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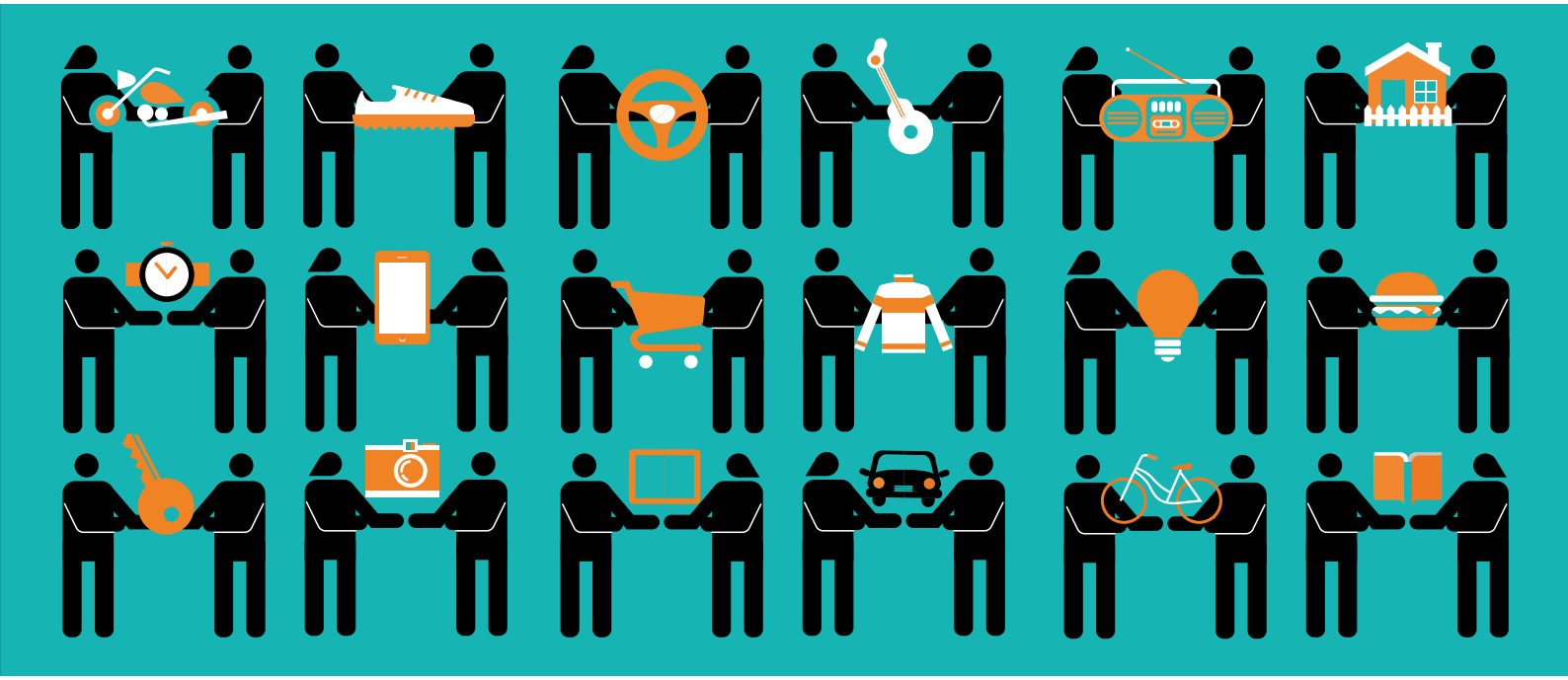

ECONOMIC & FINANCIAL ENVIRONMENT

FINANCIAL MARKETS
What is behind the rise in oil prices?

INTERNATIONAL ECONOMY
Drivers of global growth: a comprehensive analysis

SPANISH ECONOMY
Strong recovery in employment: explanatory factors

PORTUGUESE ECONOMY
What is behind Portugal's low inflation?

DOSSIER: THE SHARING ECONOMY

The sharing economy: from emerging phenomenon to a key part of the digital revolution

The sharing economy and tourism

The sharing economy and the labour market

The challenges of regulation of the sharing economy

CaixaBank Research

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK
July-August 2018

The *Monthly Report* is a publication developed jointly by CaixaBank Research and BPI Research (UEEF)

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The new world of the sharing economy

The sharing economy was born a long time ago. Years ago, the student announcing review classes on their local bakery's bulletin board was already participating in the sharing economy. Today, although you can still see these types of adverts, digital platforms have replaced them as the main meeting point for service-providers and users, and they have become a business model in their own right.

By reducing transaction costs, digital platforms greatly expand the potential scope of the sharing economy. In certain sectors, such as housing, transportation or domestic services, its growth in recent years has been nothing short of spectacular.

Certainly, this expansion of the sharing economy generates new opportunities. For potential service-providers, it offers flexible working arrangements and new sources of income - as is the case for a person who decides to spend a few hours a week doing home deliveries, or for a family who rents out their son's room now that they have left home. For consumers, it offers new services, a greater diversity of supply and lower prices. For society as a whole, the sharing economy can contribute to a more efficient use of resources (for example, through car-sharing for long-distance journeys).

The rise of the sharing economy also highlights the need to clarify the regulatory framework under which the platforms and their participants must operate. This is necessary, first and foremost, to provide legal clarity, which is an essential ingredient needed for any economic activity to flourish. It should be clear, for example, under what conditions a person offering their services on a platform will be considered self-employed or an employee. This distinction is important because the labour rights enjoyed by these two types of workers are very different, as well as because it will implicitly define who is the provider of the service - the platform or the worker. There will always be grey areas, but good legislation should try to minimise them.

Proper regulation should also seek to avoid unfair competition. The collaborative economy should not be a loophole for regulatory arbitrage, nor for the submerged economy. There must be a level playing field for all competitors that offer equivalent services. At the same time, it is important to take proportionality into consideration. The requirements should not be the same for someone who rents out a property for a few days a year as they are for an entrepreneur whose main occupation involves managing the daily rentals of all the homes in an entire building throughout the year. The boundaries between one activity and the other must be clear and it would seem logical for the requirements applicable to the latter case to be the same as those that apply to an apartment hotel of the same scale. In the sphere of taxation, platforms can also help tax authorities and taxpayers to comply with their obligations.

In the sharing economy, as is often the case, the reality is one step ahead of the laws. In this situation, an effort should be made to at least prevent the laws from lagging too far behind.

We hope you enjoy reading the Dossier, the rest of the *Monthly Report* and, of course, a well-deserved holiday season.

Enric Fernández
Chief Economist
30 June 2018

Chronology

JUNE 2018

13 The Fed raises the official rate by 25 bps, placing it within the range of 1.75%-2.00%.
14 The ECB announces that the net purchases of assets will decrease to 15 billion euros per month starting in October, before being brought to an end in December 2018.

APRIL 2018

13 The credit rating agency Moody's raises Spain's credit rating from Baa2 to Baa1.

FEBRUARY 2018

5 Jerome Powell takes over as Chair of the US Federal Reserve, replacing Janet Yellen.

MAY 2018

8 The US abandons the Iran nuclear deal reached in 2015 and announces the restoration of sanctions. Argentina requests financial aid from the IMF to deal with the country's significant macroeconomic imbalances.
31 The US imposes tariffs on imports of steel and aluminium from Europe, Mexico and Canada.

MARCH 2018

8 President Trump imposes tariffs on imports of steel and aluminium.
21 The Fed raises the fed funds rate by 25 bp to a range of 1.50%-1.75%.

JANUARY 2018

19 The Fitch ratings agency raises Spain's credit rating from BBB+ to A–.
31 The European Banking Authority (EBA) begins stress tests for Europe's banks for the period 2018-2020.

Agenda

JULY 2018

3 Spain: registration with Soc. Security and registered unemployment (June).
11 Portugal: CPI (June).
16 Spain: financial accounts (Q1).
China: GDP (Q2).
18 Spain: loans, deposits and NPL ratio (May).
19 Portugal: loans and deposits (May).
26 Governing Council of the European Central Bank meeting.
Spain: labour force survey (Q2).
Portugal: budget execution (June).
27 US: GDP (Q2).
30 Spain: CPI flash estimate (July).
Euro area: economic sentiment index (July).
31 Spain: GDP (Q2).
Spain: state budget execution (June).
Euro area: GDP (Q2).
31-1 Federal Open Market Committee meeting.

AUGUST 2018

31-1 Federal Open Market Committee meeting.
2 Spain: registration with Soc. Security and registered unemployment (July).
6 Japan: GDP (Q2).
8 Portugal: employment (Q2).
14 Euro area: GDP (Q2).
Portugal: GDP flash estimate (Q2).
20 Spain: loans, deposits and NPL ratio (June).
22 Portugal: loans and deposits (June).
27 Portugal: budget execution (July).
30 Spain: CPI flash estimate (August).
Euro area: economic sentiment index (August).
31 Portugal: GDP (Q2).

Solid growth in an environment of volatility

The global economy is sailing through choppy waters. Global economic activity has ended the first half of the year with strong growth, close to the 3.8% recorded in 2017. These positive indicators are the result of positive figures in both the advanced economies and the major emerging markets. However, they contrast with a backdrop of greater downside risks, particularly those related to the geopolitical environment and trade, and with a change of tone in the financial environment. First of all, throughout the semester the US administration has taken a more belligerent stance on foreign policy, reintroducing economic sanctions on Russia and Iran and threatening a trade war with China and other partners such as the EU. In fact, in June the US announced a rise in tariffs on Chinese imports and introduced tariffs on imports of steel and aluminium from the EU, Mexico and Canada (which led to a reprisal from Europe, with tariff increases on US imports). Although the direct impact of all these measures is small (they affect barely 1.5% of the global trade flows of goods), they could have much graver consequences if they end up affecting investor sentiment and consumer confidence. Additionally, in financial markets, fears of a protectionist shift at a global level and heightened geopolitical tensions have led to greater risk aversion, as well as unleashing a surge in volatility. This has resulted in stock market corrections, rising risk premiums and depreciations among emerging currencies. All in all, at the end of the semester, the low-volatility financial environment of recent years seems to be fading away.

Monetary policy becomes less accommodative. The change in the financial landscape towards a more volatile environment has been brought about not only by geopolitical tensions but also by the gradual tightening of monetary policy at a global level. Specifically, the improvement in the macroeconomic environment is enabling the US Federal Reserve (Fed) to steadily reduce its monetary stimulus, which is leading to a tightening of the domestic and international financial conditions (the emerging economies have been particularly penalised by the renewed strength of the dollar). In June, the Fed continued this trend with another increase in its reference rate (the second such increase so far this year), bringing it up to the range of 1.75%-2.00%. It also presented a very positive view of the macroeconomic environment in the US, reiterating its intention to maintain the pace of rate rises over the coming quarters. Indeed, the indicators available suggest that the US enjoyed strong growth in the first half of the year. Nevertheless, the economy faces the challenge of maintaining a solid rate of growth without the support provided by the expansionary fiscal policy, which will probably disappear by mid-next year.

Europe consolidates its position in the expansionary phase of the cycle. The euro area is in a less mature phase of the business cycle than the US, and continues to have a positive outlook despite a somewhat less dynamic start to the year. Temporary factors (adverse weather conditions, strikes and abnormally severe flu epidemics in Northern Europe), as well as the volatility of the foreign sector, played a key role in the slowdown of the indicators during the first few months of the year. However, domestic demand exhibited stronger growth, which supports the view that the euro area has consolidated its position in the expansionary phase of the cycle. It is on this basis that the European Central Bank (ECB) announced in June that it will bring its net purchases of assets to an end in December 2018. However, over the next few quarters the ECB will keep financial conditions accommodative by not altering its reference rates and by remaining present in the markets, reinvesting the principal of the assets held on its balance sheet as they reach maturity.

Portugal consolidates its positive position, while the Spanish economy ends the semester with strong figures. Like in the euro area, the temporary factors present in the first half of 2018 led to the deceleration of growth also being felt in the Portuguese economy. Nevertheless, private consumption and investment continued to make headway, reflecting the underlying strength of the macroeconomic environment and the fact that Portugal has established its position in the expansionary phase of the business cycle. In Spain, meanwhile, the indicators show strong growth in economic activity. According to CaixaBank Research's GDP forecasting model, in Q2 2018 growth will have stood at 0.66% quarter-on-quarter, practically the same figure as in Q1 (0.7%). Looking forward to the second half of the year, we anticipate that growth will gradually temper, as some of the factors that have driven it in recent years fade. However, the accommodative financial conditions and the internal strengths of the Spanish economy (strong job creation, greater international competitiveness and progress made in the correction of macroeconomic imbalances) will continue to underpin robust growth.

Financial markets

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
INTEREST RATES							
Dollar							
Fed funds	3.43	0.48	0.64	1.39	2.50	3.00	3.25
3-month Libor	3.62	0.69	0.98	1.61	2.80	3.29	3.20
12-month Libor	3.86	1.18	1.67	2.05	3.10	3.41	3.25
2-year government bonds	3.70	0.72	1.18	1.84	3.00	3.42	3.30
10-year government bonds	4.70	2.70	2.49	2.41	3.35	3.75	3.55
Euro							
ECB depo	2.05	0.50	–0.40	–0.40	–0.40	–0.20	0.25
ECB refi	3.05	1.13	0.00	0.00	0.00	0.25	0.75
Eonia	3.12	0.77	–0.35	–0.34	–0.35	–0.10	0.40
1-month Euribor	3.18	0.93	–0.37	–0.37	–0.34	–0.08	0.42
3-month Euribor	3.24	1.13	–0.32	–0.33	–0.32	–0.04	0.44
6-month Euribor	3.29	1.30	–0.22	–0.27	–0.22	0.12	0.62
12-month Euribor	3.40	1.51	–0.08	–0.19	–0.12	0.27	0.79
Germany							
2-year government bonds	3.41	0.85	–0.76	–0.69	–0.45	0.08	0.73
10-year government bonds	4.30	2.21	0.29	0.35	0.70	1.26	1.96
Spain							
3-year government bonds	3.62	2.59	–0.13	–0.04	0.06	0.70	1.45
5-year government bonds	3.91	3.16	0.30	0.31	0.50	1.13	1.86
10-year government bonds	4.42	4.13	1.43	1.46	1.50	2.01	2.66
Risk premium	11	192	114	110	80	75	70
Portugal							
3-year government bonds	3.68	4.85	0.76	–0.05	0.08	0.83	1.74
5-year government bonds	3.96	5.42	2.05	0.46	0.73	1.41	2.24
10-year government bonds	4.49	5.90	3.75	1.84	1.95	2.46	3.11
Risk premium	19	369	346	149	125	120	115
EXCHANGE RATES							
EUR/USD	1.13	1.33	1.05	1.18	1.21	1.23	1.24
EUR/JPY	129.50	127.13	122.41	133.70	131.89	129.15	127.72
USD/JPY	115.34	96.09	116.06	113.02	109.00	105.00	103.00
EUR/GBP	0.66	0.83	0.85	0.88	0.87	0.86	0.84
USD/GBP	0.59	0.62	0.80	0.75	0.72	0.70	0.68
OIL PRICE							
Brent ($/barrel)	42.32	90.70	54.92	64.09	68.00	66.00	66.00
Brent (euros/barrel)	36.35	67.78	52.10	54.17	56.20	53.66	53.23

Note: *The figures correspond to the average for the last month in the period, unless otherwise specified.*

Forecasts

Percentage change versus the same period of the previous year, unless otherwise indicated

International economy

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
GDP GROWTH							
Global	4.5	3.3	3.2	3.8	3.9	3.8	3.7
Developed countries	*2.6*	*1.1*	*1.7*	*2.3*	*2.3*	*2.1*	*1.8*
United States	2.7	1.3	1.5	2.3	2.7	2.2	1.9
Euro area	2.2	0.2	1.8	2.6	2.2	2.0	1.7
Germany	1.7	0.9	1.9	2.5	2.2	2.0	1.8
France	2.0	0.5	1.1	2.3	2.0	2.0	1.6
Italy	1.5	–1.0	1.0	1.6	1.2	1.0	1.0
Portugal	1.5	–0.6	1.6	2.7	2.3	2.1	2.0
Spain	3.8	–0.4	3.3	3.1	2.8	2.4	2.3
Japan	1.5	0.3	1.0	1.7	1.1	1.1	0.9
United Kingdom	2.7	0.9	1.9	1.8	1.2	1.6	1.9
Emerging countries	*6.6*	*5.2*	*4.4*	*4.8*	*5.0*	*5.0*	*5.0*
China	10.5	8.6	6.7	6.9	6.5	6.3	6.0
India	7.2	6.7	7.9	6.2	7.5	7.5	7.5
Indonesia	5.1	5.8	5.0	5.1	5.4	5.6	5.9
Brazil	3.6	2.3	–3.5	1.0	2.1	2.6	2.6
Mexico	2.4	2.0	2.9	2.0	2.1	2.4	2.3
Chile	5.0	3.4	1.3	1.5	3.2	3.2	2.9
Russia	7.2	1.1	–0.2	1.5	1.8	2.3	2.0
Turkey	5.4	5.0	3.2	7.3	4.5	3.2	3.7
Poland	4.0	3.2	3.0	4.7	4.8	3.3	2.9
South Africa	4.4	2.0	0.7	1.3	1.2	1.8	1.9
INFLATION							
Global	4.1	3.9	2.8	3.0	3.3	3.3	3.2
Developed countries	*2.1*	*1.6*	*0.8*	*1.7*	*1.9*	*1.8*	*1.9*
United States	2.8	1.7	1.3	2.1	2.4	2.0	2.0
Euro area	2.1	1.5	0.2	1.5	1.6	1.7	1.8
Germany	1.7	1.4	0.4	1.7	1.7	1.9	1.9
France	1.8	1.3	0.3	1.2	1.8	1.8	1.8
Italy	1.8	1.4	0.0	1.3	1.2	1.5	1.6
Portugal	3.0	1.3	0.6	1.6	1.2	1.5	1.8
Spain	3.2	1.5	–0.2	2.0	1.8	1.9	2.0
Japan	–0.3	0.4	–0.1	0.5	0.8	0.8	1.2
United Kingdom	1.9	2.6	0.7	2.7	2.4	2.2	2.1
Emerging countries	*6.7*	*6.0*	*4.3*	*4.0*	*4.4*	*4.3*	*4.1*
China	1.7	2.7	2.0	1.6	2.0	2.4	2.4
India	4.5	9.0	4.9	3.3	4.6	5.0	4.7
Indonesia	8.7	6.0	3.5	3.8	3.5	4.4	4.6
Brazil	7.3	6.2	8.8	3.5	3.3	4.1	4.1
Mexico	5.2	4.1	2.8	6.0	4.4	3.8	3.4
Chile	3.1	3.5	3.8	2.2	2.5	2.9	3.0
Russia	14.2	9.5	7.1	3.7	2.9	3.9	4.0
Turkey	27.2	8.1	7.8	11.1	11.2	9.9	8.1
Poland	3.5	2.3	–0.2	1.6	1.4	2.7	2.5
South Africa	5.3	6.1	6.3	5.3	4.9	5.4	5.1

Forecasts

Percentage change versus the same period of the previous year, unless otherwise indicated

Spanish economy

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
Macroeconomic aggregates							
Household consumption	3.6	–1.1	2.9	2.4	2.6	2.0	1.9
Government consumption	5.0	0.8	0.8	1.6	1.5	0.8	0.7
Gross fixed capital formation	6.0	–4.2	3.3	5.0	3.4	3.0	2.7
Capital goods	5.4	–0.3	4.9	6.1	1.6	2.6	2.4
Construction	6.2	–7.0	2.4	4.6	4.8	3.2	2.9
Domestic demand (vs. GDP Δ)	4.6	–1.6	2.5	2.8	2.5	1.9	1.8
Exports of goods and services	4.8	2.4	4.8	5.0	3.7	4.2	4.1
Imports of goods and services	7.1	–1.4	2.7	4.7	3.2	3.2	2.9
Gross domestic product	**3.8**	**–0.4**	**3.3**	**3.1**	**2.8**	**2.4**	**2.3**
Other variables							
Employment	3.4	–1.9	3.0	2.8	2.2	2.1	2.0
Unemployment rate (% of labour force)	10.5	21.0	19.6	17.2	15.4	13.7	12.0
Consumer price index	3.2	1.5	–0.2	2.0	1.8	1.9	2.0
Unit labour costs	3.3	0.4	–0.6	–0.1	0.5	1.8	2.4
Current account balance (cum, % GDP)[1]	–6.0	–2.1	1.9	1.9	1.6	1.7	1.6
External funding capacity/needs (cum., % GDP)[1]	–5.3	–1.7	2.2	2.1	1.8	1.9	1.8
Fiscal balance (cum., % GDP)[2]	0.4	–7.3	–4.3	–3.1	–2.6	–1.9	–1.3

Notes: *1. Four-quarter cumulative total. 2. Four-quarter cumulative total. Excludes losses for assistance provided to financial institutions.*

Forecasts

Portuguese economy

	Average 2000-2007	Average 2008-2015	2016	2017	2018	2019	2020
Macroeconomic aggregates							
Household consumption	1.7	–0.5	2.1	2.3	2.4	1.8	1.7
Government consumption	2.3	–0.8	0.6	–0.2	0.4	0.4	0.2
Gross fixed capital formation	–0.3	–4.2	1.5	9.2	5.3	4.9	4.5
Capital goods	1.3	–1.0	5.2	13.8	7.4	6.5	5.5
Construction	–1.6	–7.0	–0.3	9.2	5.5	6.2	5.5
Domestic demand (vs. GDP Δ)	1.5	–1.4	1.7	2.9	2.6	2.1	1.9
Exports of goods and services	5.2	3.4	4.4	7.9	6.5	5.3	4.8
Imports of goods and services	3.6	1.2	4.2	7.9	6.6	5.1	4.4
Gross domestic product	**1.5**	**–0.6**	**1.6**	**2.7**	**2.3**	**2.1**	**2.0**
Other variables							
Employment	0.4	–1.4	1.2	3.3	2.2	1.3	0.9
Unemployment rate (% of labour force)	6.1	12.3	11.1	8.9	7.6	6.9	6.4
Consumer price index	3.0	1.3	0.6	1.6	1.2	1.5	1.8
Current account balance (cum, % GDP)[1]	–9.4	–4.8	0.6	0.5	0.5	0.6	0.6
External funding capacity/needs (cum., % GDP)[1]	–7.9	–3.4	1.6	1.4	1.3	1.3	1.2
Fiscal balance (cum., % GDP)[2]	–4.4	–6.8	–2.0	–3.0	–0.8	–0.9	–0.9

Notes: *1. Four-quarter cumulative total. 2. Four-quarter cumulative total. Excludes losses for assistance provided to financial institutions.*

Forecasts

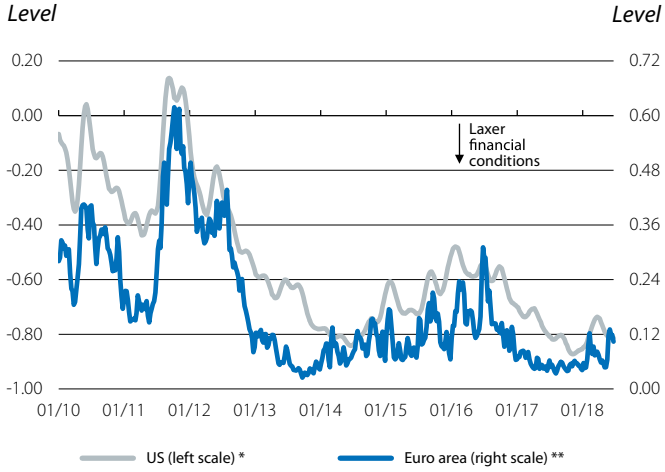
Uncertainty predominates in the financial markets

Markets round out a volatile semester. The financial environment has undergone a change of scenario in the first six months of 2018 and has left behind the period of very low volatility seen in recent years. Throughout the first half of the year, stock markets have suffered various episodes of losses, interest rates have risen, risk premiums on sovereign and corporate debt have proven unstable and the dollar has gained strength against the major currencies of both the advanced and emerging economies. This change in the financial landscape has been driven, in part, by the less accommodative tone of the central banks in the advanced economies, reflecting a positive macroeconomic environment. In addition, the semester has brought with it an increase in risk aversion due to fears of a protectionist shift at a global level and increased geopolitical tensions. Both of these elements reared their heads in the financial headlines in June. Among the central banks, the US Fed announced a further hike in rates, while the ECB announced that it would end net asset purchases in December 2018. Although these decisions came as no surprise to investors, a new rise in trade tensions between the US and China (as well as other trading partners, such as the EU), together with a certain prevalence of political uncertainty in Italy, once again caused somewhat erratic market behaviour at the end of June.

