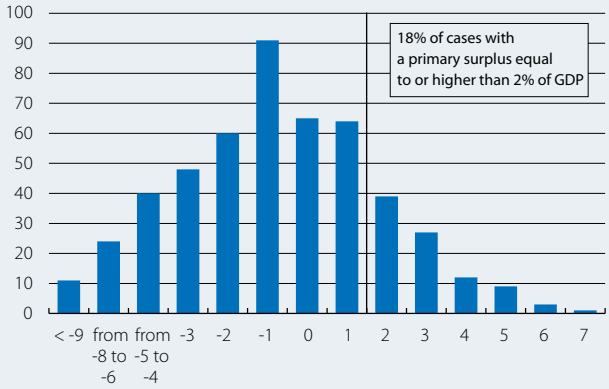
Contribution to change in debt (pp) *(% of GDP)*



Source: *CaixaBank Research, based on data from the Ministry of Finance and Civil Service and the Stability Programme Update 2017-2020.*

Frequency of primary balances in the euro area (1980-2016)

(Number of cases)



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

1. Forecasts contained in the Stability Programme Update 2017-2020.
2. Interest rates are expected to rise very gradually over the next few years. Interest expenditure is also likely to continue at a similar level to the present due to the long average maturity of the debt (currently seven years), making the average cost very static.
3. This would be achieved by 2036 if nominal GDP growth were equal to the average nominal interest rate for the debt.

FOCUS · Spanish exports on the rise: but is all that glitters gold?

Spanish exports have essentially driven growth in the country's economic recovery. In Q1 2017 nominal GDP returned to its pre-crisis level while goods exports were 36% above this level. However, not everything we export is produced entirely in Spain. In other words, is all that glitters really gold?

The integration of global value chains means that a significant proportion of goods exported have not been produced domestically but include products that were previously imported. By way of example, let us assume that three processes need to be carried out to create an end product: obtaining raw materials, processing these materials and then manufacture. Let us assume that each of these production stages is carried out in three different countries, A, B and C. A fourth country, D, imports the end product. Country A obtains the raw materials and sells them to B for 10 euros. B processes these and sells them to C for 30 euros. Finally, C manufactures the end product and sells it to D for 80 euros. In the case of country C, gross exports total 80 euros but the value added provided by C domestically is only 50 euros (80 from the sale minus 30 for the imports from B). Given this situation, the relevant variable is the share of domestic value added in exports. In this instance, the percentage for country C would be 62.5%.

The most recent OECD data from 2011 show that the domestic value added for Spanish exports was 74.9% of the total. This percentage is very similar to the pre-crisis figure (75.3% in 2005), indicating that the strong growth in exports over the past few years has been accompanied by similar growth in their domestic value added. Specifically, between 2005 and 2011 exports of goods in current dollars grew by 7.7% year-on-year on average, a very similar rate to that of domestic value added, namely 7.6% year-on-year on average.

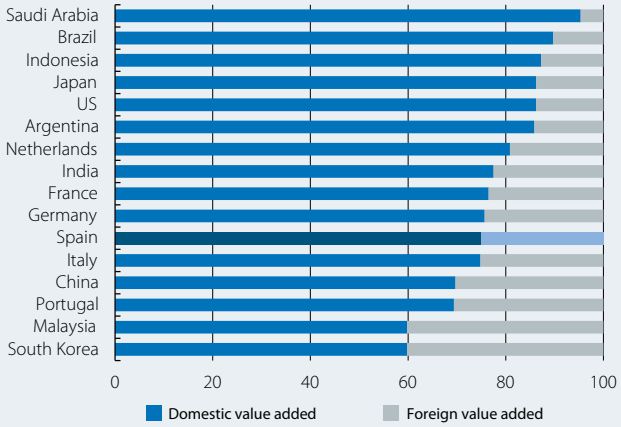
How good are these figures in relation to other countries? Compared with the larger euro area economies, the share of domestic value added in Spain is higher than in Portugal (69.4%), very similar to Italy (74.8% in 2011) and slightly below that of France and Germany (76.5% and 75.7%, respectively). In all these countries, between 2005 and 2011 growth in the value added of exports in current dollars was less than the growth in total exports. This means there was a downward trend in the share of domestic value added throughout this period, especially in Italy and Germany.

At a more global level, the share of domestic value added in Spain is below that of large commodity exporters such as Saudi Arabia and Brazil, whose percentage is very high (95.3% and 89.7%, respectively, in 2011). The large emerging economies, China and India, posted high growth in their value added between 2005 and 2011 (close to 18% year-on-year on average). Nevertheless in China, an exporter of manufactured goods and a large consumer of raw materials, the share of domestic value added in its exports (69.7%) is below that of India (77.5%). For their part, the US and Japan, large economies that are more commercially closed than Spain,[1] have a higher share of value added (both 86.2% in 2011) but this is falling.

In short, the exceptional performance by Spain's exports has been accompanied by similar growth in the domestic value added of these exports. Compared internationally, Spain has performed well among the large European countries in terms of growth in its domestic added value. On this occasion, the gold is glittering wonderfully.

Domestic value added of exports in 2011

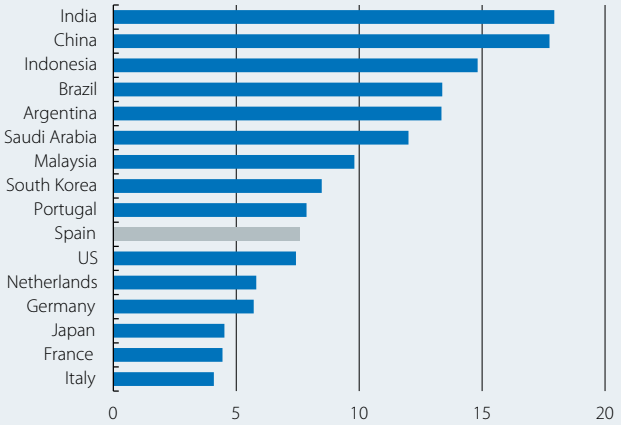
(% and value exported)



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

*Growth in domestic value added of exports between 2005 and 2011 **

(%)



Note: ** Average year-on-year growth between 2005 and 2011 in current dollars.*
Source: *CaixaBank Research, based on data from the OECD.*

