MR04

MONTHLY REPORT • ECONOMIC AND FINANCIAL MARKET OUTLOOK

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ECONOMIC & FINANCIAL ENVIRONMENT

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The new energy mix in the Iberian Peninsula: the fight against global warming

CaixaBank Research

MONTHLY REPORT - ECONOMIC AND FINANCIAL MARKET OUTLOOK
April 2019

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

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The challenge of the energy transition

The 2015 Paris Agreement set the goal of limiting the rise in global temperatures to below 2 degrees above pre-industrial levels and to pursue efforts to limit the increase to 1.5 degrees. This ambitious but inescapable goal requires a major reduction in global greenhouse gas emissions, something that will only be possible in the context of a transition that reduces energy demand and shifts the energy mix towards one of cleaner energies.

This is an area in which the EU can exercise clear global leadership. In fact, it is already doing so and its degree of commitment contrasts with the reluctance – and at times outright rejection – of the current US government. The EU has sufficient critical mass to have an impact on the whole planet, as well as to drag other countries along with it.

In addition, this area offers a natural sphere in which the EU can share efforts in terms of public resources and take the opportunity to strengthen its fiscal capacity. A significant portion of these resources should serve to boost basic research in technologies that could prove key for achieving the goals of the Paris Agreement and that are currently further away from being economically viable on a large scale, such as the use of hydrogen as an energy source or possible ways to capture and store carbon dioxide. The EU must also make progress in integrating national energy markets. This is even more necessary if there is greater dependency on renewable energies involving intermittent generation, such as solar or wind power, which require larger-scale networks capable of balancing supply and demand.

From the point of view of firms and households, it is imperative that there is a clear and stable regulatory framework for the energy transition. Ideally, the laws that define it should have broad political and social consensus – a guarantee of stability. Many companies must make large investments to lead or adapt to this transition with long-term profitability horizons, decisions that require certainty and legal security. When deciding what type of home or vehicle to purchase, households also need to know which rules to follow. Situations such as the current one, in which uncertainty over possible future restrictions on the movement of diesel vehicles in various European countries has contributed to a slowdown in sales, need to be avoided.

The financial system must also play a central role in the energy transition. The European Commission has estimated that investment amounting to around 200 billion euros a year needs to be mobilised. In its role as an intermediary between savings and investment, the financial system will be key for directing resources towards projects that contribute to adapting to and mitigating the effects of climate change. To this end, it will need to integrate environmental criteria into its financial decisions, one of the cornerstones of so-called sustainable finance. This does not mean renouncing profitability: recent studies indicate that responsible investments can offer a better risk-return.

Beyond economic and financial considerations, the energy transition is also a question of responsibility. For everyone, both individuals and companies. Responsibility to do the right thing. And the right thing is to do our utmost in order to leave a planet that is fit for future generations.

Enric Fernández
Chief Economist
31 March 2019

Chronology

MARCH 2019

7 The ECB announces a new round of targeted longer-term refinancing operations (TLTRO), due to begin in September.
15 The rating agency S&P improves Portugal's credit rating from BBB– to BBB.
21 The EU delays Brexit until 12 April 2019.

JANUARY 2019

15 The UK Parliament rejects the withdrawal agreement signed between the Government and the EU by 432 votes to 202.
25 The longest partial government shutdown in US history comes to an end after 35 days.

NOVEMBER 2018

5 The US reinstates sanctions on Iran.
21 The European Commission recommends launching an excessive deficit procedure against Italy.
25 The EU and the United Kingdom sign a Brexit agreement.

FEBRUARY 2019

28 The US suspends the tariff increase on imports of products from China, which was due to come into force on 1 March.

DECEMBER 2018

7 OPEC and its partners agree to cut crude oil production by 1.2 million barrels per day between January and June 2019.
13 The ECB confirms that it is bringing the net purchases of assets to an end in December 2018.
19 The Fed raises the official rate by 25 bps, placing it within the 2.25%-2.50% range.

OCTOBER 2018

12 The rating agency Moody's improves Portugal's credit rating, from Ba1 to Baa3 (once again investment grade).
19 The rating agency Moody's downgrades Italy's credit rating, from Baa2 to Baa3.

Agenda

APRIL 2019

2 Spain: registration with Social Security and registered unemployment (March).
9 Portugal: international trade (February).
10 Portugal: CPI (March).
Governing Council of the European Central Bank meeting.
15 Spain: financial accounts (Q1).
24 Spain: loans, deposits and NPL ratio (February).
25 Spain: labour force survey (Q1).
26 Portugal: state budget execution (March).
US: GDP (Q1).
29 Portugal: employment and unemployment (March).
Euro area: economic sentiment index (April).
30 Spain: GDP flash estimate (Q1).
Spain: CPI flash estimate (April).
Spain: state budget execution (March).