The Fed reinforces the tightening of US monetary policy. At its meeting in June, the Fed increased its target interest rate by 25 bps for the second time this year, placing it in the range of 1.75%-2.00%. This decision was taken on the basis of the Fed's very positive outlook for the macroeconomic environment, according to which its members expect US economic activity to continue to grow above its potential and the labour market to remain at full employment for the next few years. In taking this decision, the Fed reiterated the need to continue to gradually tighten financial conditions with further rate increases over the coming quarters. More specifically, the members of the Fed expect to carry out between four and five new rate increases up until the end of 2019. This outlook is consistent with the scenario foreseen by CaixaBank Research, albeit slightly more aggressive than that indicated by financial valuations. Although there were no large movements in the markets in response to these announcements, US sovereign interest rates were volatile over the month as a whole, surging by almost 15 bps in the first 15 days of the month, only for this increase to be undone due to the rise in trade tensions between the US and China.

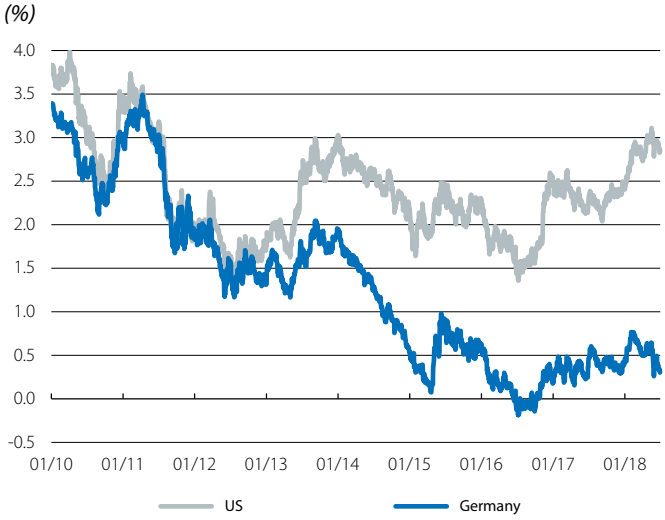
The ECB announced the end of QE at its June meeting, noting that it will keep net purchases at a rate of 30 billion euros per month until September, before reducing them to 15 billion per month starting in October and finally bringing them to an end in December 2018. The ECB based its decision on the strength of the economic outlook and on the euro area consolidating its position in the expansionary phase of the cycle. However, it also recalled that there prevails a significant degree of economic

Financial conditions indicators



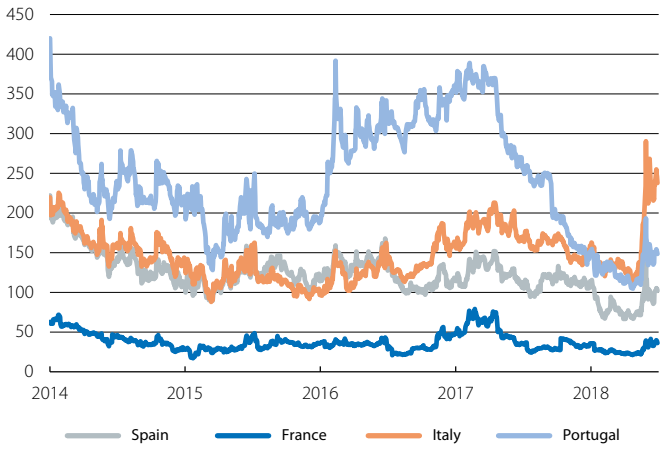
Notes: ** Financial Conditions Index of the Federal Reserve Bank of Chicago.*
*** Indicator of systemic stress of the ECB (two-week moving average).*
Source: *CaixaBank Research, based on data from Bloomberg.*

10-year public debt yield



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

Euro area: risk premiums of 10-year public debt



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

slack and that inflationary pressures remain contained, thereby implying a need to preserve an accommodative financial environment. Thus, the ECB announced that interest rates will remain unchanged until at least after the summer of 2019. It also reiterated that it will remain active in financial markets by reinvesting the principal of the assets currently held on its balance sheet as they reach their maturity dates. In the wake of these announcements, European sovereign yields fell, in a clear sign that investors had paid more attention to the future path of the reference rates than to the end of net asset purchases. Peripheral sovereign spreads, meanwhile, continued to decline following the episode of risk aversion surrounding Italy, although they still ended the month at relatively high levels.

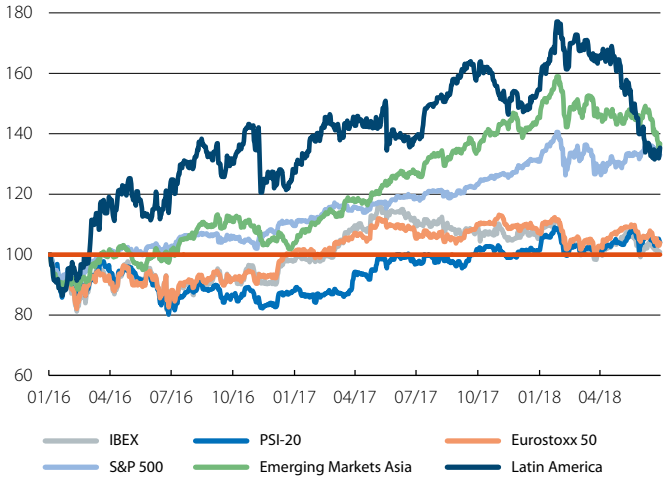
International stock markets display erratic behaviour. The main international trading floors began the month of June with a constructive tone, recording gains of over 3% in advanced economies. However, towards the middle of the month, stock markets took a downturn due to a renewed surge in tensions between the US and its trading partners. As such, emerging-market and euro areastock market indices suffered losses in the rest of the month and closed June down (Eurostoxx 50 –0.3%, DAX –2.4%, CAC –1.4% and MIB –0.7%), with the exception of Spain and Portugal (IBEX +1.7% and PSI +1.1%). US stock markets, meanwhile, managed to close the month with slight increases, at least for the most part (S&P 500 +0.5%, Dow Jones –0.6% and Nasdaq +1.0%).

The dollar remains strong. In June, the dollar continued its rise and made gains against the major international currencies. Among the advanced economies, the euro fluctuated around 1.16 dollars, while virtually all emerging-economy currencies depreciated. Losses were also recorded by the Argentine peso (–13.7%) and, to a lesser extent, the Turkish lira (–1.4%, having recovered some lost ground following the current president Recep Tayyip Erdoğan's electoral victory), while the Mexican peso ended the month virtually flat on the eve of the elections of 1 July.

OPEC and its partners ease oil production cuts and, starting in July, will increase the current production ceiling of 32.5 million barrels a day (mb/d) by 1 mb/d. In any case, since several countries are already producing at full capacity, estimates indicate that the actual increase will be of around 700,000 barrels. As discussed in the Focus «What is behind the rise in oil prices?» in this same *Monthly Report*, the announcement came following a period of a few months in which oil prices had risen sharply, due to the production cuts exceeding those initially agreed and the strength of global demand, among other factors. In this context, the price of a barrel of Brent fluctuated around 75 dollars, without showing any signs of decline after the OPEC announcement, and ended the month with a new rally towards 78 dollars.

Main international stock markets

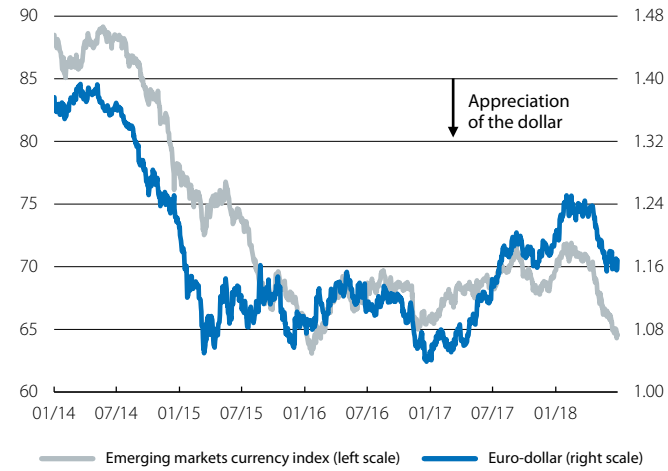
Index (100 = January 2016)



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

International currencies against the US dollar

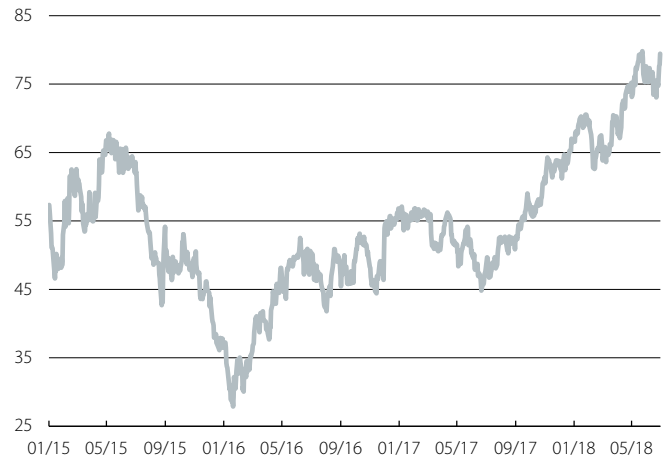
(Index) *(Dollars per euro)*



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

Brent oil price

(Dollars per barrel)



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

What is behind the rise in oil prices?

The price of oil has risen by more than 70% over the last 12 months, from 45 dollars per barrel of Brent in June 2017 to nearly 80 dollars in May 2018. So, after three years of low prices, crude oil has returned to levels not seen since late 2014. What are the forces behind this rise in oil prices? Could it compromise the growth of the global economy? We analyse this question below.

The factors behind the rise in oil prices

In early 2017, the oil market was in a situation in which supply persistently exceeded demand and, therefore, a significant buffer of crude oil stocks had accumulated (see first chart). However, the price of Brent oil had recovered from the declines seen in 2014 and 2015 and it had stabilised at around 55 dollars per barrel. On the one hand, this recovery was a result of the agreement reached between OPEC and other large producers, such as Russia, in November 2016 to cut production.[1] On the other hand, the accumulated stocks provided a buffer which reduced the volatility of the oil price, isolating it (partially) from the episodes of geopolitical instability.

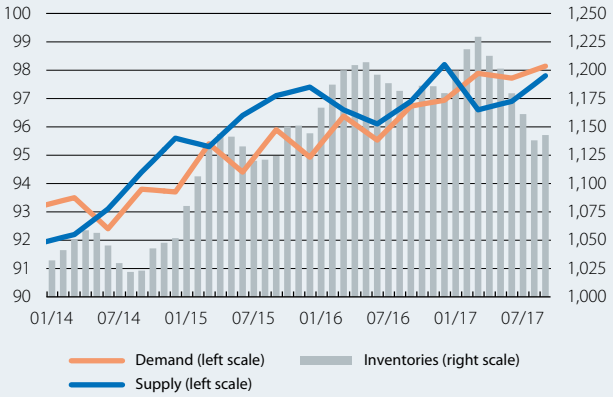
From June 2017, however, oil prices began to increase sharply, driven by factors related to both supply and demand. On the supply side, the first chart shows how the agreement reached between OPEC countries and their partners to cut production succeeded in containing, and even reducing, the global oil supply. What is more, the cuts in oil production have clearly exceeded those agreed, as shown in the second chart.[2] As this reduction in the supply pressured prices up, US crude oil production was expected to surge and thus contain the price of Brent oil between 50 and 60 dollars. However, in the last few quarters, the US oil infrastructure has been constrained by bottlenecks and has not been able to offset the impact of the OPEC cuts.[3]

To add to the restriction of supply, on the demand side global economic growth surprised on the upside and led to a significant upward revision of growth forecasts. In fact, the third chart shows a very clear association between the increase in the price of oil and the improvement in the outlook for global GDP. Finally, the combination of these dynamics of supply and demand led to a substantial depletion of the buffer in crude oil stocks, which would explain the increased volatility in the price of oil and its renewed sensitivity to geopolitical risks. Following on

1. For an analysis of the agreement and what caused it, see the Focus «The oil producer agreement: the cartel is back» in MR01/2017.
2. Part of the reason for the agreed production cuts being exceeded is the major economic crisis which Venezuela has been suffering from and the collapse of its oil production: in May 2018, the country supplied 600,000 barrels per day less than in May 2017.
3. See R.S. Kaplan (2018) «A Perspective on Oil», speech of 19 June.

Oil: supply, demand and global inventories

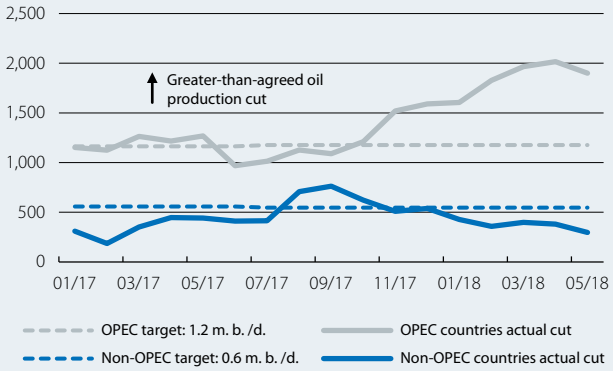
(Thousands of barrels per day) *(Millions of barrels accumulated)*



Source: *CaixaBank Research, based on data from the US Department of Energy and the IMF.*

Oil production cuts: extent of fulfilment

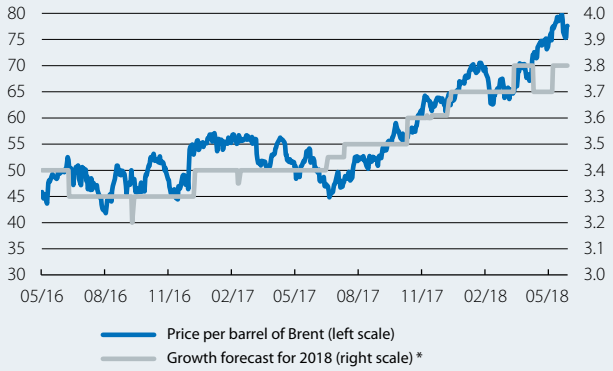
Observed cuts and target cuts (thousands of barrels per day)



Source: *CaixaBank Research, based on data from Bloomberg, the US Department of Energy and OPEC.*

Oil prices and global GDP growth expectations

(Dollars per barrel of Brent) *Year-on-year change (%)*



Note: ** Forecasts of the Bloomberg consensus.*
Source: *CaixaBank Research, based on data from Bloomberg.*

from this, it is likely that the recent reintroduction of economic sanctions on Iran has also contributed to the rise in the price of oil (not only through the direct impact it will have on the country's oil exports, but also by increasing the risk of geopolitical conflicts in the Persian Gulf region).

Despite the fact that there is consensus on the role played by all of these factors, their relative importance is not clear and quantitative estimates on this matter vary considerably depending on the methodology used. For example, the Federal Reserve Bank of New York breaks down oil price fluctuations into factors related to supply and demand, based on their relationship with a whole range of financial variables. Its results, which we reproduce in the fourth chart, indicate that demand is responsible for nearly 50% of the price increase, while supply would explain 20% of the increase (the model attributes the remaining 30% to other factors it cannot explain). On the other hand, based on the analysis of production and consumption of oil in the past and of the accumulation of stocks (which reflect expectations about the future balance between supply and demand), the ECB has recently estimated[4] that supply factors are responsible for slightly more than 60% of the surge in price, while 30% of the increase is down to global demand, and the depletion of stocks would have tended to push prices slightly downwards.

Consequences for growth

The impact of higher oil prices on global growth will depend on two elements: i) the factors responsible for the movement (supply, demand, or others) and ii) the balance between the positive impact on oil-exporting economies and the negative impact on importers of crude oil. Traditional estimates, such as those by the IMF which we share in the fifth chart, implicitly assume that the negative consequences on importers of oil (with a higher marginal propensity to consume) have far outweighed the positive effect on the income of oil exporters. However, whereas these estimates have focused on analysing the consequences of a reduction in oil supply, we have just seen that factors related to demand have also played an important role in the recent trends and, therefore, can mitigate the negative impact of the rise in the price of oil. In this regard, the 2014 empirical study by Cashin *et al.*[5] shows that an increase in the oil price due to factors related to demand is associated with increases in economic activity in both oil-exporting and oil-importing economies, since it is the result of a positive momentum in the global economy.

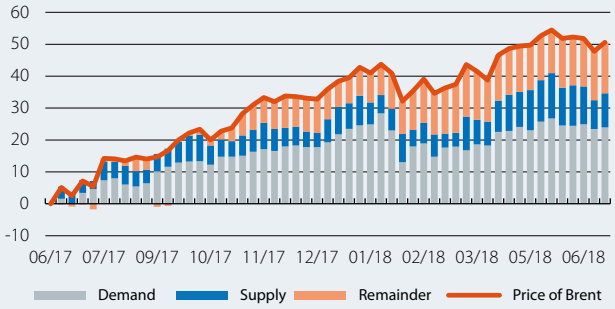
4. See I. Alonso and F. Skudelny (2018), «Are the recent oil price increases set to last?» in the ECB's 02/2018 Economic Bulletin.
5. Cashin *et al.* (2014), «The Differential Effects of Oil Demand and Supply Shocks on the Global Economy», Energy Economics.

Finally, in addition to the mitigating effect of demand, there have been other changes in the traditional transmission mechanisms. Firstly, oil has become less important in the global supply chain, both due to GDP being less energy-intensive and due to oil accounting for a smaller portion of the total energy consumed. Secondly, the oil-exporting economies currently have smaller fiscal buffers, meaning that their propensity to spend the additional revenues generated from oil may be greater. Finally, the irruption of the shale sector in the US has resulted in much of the US economy now benefiting from higher oil prices.

On the whole, all these elements suggest that the impact of rising oil prices on the global economy could be less significant than traditionally expected, and they also help to explain why global GDP has remained strong in recent quarters.