1. The degree of openness refers to the share of exports and imports as a percentage of GDP.

KEY INDICATORS

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

Activity indicators

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17	06/17
Industry									
Electricity consumption	1.7	0.1	0.9	0.4	0.0	1.5	–1.0	0.0	...
Industrial production index	3.3	1.9	1.4	1.9	1.9	1.9	0.6	...	...
Indicator of confidence in industry *(value)*	–0.3	–2.3	–2.8	–3.8	–0.6	0.3	–1.3	–1.0	0.7
Manufacturing PMI *(value)*	53.6	53.2	52.5	51.4	54.4	54.8	54.5	55.4	54.7
Construction									
Building permits *(cumulative over 12 months)*	20.0	43.7	48.1	44.8	36.9	24.5	19.9	...	...
House sales *(cumulative over 12 months)*	10.9	13.0	14.2	13.4	13.7	14.9	11.8	...	...
House prices	1.1	1.9	2.0	1.6	1.5	2.2	–	...	–
Services									
Foreign tourists *(cumulative over 12 months)*	5.6	8.2	7.5	9.3	10.1	10.0	10.0	10.4	...
Services PMI *(value)*	57.3	55.0	55.5	54.9	54.9	56.4	57.8	57.3	...
Consumption									
Retail sales	3.0	3.6	3.9	3.8	3.0	0.5	1.7	3.0	...
Car registrations	21.3	11.4	17.8	11.0	8.9	7.8	1.1	11.2	...
Consumer confidence index *(value)*	0.3	–3.8	–3.2	–6.1	–3.2	–2.8	1.3	1.9	1.4

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

Employment indicators

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17
Registered as employed with Social Security [1]								
Employment by industry sector								
Manufacturing	2.2	2.8	2.7	2.7	2.8	3.0	3.0	3.2
Construction	4.7	2.6	2.1	2.7	3.3	5.3	5.9	6.3
Services	3.5	3.2	3.0	3.3	3.5	3.4	3.8	3.8
Employment by professional status		3.5						
Employees	3.5	3.5	3.1	3.5	3.8	4.0	4.4	4.5
Self-employed and others	1.9	1.0	1.0	0.9	0.9	0.9	0.9	1.0
TOTAL	**3.2**	**3.0**	**2.7**	**3.0**	**3.3**	**3.4**	**3.8**	**3.9**
Employment [2]	**3.0**	**2.7**	**2.4**	**2.7**	**2.3**	**2.3**	**–**	**...**
Hiring contracts registered [3]								
Permanent	12.3	14.2	17.4	17.9	13.3	15.4	3.8	14.8
Temporary	11.2	7.2	9.1	7.1	6.6	12.1	4.1	16.1
TOTAL	**11.3**	**7.8**	**9.8**	**7.9**	**7.1**	**12.4**	**4.1**	**16.0**
Unemployment claimant count [3]								
Under 25	–11.0	–12.6	–12.0	–14.4	–13.2	–13.3	–17.9	–17.5
All aged 25 and over	–7.2	–8.2	–7.5	–8.6	–9.0	–9.2	–10.3	–10.5
TOTAL	**–7.5**	**–8.6**	**–7.9**	**–9.1**	**–9.4**	**–9.6**	**–10.9**	**–11.1**

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

Prices

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	05/17	06/17
General	**–0.5**	**–0.2**	**–0.9**	**–0.2**	**1.0**	**2.7**	**2.6**	**1.9**	**1.5**
Core	0.6	0.8	0.7	0.8	0.9	1.0	1.2	1.0	...
Unprocessed foods	1.8	2.3	2.7	3.5	1.0	4.1	3.4	2.8	...
Energy products	–9.0	–8.4	–13.6	–8.6	1.6	15.3	12.0	8.3	...

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	03/17	04/17
Trade of goods								
Exports *(year-on-year change)*	4.3	1.7	4.3	–1.1	3.2	14.1	16.9	–2.0
Imports *(year-on-year change)*	3.7	–0.4	–0.3	–3.7	3.0	16.5	19.1	0.5
Current balance	**14.7**	**21.5**	**18.5**	**20.0**	**21.5**	**21.1**	**21.1**	**19.1**
Goods and services	26.2	32.7	29.3	31.2	32.7	30.0	30.0	29.4
Primary and secondary income	–11.5	–11.2	–10.8	–11.2	–11.2	–8.9	–8.9	–10.3
Net lending (+) / borrowing (–) capacity	**21.7**	**23.3**	**24.0**	**24.3**	**23.3**	**23.5**	**23.5**	**21.5**

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17
Net lending (+) / borrowing (–) capacity [1]	**–5.1**	**–4.5**	**–3.0**	**–2.8**	**–4.5**	**–0.4**	**–**
Central government	–2.6	–2.7	–1.9	–2.6	–2.7	–0.5	–0.7
Autonomous regions	–1.7	–0.8	–0.6	–0.1	–0.8	–0.2	–0.3
Local government	0.5	0.6	0.1	0.5	0.6	0.1	–
Social Security	–1.2	–1.6	–0.6	–0.6	–1.6	0.1	0.2
Public debt *(% GDP)*	**99.8**	**99.4**	**101.1**	**100.4**	**99.4**	**100.4**	**–**

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

	2015	2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	04/17	Balance 04/17 [1]
Financing of non-financial sectors [2]								
Private sector	–3.9	–2.6	–2.9	–2.0	–2.1	–1.1	–0.7	1,624.0
Non-financial firms	–4.0	–2.7	–3.2	–2.1	–2.2	–0.8	0.0	915.7
Households [3]	–3.6	–2.3	–2.5	–2.0	–1.9	–1.6	–1.6	708.3
General government [4]	4.0	3.9	4.2	4.6	3.2	3.4	3.4	1,117.1
TOTAL	**–1.0**	**–0.1**	**–0.2**	**0.5**	**0.0**	**0.6**	**0.9**	**2,741.1**
Liabilities of financial institutions due to firms and households								
Total deposits	–1.0	–0.3	–0.3	–0.3	–0.1	–0.6	...	...
On demand deposits	18.5	16.6	16.0	16.4	17.8	18.6	...	...
Savings deposits	12.9	12.4	12.1	11.5	12.5	14.8	...	...
Term deposits	–15.3	–17.2	–16.4	–17.4	–19.7	–24.0	...	...
Deposits in foreign currency	5.6	–1.1	1.6	–1.9	0.1	–2.5	...	...
Rest of liabilities [5]	–13.0	–15.7	–16.3	–11.3	–18.6	–16.7	...	...
TOTAL	**–2.2**	**–1.6**	**–1.7**	**–1.2**	**–1.6**	**–1.8**	**...**	**...**
NPL ratio *(%)* [6]	**10.1**	**9.1**	**9.4**	**9.2**	**9.1**	**8.8**	**...**	**–**
Coverage ratio *(%)* [6]	**58.9**	**58.9**	**58.7**	**59.3**	**58.9**	**59.1**	**...**	**–**