MAY 2019

1 Federal Open Market Committee meeting.
2 Euro area: GDP (Q1).
6 Spain: registration with Social Security and registered unemployment (April).
8 Portugal: employment and unemployment (Q1).
9 Spain: industrial production index (March).
10 Portugal: international trade (March).
13 Portugal: CPI (April).
15 Portugal: GDP flash estimate (Q1).
20 GDP of Japan (Q1).
21 Spain: foreign trade (March).
23 Spain: loans, deposits and NPL ratio (March).
27 Portugal: state budget execution (April).
28 Spain: state budget execution (April).
Euro area: economic sentiment index (May).
30 Spain: CPI flash estimate (May).
31 Spain: balance of payments (March).
Portugal: quarterly national accounts (Q1).

Moderate slowdown but with significant risks

Reassessment of the macroeconomic scenario. The persistence of negative temporary factors in the advanced economies has led international bodies of the likes of the ECB and the OECD to revise their economic forecasts significantly downwards (they are now rather more in line with those of CaixaBank Research). For example, between December and March the ECB lowered its 2019 growth forecast for the euro area from 1.7% down to 1.1%. The OECD, meanwhile, has lowered its 2019 global growth forecast from 3.5% to 3.3%. Furthermore, in the narrative there is a greater emphasis on the downside risks surrounding the global economy, such as geopolitical uncertainty and vulnerabilities in emerging economies. In addition to these factors is the inversion of the yield curve in the US, which has raised concern among many economic analysts because, traditionally, it has anticipated the end of the economic expansion and has reintroduced the dreaded word «recession» into the collective imagination. Nevertheless, we should avoid broad-brush analyses: the macroeconomic indicators in the US continue to point towards a notable rate of growth in 2019. In addition, at the global level, although the slowdown is a tangible reality, it is proving to be relatively moderate and somerisks, such as the trade tensions or fears of an abrupt slowdown in China, have lost some strength.

The central banks remain firmly in a wait-and-see mode. The message from the Fed and the ECB is similar: they are not modifying their main monetary policy parameters, they are emphasising the downside risks to the global economy and they are reiterating that they will remain patient. This message represents a major shift compared to the one given a few months ago. The Fed, for example, rose interest rates in December 2018 and announced its intention to do so three more times between 2019 and 2020. The ECB has not lagged behind and at its meeting in March announced that it will keep rates unchanged until the end of 2019, thereby definitively ruling out the previously suggested possibility of a first rate rise after the summer. It also revealed that it will launch a new round of injections of liquidity starting in September.

The euro area faces a complex scenario. The macroeconomic indicators are proving modest in the first part of the year, suggesting that the pattern of much more moderate growth observed in the second half of 2018 is having some continuity. The euro area economy is being hampered by the slowdown in global trade and the problems of the automotive sector, and this situation could be compounded by a sudden departure of the United Kingdom from the EU in the coming months if we have a no-deal brexit. This last factor will continue to draw much of the attention, since the fragility of the British Government and the lack of a clear consensus mean that the uncertainty surrounding the outcome of Brexit will remain very high right up until the end. Beyond these factors, the underlying question regarding the European economy is whether it is being held back by a spate of temporary factors that are proving more persistent than expected, or the declining trend is here to stay. For now, all the indicators suggest that it is the first option, since the economy still potential to keep growing in the next years. However, the high degree of sensitivity to the various shocks of the last months obliges us to be very cautious.

Spain and Portugal continue to perform well. Our economies are settling in to significantly higher levels of growth than the euro area. In fact, there are very clear parallels in the evolution of the two Iberian economies: the economic activity indicators for Q1 suggest that the growth rate remains buoyant despite a slight slowdown, the labour market is showing signs of resilience (in the case of Spain, employment growth has barely lost momentum compared to 2015-2017 and is proving better than expected) and the public finances are showing clear signs of improvement: Spain has reduced its public deficit by 0.4 pps in 2018 and, with it now standing at 2.6% of GDP, it has left the excessive deficit procedure, while Portugal has reduced its deficit by 2.5 pps down to 0.5% of GDP. Despite these encouraging figures, it would be counterproductive to give free rein to excessive euphoria: the improvement in the public finances has been primarily based on the business cycle, but reforms are needed for this process to continue. On the other hand, the erosion of the current account in both countries is cause for concern, in a context characterised by a less favourable global macroeconomic environment.