Oil price: breakdown into factors of supply and demand

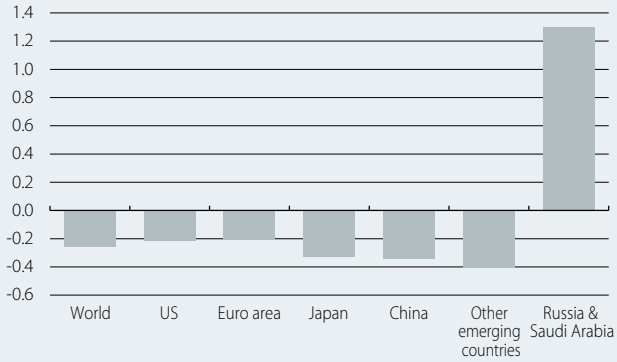
*Deviation from the price of 23 June 2017 (%) **



Note: ** The percentage deviation is approximated with logarithmic differentiation. Given that the approximation gets worse as the deviation increases, the logarithmic difference presented in this chart does not always match the percentage deviation observed.*
Source: *CaixaBank Research, based on data from the Federal Reserve Bank of New York.*

*Impact on GDP of an upswing in the price of oil **

Change in GDP after two years (%)



Note: ** We assume an increase of 10% in the price of oil due to factors affecting supply.*
Source: *CaixaBank Research, based on estimates by the IMF in the «World Economic Outlook» report of October 2014.*

Interest rates (%)

	29-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	**–0.32**	–0.32	0	0.8	1.0
1-year Euribor	**–0.18**	–0.18	0	0.6	–2.4
1-year government bonds (Germany)	**–0.64**	–0.65	1	–0.2	1.8
2-year government bonds (Germany)	**–0.67**	–0.66	–1	–4.3	–10.6
10-year government bonds (Germany)	**0.30**	0.34	–4	–12.7	–15.2
10-year government bonds (Spain)	**1.32**	1.50	–18	–24.7	–21.3
10-year spread (bps) [1] (Portugal)	**102**	116	–14	–12.0	–6.1
US					
Fed funds	**2.00**	1.75	25	50.0	75.0
3-month Libor	**2.34**	2.32	2	64.6	104.1
12-month Libor	**2.76**	2.72	4	65.3	102.0
1-year government bonds	**2.31**	2.22	9	57.8	109.3
2-year government bonds	**2.53**	2.43	10	64.7	116.1
10-year government bonds	**2.86**	2.86	0	45.5	59.3

Spreads corporate bonds (bps)

	29-June	31-May	Monthly change (bp)	Year-to-date (bp)	Year-on-year change (bp)
Itraxx Corporate	**74**	69	5	29.5	18.6
Itraxx Financials Senior	**90**	85	5	46.2	36.7
Itraxx Subordinated Financials	**180**	185	–4	75.8	46.3

Exchange rates

	29-June	31-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD	**1.168**	1.169	–0.1	–2.7	2.1
EUR/JPY	**129.360**	127.230	1.7	–4.4	0.8
EUR/GBP	**0.885**	0.879	0.6	–0.4	0.6
USD/JPY	**110.760**	108.820	1.8	–1.7	–1.3

Commodities

	29-June	31-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	**439.1**	446.3	–1.6	1.6	–1.1
Brent ($/barrel)	**79.4**	77.6	2.4	18.8	67.5
Gold ($/ounce)	**1,253.2**	1,298.5	–3.5	–3.8	0.6

Equity

	29-June	31-May	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	**2,718.4**	2,705.3	0.5	1.7	12.3
Eurostoxx 50 (euro area)	**3,395.6**	3,406.7	–0.3	–3.1	–2.2
Ibex 35 (Spain)	**9,622.7**	9,465.5	1.7	–4.2	–8.6
PSI 20 (Portugal)	**5,528.5**	5,468.7	1.1	2.6	7.5
Nikkei 225 (Japan)	**22,304.5**	22,201.8	0.5	–2.0	10.3
MSCI Emerging	**1,069.5**	1,120.7	–4.6	–7.7	5.5

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

Steady growth with risks on the downside

The latest global economic indicators point to a positive growth outlook for the remainder of 2018. The global composite business sentiment index (PMI) clearly remains in expansionary territory and in May, it increased slightly to 54.0 points. In addition, CaixaBank Research's indicator that estimates global growth suggests that in Q2 2018, the global economy will have grown at a very similar rate to that of previous quarters (see Focus «Drivers of global growth: a comprehensive analysis» in this *Monthly Report*). Indeed, the latest global data support the hypothesis that global growth remains solid, supported by high sentiment and confidence indicators, accommodative financial conditions and contained commodity prices, for both exporters and importers.

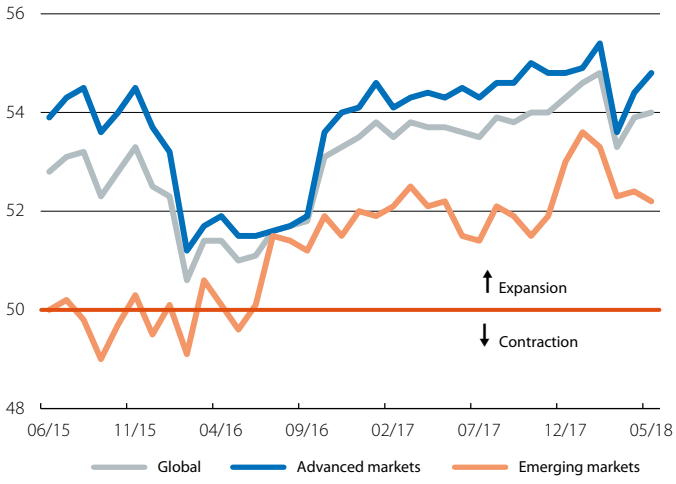
Downside risks, however, are rising. The positive dynamic in global activity coexists with significant risks related to trade and in the macrofinancial sphere. In particular, after weeks of negotiations with China, the US announced a tariff increase on Chinese imports (of around 50 billion dollars), arguing that it would reduce its hefty trade deficit with the Asian country. Moreover, the announcement provoked an escalation of declarations from both sides, with China threatening to introduce an equivalent increase in tariffs, and Trump threatening (via Twitter) to increase tariffs to 200 billion dollars. In addition, the US introduced tariffs on imports of steel and aluminium from the EU, Mexico and Canada, and Europe responded with an increase in tariffs on US imports of 3.3 billion dollars. Although all these actions only affect 1.5% of total trade flows of goods, they generate uncertainty, which could dent confidence and, therefore, global growth. On the other hand, in the macrofinancial sphere, outflows of capital from emerging markets in May highlight concerns regarding their resilience in a less accommodative financial environment. Finally, June was also marked by the European political agenda. At the European Council meeting, a common plan for managing the EU immigration crisis was agreed, which will involve greater cooperation with origin and transit countries and measures to limit the movement of immigrants within the EU. However, there were no significant changes on other fronts towards greater European integration.

US

The latest data confirm a solid pace of growth in Q2. GDP Nowcasting models of the Federal Reserves of Atlanta and New York predict a Q2 growth much higher than that of Q1 (when annualised, quarter-on-quarter growth stood at 2.0%, or at 0.5% when not annualised) and well above US potential growth (close to 2%). In this regard, over the medium term, the economy faces the challenge of coping with the fading of the cyclical factors that are supporting the economy's current momentum, such as expansionary fiscal policy. We expect a relatively gentle slowdown, from a growth rate of 2.7% in 2018

Economic activity indicators: composite PMI

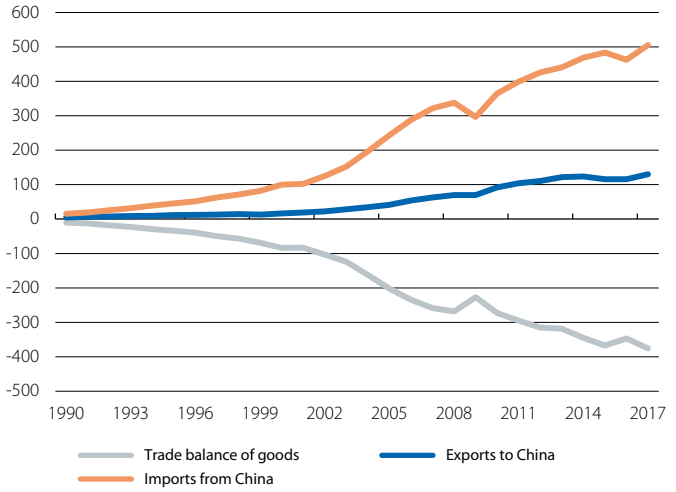
Level



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

US - China: external balance of goods

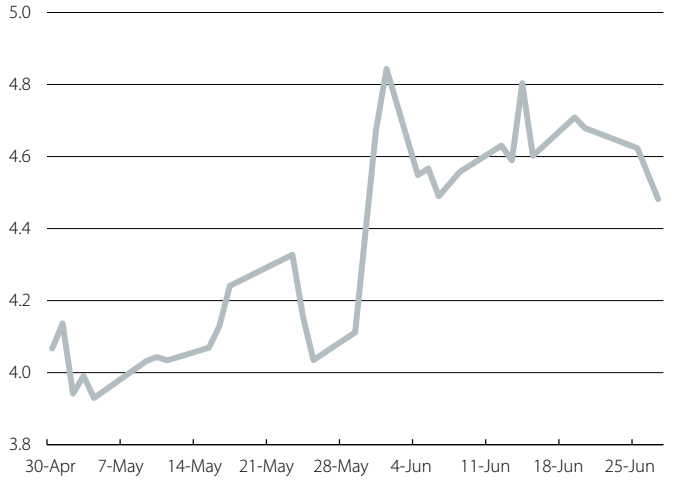
USD billions



Source: *CaixaBank, based on data from the US Census Bureau.*

US: Q2 GDP estimate by the Fed of Atlanta

Annualised quarter-on-quarter change (%)



Source: *CaixaBank Research, based on the Nowcasting model of the Fed of Atlanta.*

to 2.2% in 2019 and 1.9% in 2020. However, the risk of things not panning out as expected are not negligible, particularly if we consider the low productivity growth of recent years, the negative effect of the ageing of the population and the doubts surrounding the country's ability to boost both physical and human capital (see the Focus «US growth: the power of human capital» in this *Monthly Report*).

At this moment of cyclical maturity, the focus is on inflation, since unexpected price increases also pose significant risks. In May, headline inflation stood at 2.8%, 3 decimal points above the figure of the previous month. Over the next few months, we will continue to see relatively high figures due to substantial base effects (owing to a sharp drop in wireless telephone prices experienced in 2017), after which headline inflation should moderate to levels closer to 2.0%. On the other hand, core inflation, which is exempt from the most volatile price components, such as energy and food, stood at 2.2%, 1 decimal point above April's figure. In this context, the Fed once again increased the reference rate by +25 bps, up to the range of 1.75%-2.00%.

EUROPE

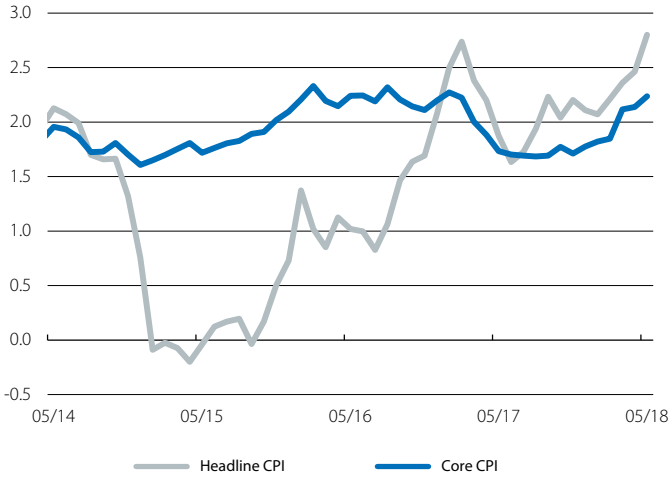
The outlook for the euro area remains positive, despite a less dynamic start to the year. The slowdown in euro area growth in Q1 was due to temporary factors (adverse weather conditions, strikes and flu episodes) and a return to more moderate rates of growth following an exceptionally positive 2017. Over the next few quarters, the economic expansion in the euro area will remain solid, with higher-than-potential growth rates, supported by very favourable financial conditions, a healthy labour market and the dynamism of global economic activity. This was the outlook reflected by the ECB in its latest macroeconomic projections quarterly update, in which it revised its growth forecasts for the euro area for 2018 down by –0.3 pp to 2.1%, but maintained its forecast for 2019 at 1.9% (a scenario that is very similar to CaixaBank Research's).

Domestic demand remained the main driver of growth in Q1. The breakdown of the euro area's GDP shows that Q1 growth (2.5%) was driven by a 1.9 pp contribution from domestic demand (1.6 pps in Q4 2017), supported by positive trends in both private consumption and investment. On the other hand, the contribution from external demand fell to 0.6 pps (1.3 pps in Q4), largely due to lower growth of exports of goods and services (which grew by 4.5% year-on-year, 2.1 pps less than in the previous quarter).

Economic activity indicators remain high and point towards solid growth in Q2. Specifically, the composite PMI index increased in June to 54.8 points, 7 decimal points above May's figure and well within expansionary territory (above 50 points). Likewise, business confidence remains high. In particular, the Economic Sentiment Index (ESI) stood at 112.3 points in June, compared to an average of 110.7 in 2017.

US: CPI

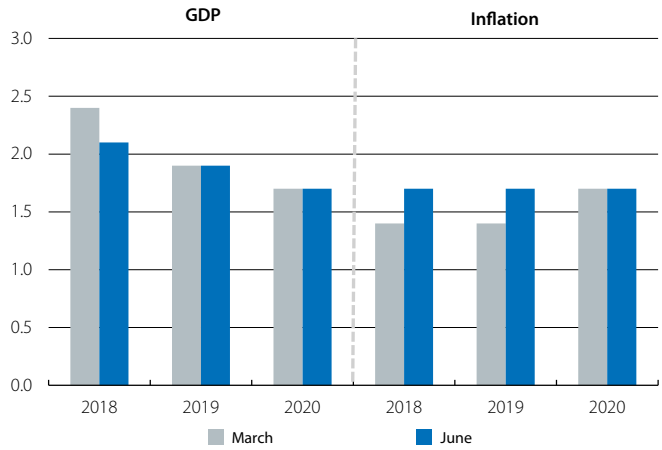
Year-on-year change (%)



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

Euro area: ECB's forecasts for GDP and inflation

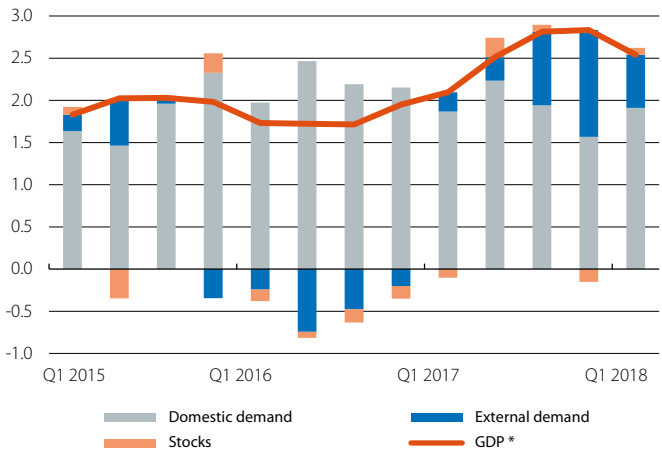
Annual change (%)



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

Euro area: GDP

Contribution to year-on-year growth (pps)



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

Meanwhile, retail sales rose by 1.7% year-on-year in April, 3 decimal points above the figure for the previous month. Similarly, consumer confidence is well above the2017 average (–2.5 points), despite dropping to –0.5 points in June (0.2 in May), which suggests that private consumption will remain a key factor for euro area growth.

Inflation continues to rise and stood at 2.0% in June, 1 decimal point above the figure for the previous month, due to the higher growth of the energy component (8.0% year-on-year, compared with 6.1% in May). Meanwhile, core inflation dropped slightly to 1.2%, 1 decimal point below May's figure. On the other hand, hourly wages in the euro area grew by 1.8% year-on-year in Q1, 2 decimal points above Q4 2017 figure. Over the next few quarters, we anticipate that wages will rise at a more sustained pace, as the labour market enters into a more mature phase of the cycle. This, in turn, will help to gradually bring inflation closer to the ECB's target rate (close to, but below, 2%).

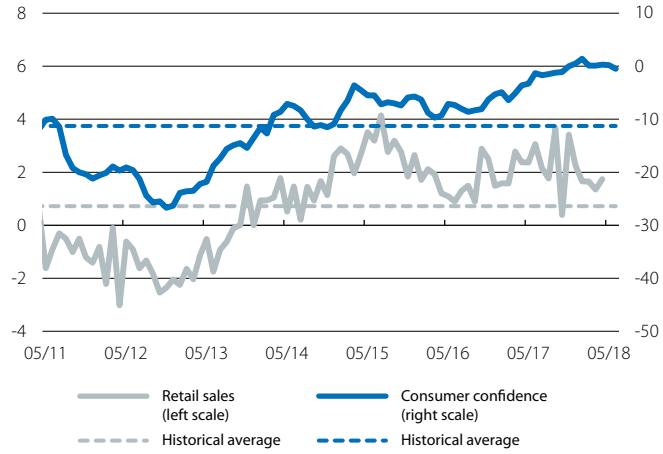
EMERGING MARKETS

In China, the economic activity indicators show signs of a slight slowdown. Industrial production grew by 6.8% year-on-year in May – a noteworthy figure, but below analysts' expectations. Retail sales, meanwhile, rose by just 8.5%, the lowest figure since June 2003. Despite these signs of slight deceleration, the government still has a reasonable amount of scope to encourage economic activity (for example, with a slightly more expansionary fiscal policy or by relaxing restrictions on the financial system), while it continues to try to curb the macroeconomic and financial risks which the Asian economy is suffering from.

In the meantime, Turkey is experiencing strong growth, albeit in an unsustainable manner. In Q1 2018, GDP grew by 7.4% year-on-year (similar to the 7.3% recorded in Q4 2017). The main driver of this strong growth is domestic demand, which is benefiting from the boom in private consumption and investment. However, this is an unsustainable growth path, since the economy continues to show significant macroeconomic imbalances: inflation accelerated in May and reached 12.1%, while the current account deficit exceeded 6% of GDP in Q1.

Euro area: consumption indicators

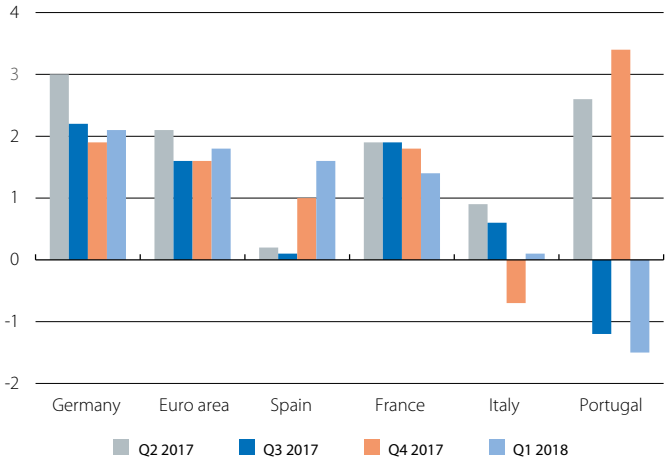
Year-on-year change (%) *Level*



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

*Euro area: hourly wage costs **

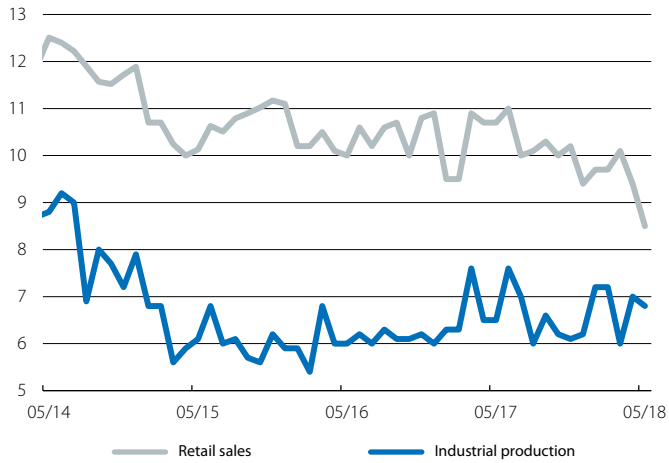
Year-on-year change (%)



Note: **Seasonally-adjusted data.*
Source: *CaixaBank Research, based on data from Eurostat.*

China: economic activity indicators

Year-on-year change (%)



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

US growth: the power of human capital

The US is now in its tenth consecutive year of growth, suggesting that it is already in a very mature stage of its economic cycle. The cyclical factors that have upheld growth over the last few years can therefore be expected to lose prominence and the economy is likely to become more reliant on the underlying factors to determine its capacity for growth, such as the number of workers, productivity, physical capital and human capital. Having already analysed the first three factors in other articles,[1] today we consider recent trends in human capital and the outlook for the future.

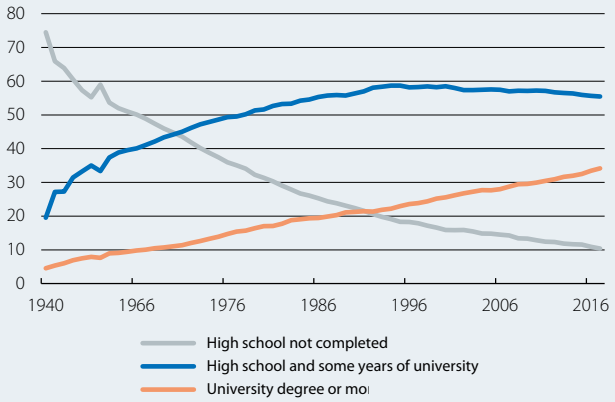
Human capital's contribution to economic growth is immediate: a workforce with better training is capable of producing more. In this sense, the quality of the US workforce has undergone a remarkable transformation: over the past 70 years, the level of training has consistently improved (see first chart). It is estimated that human capital has contributed around 0.3 pps to annual GDP growth (3%). In addition, several studies suggest that this contribution has not been eroded in the last decade, following the great recession of 2008, whereas this has occurred with other factors such as physical capital and productivity.