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.*

IN SEARCH OF HAPPINESS

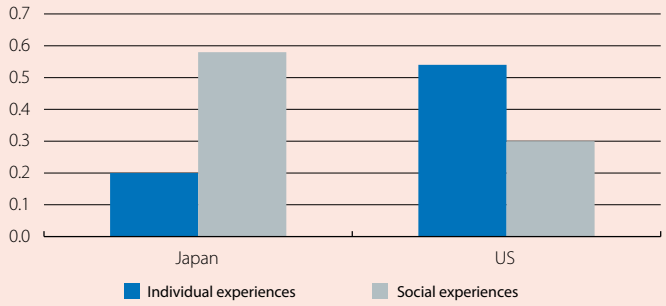
Are you happy? Happiness and human beings

Seeing as this *Monthly Report* is published at the height of summer, it is very likely you are reading this while enjoying a (no doubt well-earned) holiday. But in-between dips in the sea, what better time of the year than these long, relaxing days to reflect on happiness and its importance, both for individuals and for economics? This first article in the Dossier examines the concept of happiness from a microeconomic perspective; i.e. focusing on the individual. But before we decide whether we are happy or not, we must first clarify what we mean by happiness and how we can measure it. Such issues may seem philosophical in nature but they are nevertheless crucial, as the ultimate aim of economics is to improve people's living conditions.

The literature differentiates between three types of happiness: life satisfaction, emotional well-being and eudemonic well-being. Life satisfaction is how you feel about your life overall and the Cantril ladder tends to be used as the benchmark. People are asked to rate their life satisfaction on a scale from 0 to 10, where 0 is the worst life possible and 10 the best. Emotional well-being, on the other hand, concerns people's emotions and moods in their everyday lives, such as pleasure, sadness, anger and stress. This is measured by the Day Reconstruction Method developed by the Israeli psychologist and holder of the Nobel Memorial Prize winner in Economic Sciences, Daniel Kahneman. People are asked to think about their experiences from the previous day and rate them as positive or negative. Finally, eudemonic well-being[1] focuses on the meaning and purpose of life, asking whether each individual has achieved a quality of life in line with their potential. Economists have recently started to pay more attention to this kind of happiness although it is extremely complex to measure. These distinctions within happiness are important. For instance, Kahneman and another prize-winning economist, Angus Deaton, show that, in the US, higher earnings always lead to greater life satisfaction but when people earn more than USD 75,000, receiving more money has a zero impact on their emotional well-being (for an in-depth examination of the relationship between income and happiness, see the article «Money does not bring happiness, but does it help?» in this Dossier).

Happiness and cultural factors: US versus Japan

*(Correlation between positive emotions and experience type) **



Note: ** The correlation between two variables is between -1 and 1 and measures the degree of lineal relation; a correlation of 1 represents a perfect positive relation and a correlation of 0 represents a zero lineal relation. In the chart, the correlations are obtained by asking a sample of 913 American and Japanese students about various experiences in their daily lives during the academic year and whether these are associated with positive or negative emotions.*
Source: *CaixaBank Research, based on Kitayama, S., Markus, H. R. and Kurokawa, M. (2000), «Culture, and Well-being: Good feelings in Japan and the United States», Cognition & Emotion.*

The various subjective happiness indicators have an important drawback, namely that it is a relative concept and strongly influenced by cultural factors. According to the psychologists Uchida, Norasakkunkit and Kitayama, in Western countries happiness is defined in terms of personal achievement and the ultimate goal is to maximise the number of positive experiences. In Asia, however, other aspects are important for happiness, such as interpersonal relations with other people. In an influential article[2] comparing the US and Japan, the psychologists Kitayama, Markus and Kurokawa provide empirical evidence for such differences. In the US, positive emotions (happiness, euphoria, relaxation...) are highly correlated with individual achievements. In Japan, however, positive emotions are highly correlated with experiences of a social nature, such as relations with friends. Nevertheless, aside from cultural factors and how they affect our perceived happiness, a lot of literature reports a positive correlation between the happiness stated in surveys and more objective measurements, such as how often someone smiles, facial expressions, health indicators, suicide statistics and certain physical measurements of brain activity.[3]

Having looked at the different types of happiness and the complications involved in measuring them, the time has come to reflect on what actually makes us happy. Deaton and Kahneman carried out a revealing comparison between the factors associated with life satisfaction and emotional well-being in the US. In their analysis, these authors concluded that income and education are more related to life satisfaction whereas physical health and loneliness are more connected with emotional well-

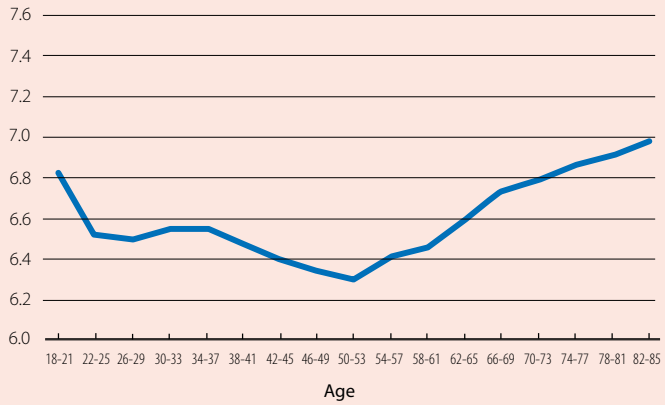
1. Eudemonia or fulfilment is a classical Greek word that literally means «human flourishing».
2. See Kitayama, S., Markus, H. R. and Kurokawa, M. (2010), «Culture, Emotion and Well-being: Good Feelings in Japan and the United States», Cognition and Emotion.
3. For more details see Ferrer-i-Carbonell, A. (2001), «Economia de la felicitat», Els Opuscles del CREI.

being. A lot has also been written about the factors correlated with life satisfaction, although cause-effect relations are very difficult to ascertain: it may be happiness that is having a positive effect on other variables and not vice versa. Whatever the case, the findings are at the very least interesting. For instance, being unemployed is one of the factors with the strongest negative relation to life satisfaction and this effect does not diminish over time, unlike chronic illness, for example.[4] Some studies[5] also point to high qualifications being negatively related to life satisfaction. This might be because more highly qualified individuals have greater expectations which are more difficult to achieve, resulting in negative effects that exceed the positive effects of the opportunities offered by their education.