Average for the last month in the period, unless otherwise specified

Financial markets

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
INTEREST RATES							
Dollar							
Fed funds (upper limit)	3.43	0.48	1.50	2.50	2.75	2.75	2.50
3-month Libor	3.62	0.70	1.61	2.79	2.92	2.92	2.70
12-month Libor	3.86	1.20	2.05	3.08	3.07	3.03	2.85
2-year government bonds	3.70	0.73	1.84	2.68	2.80	2.70	2.60
10-year government bonds	4.70	2.61	2.41	2.83	2.95	2.90	2.85
Euro							
ECB depo	2.05	0.40	–0.40	–0.40	–0.40	0.05	0.50
ECB refi	3.05	1.00	0.00	0.00	0.00	0.50	1.00
Eonia	3.12	0.65	–0.34	–0.36	–0.30	0.20	0.80
1-month Euribor	3.18	0.79	–0.37	–0.37	–0.28	0.23	0.83
3-month Euribor	3.24	0.98	–0.33	–0.31	–0.20	0.25	0.85
6-month Euribor	3.29	1.14	–0.27	–0.24	–0.10	0.40	1.00
12-month Euribor	3.40	1.34	–0.19	–0.13	0.00	0.55	1.15
Germany							
2-year government bonds	3.41	0.69	–0.69	–0.60	–0.25	0.40	1.20
10-year government bonds	4.30	1.98	0.35	0.25	0.55	1.25	1.95
Spain							
3-year government bonds	3.62	2.30	–0.04	–0.02	0.16	0.77	1.49
5-year government bonds	3.91	2.85	0.31	0.36	0.56	1.15	1.83
10-year government bonds	4.42	3.82	1.46	1.42	1.55	2.05	2.65
Risk premium	11	184	110	117	100	80	70
Portugal							
3-year government bonds	3.68	4.42	–0.05	–0.18	0.02	0.84	1.76
5-year government bonds	3.96	5.03	0.46	0.47	0.61	1.38	2.22
10-year government bonds	4.49	5.60	1.84	1.72	1.75	2.40	3.10
Risk premium	19	362	149	147	120	115	115
EXCHANGE RATES							
EUR/USD (dollars per euro)	1.13	1.30	1.18	1.14	1.19	1.23	1.25
EUR/JPY (yen per euro)	129.50	126.36	133.70	127.89	128.96	130.38	132.01
USD/JPY (yen per dollar)	115.34	97.50	113.02	112.38	108.37	106.00	106.00
EUR/GBP (pounds per euro)	0.66	0.83	0.88	0.90	0.86	0.85	0.84
USD/GBP (pounds per dollar)	0.59	0.63	0.75	0.79	0.72	0.69	0.67
OIL PRICE							
Brent ($/barrel)	42.32	85.63	64.09	57.67	66.00	63.00	63.00
Brent (euros/barrel)	36.35	64.78	54.17	50.68	55.46	51.22	50.59

Forecasts

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

International economy

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
GDP GROWTH							
Global	**4.5**	**3.3**	**3.8**	**3.7**	**3.3**	**3.4**	**3.5**
Developed countries	***2.7***	***1.2***	***2.4***	***2.2***	***1.8***	***1.7***	***1.7***
United States	2.7	1.4	2.2	2.9	2.2	1.8	1.7
Euro area	2.3	0.4	2.5	1.8	1.3	1.5	1.6
Germany	1.6	1.1	2.5	1.5	1.0	1.6	1.6
France	2.0	0.6	2.3	1.5	1.6	1.6	1.5
Italy	1.5	–0.7	1.7	0.8	0.2	0.8	0.7
Portugal	1.5	–0.4	2.8	2.1	1.8	1.7	1.7
Spain	3.8	0.0	3.0	2.6	2.1	1.9	1.7
Japan	1.5	0.4	1.9	0.8	0.8	0.7	0.8
United Kingdom	2.8	1.0	1.8	1.4	1.2	1.5	1.5
Emerging countries	***6.6***	***5.1***	***4.7***	***4.7***	***4.4***	***4.6***	***4.6***
China	11.7	8.4	6.9	6.6	6.2	6.0	5.8
India	9.7	6.9	6.6	7.3	6.9	6.2	6.0
Indonesia	5.5	5.7	5.1	5.2	4.9	4.8	5.9
Brazil	3.6	1.7	1.1	1.1	2.1	2.0	2.2
Mexico	2.4	2.1	2.1	2.0	2.3	2.3	2.4
Chile	5.0	3.2	1.3	4.0	3.2	3.0	2.8
Russia	7.2	1.0	1.6	2.2	1.8	2.0	2.0
Turkey	5.4	4.8	7.3	2.9	–2.5	2.3	3.0
Poland	4.0	3.2	4.8	5.1	3.5	2.9	2.4
South Africa	4.4	1.8	1.5	0.7	1.6	1.8	2.0
INFLATION							
Global	**4.2**	**3.8**	**3.2**	**3.7**	**3.6**	**3.4**	**3.3**
Developed countries	***2.1***	***1.5***	***1.7***	***2.0***	***1.5***	***1.7***	***1.8***
United States	2.8	1.6	2.1	2.4	2.0	1.9	1.9
Euro area	2.1	1.4	1.5	1.8	1.4	1.6	1.8
Germany	1.7	1.3	1.7	1.9	1.6	1.7	1.9
France	1.8	1.2	1.2	2.1	1.5	1.6	1.8
Italy	1.9	1.5	1.3	1.2	1.0	1.3	1.6
Portugal	3.0	1.2	1.4	1.0	0.8	1.4	1.7
Spain	3.2	1.3	2.0	1.7	1.5	1.6	1.9
Japan	–0.3	0.3	0.5	1.0	0.7	1.2	1.2
United Kingdom	1.9	2.3	2.7	2.5	2.0	2.0	2.1
Emerging countries	***6.8***	***5.8***	***4.3***	***4.8***	***4.9***	***4.4***	***4.3***
China	1.7	2.6	1.6	2.1	2.4	2.4	2.6
India	4.5	8.5	3.3	3.9	3.5	4.9	5.1
Indonesia	8.4	5.7	3.8	3.2	2.6	2.6	2.8
Brazil	7.3	6.4	3.5	3.7	4.1	4.1	4.1
Mexico	5.2	3.9	6.0	4.9	4.1	3.7	3.5
Chile	3.1	3.5	2.2	2.7	2.9	3.0	3.0
Russia	14.2	9.3	3.7	2.9	4.9	4.0	4.0
Turkey	27.2	8.1	11.1	16.2	19.5	12.0	9.0
Poland	3.5	2.1	1.6	1.2	2.0	2.5	2.5
South Africa	5.3	6.2	5.3	4.6	3.8	5.3	5.3