However, several studies also indicate that over the next few years, the contribution of human capital to growth could be more marginal. One of the main reasons for this is the retirement of the baby boomers. This is a generation whose educational level (measured in total years of education) is substantially above that of their parents, but only slightly below that of their children.[2] Therefore, as the generations that preceded the baby boomers reached retirement, the working population's total average years of education steadily increased, but this trend is expected to slow down in the coming years.

Nevertheless, there are two factors which counteract this somewhat pessimistic view of the future role of human capital in US growth. Firstly, the data continue to show a steady increase in the percentage of university graduates. Although this increase in the number of university graduates may be less significant in terms of total years of education than the leap from basic elementary education to secondary school which occurred in the past, the impact on growth will not necessarily be any less significant. The second mitigating factor is that, in addition to the total number of years studied, it is essential to take into account what has been studied: an educational approach based more on research favours the generation of new ideas, which is an essential ingredient for improving productivity and, therefore, economic growth. In this regard, the figures speak for themselves: the US is among the economies with the highest number of researchers per million inhabitants, with slightly more than 4,000 (see second chart). This figure is supported both by the growing number of American university graduates and by the country's ability to attract foreign talent.

US: population over the age of 25 by education level

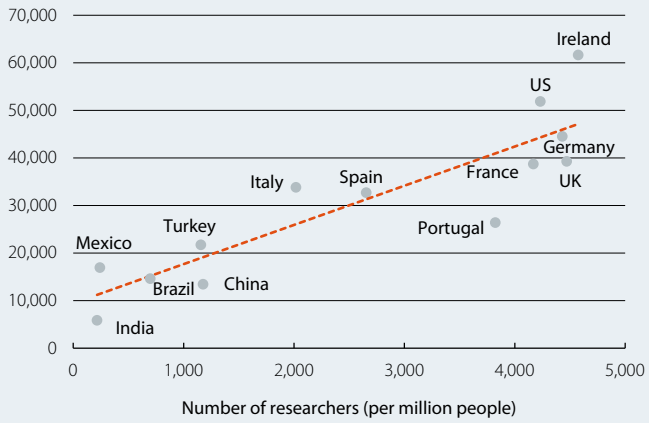
(%)



Source: *CaixaBank Research, based on data from the US Census Bureau.*

US: GDP per capita and researchers

GDP per capita (in terms of purchasing power parity)



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

1. See the Focus «US: the baby boomer effect on the cycle and in the long run» in MR11/2017, the article «The technological revolution and slowdown in productivity» from the Dossier of MR02/2018 and the Focus «The US investment situation and outlook» in MR04/2018.
2. The Vietnam war pushed many baby boomers to enrol in university to avoid enlistment. Also, the Higher Education Act of 1965 facilitated university studies through a new range of measures offering financial assistance. Both phenomena partly contributed to this generation's significant educational leap.

Drivers of global growth: a comprehensive analysis

Global economic growth is one of the key variables to gauge the overall state of the economy. In this article, we perform a comprehensive analysis to understand which factors are driving growth in real time and which countries are acting as catalysts for this growth. This analysis helps us to get a sense on which could be the outlook for the coming quarters, an exercise which is particularly important at a time when some indicators have been lower than anticipated and there is a very heated discussion as to whether the current rate of growth will be sustained.

To begin with, we developed an indicator which estimates the global growth in real time using the information provided by the main indicators of economic sentiment, financial conditions and geopolitical risks.[1] As we can see in the first chart, the indicator developed is able to mirror the global growth data that we have witnessed over the last few decades with remarkable precision (it has an explanatory power of 98%). Interestingly, whereas in 2016 our indicator was higher than observed growth, in recent quarters this situation has reversed: global growth has stood slightly above that predicted by our indicator.

This indicator helps us to visualise how the economy is evolving. Based on the data that has been published in April, May and June for the different variables, we estimate that global growth stands at around 3.7% in Q2 2018, virtually the same as we had in Q1 and just 1 decimal point below the figure for Q4 2017. This exercise therefore suggests that global growth remains very strong. All in all, the indicator stands slightly below CaixaBank Research's growth forecast for Q2 of this year (3.9%). If we take a brief look at the different variables that we use in our analysis, we note that those which are casting a shadow over global growth are the sentiment and confidence indicators in the euro area, the sentiment indicators in China and the upturn in political and geopolitical risks. The rest of the indicators continue to show significant growth, and although the financial conditions have tightened slightly, they remain rather lax.

What factors help to explain the burgeoning growth that we are currently witnessing? Here at CaixaBank Research, we have repeatedly highlighted the improvement noted in the sentiment and confidence indicators, the accommodative financial conditions and the reasonable commodity prices as being the main drivers behind the encouraging figures and positive outlook for global growth, which is expected to stand at 3.9% in 2018. As it happens, the quantitative analysis we have performed reinforces this view. Historically, the relationship between these factors and global growth has been very strong. It is therefore no surprise that at their current levels, which are conducive to a thriving global economy, we are witnessing global growth.

Using sophisticated statistical techniques, we can discern each factor's contribution to global growth. Specifically, since 2015, the financial conditions have made a slightly greater contribution than the sentiment indicators. This contrasts with the situation in the period between 1998 and 2007, in which the bulk of global growth was explained by the sentiment indicators, while the financial conditions played a secondary role. Finally, of particular

1. In particular, we include the different variables that we have identified as being relevant to global growth (PMI, consumer confidence indices, the financial conditions index of the Fed of Chicago, the commodity price index of the Commodity Research Bureau, the geopolitical risks index of Iacovello and Caldara, etc.), both in terms of their nature and their geographical relevance. We assume a linear regression using growth data on these variables since 2005 and we look at their predicted value in order to build the real-time indicator.

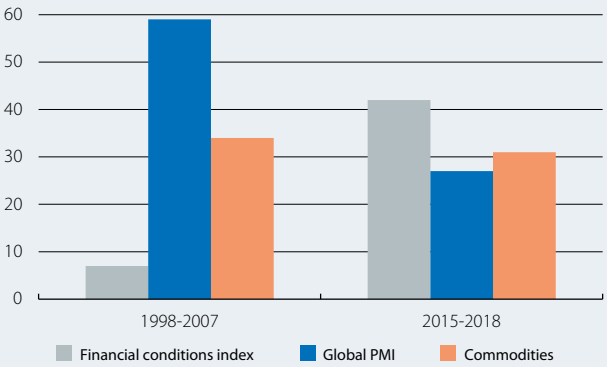
Growth indicator forecast

Year-on-year change (%)

Source: *CaixaBank Research.*

Global growth and support factors

Contribution to the explained variance of global growth (%)



Note: *The total of the explained variance is 66% in 1998-2007 and 80% in 2015-2018.*
Source: *CaixaBank Research.*

note is the contribution made by commodities in both periods of boom. This demonstrates the beneficial impact that commodity prices, which are currently at a sweet spot, are having on global growth.

Let us now turn to the geographical analysis. We have performed an analysis by country which includes the world's major economies. In particular, using data from the manufacturing PMI, we studied which countries have made the biggest contribution to global growth since 2015.[2] We identified that the main driver behind the global economy in the last three years has been the US, with a weighting of 23%. It was followed by the economy of the euro area, with a weighting of 16.5%, and by the Chinese economy, with a weighting of 13.5%. Turkey and Brazil also stand out as important countries for the global economy, a significant finding considering the political uncertainty currently hanging over them.

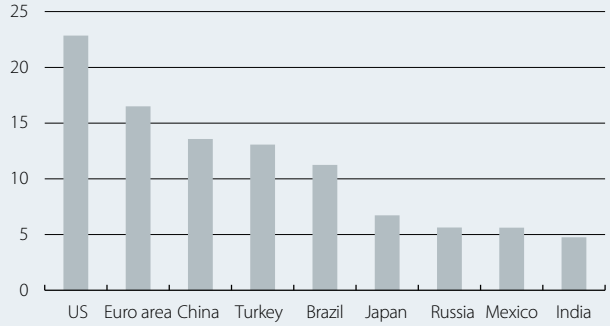
But how will the global economy evolve over the next few years? By forecasting the different variables that contribute to growth,[3] we can predict how global growth will perform in the coming quarters. On this basis, we expect growth to gradually slow down in 2018 and 2019. Specifically, growth is expected to stand at an average of 3.7% in 2018 and 3.6% in 2019. These are considerable growth rates, albeit slightly below CaixaBank Research's growth forecasts, which are 3.9% for 2018 and 3.8% for 2019. The expectations of somewhat more demanding financial conditions (although still relatively accommodative), of political and geopolitical risks remaining at relatively high levels and of somewhat less buoyant sentiment indicators in the coming quarters are the main factors in our model that explain this slowdown.

As we have seen in the analysis of the factors supporting growth, the financial conditions have played a much bigger role in driving global growth in recent years, as a result of the ultra-expansive monetary policies that have been implemented. Therefore, it is particularly interesting to assess our growth forecast's sensitivity to how the financial conditions might develop in 2019. As the fourth chart shows, if the financial conditions in 2019 were to return to the levels of their historical average since 1971 (which is a value of 0), rather than applying those forecast by our model (namely, financial conditions that are slightly more demanding, but still rather accommodative), our indicator would show an average growth of 3.0%. This is 0.6 pps lower than our forecast, representing quite a substantial deceleration in growth. If, on the other hand, the financial conditions in 2019 were to remain at their current lax levels, our growth indicator would increase to 4.1% in 2019, 0.5 pps above

2. Specifically, we plot global growth against the PMI of the major economies and calculate what percentage of the explained variance is attributable to each country.
3. We forecast their future evolution with a predictive model using data from the last two quarters for each variable.

An analysis of global growth by country

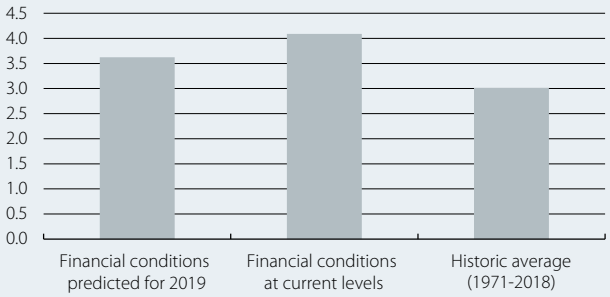
Contribution of each country to the explained variance of global growth (%)



Note: *The total explained variance is 99.01%. We use each country's manufacturing PMI as an economic activity indicator to measure each country's contribution to global growth.*
Source: *CaixaBank Research, based on data from Markit.*

Global growth in 2019 according to financial conditions

Year-on-year change (%)



Note: *The financial conditions index of the Fed of Chicago has had an average value of 0 since 1971. Thus, negative values indicate more accommodative financial conditions than the historical average since 1971, while positive values indicate more restrictive conditions than average. The index currently stands at –0.81 and we predict an average value of –0.46 for 2019.*
Source: *CaixaBank Research.*

our forecast. All in all, these scenarios show how sensitive global growth is to financial conditions. It is therefore particularly important that the monetary normalisation processes that are currently taking place in the US and Europe occur gradually and are well communicated.

In summary, our analysis suggests that, despite the European economy showing signs of poorer health in Q1 2018 (and never more appropriately described if we take into account the flue epidemics of this winter, which are estimated to have held back economic activity in several countries), the global economy has not been shaken and continues to go from strength to strength. The forecasting exercise we have performed indicates that global growth could slow down slightly in 2018 and 2019 and that aggregate growth could be slightly lower than we expect. In any case, we must be cautious: changes in the financial conditions in the current context of monetary normalisation, political and geopolitical risks and how the price of crude oil changes will prove decisive over the coming months for whether or not these predictions will be confirmed. Let's not count our chickens before they hatch...

The importance of wage pressures in price determination

Historically, we have seen a strong relationship between the unemployment rate and inflation: in general, when unemployment falls, wage pressures tend to increase, and vice versa. However, this relationship, which is known as the Phillips curve, appears to have been weakened in recent years. For example, the reduction in unemployment which has been recorded in the euro area since late 2015 should have generated higher wage growth and, ultimately, inflation. Why has this not happened?

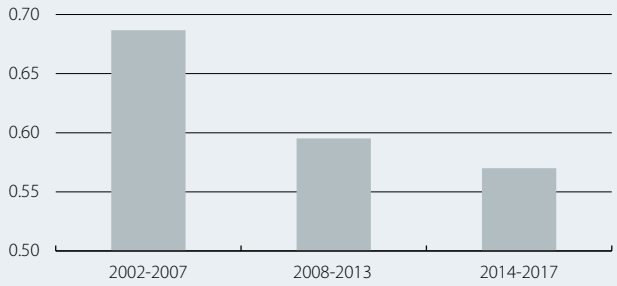
Economic theory leaves no room for doubt: during expansionary phases of the economic cycle, as the unemployment rate decreases, it costs more to hire new workers and to retain existing staff, which usually leads to upward pressures on wages. Broadly speaking, there are two ways in which greater wage pressures result in an increase in inflationary pressures: on the one hand, workers' higher purchasing power[1] leads to an increase in aggregate demand, allowing companies to raise prices. In addition, higher wages increase companies' production costs and, to the extent possible, this compels them to raise prices to minimise the impact on profits.[2]

As we pointed out earlier, historically the correlation between wages and core inflation has been very strong. A simple way to illustrate this is to analyse the sensitivity between the two variables, which has remained relatively high for years. However, as can be seen in the first chart, in recent years, inflation's sensitivity to changes in wages appears to have weakened. Mario Draghi recently pointed out that certain structural elements, such as globalisation and the growth of online shopping, could be behind this tempered inflation.[3]

In order to analyse the weakening of the relationship between wages and inflation in greater detail, we have analysed how the various components of the Harmonised Index of Consumer Prices (HICP) for the euro area have changed over time, as well as salaries in each of their sectors. Specifically, we have estimated the changes we would expect to see in each component of the HICP, based on changes in wages in each sector, if the historical relationship between the two variables were maintained. As the second chart shows, in the last few years, core inflation has consistently been below expectations. Nevertheless, it is important to note that this difference has been reducing over time.

Euro area: sensitivity of inflation to changes in wages

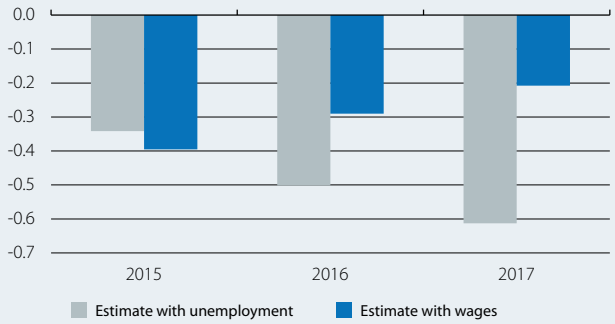
Sensitivity coefficient



Note: *We estimate the equation $\pi_t = \alpha + \rho\pi_t^w + \varepsilon_t$ for the period Q1 2002-Q4 2007, where π_t indicates inflation and π_t^w changes in wages. We then add successive quarters up until Q4 2017. We show the average of coefficient ρ for the periods indicated.*
Source: *CaixaBank Research, based on data from Eurostat.*

Euro area: difference between expected and observed inflation

(pp)



Note: *Specifically, predicted inflation based on changes in wages is the result of the sum of the predicted inflation of each component of the HICP according to changes in their corresponding NACE sector over the period Q1 2002-Q4 2017, weighting each component according to its weighting in the HICP. The same exercise is also performed using the unemployment rate. Changes in the oil price over time are taken into consideration in the estimates.*
Source: *CaixaBank Research, based on data from Eurostat.*

If, on the other hand, we perform the same exercise but analysing the relationship between unemployment and inflation, the result is even more surprising. Not only has inflation been lower than expected (given the changes in the unemployment rate), but this shortfall has also increased over time.

To complete our understanding of the relationship between these three variables, in the third chart we show how the correlation which has historically existed between wages and unemployment appears to have broken down in recent years.

There are several factors which might explain the moderate growth in labour costs despite the fall in

1. To the extent that inflation takes a few quarters to pick up, the rise in workers' wages translates into an increase in their purchasing power.
2. See A. Nevo and A. Wong (2018), «Measuring inflation in the modern economy - a micro price-setting view», ECB Forum on Central Banking.
3. See the speech by M. Draghi in Sintra in June 2018 at www.ecb.int

unemployment, but one of the most significant factors seems to be the increase in underemployment, since this means that the labour market is less saturated than the unemployment rate would suggest.[4] In particular, the percentage of underemployed workers steadily increased from 2002 until it reached an all-time high in 2015, when it stood slightly above 6%. Since then, it has shown a moderate decline, but still remains relatively high (5.7% in 2017). The second factor which might explain the lower growth in wages is productivity, which has grown at a much lower rate in recent years.[5]

When we use statistical techniques to assess the weighting of these two factors in explaining the lower growth in wages, we note that underemployment is the major driver.[6] As shown in the last chart, the conventional measure of saturation in the labour market, namely the unemployment rate, explains much of the restraint in wages witnessed in recent years. However, the impact of the high rate of underemployment is even greater. As for the growth in productivity, the analysis suggests that this has had a minor role recently.

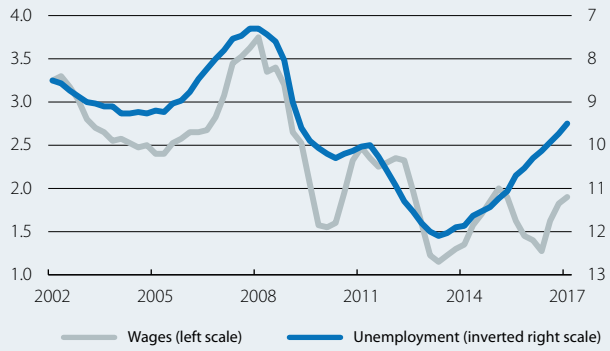
Finally, it is important to note that the ability to explain wage growth with the variables discussed above has reduced in recent years. This suggests that other factors are likely to be playing an increasingly important role in determining how wages change over time. Among these factors, the main candidates appear to include an increase in temporary contracts and, in some countries, higher immigration, although there is currently no empirical evidence to corroborate this.

In short, it appears that the weak increase in both inflation and wages in recent years is largely due to the fact that the euro area remains in the early stages of the expansionary cycle. This is particularly the case since the labour market is still relatively unsaturated (and less than the unemployment rate would suggest). Therefore, the euro area still has a lot of room to continue growing without generating inflationary pressures. That said, as the labour market becomes more saturated, we should see wage growth and, ultimately, inflation begining to pick up.

4. Specifically, underemployment takes into account part-time workers who want to work more hours. For more information, see the Focus «Beyond the unemployment rate» in MR12/2017.
5. The average growth of real productivity for the periods 2000-2007, 2008-2013 and 2014-2017 was 0.9%, 0.5% and 0.5%, respectively, for the main economies of the euro area.
6. Following the methodology used by the IMF (2017), we estimate the following equation: $\pi^{w}_{i,t} = a + \rho\pi^{w}_{i,t-1} + \beta u_{i,t} + \gamma prod_{i,t} + \delta sub_{i,t} + \varphi_i d_i + \varepsilon_t$ *where* π^{w} denotes the growth in wages, *u* the unemployment rate, *prod* the three-year moving average of the growth in labour productivity, *sub* the underemployment rate, *d* a country indicator and *ε* what remains of the difference. *i* denotes the country and *t* the period. The sample includes annual data between 2000 and 2017 and the countries included in the analysis are Germany, France, Italy, Spain and Portugal.

Euro area: unemployment rate and nominal wages

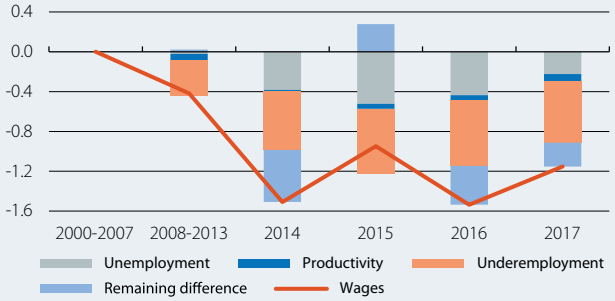
Year-on-year change (%) *(%)*



Note: *The growth in wages corresponds to the four-quarter moving average and the time lag of three quarters can be seen.*
Source: *CaixaBank Research, based on data from Eurostat.*

*Euro area: factors that explain the lower growth of wages **

Contribution of each factor to explaining the change relative to the 2000-2007 average (pp)



Note: ** Specifically, each bar shows each factor's contribution to the change in wage growth each year relative to the average growth for the period 2000 to 2007. The sample includes Germany, Spain, France, Italy and Portugal.*
Source: *CaixaBank Research, based on data from Eurostat.*

UNITED STATES

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
Activity									
Real GDP	1.5	2.3	2.2	2.3	2.6	2.8	–	...	–
Retail sales (excluding cars and petrol)	3.4	4.2	3.5	4.1	5.3	4.4	4.2	5.1	...
Consumer confidence *(value)*	99.8	120.5	118.1	120.3	126.0	127.1	125.6	128.8	126.4
Industrial production	–1.9	1.6	1.9	1.3	3.0	3.4	3.5	3.5	...
Manufacturing activity index (ISM) *(value)*	51.4	57.4	55.8	58.7	58.7	59.7	57.3	58.7	...
Housing starts *(thousands)*	1,177	1,208	1,171	1,172	1,259	1,317	1,287	1,350	...
Case-Shiller home price index *(value)*	189	200	198	200	205	209	211	...	...
Unemployment rate *(% lab. force)*	4.9	4.4	4.3	4.3	4.1	4.1	3.9	3.8	...
Employment-population ratio *(% pop. > 16 years)*	59.7	60.1	60.1	60.2	60.1	60.3	60.3	60.4	...
Trade balance [1] *(% GDP)*	–2.7	–2.8	–2.8	–2.8	–2.8	–2.9	...	...	...
Prices									
Consumer prices	1.3	2.1	1.9	2.0	2.1	2.2	2.5	2.8	...
Core consumer prices	2.2	1.8	1.8	1.7	1.8	1.9	2.1	2.2	...