For a greater insight into happiness, we should also remember that this is a dynamic concept that depends critically on the life cycle. According to a number of studies carried out by renowned economists such as Blanchflower, Deaton and Oswald, in the US and many European countries there is a strong U-shape relationship between life satisfaction and age, irrespective of income, health or generation. People's happiness tends to decrease until reaching its lowest level in the age range of 40 to 59 (the global average is 46), increasing again steadily after this point. Several theories have been suggested to explain this phenomenon, combining economic and psychological factors. It has been argued that people tend to enjoy a better salary when they are middle-aged and they take advantage of this by working harder to save for their retirement. It has also been proposed that older people tend not to worry so much about the future and put a greater value on the positive aspects of their present life. In any case, such empirical evidence has compelling and important implications for economic policy. Western societies are getting older, so we may see an increase in the overall happiness of society. And it might even go further. Since emotional well-being is associated with greater longevity,[6] an increase in happiness might even result in a longer life expectancy.

Happiness and life cycle in the US

*(Life satisfaction from 0 to 10) **



Note: ** Life satisfaction is measured on a scale from 0 to 10, where 0 represents the worst life possible and 10 the best life possible.*
Source: *CaixaBank Research, based on data from Stone, A., Schwartz, J., Broderick, J. and Deaton A. (2010), «A snapshot of the age of distribution of psychological well-being in the United States». Proceedings of the National Academy of Sciences.*

As we have seen in the previous paragraph, studying the happiness of individuals could have significant implications at a collective level. A case in point is when we examine how the happiness of individuals can have an impact upon aggregate levels of social capital; i.e. the set of values that permit members of a society to trust one another and work together. Essentially, the degree of happiness of individuals has implications for society as a whole because it affects how these individuals relate to and treat each other. In economic terms, individual happiness is associated with externalities that influence other individuals. Several academic studies have shown a positive relationship between happiness and social capital.[7] Although causal relations are difficult to establish (do you trust people and cooperate more with society when you are happy, or vice versa?), it has been demonstrated that those countries with manifest inequalities in terms of happiness have significantly low levels of social confidence.[8] In short, an individual-centred view of happiness that includes the resulting externalities produces results at a more aggregate level that could have important repercussions for economic analysis and for improving the degree of development and cooperation of countries (for an exhaustive analysis of happiness at an aggregate level, see the article «How can well-being be compared across countries?» in this Dossier).

By way of conclusion, the concept of happiness is both extensive and multifarious, and it is starting to come to the fore in economic analysis. A word of warning to our readers, however, to ensure they continue enjoying their holidays and life in general. According to the renowned Berkeley psychologist, Iris Mauss, it may be counterproductive to become too concerned about whether we are happy or not, since this increases the likelihood of becoming disappointed and unhappy. After all, as Buddha would say, «there is no path to happiness; happiness is the path».

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4. See Ferrer-i-Carbonell, A. and Van Praag, B. (2009), «Do people adapt to changing circumstances?», EPAG Working Paper.
5. See Clark, A. E. and Oswald, A. J. (1994), «Unhappiness and Unemployment», The Economic Journal.
6. See Steptoe, A., Deaton, A. and Stone. A. (2014), «Subjective wellbeing, health, and ageing», Lancet.
7. See Bjørnskov, C. (2003), «The Happy Few: Cross-Country Evidence on Social Capital and Life Satisfaction», Kyklos Journal.
8. See Goff, L., Helliwell, J. and Mayraz, G. (2016), «The Welfare Costs of Well-being Inequality», NBER Working Paper.

Well-being, economics and perceptions

Max Planck, the Nobel Prize-winner for Physics in 1918 and seen as the founder of quantum theory, once said that «when you change the way you look at things, the things you look at change». His German compatriots will agree with him, or at least a curious experiment concerning the 2006 FIFA World Cup would suggest so. A study by Dohmen and others[1] showed that a victory by the German squad improved people's subjective rating of their economic situation to an extent equivalent to an annual increase in salary of around EUR 5,600. Although football fans might presumably express such a degree of satisfaction, it is surprising that the squad's results influenced, and to a large extent, a sample constructed to represent the whole working-age population of Germany. But this illustrates a fundamental aspect of human life and well-being: personal perceptions are crucial.

Misperceptions of well-being

(% of rather or very happy people)

Country	Too low	% point difference	Too high	Avg. guess	Actual
Canada		-27		60	87
Netherlands		-27		57	84
Norway		-27.9		60	87.9
Australia		-28.7		53	81.7
Philippines		-31.4		58	89.4
Russia		-32.3		41	73.3
India		-33.8		47	80.8
Peru		-36		40	76
China		-36.5		48	84.5
Colombia		-37.5		54	91.5
South Africa		-38.4		38	76.4
Montenegro		-38.6		46	84.6
Germany		-39		45	84
US		-40.6		49	89.6
Chile		-41.5		43	84.5
Turkey		-41.8		42	83.8
Thailand		-42		51	93
France		-42		41	83
Serbia		-43		34	77
Japan		-44.5		42	86.5
UK		-45		47	92
Spain		-45.4		41	86.4
Argentina		-45.4		41	86.4
Sweden		-45.6		49	94.6
Singapore		-46		47	93
Hungary		-47.3		22	69.3
Poland		-50.6		42	92.6
Mexico		-51.3		43	94.3
Malaysia		-52		44	96
Brazil		-52		40	92
Hong Kong		-61.1		28	89.1
South Korea		-66		24	90

Source: *CaixaBank Research, based on data from Ipsos MORI, «Perils of Perception 2016».*