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

JAPAN

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
Activity									
Real GDP	1.0	1.7	1.6	2.0	2.0	1.1	–	...	–
Consumer confidence *(value)*	41.7	43.8	43.4	43.8	44.5	44.4	43.6	43.8	43.7
Industrial production	–0.2	4.5	5.6	4.4	4.1	2.5	1.7	3.7	...
Business activity index (Tankan) *(value)*	7.0	19.0	17.0	22.0	25.0	24.0	–	...	...
Unemployment rate *(% lab. force)*	3.1	2.8	2.9	2.8	2.7	2.5	2.5	2.2	...
Trade balance [1] *(% GDP)*	0.7	0.5	0.6	0.6	0.5	0.4	0.7	0.5	...
Prices									
Consumer prices	–0.1	0.5	0.4	0.6	0.6	1.3	0.6	0.6	...
Core consumer prices	0.6	0.1	0.0	0.2	0.3	0.4	0.3	0.3	...

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

CHINA

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18
Activity								
Real GDP	6.7	6.9	6.9	6.8	6.8	6.8	–	...
Retail sales	10.4	10.2	10.8	10.3	9.9	9.9	9.4	8.5
Industrial production	6.1	6.6	6.9	6.3	6.2	6.6	7.0	6.8
PMI manufacturing *(value)*	50.3	51.6	51.4	51.8	51.7	51.0	51.4	51.9
Foreign sector								
Trade balance [1] *(value)*	512	435	458	435	435	420	411	396
Exports	–8.4	8.5	9.0	6.9	10.1	13.6	11.9	11.9
Imports	–5.7	16.1	14.3	14.7	13.2	19.2	21.2	25.5
Prices								
Consumer prices	2.0	1.6	1.4	1.6	1.8	2.2	1.8	1.8
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)*	6.6	6.8	6.9	6.7	6.6	6.4	6.3	6.4

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.*

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

EUROPEAN UNION

Activity and employment indicators

Values, unless otherwise specified

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
Retail sales *(year-on-year change)*	1.6	2.3	2.6	2.6	2.0	1.6	1.7	...	...
Industrial production *(year-on-year change)*	1.6	3.0	2.5	4.1	4.2	3.1	1.7	...	...
Consumer confidence	–7.8	–2.5	–2.7	–1.5	–0.2	0.5	0.3	0.2	–0.5
Economic sentiment	104.2	110.8	109.5	111.8	114.3	114.0	112.7	112.5	112.3
Manufacturing PMI	52.5	57.4	57.0	57.4	59.7	58.3	56.2	55.5	55.0
Services PMI	53.1	55.6	56.0	55.3	55.9	56.4	54.7	53.8	55.0
Labour market									
Employment (people) *(year-on-year change)*	1.3	1.6	1.6	1.7	1.6	...	–	...	–
Unemployment rate: euro area *(% labour force)*	10.0	9.1	9.1	9.0	8.7	8.6	8.5	...	...
Germany *(% labour force)*	4.2	3.7	3.8	3.7	3.6	3.5	3.4	...	...
France *(% labour force)*	10.1	9.4	9.5	9.5	9.1	9.2	9.2	...	...
Italy *(% labour force)*	11.7	11.3	11.2	11.2	11.1	11.1	11.2	...	...
Spain *(% labour force)*	19.6	17.2	17.3	16.8	16.6	16.2	15.9	...	...

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
Current balance: euro area	**3.8**	**3.7**	**3.4**	**3.7**	**3.7**	**3.9**	**3.9**	**...**	**...**
Germany	8.6	8.0	8.0	8.0	8.0	8.1	8.2	...	...
France	–0.8	–0.6	–0.8	–0.6	–0.6	–0.4	–0.3	...	...
Italy	2.6	2.8	2.6	2.7	2.8	2.6	2.6	...	...
Spain	1.9	1.9	1.9	1.8	1.9	1.8	1.6	...	...
Nominal effective exchange rate [1] *(value)*	**94.3**	**96.5**	**95.2**	**98.5**	**98.6**	**99.6**	**99.4**	**98.0**	**97.9**

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

Financing and deposits of non-financial sectors

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
Private sector financing									
Credit to non-financial firms [1]	1.8	2.5	2.3	2.4	3.0	3.3	3.3	3.6	...
Credit to households [1, 2]	1.7	2.6	2.6	2.7	2.8	2.9	2.9	2.9	...
Interest rate on loans to non-financial firms [3] *(%)*	1.4	1.3	1.3	1.3	1.3	1.2	1.2	...	...
Interest rate on loans to households for house purchases [4] *(%)*	1.8	1.7	1.7	1.7	1.7	1.7	1.6	...	...
Deposits									
On demand deposits	10.0	10.1	10.3	10.6	10.1	9.2	7.7	8.3	...
Other short-term deposits	–1.9	–2.7	–2.9	–3.0	–2.4	–2.1	–1.9	–1.7	...
Marketable instruments	2.7	1.0	0.6	–0.5	–1.7	–5.8	–1.2	–5.1	...
Interest rate on deposits up to 1 year from households *(%)*	0.5	0.4	0.4	0.4	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.*

Strong growth which looks set to continue

The Spanish economy ends the first half of 2018 in a strong position. CaixaBank Research's GDP forecasting model predicts a quarter-on-quarter growth of 0.66% in Q2 2018, practically the same as the actual figure for Q1 (0.7%). Looking forward to the second half of 2018, we expect GDP growth to slow down very gradually due to weakening tailwinds (for example, due to the rise in the price of oil) and the fact that little remains to close the output gap. In any case, the economy will continue to show healthy growth and will be backed by both external tailwinds and internal strengths. These tailwinds include the encouraging tone of global growth and accommodative financial conditions which are sustained by the ECB's monetary policy. As for the internal strengths, the Spanish economy will benefit from heightened job creation in the current expansionary cycle (see the Focus «Strong recovery in employment: explanatory factors», in this same *Monthly Report*), as well as from greater international competitiveness and progress made in the correction of macroeconomic imbalances.

The breakdown of GDP for Q1 shows a strong contribution from domestic demand. Private consumption, which accounts for 58% of the total, continued to show an encouraging tone with quarter-on-quarter growth of 0.7% in Q1, in line with the figure suggested by the composite consumption indicator. It is the slowdown in investment, however, which has drawn the most attention following the publication of the components of GDP. Specifically, there was a decline in capital goods investment (–1.6% quarter-on-quarter) due to the reduction in investment in transportation equipment, which fell by 6.6% quarter-on-quarter. This reduction was slightly offset by investment in construction, which accelerated to a quarter-on-quarter growth of 2.4%. All in all, the moderation of investment in Q1 should be considered temporary. As such, while capital goods investment could still be suffering from the hangover of the abnormally strong upturn in Q3 of 2017, construction still has room for growth. More importantly, the latest indicators suggest that investment has once again gained traction in Q2, since the composite PMI index for May rose from 55.4 to 55.9 points, well within expansionary territory (above 50). The foreign sector, meanwhile, contributed less than expected. Although exports maintained a positive tone, imports grew more than expected, particularly in services.

The labour market is showing healthy growth. In May, the number of registered workers affiliated to Social Security increased by 70,898 (seasonally-adjusted figure), the biggest increase in 2018 and well above the increase of 50,935 recorded in May 2017. With this, the year-on-year change stands at 3.1%. By sector, the recovery of employment in construction was particularly significant, gaining traction with

Spain: GDP

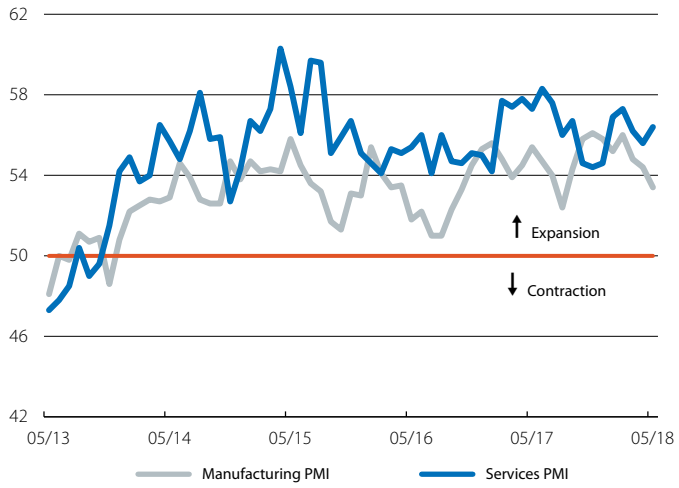
Quarter-on-quarter-change (%)

	Q2 2017	Q3 2017	Q4 2017	Q1 2018
GDP	0.8	0.7	0.6	0.7
Private consumption	0.8	0.7	0.6	0.7
Public consumption	0.5	0.4	0.4	0.5
Investment	0.6	1.4	0.7	0.8
Capital goods investment	0.1	2.8	0.9	–1.6
Transportation	–1.3	5.2	–1.2	–6.6
Other	0.8	1.9	1.9	0.6
Investment in construction	1.0	0.2	1.0	2.4
Exports	1.0	0.6	0.3	1.3
Imports	0.5	1.0	0.0	1.3

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

Spain: economic activity indicators

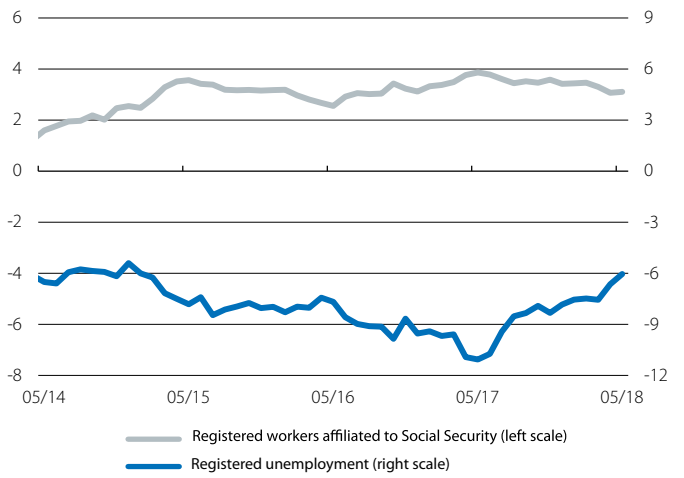
Level



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

Spain: registered workers affiliated to Social Security and registered unemployment

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



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

6.6% growth, as was the figure for the services sector, which is the biggest component overall and which accelerated by 1 decimal point to reach year-on-year growth of 3.2%. This growth in employment resulted in a drop in registered unemployment in May of 84,000 people. This is an encouraging figure, albeit slightly lower than that forecast by CaixaBank Research.

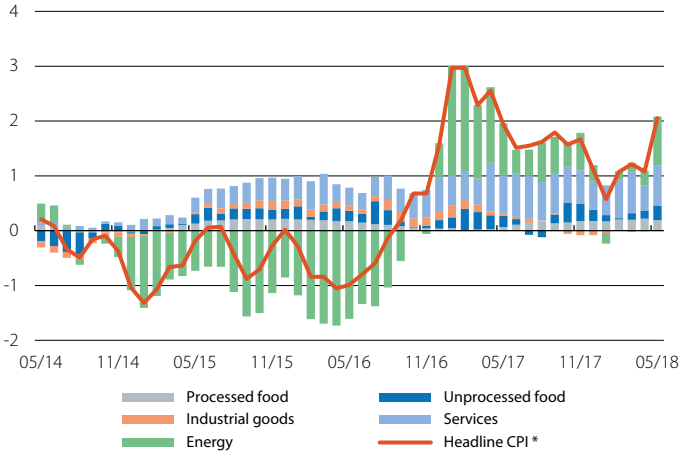
Private consumption appears buoyant thanks to the strength of the labour market. While retail sales slowed in April (0.5% year-on-year) because of Easter, other indicators suggest that private consumption will continue to show strength in Q2. These include consumer confidence, which in May recovered from the declines seen in March and April, and the composite consumption indicator (which includes sales in large firms, car registrations, adjusted retail sales, tourism and wage-earners' pay).

Inflation picks up due to energy prices. Headline inflation rose by 1 pp in May, up to 2.1%, and reached 2.3% in June. The indicators suggest that this increase was primarily due to the rise in energy prices, although the breakdown by components for June is not yet known. Underlying inflation, meanwhile, increased by 3 decimal points in May, up to 1.1%, due to the rise in the price of tourist packages. Over the coming months, the oil price will continue to push up prices, although we expect some moderation in the last third of 2018. It should also be noted that core inflation, which is what sets the medium to long-term trends, remains at moderate levels. CaixaBank Research's inflation forecast for 2018 has been increased from 1.6% to 1.8%, mostly due to the greater impact of electricity, unprocessed food and tourist packages.

The real estate market continues to produce encouraging figures. Sales and purchases of homes for the four months to April grew by 16.0% year-on-year, confirming the upward trend in the sector. This momentum in sales is also having an impact on housing transaction prices, which rose by 6.2% year-on-year in Q1 2018 (1.4% quarter-on-quarter). This is a strong sign of growth, although it is 3 decimal points below our forecast. With regards to the outlook for the next few years, construction will continue to make a positive contribution to economic growth and job creation, since, despite the intensity of the latest spurts of growth, the starting point is low. For example, planning permission grants grew by 25.4% year-on-year in February (12-month cumulative total).

Spain: contribution to inflation by components

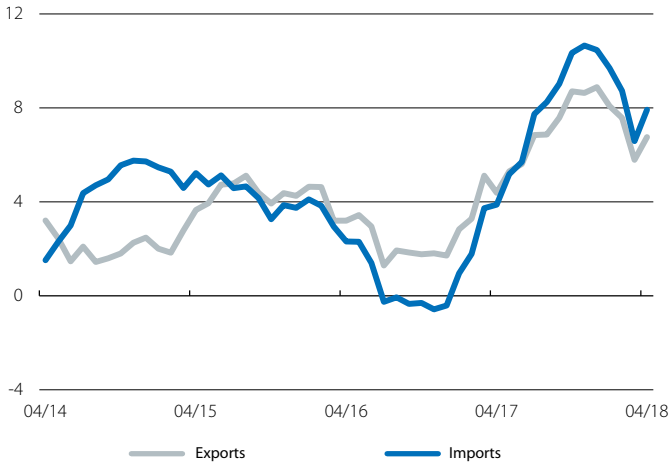
(pps)



Note: ** Year-on-year change (%).*
Source: *CaixaBank Research, based on data from the Spanish National Statistics Institute.*

*Spain: international trade of goods **

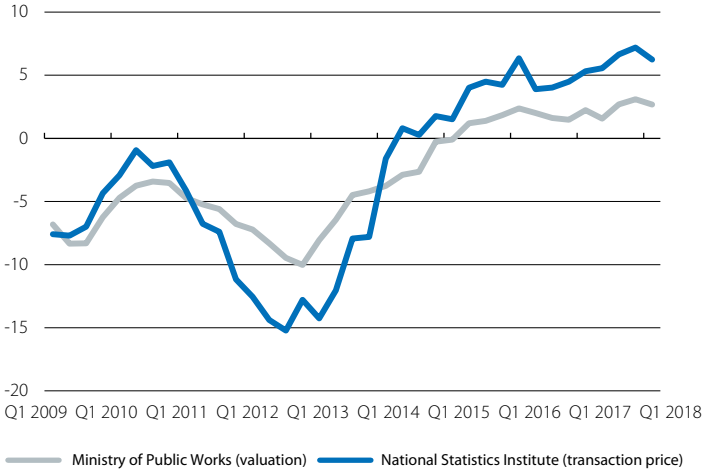
Year-on-year change in the 12-month cumulative total (%)



Note: ** Nominal data, series not seasonally adjusted.*
Source: *CaixaBank Research, based on data from the Department of Customs.*

Spain: price of housing

Year-on-year change (%)



Source: *CaixaBank Research, based on data from the Spanish National Statistics Institute and the Spanish Ministry of Public Works.*

Strong recovery in employment: explanatory factors

One of the main characteristics of the Spanish economy's recovery has been its strong job creation. In the three years from 2015 to 2017, the number of full-time equivalent (FTE) jobs increased by slightly more than 500,000 a year,[1] representing an average annual growth of 3.0%.[2] In view of the strong performance of the labour market, below we analyse the factors that explain the high rate of job creation throughout the recovery.

The relationship between GDP and employment before and after the financial crisis

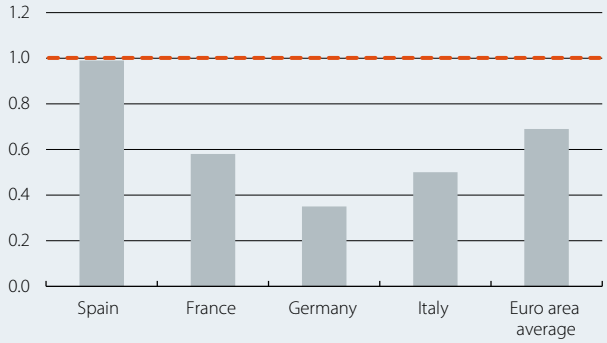
Between Q1 2015 and Q1 2018, FTE employment grew by 8.9% while GDP rose by 9.8%, giving us a ratio of 0.91 jobs created for each new unit of GDP. This is a very high figure and well above the rest of the countries of the euro area. It also contrasts with the past experience of the Spanish economy. For example, the ECB estimates that up until 2008, for each percentage point of GDP growth, Spain's employment rate increased by just 0.6 pps.[3] However, the ECB's analysis shows that in recent years, this correlation between employment and GDP has steadily strengthened, to such an extent that today Spain is the leading country in the euro area in this regard, with almost 1 pp of employment growth for each percentage point of GDP growth (see first chart).

This improvement in the labour market is partly the result of the Spanish economy's ability to start creating jobs from lower rates of GDP growth. In fact, as can be seen in the second chart, the curve that associates the growth in private-sector employment with that of GDP (the so-called Okun curve) has shifted to the left since 2012. As such, the economy currently begins to create employment starting from a GDP growth of 0.5% year-on-year (substantially lower than the threshold of 1.5% in the period 2006-2011). To the extent that this movement has occurred at the same time as the implementation of the 2012 labour reform, this could be one of the structural changes which would explain the current boom in the labour market, as has been analysed in several studies.[4]

However, the strength of job creation is also the result of a cyclical component which should not be

Spain: relationship between the growth in employment and GDP *

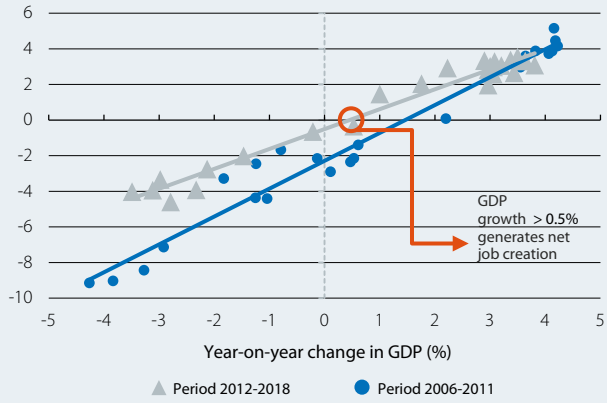
Change in employment (pps) in response to 1 pp of additional GDP growth



Note: ** Estimates by the ECB, average for the period 1999 to 2016.*
Source: *CaixaBank Research, based on estimates by the ECB.*

Spain: growth of GDP and of private sector employment

Year-on-year change in employment (%)



Note: *Each point on the chart corresponds to a quarter.*
Source: *CaixaBank Research, based on data from the Spanish National Statistics Institute.*

underestimated. Specifically, the last financial crisis destroyed so many jobs that, throughout the recovery, it has been necessary to create a large number of jobs. During the period 2008-2013, jobs were destroyed at a very high rate due to the rigidity of the labour market. What is more, the lack of mechanisms in place to reduce the number of hours worked per employee (i.e. the intensive margin) led to the cuts occurring in the extensive margin (i.e. with staff headcount reductions). Therefore, as can be seen in the third chart, between 2008 and 2013, the drop in employment was much more pronounced than that of GDP, to the extent that the ratio between the reduction in employment and in GDP was 2.2. On the other hand, the number of hours worked fell less than the proportional number of jobs did, meaning that the average number of hours worked per employee actually increased during the first few years of the

1. According to data from the National Accounts.
2. This increase has been slightly lower than GDP, which has grown by 3.3% on average. This implies that the strong job creation has been achieved in parallel with increases in productivity (understood as apparent labour productivity, i.e. GDP divided by the number of full-time equivalent workers).
3. See the article «The relationship between euro area employment and GDP» in the European Central Bank's Economic Bulletin of 6/2016.
4. See M. Izquierdo, A. Lacuesta and S. Puente, «The 2012 labour reform: an initial analysis of some of its effects on the labour market», Economic Bulletin of the Bank of Spain, September 2013.

recession. In addition, the lower levels of protection for temporary workers (compared to those on permanent contracts) and the very high rate of temporary employment (30% in Q1 2008) contributed to this reduction in the number of workers taking place by not renewing temporary contracts (see the fourth chart).

The composition by sector is also important

Another factor that explains the strengthening of the correlation between GDP and employment is the change in the relative importance of the different economic sectors. During the period of recession (2008-2013), the construction and industrial sectors suffered more than the services sector, which led to the gross value added[5] of the services sector to increase from 70% of the total in 2008 to 76% in 2013. Given that services tend to show lower productivity growth (i.e. the ratio of GDP per worker grows less in the services sector than in others), an increase in the weighting of the services sector helps to reduce the gap between GDP growth and employment growth in the economy as a whole. In fact, the comparison with industry is particularly revealing in this regard. The cumulative growth in employment between Q1 2014 and Q1 2018 was similar in both sectors (11.6% in industry and 11.5% in services). However, their respective gross value added over the same period was very different: while the services sector grew by 10.6% (in cumulative terms), the industrial sector did so by 16.2%.

However, the industrial and construction sectors have also contributed to the higher rate of job creation. Throughout the recession, both sectors saw significant destruction of jobs (for example, between 2008 and 2013, two out of every three jobs in the construction sector disappeared, while in the industrial sector the figure was nearly one in three). As a result, today they are showing strong rates of growth as they seek to recover some of the jobs that were lost. In Q1 2018, employment grew by 2.9% in the industrial sector and by 7.2% in the construction sector, whereas between 2000 and 2008 there was no growth in the former and 6.5% growth in the latter.

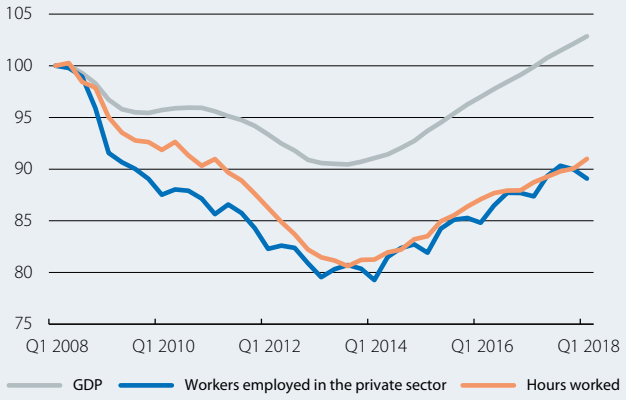
What will be the relationship between employment and GDP be in the future?

Besides the boost provided by the recovery of jobs in the industrial and construction sectors, the economy is also shifting towards tertiary industries as the relative importance of services grows (consistent with the trend seen across the major economies). This trend, together with a less rigid labour market, suggest that the stronger correlation between GDP growth and employment growth seen in Spain in recent years may be long-lasting. As such, as we have seen in the second chart, the Okun curve for Spain has shifted to the left, suggesting that the economy is now able to create jobs with lower rates of GDP growth. On the other hand, the Okun curve has developed a gentler slope, as can also be seen in the second chart. This suggests that each additional employee is able to produce more (i.e. each 1 pp increase in employment is associated with a greater increase in GDP growth) and that, in the event of a recession, fewer jobs would be lost.

However, it is important to remember that despite these improvements, the Spanish labour market still faces many challenges ahead, such as the high rate of temporary employment (particularly in the services sector). Such challenges represent a source of weakness in the labour market in the event of another recession occurring in the future.

Spain: historic trends in GDP, employment and total hours worked

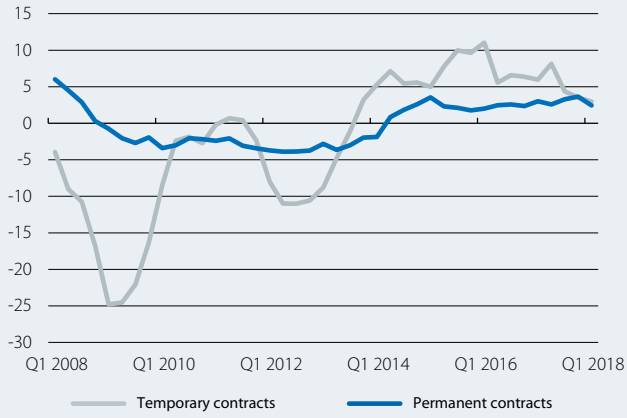
Index (100 = Q1 2008)



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

Spain: employment by type of contract

Year-on-year change (%)



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

5. In relation to the industrial, construction and services sectors as a whole.

Activity and employment indicators

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
Industry									
Industrial production index	1.9	3.2	2.8	2.8	5.2	2.7	1.2	...	...
Indicator of confidence in industry *(value)*	–2.3	1.0	–0.5	–0.1	4.3	2.8	3.3	0.8	–0.5
Manufacturing PMI *(value)*	53.2	54.8	54.9	53.6	55.9	55.3	54.4	53.4	53.4
Construction									
Building permits *(cumulative over 12 months)*	43.7	22.9	18.4	23.5	25.1	25.1	28.5	...	...
House sales *(cumulative over 12 months)*	13.1	13.8	12.2	13.3	14.5	15.1	16.9	...	...
House prices	1.9	2.4	1.6	2.7	3.1	2.7	–	...	–
Services									
Foreign tourists *(cumulative over 12 months)*	8.2	9.9	10.3	10.3	9.1	8.1	6.3	5.4	...
Services PMI *(value)*	55.0	56.4	57.8	56.8	54.5	56.8	55.6	56.4	...
Consumption									
Retail sales	3.8	0.9	2.0	0.8	0.4	1.9	0.3	–0.3	...
Car registrations	11.4	7.9	6.3	6.7	10.8	11.8	12.3	7.2	...
Consumer confidence index *(value)*	–3.8	–0.7	1.5	0.2	–1.5	–0.6	–0.7	0.5	1.8
Labour market									
Employment [1]	2.7	2.6	2.8	2.8	2.6	2.4	–	...	–
Unemployment rate (% labour force)	19.6	17.2	17.2	16.4	16.5	16.7	–	...	–
Registered as employed with Social Security [2]	3.0	3.6	3.8	3.5	3.5	3.4	3.1	3.1	...
GDP	**3.3**	**3.1**	**3.1**	**3.1**	**3.1**	**3.0**	**–**	**...**	**–**

Prices

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18	06/18
General	–0.2	2.0	2.0	1.7	1.4	1.0	1.1	2.0	2.3
Core	0.8	1.1	1.1	1.3	0.8	1.0	0.8	1.1	...

Foreign sector

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18
Trade of goods							
Exports *(year-on-year change, cumulative over 12 months)*	1.7	8.9	5.6	7.6	8.9	5.8	6.8
Imports *(year-on-year change, cumulative over 12 months)*	–0.4	10.5	5.7	9.0	10.5	6.6	7.9
Current balance	**21.5**	**21.9**	**22.0**	**21.0**	**21.9**	**21.1**	**18.5**
Goods and services	33.7	33.4	33.4	32.7	33.4	33.3	31.2
Primary and secondary income	–12.2	–11.5	–11.5	–11.7	–11.5	–12.2	–12.7
Net lending (+) / borrowing (–) capacity	**24.2**	**24.6**	**24.3**	**23.5**	**24.6**	**24.0**	**21.3**

Credit and deposits in non-financial sectors [3]

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	04/18	05/18
Deposits								
Household and company deposits	2.5	2.8	2.5	2.3	3.2	2.4	2.2	2.6
Sight and savings	16.0	17.6	18.8	17.2	15.9	12.2	10.6	10.3
Term and notice	–16.0	–24.2	–24.9	–25.1	–24.6	–23.1	–22.0	–21.0
General government deposits	–14.2	–8.7	–26.7	6.8	13.1	16.7	17.3	14.7
TOTAL	**1.2**	**1.9**	**0.5**	**2.6**	**3.7**	**3.1**	**3.0**	**3.2**
Outstanding balance of credit								
Private sector	–3.6	–2.2	–2.1	–2.3	–1.9	–2.2	–3.3	–3.1
Non-financial firms	–5.3	–3.6	–3.0	–3.9	–3.3	–4.3	–6.9	–7.6
Households - housing	–3.7	–2.8	–2.8	–2.7	–2.6	–2.4	–2.2	–1.9
Households - other purposes	2.0	3.7	3.2	3.3	4.5	4.9	4.0	6.1
General government	–2.9	–9.7	–12.6	–11.6	–11.4	–12.5	–10.5	–9.0
TOTAL	**–3.6**	**–2.8**	**–2.9**	**–3.0**	**–2.5**	**–2.9**	**–3.7**	**–3.5**
NPL ratio *(%)* [4]	**9.1**	**7.8**	**8.4**	**8.3**	**7.8**	**6.8**	**6.8**	**...**

Notes: *1. Estimate based on the Active Population Survey. 2. Average monthly figures. 3. Aggregate figures for the Spanish banking sector and residents in Spain. 4. Period-end figure.*

Source: *CaixaBank Research, based on data from the Ministry of Economy, the Ministry of Public Works, the Ministry of Employment and Social Security, the National Statistics Institute, the State Employment Service, Markit, the European Commission, the Department of Customs and Special Taxes and the Bank of Spain.*

Portugal: consolidating its strong position

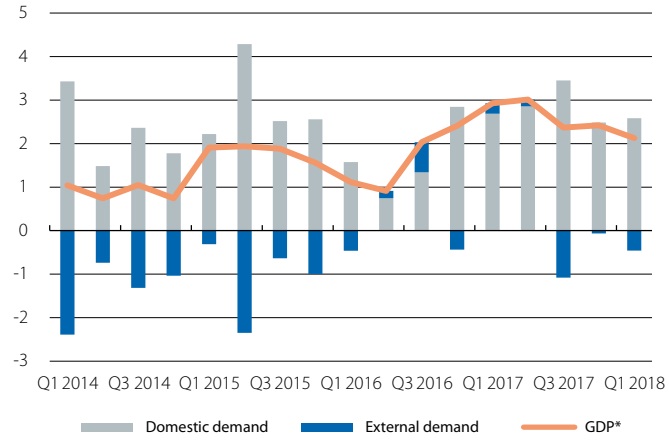
The macroeconomic environment consolidates its strength. The final estimate of GDP for Q1 2018 confirmed a growth of 0.4% quarter-on-quarter and 2.1% year-on-year, bringing the number of consecutive quarters with growth above 2.0% in the Portuguese economy to seven. This positive trend is supported by the good tone of domestic demand and exports, which in Q1 contributed 2.3 and 2.2 pps to GDP growth, respectively (while the growth of imports deducted 2.6 pps and the accumulation of stocks contributed +0.3 pps). Furthermore, both factors will continue to firmly drive economic activity over the coming quarters. On the export side, these will continue to benefit from a favourable external environment, and they will also be enhanced by the resumption of fuel refining activities and the increase in car exports (after one of the major vehicle manufacturers announced an increase in production, starting in September). On the domestic demand side, the solid growth in private consumption (0.8% quarter-on-quarter and 2.1% year-on-year in Q1) is expected to continue, thanks to the recovery of the labour market, improving confidence among households and healthier household balance sheets (net household wealth reached a new peak in 2017 of 445% of disposable income, while household debt fell to 72.6% of GDP in Q1 2018). With regards to investment, various factors suggest that the slight slowdown seen in Q1 2018 (4.7% year-on-year, following a figure of 5.9% in Q4 2017) will be temporary. This slowdown was mainly due to investment in construction (which was affected by unfavourable meteorological factors in March), while the rest of the components performed strongly (machinery and equipment +9.2% year-on-year and transportation +11,7%). In addition, the various indicators for Q2, such as planning permission applications for new builds in the residential sector, suggest there is a renewed acceleration in investment. As such, all the indicators suggest that Portugal will maintain a solid rate of growth over the coming quarters, slightly above 2.0% according to our forecasts.

The labour market is growing healthily. So far this year, employment has grown at an average rate of 2.9% year-on-year (2.1% year-on-year in April, the latest figure available). The number of registered workers affiliated to Social Security also increased in April, by 134,618 (compared with the same month in the previous year). The employment rate, meanwhile, stood at 61.3%, close to its pre-crisis peak. Finally, it is important to note that the unemployment rate fell to 7.4% in April (–2.1 pps compared to April 2017), the lowest level since the beginning of 2004.

In May, inflation showed greater strength. According to the harmonised index of consumer prices (HICP), headline inflation stood at 1.4% in May. This represents a considerable

Portugal: GDP

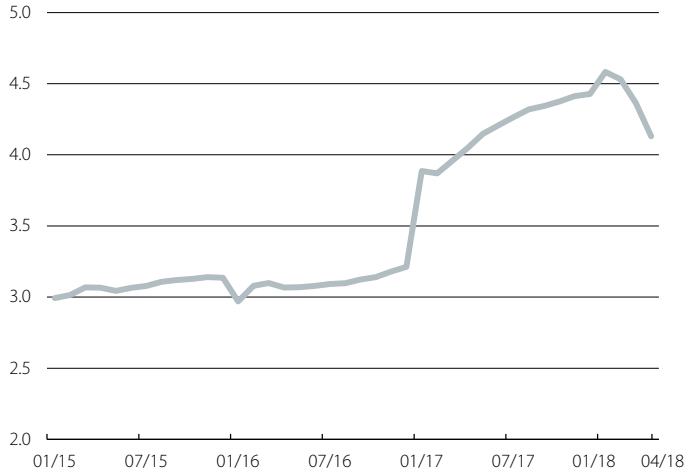
Contribution to year-on-year growth (pps)



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

Portugal: registered workers affiliated to Social Security

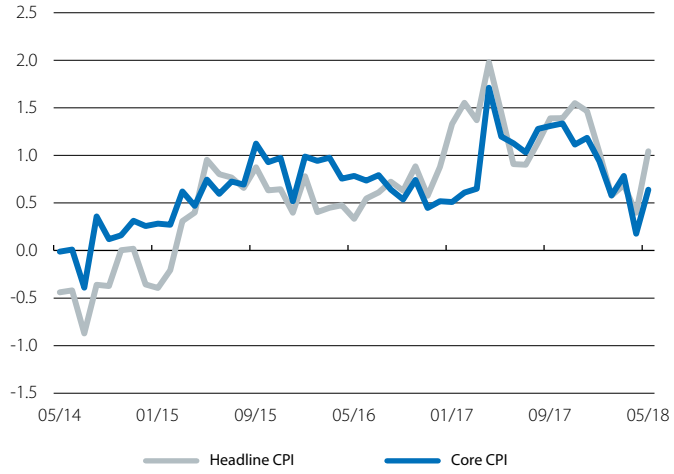
Year-on-year change (%)



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

Portugal: harmonized index of consumer prices

Year-on-year change (%)



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

acceleration compared to the figure recorded in April (0.3%), hoisted up by a 5.7% rise in energy prices and a 2.6% rise in the price of services. Core inflation also increased considerably, reaching 1.1%, 1 decimal point higher than the figure for April. As discussed in the Focus «What is behind Portugal's low inflation?» in this same *Monthly Report*, in recent months inflation had slowed as a result of the relatively more moderate rise in oil prices and the impact of the appreciation of the euro. However, over the next few quarters, as these temporary effects fade, the core components will drag inflation upwards fuelled by the buoyancy of economic activity and the recovery of the labour market.

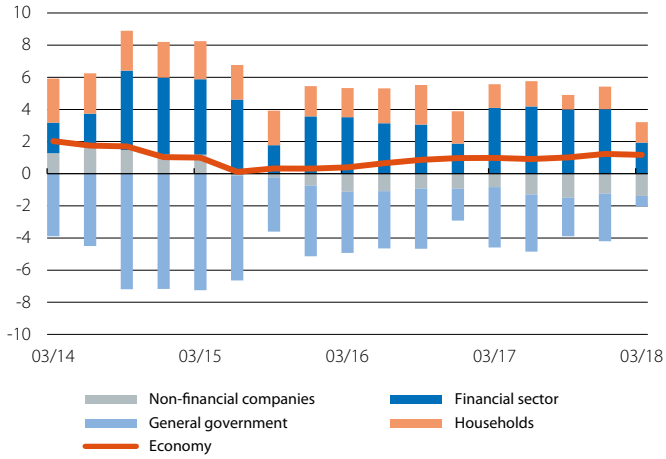
The external surplus continues to contribute to the improvement of the macroeconomic imbalances. In Q1 2018, the economy maintained a positive external funding capacity amounting to 1.2% of GDP. Of particular note was the improvement in the funding needs of the public sector, which reduced all the way down to 0.7% in Q1 2018, compared to 3.8% in Q1 2017. This improvement was largely due to the negative effect of the recapitalisation of Caixa Geral de Depósitos (CGD) in 2017. Meanwhile, the funding capacity of households and the funding needs of non-financial companies deteriorated very slightly. In this context, the household savings rate stood at 5.1% of disposable income, 0.2 pps below the figure for Q4 2017, due to consumption growing more than disposable income.

The public accounts are on the right track, despite some temporary impediments. The data from the national accounts show an improvement of the central government balance, going from –2.0% of GDP in Q1 2017 to –0.9% in Q1 2018 (excluding the recapitalisation of CGD). In addition, the contrast with the cash accounting data (which reflect a deterioration in the budget deficit up to May) is due to this variable being distorted by temporary factors, such as the earlier repayment of personal income taxes and a delay in the receipt of income from corporate tax. Therefore, the outlook for the year as a whole remains positive, especially thanks to the favourable economic environment and its particularly positive effect on indirect taxes and social contributions (which, up until May, together grew by 5% year-on-year).

The real estate sector is on the rise. In Q1 2018, the housing prices rose by 12.2% year-on-year, which represents an acceleration of 1.7 pps compared with Q4 2017, while the number of homes sold increased by 15.7%. By segment, sales continue to be dominated by existing homes, which represent approximately 86% of all transactions. By region, the data indicate that the buoyancy of the real estate market is spread throughout the country, although it is more pronounced in the metropolitan regions of Lisbon and Porto and in the Algarve. Looking forward to the next few quarters, the accommodative financial conditions and the significant demand for housing from non-residents will continue to support the strength of the real estate market.

Portugal: external funding capacity/needs

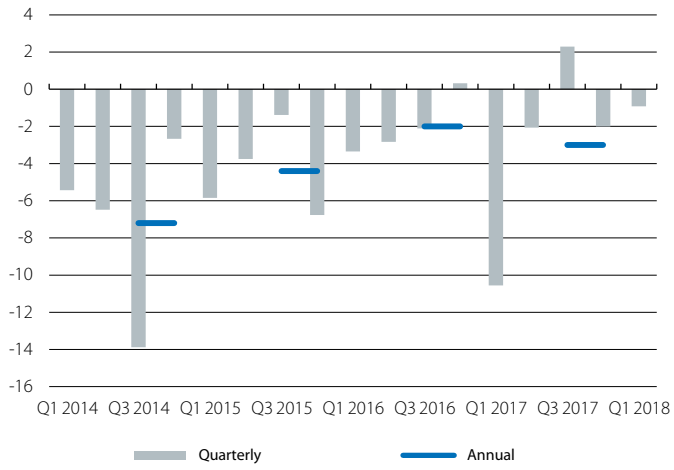
(% of GDP)



Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal.*

Portugal: budget deficit

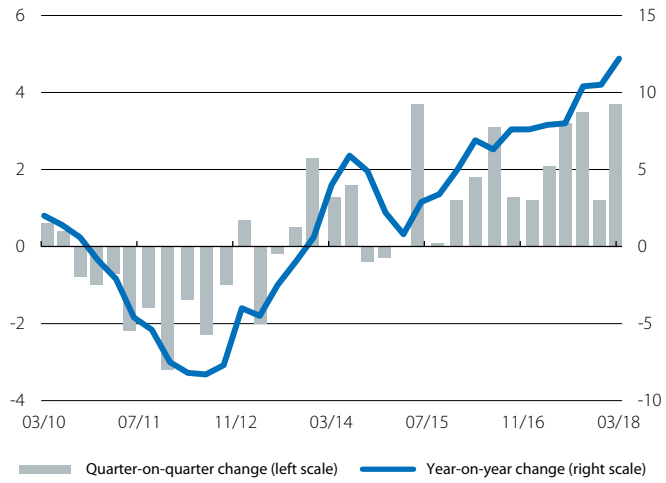
(% of GDP)



Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal.*

Portugal: price of housing

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



Source: *CaixaBank Research, based on data from the National Statistics Institute of Portugal.*

What is behind Portugal's low inflation?

In the first half of 2018, the inflation figures have been well below those of the first half of 2017: for example, the average rate of inflation between January and May 2018 was 0.9%, 0.8 pps lower than the figure for the same period in 2017 (1.7%). What is the reason for this slowdown, which is especially surprising at a time when the economy is gaining strength?

Part of the explanation is related to oil prices, which rose sharply between early 2016 and 2017 (by around 50% between January 2016 and January 2017), before continuing to rise but at a slower rate (by around 20% between January 2017 and January 2018). Therefore, among the components of the consumer price index (CPI), energy prices rose by 5.3% year-on-year on average between January and May 2017, but only by 2.7% over the same period in 2018.

However, the fluctuation of the euro exchange rate since mid-2017 has also played a key role. The appreciation of the euro reduces the cost of foreign imports and translates into inflation in two ways. On the one hand, it directly affects the CPI by making imported goods destined for final consumption cheaper. On the other hand, it also reduces the price of intermediate goods, which decreases production costs and thus has an indirect impact on the CPI.

According to estimates by the European Commission,[1] in Portugal, the impact of an appreciation of 1% in the nominal effective exchange rate causes a 0.1 pp reduction in headline CPI and a 0.09 pp increase in core CPI. In fact, of all the countries analysed, Portugal is the one where the impact is estimated to be highest. Given that in May the nominal effective exchange rate (relative to the country's 61 main trading partners) had appreciated by 3.2%,[2] this would explain a slowdown in inflation of 0.32 pps.