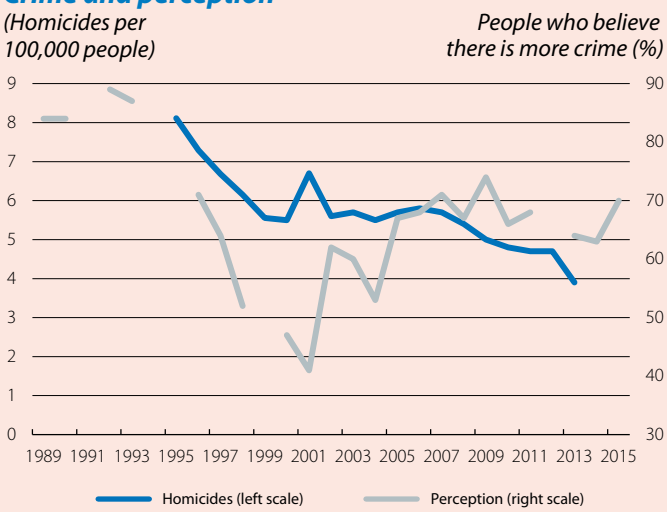
The importance of how we perceive things becomes particularly evident when studying and measuring happiness. Let us look at three examples, related to well-being, unemployment and crime. As noted by the article «Are you happy? Happiness and human beings» in this Dossier, indicators for personal well-being measure subjective evaluations that depend on each person's perception. Moreover, when we judge our personal well-being, we are also gauging the well-being of those around us. But, as can be seen in the first chart, we make significant errors in our perception that lead us to systematically underestimate the well-being of the society we live in. According to an Ipsos MORI survey in 2016, 86.4% of the population in Spain believed they were rather happy or very happy, whereas the average Spaniard thought that only 41% of Spanish people considered themselves to be so. The same thing happens with other factors that determine well-being, such as economic conditions and personal safety. For instance, in 2014 the average Spaniard believed that the unemployment rate was 46%, when in fact it was 25%. This is not coincidental nor are the Spanish particularly pessimistic, since this bias is shared by all the countries studied. The average German placed the unemployment rate at 20% (the figure was actually 6%), the Americans at 32% (the real figure was 6%), the Japanese at 19% (real figure 4%), etc.[2] The same bias occurrs with homicide indicators. As shown in the second chart, the US murder rate has fallen steadily, going from just over eight homicides per 100,000 people in 1995 to just under six homicides per 100,000 people in 2001. In 2013 it reached four homicides per 100,000 inhabitants. However, the percentage of Americans who believed that crime had increased went from 41% in 2001 to 64% in 2013.[3]

What lies behind these misperceptions? The dominant economic theory, at least its simplest version, treats individuals as strongly rational agents. However, in his best-seller «Thinking, Fast and Slow», the psychologist and winner of the Nobel Prize for Economic Science in 2002, Daniel Kahneman, explains how we systematically suffer from cognitive biases that influence both our perception of reality and the decisions we take. Three of the aspects proposed by Kahneman concerning how the brain works are particularly relevant for the perception of well-being. Firstly, Kahneman shows that, when faced with complex questions, we attempt to provide an answer by replacing them with similar but much simpler questions. Moreover, we do not evaluate situations abstractly but do so based on a point of reference or anchor, as Kahneman calls it, which is fresh in our memory. Let us look at an example. In an experiment,[4]

1. See Dohmen, T. *et al.* (2006), «Seemingly Irrelevant Events Affect Economic Perceptions and Expectations: the FIFA World Cup 2006 as a Natural Experiment», IZA Discussion Paper.
2. Ipsos MORI, (2014 and 2016), «Perils of Perception».
3. See Gallup (2014), «Most Americans Still See Crime Up Over the Last Year».
4. See Strack *et al.* (1988), «Priming and communication: Social determinants of information use in judgments of life satisfaction», European Journal of Social Psychology.

university students were asked how happy they were. Some students, immediately beforehand, had been asked about the number of dates they had been on in the past month. Instead, others were asked about the number of dates after they had answered the happiness question. Can you imagine what happened? Although no relation was observed in the second group between their dates and happiness, among the first group there was a clear positive relation: the people who had been on more dates also claimed to be happier. According to Kahneman, this is because it is much more complicated to answer a question about happiness than to quantify the number of dates we have been on. Having the number of dates in their minds induced them to associate dates, both an easy question and an anchor, with happiness. The same thing happened when, instead of dates, they were asked about their matrimonial or employment status.[5]

Crime and perception



Source: *CaixaBank Research, based on data from Gallup and the FBI.*

The second notable bias concerns how we remember emotions. What do you think you would rate more highly: three days of holiday on the beach or the same three days with two additional days of bad weather when you cannot enjoy the sun? The second option does not appear to be worse than the first, right? The answer is not so easy. Kahneman has shown that our memories depend on the intensity of the emotions at their peak and at the last time we experienced them, but not their duration. Another famous experiment illustrates this clearly.[6] Someone puts their hand in very cold water (14°C, enough to be painful) for 60 seconds. Then they put their hand in very cold water (14°C) for 60 seconds followed by 30 seconds in water that is only slightly warmer (15°C). The person is asked to choose which experience they would rather repeat. The results showed that 80% of those who perceived an increase in the temperature in the second exercise (60 + 30 seconds) preferred to repeat this option, although this might seem *a priori* the least desirable choice.

Finally, another characteristic of our minds highlighted by Kahneman is how quickly we adapt to new circumstances. This is why pay rises or moving to a region with a milder climate only have a temporary effect on well-being. In a survey carried out on students in California, Ohio and Michigan, no significant differences were observed in the subjective well-being of the different geographical areas.[7] However, the survey also revealed that all the students believed people were happier in California. The reason, once again, is that the question «How happy are you?» is neutral, while the question «Do you think people are happier in California?» evokes the idea of a region with a pleasant climate, biasing the response.

Whereas Kahneman's work has provided great insights into individual behaviour, individual perceptions can also have an effect at an aggregate level. As explained by Robert Shiller, winner of the Noble Prize for Economic Science, we look for stories that help us interpret the world around us.[8] These narratives are human constructs, influenced by our personal perceptions and a combination of the facts, emotions and interests. These make an impression on us and help to stimulate our concerns and the emotions of our peers. When these narratives spread, they can create a new point of view, a frame of reference that will influence decisions and even have an economic impact *per se*. For instance, Shiller himself, together with Goetzmann and other co-authors,[9] has identified how the perceived likelihood of a financial crash by professional investors is affected by pessimistic news in the press, related to the financial markets or even to apparently irrelevant events like small earthquakes at a local level. Ultimately, a recession is a period in which people decide to spend less, to continue using old goods instead of replacing them with new ones and to postpone the start of new businesses or hire new workers. These are all personal decisions, determined not only by the state of the economy but also by its assessment according to the prevalent narrative and as it is perceived by individuals.

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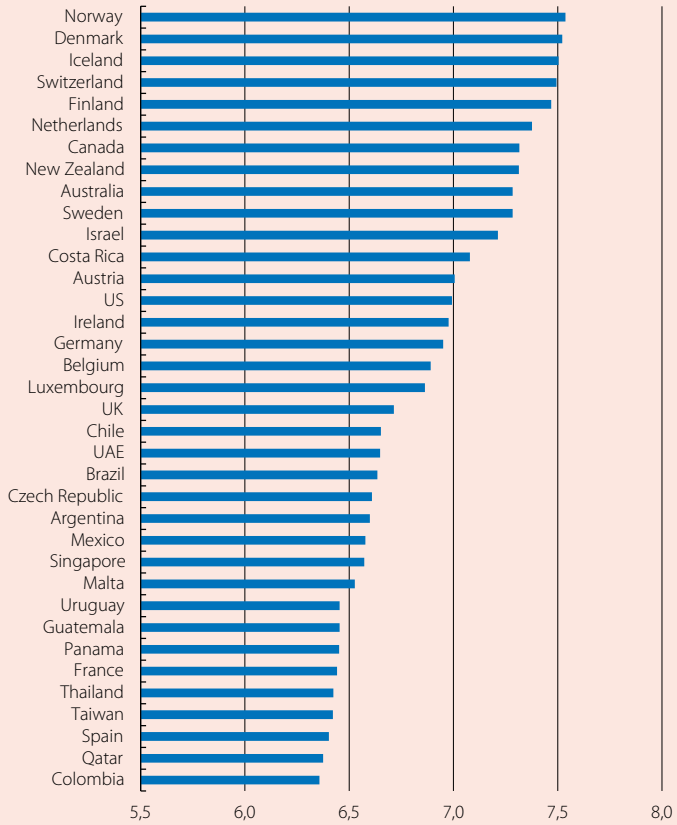
5. See Schwarz, N. *et al.* (1991), «Assimilation and contrast effects in part-whole question sequences: a conversational logic analysis», Public Opinion Quarterly.
6. See Kahneman, D. *et al.* (1993), «When More Pain is Preferred to Less: Adding a Better End», Psychological Science.
7. See Schkade, D. and Kahneman, D. (1998), «Does living in California make people happy? A focusing illusion in judgments of life satisfaction», Psychological Science.
8. See Shiller, R. (2017), «Narrative Economics», NBER Working Paper, based on the presidential talk given by Shiller at the American Economic Association congress on 7 January 2017.
9. See Goetzmann, N. *et al.* (2016), «Crash Beliefs from Investor Surveys», NBER Working Paper.

How can well-being be compared across countries?

The countries in northern Europe have a reputation for being the happiest countries in the world. In 2017, the World Happiness Report published by the United Nations ranked Norway as the happiest country on the planet, dethroning another Nordic country, Denmark, which had headed the ranking since 2012, the first year the report was published.

Ranking of Global Happiness

(Scale from 1 to 10)



Note: *The ranking includes the countries ranked from 1 to 36, with 10 being the highest score.*
Source: *CaixaBank Research, based on data from the «World Happiness Report 2017».*

Without wishing to underrate Scandinavian «hygge»,[1] some might be surprised at the Nordic countries leading the well-being rankings, or at Spain coming a modest 34th, far below the US and Germany (ranked 14th and 16th, respectively).[2] The problem is that comparing standards of living across countries is no mean feat. In fact, to date no attempt at measuring well-being has been free from criticism.

The Ranking of Global Happiness is no exception. This is based on questionnaires in which each person rates their degree of happiness from 0 to 10. It does not take into account, for example, the fact that certain countries and cultures may be happier than others even under the same economic and social conditions. In this respect, an OECD article[3] estimates that cultural impact could lie behind up to 1.5 points of the ranking from 1 to 10 reported by individuals. The authors note that cultural influence is particularly high in Nordic countries, English-speaking countries and some countries of Latin America.

In the academic world, one of the latest attempts at constructing a comparable measurement of well-being across countries and time has been carried out by Jones and Klenow. They propose a well-being indicator that includes determinants such as consumption, leisure, mortality rate and inequality.[4] One of the innovations of this well-being indicator is that it uses microeconomic data from 13 countries to weight the different elements within the indicator according to the preferences of citizens as a whole.

The third chart, taken from the article by Jones and Klenow, shows that, in spite of the Western European countries analysed[5] having, on average, a GDP per capita of around 67% of the US, once the greater leisure time, longer life expectancy and lower levels of insecurity enjoyed by these countries are taken into account, the gap with the US narrows to the point that the well-being of European countries is just 15% lower than the US. The article also states that the level of well-being of developing countries is worse than would be suggested by their GDP per capita as a consequence of their shorter life expectancy, lower consumption and greater inequality.

In spite of the advances made by this article in measuring well-being, it should be noted that the index proposed by Jones and Klenow assumes that all countries value the same aspects in terms of happiness, a hypothesis which, as has been mentioned above, does not actually reflect reality. As the authors themselves admit, their proposed measurement of well-being does not

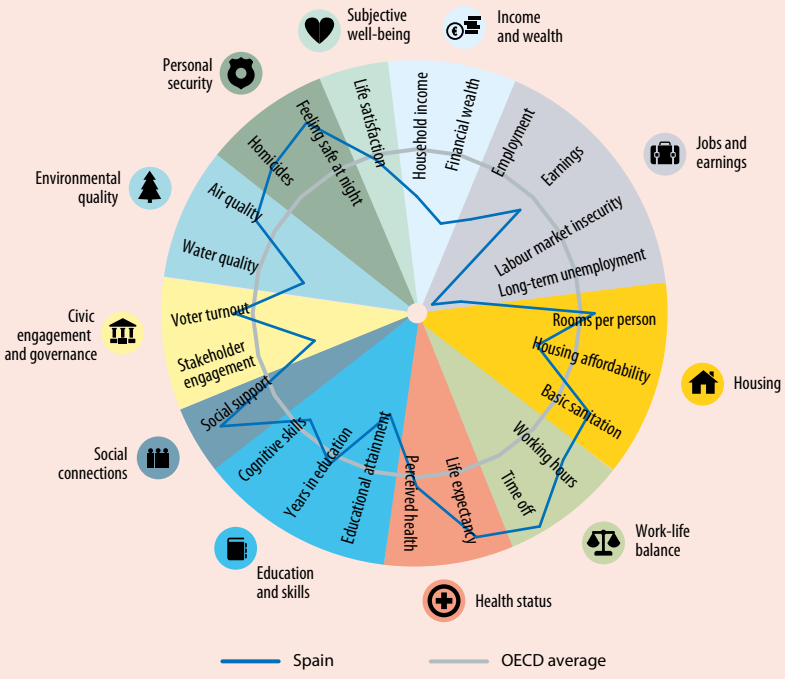
1. «Hygge» is a Danish adjective associated with personal well-being created via the small things in life, such as the cosiness of a home and looking after yourself and others.
2. Data for the period 2014-2016.
3. See Exton, C., Smith, C. and Vandendriessche, D. (2015), «Comparing Happiness Across the World. Does Culture Matter?», OECD Statistics Directorate Working Paper No. 62.
4. See Jones, C. I. and Klenow, P. J. (2016), «Beyond GDP? Welfare across Countries and Time», American Economic Review, vol. 106(9), p. 2426-2457.
5. The article includes the UK, France, Italy and Spain.

take other factors into account which also contribute to people's happiness, such as the quality of the environment, homicide rate, political freedom and intergenerational altruism.