The trends observed in the different components of the CPI corroborate the hypothesis that the appreciation of the euro has played an important role in the recent changes in inflation, given that there has been a greater slowdown of inflation among the volatile components (unprocessed food and energy) than in the core components. Firstly, the imported portion of the unprocessed foods component is higher in Portugal than in the euro area as a whole, which helps to explain why the appreciation of the euro has had a bigger impact in Portugal.[3] Secondly, the transmission of the appreciation of the euro is stronger in the case of energy prices, since these are largely determined in international markets and are denominated in dollars (recall that the euro has appreciated 15% against the dollar since the beginning of 2017, a much more marked appreciation than in the effective exchange rate).[4]

Core inflation, meanwhile, has been less affected. This is because a large part of its components – such as services, which account for more than 50% of the index – cannot be imported, while Portugal's imports of processed food from outside the euro area are negligible. However, the core index also includes non-energy industrial goods, a considerable portion of which are imported. Indeed, over the past few months, this component has contributed to the drop in inflation. This component is also influenced by structural forces which have contained inflationary pressures at the global level, such as globalisation and technological advances that have made it possible to reduce production costs.[5]

All in all, the strong appreciation of the euro in the second half of 2017 explains much of the slowdown in inflation witnessed in Portugal over the last few months, particularly in terms of its impact on the volatile components. However, over the next few quarters, as this underlying effect fades, the core components will drag inflation upwards due to the buoyancy of economic activity and the recovery of the labour market.

Portugal: recent trends in inflation

		Year-on-year change (%) Average for Jan-May			Contribution to the change in the HICP (pps)	
	Weighting (%)	2017	2018	Change (pps)	2017	2018
HICP	**100.0**	**1.7**	**0.9**	**–0.8**		
Unprocessed food	10.3	3.4	0.2	–3.2	0.3	0.0
Energy	8.3	5.1	2.5	–2.7	0.4	0.2
Core HICP	**81.4**	**1.1**	**0.8**	**–0.3**	**0.9**	**0.6**
Processed food, alcohol and tobacco	13.1	0.1	1.3	1.2	0.0	0.2
Non-energy industrial goods	26.0	–0.7	–1.2	–0.5	–0.2	–0.3
Services	42.3	2.1	1.8	–0.3	0.9	0.8

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

1. European Commission (2014), «Quarterly Report on the Euro Area», vol. 13, n° 3.
2. In relation to July 2017.
3. In Portugal, imports of unprocessed foods represent 0.8% of GDP (0.6% in the euro area as a whole) and 21% of them come from countries outside the EU.
4. 78% of imports of energy goods (oil and natural gas) originate outside the EU and they represent 3% of GDP (65% and 2.2%, respectively, in the euro area as a whole).
5. Economic Bulletin of the Bank of Portugal, June 2018.

The positive performance of the Portuguese foreign sector in 2018

In 2017, Portugal's current account balance recorded a surplus of 0.5% of GDP (the fifth consecutive year posting a surplus). By components, while there remained a deficit in the goods and income balances, exports of services exceeded even the most optimistic of expectations. This was primarily thanks to the strong figures for tourism and it enabled the surplus in the balance of services to offset the less positive figures registered by the rest of the components.

Recent dynamics in the foreign sector

With regards to 2018, the data available up to April show a positive trend in exports of both goods and services, as well as remittances from emigrants.

Firstly, within the balance of goods, there has been an increase in the trade deficit, but it must be attributed to the strong growth of imports (10.5%). This is the result of higher oil prices (which have led to a deterioration in the trade deficit in energy), as well as the strength of domestic demand and higher imports of investment goods. Furthermore, exports have grown significantly (8.0%), which is particularly noteworthy given the marked appreciation of the euro over the course of 2017. Sales of cars and their components have enjoyed particularly encouraging growth, while the traditional industries (oil, wine and beverages, plastics and cork) have also performed well.

The surplus in the balance of services, meanwhile, has continued to break records. As of April 2018, the surplus had increased by 2.3 billion euros (cumulative 12-month figure) compared to the same period in 2017. This highlights its upward trend, supported by very positive figures in the transportation and tourism sectors. Tourism particularly deserves a special mention, with a weighting of 70% in the surplus of the balance of services. Tourist services have steadily gained prominence in the national economy (they are expected to account for 7.8% of GDP in 2018) and in April 2018, revenue from the sector accounted for 18.0% of total exports (12-month cumulative figure).

Finally, in the balance of incomes, the balance of primary incomes (interest, dividends and profits) has deteriorated, both due to a decrease in income from direct investment abroad and due to a reduction in income from portfolio investments. The balance of secondary incomes, meanwhile, has performed better, confirming the growth in remittances from emigrants (1.5% of GDP).

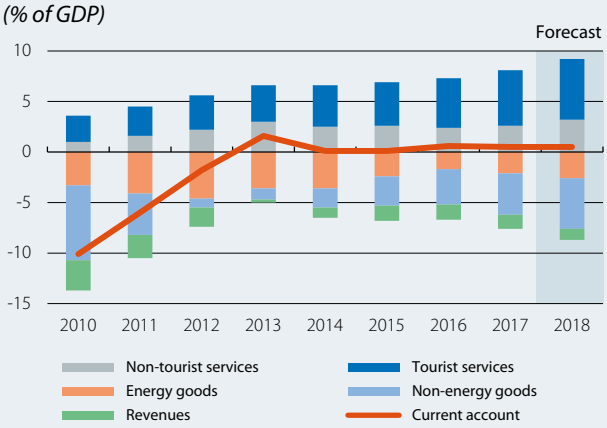
Outlook for 2018

In a favourable foreign environment, we expect both global and Euro-area exports of goods and services to continue to perform well. In this regard, in 2018 the influx of tourists will most likely reach new record figures once again, which will reinforce the current account surplus.

All in all, the current environment is not without risks. On the positive side, remittances from emigrants or transfers received from the EU could end up being better than expected. On the negative side, there could be a deterioration in international investor sentiment in an environment of geopolitical and trade tensions; there could be a rally or volatility in the price of oil; and, finally, there is the possibility of a sudden interest rate hike (which could occur both due to fears of an increase in protectionism at the global level and due to a reaction to the withdrawal of monetary stimulus by the major central banks). It is also worth noting that the proportion of public debt which is held by non-residents has increased, which will put some pressure on the balance of incomes.

Portugal: composition of the current account balance

(% of GDP)



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

Activity and employment indicators

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	01/18	02/18	03/18	04/18	05/18
Coincident economic activity index	1.5	2.7	2.8	3.0	2.8	2.5	2.3	2.2	2.1	2.0
Industry										
Industrial production index	2.4	4.0	2.8	6.8	2.5	2.5	1.8	2.1	3.8	...
Confidence indicator in industry *(value)*	–0.7	2.3	2.7	1.8	3.5	2.9	1.6	1.7	0.1	–0.5
Construction										
Building permits *(cumulative over 12 months)*	7.1	20.7	21.9	21.5	17.4	...	...	9.5	...	...
House sales	18.8	20.5	16.1	23.0	23.6	...	...	15.7	...	...
House prices *(euro/m² - valuation)*	3.8	5.0	4.4	5.5	4.5	...	...	5.4	...	...
Services										
Foreign tourists *(cumulative over 12 months)*	10.9	12.1	12.6	12.1	11.8	10.9	10.6	11.1	8.4	...
Confidence indicator in services *(value)*	7.3	13.8	13.7	15.6	14.8	15.1	13.2	11.2	10.5	13.7
Consumption										
Retail sales	2.7	4.1	5.8	3.9	4.1	5.7	4.4	7.7	–1.6	...
Car registrations	1.7	2.4	2.4	2.6	2.5	2.4	2.3	2.2	2.2	2.0
Consumer confidence index *(value)*	–11.1	0.5	1.7	1.5	2.3	1.7	1.6	2.8	3.0	4.1
Labour market										
Employment [1]	1.2	3.3	3.4	3.0	3.5	3.6	3.2	2.7	2.1	...
Unemployment rate (% labour force)	11.1	8.9	8.8	8.5	8.1	7.9	7.6	7.5	7.4	...
GDP	**1.6**	**2.7**	**3.0**	**2.4**	**2.4**	**...**	**...**	**2.1**	**...**	**...**

Prices

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	01/18	02/18	03/18	04/18	05/18
General	0.6	1.6	1.7	1.3	1.8	1.1	0.7	0.8	0.3	1.4
Core	0.8	1.3	1.7	1.4	1.6	1.0	0.7	0.9	0.1	1.1

Foreign sector

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	01/18	02/18	03/18	04/18	05/18
Trade of goods										
Exports *(year-on-year change, cumulative over 12 months)*	0.8	10.1	7.8	9.3	10.1	9.5	9.2	6.5	8.0	...
Imports *(year-on-year change, cumulative over 12 months)*	1.5	12.6	9.3	11.8	12.6	11.8	11.7	10.3	10.5	...
Current balance	**1.1**	**0.9**	**0.7**	**0.8**	**0.9**	**0.6**	**0.6**	**0.9**	**0.4**	**...**
Goods and services	3.8	3.5	3.4	3.4	3.5	3.3	3.4	3.2	3.2	...
Primary and secondary income	–2.7	–2.6	–2.7	–2.6	–2.6	–2.7	–2.8	–2.3	–2.8	...
Net lending (+) / borrowing (–) capacity	**3.0**	**2.7**	**2.7**	**2.6**	**2.7**	**2.4**	**2.4**	**2.7**	**2.1**	**...**

Credit and deposits in non-financial sectors [2]

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

	2016	2017	Q2 2017	Q3 2017	Q4 2017	01/18	02/18	03/18	04/18	05/18
Deposits										
Household and company deposits	3.7	1.7	1.6	0.4	2.1	2.7	2.8	2.3	3.5	...
Sight and savings	19.5	15.7	1.6	0.4	2.1	14.0	14.3	12.6	14.2	...
Term and notice	–3.2	–5.8	–6.6	–7.1	–4.4	–4.0	–4.3	–4.1	–3.3	...
General government deposits	–17.9	1.3	–0.4	8.3	12.1	1.4	5.2	–0.8	–5.5	...
TOTAL	**2.3**	**1.6**	**1.5**	**0.8**	**2.6**	**2.7**	**2.9**	**2.2**	**3.1**	**...**
Outstanding balance of credit										
Private sector	–3.9	–4.0	–4.2	–4.1	–3.4	–1.8	–1.9	–1.8	–1.9	...
Non-financial firms	–5.6	–6.6	–6.8	–6.5	–5.9	–2.7	–3.1	–3.0	–3.5	...
Households - housing	–3.3	–3.1	–3.4	–3.2	–2.1	–2.0	–1.9	–1.7	–1.7	...
Households - other purposes	–0.4	1.1	2.0	1.0	–0.1	2.3	2.5	2.6	2.8	...
General government	–9.4	9.3	–4.1	21.6	22.9	21.5	19.4	16.0	16.3	...
TOTAL	**–4.2**	**–3.5**	**–4.2**	**–3.1**	**–2.4**	**–0.9**	**–1.1**	**–1.1**	**–1.2**	**...**
NPL ratio *(%)* [3]	**17.2**	**13.3**	**15.5**	**14.6**	**13.3**	**...**	**...**	**...**	**...**	**...**

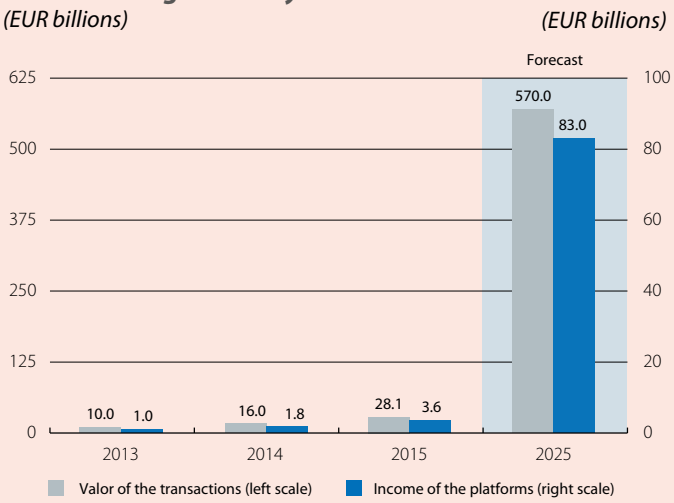
Notes: *1. Estimate by the National Statistics Institute. 2. Aggregate figures for the Portuguese banking sector and residents in Portugal. 3. Period-end figure.*
Sources: *CaixaBank Research, based on data from the National Statistics Institute, Bank of Portugal, European Commission and European Automobile Manufacturers' Association.*

The sharing economy: from emerging phenomenon to a key part of the digital revolution

What do terms such as the sharing economy», «on-demand economy» or «gig economy» suggest to you? Probably not that much. Even Americans, who live in the country where the phenomenon is the most developed, have little knowledge of it: when asked by the Pew Research Center in 2016, two-thirds of those surveyed had never heard of the sharing economy. Of the third that had, 40% emphasised an element of selfless collaboration between people, 25% stated that despite having heard the expression they did not know what it was, while 16% gave a much more accurate answer and said that it consisted of businesses or individuals sharing goods and services under short-lived arrangements.

Why do we say that this last group were closer to the mark? Well, when we review some of the hundreds of articles, case studies and policy proposals on the topic, we find that, besides the name, there are four elements that are repeated in most definitions. The first one is that the services of the sharing economy all tend to go through online platforms and, in most cases, these platforms are accessed via a mobile or tablet computer application. A second defining aspect is that the sharing economy involves peer-to-peer relations being established between either individuals or companies. A third characteristic element is that the relations that are established between the participants in the sharing economy are temporary in nature. Finally, the fourth ingredient of the definition is the exchange of assets, resources, time or skills, in a highly flexible and dynamic manner. Thus, if these four aspects are combined (since, individually, these elements can be found in other forms of doing business and are not specific to the sharing economy), it is likely that we are in the presence of a new phenomenon which hereinafter we will refer to as the sharing economy.

Income and value of transactions related to the sharing economy



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

The fledgling nature of this phenomenon is denoted by how difficult it is to obtain reliable estimates about it using conventional statistics. For starters, a portion of the transactions of the sharing economy cannot be captured by the usual metrics, since they are non-pecuniary activities. However, in the case of transactions that involve monetary payments, it is possible to quantify them. In general, one of the two following approaches is used to do so: either monitoring the extent of the consumption or that of the supply.

In the first instance, and despite the evidence being limited, the main conclusion is that consumers' use of the sharing economy is still in a minority. According to the most reliable reports, between 20% and 30% of consumers in developed countries have used the digital platforms that support these services or have shared some of the tangible or intangible assets that are exchanged on them. Another aspect which is sometimes analysed is whether households receive any income from the sharing economy. According to the Pew Research Center, in the US in 2016, approximately 25% of Americans had received income from the sharing economy, although if we exclude sales of second-hand goods, the figure is reduced by more than half.

Following the second approach, and according to what is perhaps the most frequently-referenced report on the matter,[1] five major sectors are often identified as using sharing economy business models: accommodation between peers or users, transportation between users, on-demand household services, on-demand professional services and collaborative finance. According to this report, in Europe in 2015, transactions in these five sectors amounted to 28 billion euros, generating revenues for the related digital platforms to the tune of 4 billion euros. Although these figures by themselves do not seem excessive, the pace of growth over the last few years is rather remarkable, since the number of transactions tripled between 2013 and 2015, while revenues quadrupled.

1. See Vaughan, R. and Daverio, R. (2016), «Assessing the size and presence of the collaborative economy in Europe», PwC. Study commissioned by the European Commission to monitor the phenomenon of the sharing economy.

In view of the pace of change we are witnessing, the immediate question to consider is what the future holds for the sharing economy. Addressing this question requires us to first reflect on what the key factors that explain the phenomenon's growth are. In general, the emergence of the sharing economy and its future dissemination is the result of the confluence of changes in two different areas: those strictly in the technological sphere and changes in consumer expectations. With regards to the former, digitisation and platforms offer suppliers the opportunity to adapt what they offer to constantly-changing conditions with a high degree of flexibility. This flexibility comes from both the manner in which the service is offered (for example, with few timetable restrictions) and the possibility to exploit users' information (most likely using big data technologies). The services provided are often offered at a much lower cost than usual, due to factors such as the elimination of conventional intermediaries and the exploitation of underutilised assets (obvious examples of assets that are often scarcely used include homes and vehicles, but this can also be the case for intangible assets, such as certain types of knowledge).

There have also been substantial changes in consumers' expectations and demands. Generally speaking, the benefits that consumers obtain from the sharing economy are the result of a combination of traditional economic factors (lower prices, less time devoted to searching or better matching of supply and demand, to mention just the main ones) and other factors of a social or environmental nature. These latter factors can include the satisfaction that comes with following more sustainable and environmentally-friendly consumer practices, greater transparency in the transactions, purely altruistic reasons or a sense of co-creating or, at least, guiding the service in question (for example, by offering proposals and/or rating the experience).

If these are the factors underlying the expansion of the sharing economy, it is worth considering how they interact with different business models. As with other changes associated with innovation and technological shocks, it is generally possible to distinguish three possible situations. The first situation would involve business models which have been created from scratch, using digital platforms and the collaborative approach, and which have been able to meet consumers' new demands. We will refer to these as «pure» business models. Chronologically, these «pure» business models were the first to materialise and are more clearly associated with the phenomenon of the sharing economy. A second group is what we will refer to as «revolutionised» business models, referring to those whose traditional way of competing is being substantially altered by the emergence of the sharing economy. These business models will probably have to create hybrid business models in the future, incorporating elements of digital collaboration into other aspects of their traditional core business. Finally, there will also be companies whose business model will not be affected by the sharing economy, or only marginally so, which we will label «traditional» business models.

The forward-looking exercises available mostly focus on identifying «pure» sectors, activities and business models (in which the factors that drive the sharing economy are being exploited extensively) and projecting their future trends. This is the case, for example, of the aforementioned study, which forecasts the platforms' revenues, as shown in the accompanying chart. This chart predicts that the platforms' level of income will increase more than 20-fold between 2015 and 2025 in the five sectors mentioned above (accommodation between peers or users, transportation between users, on-demand household services, on-demand professional services and collaborative finance).

We know less about what could prove to be the sharing economy's main area of expansion, namely its extension to other business models that already exist. For example, can we think of any sectors in which there are underutilised assets, increasing sensitivity regarding environmental sustainability or pressure to engage in the process of creating the experience? If the answer is yes, the sector could be susceptible to being revolutionised by digital platforms. Once way to realise the potential of the process is to determine which sectors, as conventionally defined, are being affected by the «pure» business models and to see how important they are in the economy. According to Credit Suisse, in advanced countries, the «pure» activities of the sharing economy are interacting with sectors which represent somewhere in the order of 50% of the economy. While the sharing economy is unlikely to ever reach such a high level of penetration, this figure nevertheless serves as a reminder that few sectors can be considered immune to its disruptive effects. As such, companies should devise changes in their business models to convert competitive relationships with the sharing economy into relationships of cooperation.

In conclusion, the sharing economy is a new phenomenon, as its still-blurry definition denotes, but beyond the name, what seems to be emerging is a new way of doing business. If a new Adam Smith today were to undertake the ambitious intellectual exercise of conceptualising what we have come to call the «digital economy», he would probably no longer use his famous example of the pin factory to highlight key aspects. Rather, we suspect he would find it more enlightening to explore some digital platforms, through which, by the way, he could sell his new book (sorry, ebook) to his peers, directly, which we venture might be called something like «The (digital) wealth of individuals».

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CaixaBank Research

The sharing economy and tourism

The irruption of the sharing economy can be seen in many areas of the economy, but it is having a particularly big impact on the tourism sector. Many of the services offered between peers (P2P) through the sharing platforms are seen as an alternative to professional tourism services of accommodation, leisure and transportation. Given the scale that many of these platforms have reached over the last few years, it is no wonder that part of the tourism ecosystem has been altered. In this article, we analyse the impact that the sharing economy is having on the tourism market.

The popularisation of the sharing economy is changing the way in which some tourism services are provided and has generated new ways of travelling (see figure). However, platforms' level of penetration in the tourism market varies across subsectors. In particular, the impact is high in the initial phase of the customer journey, where platforms that connect people who rent out properties with potential customers act as de facto booking centres for tourist accommodation, complementing traditional providers. Likewise, we find platforms that help users to create their own tourism packages by facilitating the exchange of information (reviews, recommendations, etc.) with other tourists and local residents to help them plan their trip. Similarly, in the travel and destination phases, passenger land transportation services have been altered by the sharing economy. In fact, the temporary rental of vehicles between peers is one of the most prominent examples of the sharing economy in the tourism sector.

Impact of the sharing economy in the different stages of the tourism customer journey

Pre-trip (booking)	Journey	Destination	Post-trip
Accommodation	Land-based passenger transportation	Sporting, recreational and entertainment activities	Review platforms
Traditional	Share the cost of travel	Equipment rental	Exchange of views and recommendations on the quality of tourist services
House swap between two individuals	Taxi services	Tours and tourist activities	
House sitting		Workshops and classes	
Work in exchange for accommodation		Food and drink services	
Hotel booking resale platforms between individuals		Gastronomic activities	
Review platforms		Vehicle rental between individuals (bicycles, boats, cars, etc.)	
Exchange of information between users			

Source: *CaixaBank Research.*

Also at the destination, where services provided are typically very labour-intensive, particularly at customer touchpoints, sharing platforms which offer more personalised services have become extremely popular. Such services might include gastronomic experiences in which tourists can share a meal with local residents, or travel experiences, such as sightseeing tours organised by locals who present themselves as a more «authentic» alternative to the services offered by traditional tour operators.