The OECD's Better Life Index is another notable initiative as it broadens the range of factors taken into account. The index covers 11 relevant aspects that affect well-being: housing, income, jobs, community, education, environment, civic engagement, health, life satisfaction, safety and work-life balance.

Just how important is each factor for our happiness? Ideally, since happiness is not a single measurement, the relative weight of each factor should be calculated based on a representative survey that estimates the most important determinants of well-being for each society. Academic literature suggests that determinants of well-being are not necessary equally important across countries. For instance, Alesina *et al.* estimated that inequality has a larger negative effect on well-being in Europe than in the US.[6]

Well-being in Spain

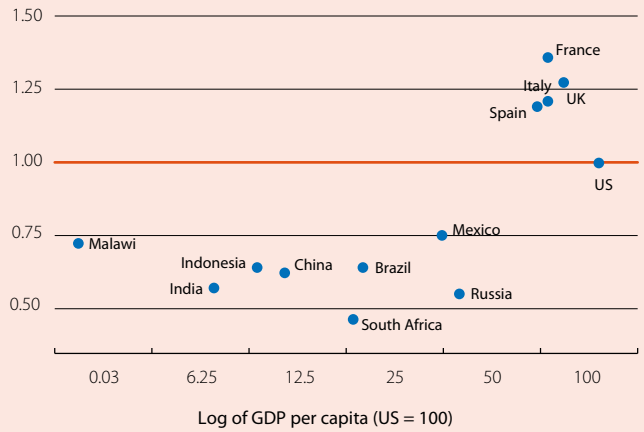


Note: *The points furthest away from the centre of the chart are relatively strong in these areas.*
Source: *CaixaBank Research, based on data from the OECD.*

Aware of this limitation, the OECD provides a tool that compares the relative weights of the 11 factors that make up its index. A simple exercise shows us that, irrespective of the relative weights, Nordic countries tend to remain at the top of the ranking while changes in these relative weights result in changes especially in the middle and lower sections.

Well-being and income across countries

*(Ratio of well-being to income) **



Note: ** Well-being measured in terms of equivalent consumption which includes, as determinants, consumption, leisure, mortality rates and inequality.*
Source: *Jones, C. I. and Klenow, P. J. (2016), «Beyond GDP? Welfare across Countries and Time», American Economic Review, vol. 106(9), p. 2426-2457.*

For instance, if the relative weight of the 11 indicators is the same, Norway heads the index ranking, the US is 9th and Spain 19th. However, if we put health, education and the work-life balance as the most important factors, namely those factors considered to be the most important by index users in Spain and also in the US and Norway,[7] Denmark would lead the ranking (followed by Norway), the US would fall to 13th and Spain would remain 19th.

In conclusion, although there are drawbacks to all measurements of well-being, the Nordic countries tend to rank better in all of them, reminding us that we should still look to them as a benchmark.

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6. See Alesina, A., Di Tella, R. and MacCulloch, R. (2004), «Inequality and Happiness: Are Europeans and Americans Different?», Journal of Public Economics, p. 2009-2042.
7. These findings are based on the answers given by 3,200 people visiting the Spanish Better Life Index website, 1,600 visitors to the Norwegian website and 18,200 visitors to the US website. They are therefore merely indicative and do not represent the whole population.

Money does not bring happiness, but does it help?

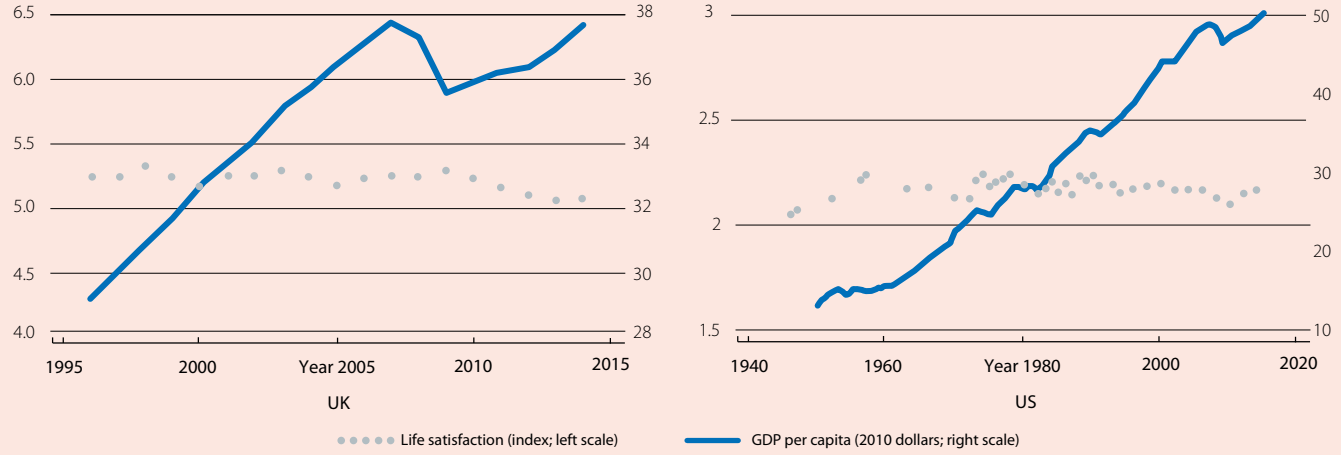
What is the relationship between individual happiness, the well-being of citizens and the income per capita of countries? There is a lot of debate regarding this question in academic circles since the ultimate aim of economic policy is to maximise the happiness or well-being of citizens (if possible, the well-being of both present and future citizens). In practice, however, decisions tend to be taken based on criteria for the generation of income (or wealth), assuming this is the best way to ensure citizens are as happy as possible. The appropriateness of economic policy decisions therefore depends on whether income and happiness are closely related.

The pioneering work in this field has been by Richard Easterlin.[1] His work suggests that an increase in a country's GDP per capita is not associated with a rise in the average level of happiness of its inhabitants.[2] This finding is known as the «Easterlin paradox» and it has generated a large amount of literature attempting to confirm or refute its findings. Generally speaking, studies on the trend in happiness in a single country over time tend to confirm this paradox. Easterlin himself, updating his initial work,[3] shows that real income per capita in the US almost doubled from 1973 to 2004 while mean happiness remained the same. This phenomenon is not restricted to the US, however. The same result was found in Japan, one of the developed countries whose real income per capita has increased the most since the Second World War. The findings are also the same in most European countries.