There are several factors that can explain the rise in popularity of the sharing economy in the tourism sector. Firstly, digitisation and new technologies are crucial for understanding the rise of the sharing economy.[1] Although the provision of tourism activities between individuals is nothing new – non-conventional or alternative exchanges between individuals have always existed – these interactions used to be limited to friends and acquaintances. Digital platforms have made it possible to extend these small exchanges to relations between strangers at an unprecedented scale by reducing the cost of access to market for individual providers, as well as transaction costs. Specifically, peer-to-peer platforms allow consumers to easily compare prices between different suppliers, find out more about the product or service being offered, review other users' opinions and, in many cases, communicate directly with the provider of the product or service.

Secondly, cultural changes and economic developments that have taken place in recent years have led consumers to be increasingly open to the idea of sharing resources and accessing goods on a temporary basis, rather than owning them. Among these changes, of particular note is the greater interest in the social element and the community – the desire to expand one's social circle through new related connections–, as well as the greater concern for the environment.[2] In this context, today's tourists also tend to place greater emphasis on the cost and the value for money of the services they use, partly because of the

1. European Parliament (2017), «Tourism and the sharing economy», Briefing.
2. Botsman, R. and Rogers, R. (2010), «What's Mine Is Yours: The Rise of Collaborative Consumption», New York: Harper Collins.

wide range of services available to them. Against this background, the tourism industry is an ideal candidate for the expansion of business models associated with the sharing economy, due to the nature of the services offered. Products that cost more and are used more occasionally are the most likely to be «shared» with third parties, so it is no surprise that accommodation and transportation services are those most affected by the emergence of these new consumption models.

Thirdly, tourists' expectations have changed. Tourist consumers – especially young people – are more open to organising their trips themselves and increasingly demand unique and personalised experiences.[3] This growing desire to enjoy «authentic» experiences has led to the emergence of new niche markets. In this context, the sharing economy has gained popularity by offering the possibility to engage in these types of experiences, which are more flexible and less standardised,[4] such as stays in unusual places and shared dining experiences with local residents.

In addition, the activities of the sharing economy have been developed at a time of rapid growth in the tourism sector[5] – the number of international tourists has increased by 38% since 2010–,[6] hence the growth of these kinds of activities has been even more visible.

What effects does it have on the tourism market?

From tourism companies' point of view (supply), the arrival of the sharing economy is transforming the environment in which they operate. With the emergence of these P2P digital platforms, the offer of tourist services, usually made up of traditional companies, has grown considerably, as barriers to entry have been reduced considerably (it is easier for any individual to become a provider of tourism services). In this context, incumbent firms have been forced to respond to these changes in order to remain competitive. Many of them have focused their efforts on trying to meet tourists' expectations, often by reducing prices, improving the quality of the services offered, innovating or expanding the range of services. For example, traditional providers of tourist accommodation have introduced loyalty programmes that offer additional benefits to their customers, and they have started to offer activities and events which seek to «connect» guests with local residents and the local culture. However, many of the activities associated with the sharing economy are not covered by the current legislation, and thus unfair competition can occur, since incumbent firms are subject to stricter regulations. It is therefore important to develop a regulatory framework which provides legal protection and a level playing field for all competitors (for more details, see the article «The challenges of regulation in the face of the sharing economy» in this Dossier). On the other hand, up until now, the sharing economy has primarily affected transactions between peers, where one of the parties is a final consumer. Over the medium term, however, there is significant potential for business models associated with the sharing economy in which companies can share resources so as to reduce costs and improve the efficiency with which they operate.

For consumers (demand), this increase and improvement in the range of tourist services has been very positive, since it gives them greater choice and control.[7] Today, tourists have at their disposal more options for accommodation, leisure and transportation, which allows them to choose whichever option best suits their tastes, needs and willingness to pay. Furthermore, they can easily compare quality among different providers from all over the world and read the opinion of other tourists before deciding on a good or service. On the other hand, the sharing economy has also contributed to generate a new demand in the tourism market.[8] Given that P2P platforms provide an alternative range of tourist services, they attract new and different types of tourists. Some of these new tourists are attracted by the supply of local experiences, while for others, especially young tourists, the attraction is the lower price and the digital access to the service. In this sense, this «new» supply can help to create new niche markets or to attract tourists to destinations that were not popular before. However, in order to ensure an adequate level of consumer protection and minimum quality standards, it is necessary to include these activities in the legislation.

In short, the arrival of the sharing economy and of the new business models associated with it has had a disruptive effect on the tourism industry and has changed the way consumers see and use traditional tourist services. The sharing economy can help to improve the sector's competitiveness and to complement the traditional supply. However, the rapid growth that it has experienced in recent years poses a significant regulatory challenge, given that many of these activities are not covered by the current legislation. Adapting the legal framework to respond to this new paradigm, therefore, is crucial.[9]

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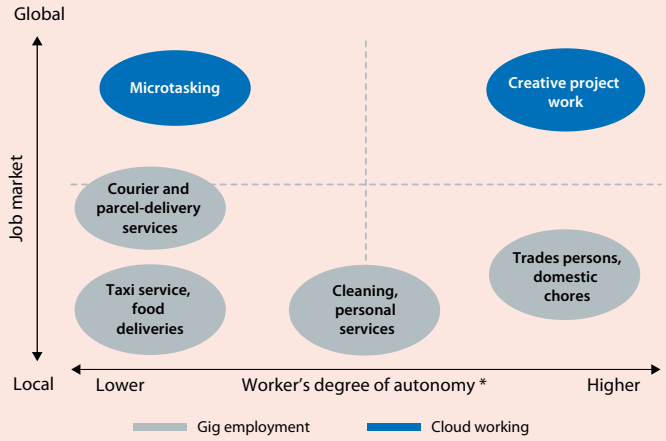
3. Amadeus Research Study (2013), «Trending with NextGen Travelers».
4. OECD (2016), «Tourism Trends and Policies 2016», OECD Publishing.
5. European Parliament (2017).
6. Data from the World Tourism Organization (UNWTO).
7. A. Stephany (2015), «The Business of sharing: Making it in the New Sharing Economy», Palgrave Macmillan.
8. OECD (2016).
9. European Commission (2016), «A European agenda for the collaborative economy - supporting analysis», Commission Staff Working Document.

The sharing economy and the labour market

Most of our parents and grandparents spent their whole lives working at the same company where they began their career – something which is unthinkable for young people joining the labour market today. Non-standard labour relations[1] are becoming increasingly common and go some way towards explaining the current high rate of part-time, temporary and self-employed workers (19.4%, 12.2% and 13.7%, respectively, in 2017). Furthermore, the rise of the sharing economy has led to the creation of a new type of non-standard employment: «on-demand» employment. Digital platforms facilitate this type of employment by reducing transaction costs and allowing supply and demand for employment to be matched in real-time. To draw an analogy with human relations, a standard job would be like a marriage, whereas working in the sharing economy would be akin to going on a series of dates arranged through a dating app.

Specifically, so-called on-demand employment can be grouped into two broad categories: gig employment and cloud working. Gig employment is characterised by individuals using digital platforms to search for customers to whom they can offer their services, some of which are more labour-intensive (such as a delivery service) while others are more capital-intensive (such as home rentals). Cloud working, meanwhile, involves companies making requests online for tasks or services they need. Online job markets, such as Amazon Mechanical Turk, Freelancer and Upwork, are used to request a wide range of services, such as computer programming, design, translation, administrative or accounting tasks, etc., many of which were not so easy to outsource up to now. These services often consist of simple micro tasks that can be carried out quickly, such as filling in a survey, while others involve more complex jobs, such as designing an entire website.

Type of employment in the sharing economy



Note: ** The worker's degree of autonomy is lower when the platform exerts greater control over prices and the conditions of service delivery, while it is higher when the worker has more freedom to make their own choices.*
Source: *CaixaBank Research, based on the publication by the European Commission (2017), «The Social Protection of Workers in the Platform Economy».*

Despite the visibility of some jobs that have been generated through the sharing economy (just think of the meal delivery bicycles that have appeared in most cities), it is difficult to estimate precisely how many people work in the sector. Official statistics, such as the labour force survey (LFS), do not currently include details about these jobs,[2] nor do the digital platforms provide any detailed data on how many workers use them. However, there are studies that try to estimate the number, using big data algorithms. Harris and Krueger (2015) estimated that around 0.5% of the US workforce was employed in the sharing economy. According to De Groen and Maselli (2016), the European equivalent would be around 0.05% (about 100,000 active workers). Other estimates based on surveys, tax data or banking transactions point towards higher percentages, albeit with measures that are not directly comparable. Around 22% of the US population has offered services through online applications at some time,[3] while in the EU the figure lies somewhere between 1% and 5%.[4] Employment in the sharing economy therefore represents only a small percentage of the labour force, but it is growing fast.[5]

Employment in the sharing economy offers clear advantages in terms of flexibility. Individuals decide when and where they work, which allows people who otherwise would not have worked, due to mobility issues or other restrictions, to do so. In addition, the low cost of entry helps individuals who previously would have been easily excluded from the labour market to gain access. For example, according to Über, 25% of its drivers in Paris were unemployed before starting work, and many resided in deprived banlieues, where unemployment is high. Yet, by using applications of the sharing economy, they obtained employment and income in times of need.

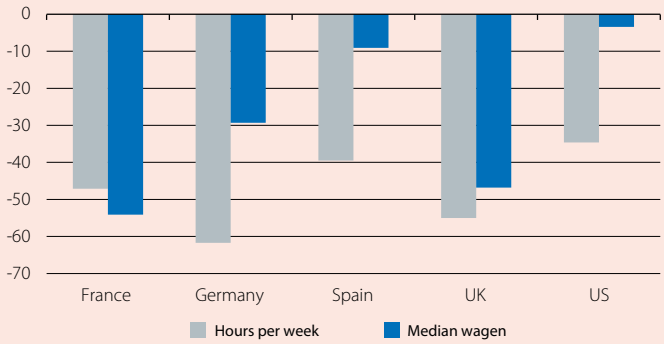
1. According to the International Labour Organization, the following categories are considered non-standard work: part-time work, working under a temporary contract and being self-employed.
2. For the time being, Canada is the only country that included questions about the collaborative economy in its LFS, and the data obtained indicated that 0.5% of the labour force in 2016 worked in it (Statcan, 2017).
3. See Burson-Marsteller, Aspen Institute and *TIME* (2015), «The collaborative economy survey».
4. European Parliament (2017), «The Social Protection of Workers in the Platform Economy».
5. See Farrell and Creig (2016), «The Online Platform Economy: What is the growth trajectory?», JP Morgan Chase Insights.

However, there are disadvantages too: the working conditions of on-demand jobs tend to be worse than in other kinds of employment. In particular, the median wage for these jobs is well below the minimum wage, and the number of weekly hours worked is half that of all other workers (see second chart). In fact, for many of them, such is the supplementary and intermittent nature of the work that they often do not even consider that they are working. As for working different jobs, or moonlighting, performing a multitude of tasks makes it difficult to specialise and develop a career. Furthermore, the greater job insecurity associated with this type of work can have health-related consequences, in terms of anxiety, stress, etc.

One topic which generates controversy is the employment status of individuals who perform on-demand work. At present, the work performed in the sharing economy is legally considered self-employed work, since it shares many characteristic elements. The individual chooses when they work and how many hours they do so for, they provide the resources needed to render the service, such as a vehicle they own, and they charge only for each service provided. However, some elements of their work have more in common with that of an employee, particularly with regard to pricing and service conditions, which are often dictated by the applications. In addition, these companies operate using online reputation tools, such as ratings, and they design algorithms that affect the likelihood of an individual being chosen to provide a service, even having the power exclude them from the platform altogether. In doing this, the platforms are exercising control mechanisms on service providers that are more typical of those used on employees and, like employees, the service providers are obliged to follow them.

Comparison of employment in the collaborative economy and the traditional economy *

Percentage



Note: ** Comparison of hours worked per week in the collaborative economy compared to the average hours in each country, and median income in the collaborative economy relative to the minimum wage in the country.*
Source: *CaixaBank Research, based on the publication by the European Commission (2017), «The Social Protection of Workers in the Platform Economy».*

With regards to labour rights, those working in the sharing economy do not tend to have the right to collective bargaining or the right of association to negotiate the conditions of service delivery with the platforms, nor are they covered by other fundamental workers' rights such as non-discrimination. Furthermore, the idiosyncrasy of the work performed - involving a multitude of services, clients, etc. - limits the social security coverage they can enjoy and the accumulation of their rights.

All of these issues have led to a debate about whether a specific legal status for these workers is necessary. Several proponents, such as Harris and Krueger,[6] have argued for a status of «self-employed worker» that would include certain rights, such as the right to organise, but not others, such as minimum wages or unemployment insurance. In fact, some platforms are now beginning to offer an occupational accident insurance to their «workers» or the right to organise. Some countries, on the other hand, already have a framework in place for «dependent self-employed workers». Although such frameworks were put in place prior to the arrival of the sharing economy, they could still serve as a good fit.[7]

While the debate remains open, and will no doubt depend on each sector and particular platform, it is important to note that many characteristics of working in the sharing economy are similar to other non-standard work, hence they can be considered together.[8] For example, people working non-standard jobs have difficulties accumulating welfare benefit rights, and this has led to increased support for the proposal to link rights to individuals, rather than to jobs.[9] The rights could therefore be accumulated and moved from one job to another, such that they would not be lost, which would also facilitate flexibility in the labour market. In short, the need to adapt social welfare is not just limited to employment in the sharing economy, but also extends to all the «non-standard» jobs that are becoming increasingly commonplace in 21st-century economies, in which globalisation and technological developments are changing the way we produce... and work.

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6. See D. Harris and A.B. Krueger (2015), «A Proposal for Modernizing Labor Laws for the Twenty-First-Century Work: The "Independent Worker"», The Hamilton Project, DP 2015-10.
7. In Spain, self-employed workers are considered to be economically dependent if over 75% of their sales are made to a single client.
8. See V. De Estefano (2016), «The rise of the "just-in-time workforce": On-demand work, crowdwork and labour protection in the "gig-economy"», ILO.
9. OECD (2018), «Opportunities for All: OECD Framework for Policy Action on Inclusive Growth».

The challenges of regulation of the sharing economy

The growth of the sharing economy offers its users the possibility to enjoy the benefits associated with this new way of doing business, from better prices, to greater flexibility, to a more efficient use of underutilised assets.[1] However, all that glitters is not gold: business models related to the sharing economy also pose new and exciting regulatory challenges. This should not surprise us, considering that the current regulations have not yet been fully adapted to such business models. Besides, these business models did not even exist when many aspects of the regulatory framework were designed, such as consumer protection rules or the taxation framework.

Thus, the challenge that governments face is significant. In fact, there is already a debate regarding the possibility of creating a specific regulatory framework that reflects the new arrangements specific to the sharing economy. In this article, we classify the challenges faced by regulatory agencies into three categories: challenges related to consumers, those related to companies and those related to the competitive framework that determines the relationships between consumers and companies.

Let us start with how the regulation of the sharing economy should focus on aspects concerning consumers. There are already some figures available which can help us to assess how consumers perceive this phenomenon. The results of a survey conducted by the European Commission revealed that, in 2016, more than half of respondents were aware of the collaborative economy, but only 17% had used the digital platforms which coordinate these activities.[2] In this same survey, individuals who were aware of the sharing economy were asked which aspects of these new business models they considered the most unsatisfactory. Two out of every five agreed that one of the main drawbacks as consumers was the lack of knowledge about who should be held responsible for any problems that might arise when entering into a transaction.

This response perfectly exemplifies the existence of gaps that give many consumers a certain feeling of uncertainty when using goods and services provided by the sharing economy. In transactions within the traditional economy, consumers are protected by various rights bestowed on them by the regulatory framework which clearly define how transactions with companies must be carried out. In the collaborative economy, however, the responsibilities of each party involved in transactions are not usually well defined. Therefore, situations can arise in which consumers cannot claim a refund for a product, they do not have all the information regarding the nature of the product or service that they expect to receive, or in which the product or service does not comply with minimum health and safety requirements. This latter situation could occur, for instance, in the case of platforms which allow users to share meals prepared in individuals' homes. Yet the challenges of regulation are not easy to overcome: is it appropriate for the private kitchens of these amateur chefs to have the obligation of passing the same hygiene checks as restaurants? Not necessarily, given that such regulation could create a very high barrier to entry, which would discourage the use of these activities. One argument used to prevent over-regulation in the sharing economy is that it can «self-regulate» through the different reputation and certificate models which enable users to rate one another, thus ensuring minimum quality and safety standards in a decentralised and informal manner. However, there are limitations to these methods, since it is not always possible to verify the truthfulness of these ratings. This example highlights the need (and how difficult it is) to define a regulatory framework to protect consumers, without discouraging innovation and the development of these business models.

We will now consider the regulation of the sharing economy in relation to businesses. One point to bear in mind is that companies in the sharing economy currently operate under a regulatory framework that was not designed specifically for them. This leads to regulatory gaps, which can make it difficult for tax agencies to trace transactions, thus favouring an increase in the submerged economy. The regulation should therefore be able to distinguish correctly between transactions involving non-professionals and those involving companies that use the platforms to sell their goods or services while reducing their tax burden. In this regard, the non-binding recommendations of the European Commission consider it good practice for member states to establish minimum thresholds, above which providers cease to be considered non-professionals and are treated as companies for the purposes of the legislation and taxation rules. Nevertheless, this proposal lacks specifics, since the recommendations do not determine what these limits should be, or even what metrics should be used to measure the thresholds, which are left to each member state (or even to regional and local authorities) to choose.

1. See the article «The sharing economy: from emerging phenomenon to a key part of the digital revolution» in this same Dossier.
2. See European Commission (2016), «European agenda for the collaborative economy - supporting analysis», Commission Staff Working Document.

At the tax level, there is a need for greater harmonisation across Europe. On the one hand, it is well known that the lack of coordination between EU member states enables some companies to benefit from the more favourable tax regimes. On the other hand, the regulatory segmentation between countries makes it difficult for many companies linked to the sharing economy to expand internationally. The scalability of these platforms is a key factor in their development and adapting to each member state's regulatory idiosyncrasies limits this scalability. As a result, online platforms in Europe are smaller in market capitalisation and scope than those in the US.[3]

Finally, with regards to the competitive framework, the emergence of these new companies can improve the situation for various players involved in the sharing economy. Their entry into the market has increased competition in each sector, which directly benefits consumers, who have a wider variety of suppliers to choose from, often at lower prices. Traditional competitors can also benefit from the entry of these new players if they are able to incorporate the disruptive technology into their business model and thus improve their productivity or reach a greater number of consumers.

However, the new business models pose at least two challenges for maintaining a proper competitive framework. The first is the lack of competition that can occur between companies in the sectors in which platforms linked to the sharing economy are emerging. This possible absence of competition is due to the fact that these platforms are based on interaction between different users and they generate what is known as network effect: the utility of a good or service increases with the number of users.[4] As such, these markets may end up being dominated by a relatively small number of companies. It is therefore essential for the regulatory framework to take the idiosyncrasies of these activities into account and to ensure a healthy competitive environment that is free of monopolies, in order to prevent innovation from being restricted.

The second challenge posed by the emergence of new business models related to the sharing economy is defining a competitive framework that is equally rigorous for all companies in order to ensure a level playing field. As we have discussed, some platforms associated with the sharing economy have found loopholes in the current regulatory environment that have enabled them to gain certain competitive advantages (such as a lower tax or administrative burden). The challenge for regulators is to establish a flexible and agile framework which stimulates innovation and activity in the sharing economy without undermining legal clarity, which is essential in order for all players to be on an equal footing. This is clearly a difficult task: regulators will have to tread very carefully to find the best way to combine the need for greater flexibility, on the one hand, with the safeguard of legal certainty, on the other.

In addition to the complexity of all the challenges described in this article, these platforms are innovating at an astonishing rate – much faster than the regulatory authorities can adapt. As a result, to date, the regulation has been trailing behind the changes in the business models. The new regulatory framework should therefore be able to contain the problems mentioned above, while also seeking to remain relevant in relation to the future challenges that innovations will pose.

In summary, the sharing economy has brought many opportunities for consumers and businesses, but it has also created uncertainty for consumers, businesses and the competitive environment of the economy. What is certain is that it is here to stay. Authorities should therefore adapt the regulation to fit this new paradigm, and they should do so fairly, quickly and responsibly.

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3. See G. Petropoulos (2017) «An economic review of the collaborative economy», Bruegel.
4. As an extreme example of a network effect, when the telephone was invented, the consumer who purchased the first one was not able to use it. However, as other consumers bought the new device, the utility of the first consumer increased as they were able to make calls to other people.

KEY FIGURES

CAIXABANK GROUP
As of 31 March 2018

	MILLION €
Customer funds	351,420
Loans and advances to customers, gross	223,249
Profit attributable to Group, YTD	704
Market capitalisation	23,150
Customers (millions)	15.7
Employees	37,107
Branches	5,318
Retail branches in Spain	4,618
Number of ATMs in Spain	9,394

"LA CAIXA" BANKING FOUNDATION COMMUNITY
Projects: Budget 2018

	MILLION €
Social	307,5
Excellence in research and training	91,1
Raising awareness of culture and knowledge	121,4
Total Budget	**520** *

* Of which €10 million are allocated to Portugal.

BPI
As of 31 March 2018

	MILLION €
Customer funds	32,708
Loans and advances to customers, gross	22,697
Profit attributable, YTD	210
Profit attributable to operations in Portugal, YTD	118
Customers (millions)	1.9
Employees	4,896
Branches	503
Number of ATMs	1,350

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