Nevertheless, this does not mean that money is not important. A lot of literature has shown that, at a specific point in time, there is indeed a very close relationship between income and happiness, both compared across countries and also across individuals in the same country. The key to reconciling these findings with the Easterlin paradox lies in the point in time used as reference: happiness is a subjective and relative concept which makes it difficult to measure over time since personal and/or environmental circumstances can change. This is a very important question and we will return to it later. But first we need to specify the exact relationship between income and happiness, across countries and also across individuals with larger and smaller incomes in the same country and at a specific time.

A country comparison reveals a positive relationship between income per capita and average life satisfaction across countries. Specifically, Stevenson and Wolfers[4] documented a correlation of 0.79 between both variables in a sample of 155 countries. They also found that this relationship is what is known as log-lineal: an additional EUR 100 has a greater impact on the happiness of a poor country than a rich one, whereas the increase in happiness will be similar if their respective incomes are doubled.

Average income and well-being in different countries



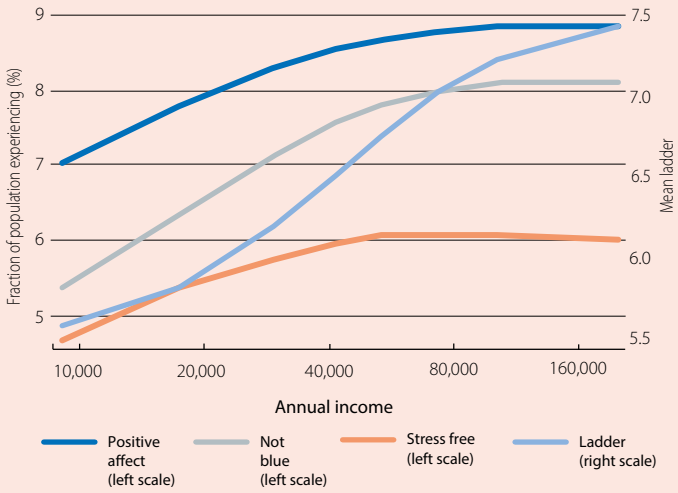
Source: *Clark, Fleche, Layard, Powdthavee and Ward (2016).*

1. See Easterlin, R. A. «Does Economic Growth Improve the Human Lot? Some Empirical Evidence», in David, P. A. and Reder, M. W. (eds.), «Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz» (New York and London: Academic Press, 1974).
2. Note that happiness is measured subjectively based on responses regarding life satisfaction, such as the Cantril ladder. See the article «Are you happy? Happiness and human beings» in this Dossier for a detailed explanation of the concept of happiness and its measurement.
3. See Easterlin, R. A. (1995), «Will Raising the Incomes of All Increase the Happiness of All», Journal of Economic Behavior & Organization, 27(1), p. 35-47.
4. Stevenson and Wolfers (2013), «Subjective Well-Being and Income: is There Any Evidence of Satiation?», American Economic Review, Papers & Proceedings, 103(3).

A comparison between rich and poor individuals in the same country and at the same point in time also reveals a positive relationship between income and life satisfaction. Easterlin had already identified this correlation in 1974 and it has since been confirmed by a large number of studies. For instance, Stevenson and Wolfers analysed this relationship with microeconomic data (at an individual level) in the 25 most populated countries in the world. They found a growing trend in the mean life satisfaction of individuals from less to more according to their income percentile.

Some researchers have proposed a modified (or weaker) version of the Easterlin paradox based on the idea of a satiation point as from which happiness no longer increases with income. This hypothesis implies that, as from a certain level of development, a country's average happiness no longer increases. Comparing individuals, the impact of an increase in income would also become zero as from a certain income threshold. The study by Stevenson and Wolfers analysed this issue in detail, using various databases and different satiation points. They found that a proportional increase in income produces the same impact on a country's or individual's happiness, irrespective of their income level. They therefore conclude that there is no evidence for this satiation point. It should be noted, however, that this analysis measures happiness according to life satisfaction. Kahneman and Deaton,[5] in a study only on the US, differentiated between life satisfaction and emotional well-being, referring to the emotional quality of an individual's everyday experience. While the former appears to have a clearly positive correlation with income, emotional well-being peaks around USD 75,000. This result is found for the three measurements of emotional well-being analysed, referring to the intensity and frequency with which individuals experience enjoyment or joy (positive affect), sadness or worry, and stress.

Income, emotional well-being and life satisfaction



Source: *Kahneman and Deaton (2010).*

We have carried out a more or less exhaustive review of the studies analysing the relationship between happiness and income. Now we must reconcile the apparently contradictory empirical findings. On the one hand, happiness increases with income across both countries and individuals; on the other, comparisons over time show a country's average level of happiness remains constant in spite of economic gains. The generally accepted explanation for this discrepancy is an individual subjectively rates their income in comparison with a benchmark group. In other words, happiness does not depend on a person's absolute income level. It depends on how someone's income compares with others (social comparison) or with their own past level (habit).[6] This necessarily limits the validity of comparisons over time. The idea is relatively self-explanatory: if the social benchmark were the living conditions of 200 years ago, perhaps all of us would enjoy a much higher level of life satisfaction since the average standard of living today is far above that of even the wealthiest people in the past. Although an increase in income over time has a positive impact on happiness, there are other indirect effects operating in the opposite direction. Ultimately, mean happiness remains relatively constant over time, in spite of society's higher standard of living.

One general conclusion that might be gleaned from the aforementioned studies is that it is logical to use aggregate income measures, such as GDP per capita, to guide economic policy. This is because the relationship between income and happiness is usually quite close. However, we must also acknowledge the limitations of such measurements and the need to take other factors into account that also determine our well-being and happiness.

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5. See Kahneman, D. and Deaton, A. (2010), «High income improves evaluation of life but not emotional well-being», PNAS, vol. 107.
6. See Clark, A. *et al.* (2008), «Relative Income, Happiness and Utility: An Explanation for the Easterlin Paradox and Other Puzzles», Journal of Economic Literature, vol. 46 (1).

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Profit attributable to Group, YTD	403
Market capitalisation	24,085
Customers (million)	15.8
Employees	37,638
Branches	5,525
Branches in Spain	4,990
Self-service terminals in Spain	9,461

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	MILLION €
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Excellence in research and training	79.6
Raising awareness of culture and knowledge	126.2
TOTAL BUDGET	**510**

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