Forecasts

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

Spanish economy

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
Macroeconomic aggregates							
Household consumption	3.6	–0.7	2.5	2.3	1.9	1.8	1.7
Government consumption	5.0	0.8	1.9	2.1	1.7	1.3	1.0
Gross fixed capital formation	6.0	–3.4	4.8	5.3	3.4	2.9	2.5
Capital goods	5.3	0.3	6.0	5.4	2.0	3.0	2.6
Construction	6.2	–6.1	4.6	6.2	4.4	2.9	2.5
Domestic demand (vs. GDP Δ)	4.6	–1.2	2.9	2.9	2.1	1.9	1.7
Exports of goods and services	4.8	2.7	5.2	2.3	2.5	3.8	3.7
Imports of goods and services	7.1	–1.0	5.6	3.5	2.6	4.1	3.8
Gross domestic product	**3.8**	**0.0**	**3.0**	**2.6**	**2.1**	**1.9**	**1.7**
Other variables							
Employment	3.4	–1.3	2.8	2.5	2.2	1.6	1.5
Unemployment rate (% of labour force)	10.5	20.8	17.2	15.3	13.6	12.2	11.0
Consumer price index	3.2	1.3	2.0	1.7	1.5	1.6	1.9
Unit labour costs	3.3	0.2	0.2	1.0	2.2	2.3	2.4
Current account balance (cum. % GDP)	–6.0	–1.6	1.8	0.8	0.6	0.7	0.8
External funding capacity/needs (cum., % GDP)	–5.3	–1.2	2.1	1.2	0.8	0.9	1.0
Fiscal balance (cum., % GDP)[1]	0.4	–7.0	–3.0	–2.6	–2.3	–1.9	–1.5

Note: *1. Excludes losses for assistance provided to financial institutions.*

Forecasts

Portuguese economy

	Average 2000-2007	Average 2008-2016	2017	2018	2019	2020	2021
Macroeconomic aggregates							
Household consumption	1.7	–0.2	2.3	2.5	2.0	1.8	1.7
Government consumption	2.3	–0.6	0.2	0.8	0.8	0.3	0.2
Gross fixed capital formation	–0.3	–3.5	9.2	4.4	4.0	4.0	3.8
Capital goods	1.3	0.0	13.7	6.0	5.9	5.9	5.9
Construction	–1.6	–6.3	8.3	3.1	2.5	2.5	2.5
Domestic demand (vs. GDP Δ)	1.4	–1.0	3.1	2.8	2.4	1.9	1.8
Exports of goods and services	5.2	3.5	7.8	3.7	3.8	4.0	4.6
Imports of goods and services	3.6	1.6	8.1	4.9	4.9	4.1	4.5
Gross domestic product	**1.5**	**–0.4**	**2.8**	**2.1**	**1.8**	**1.7**	**1.7**
Other variables							
Employment	0.4	–1.1	3.3	2.3	0.8	0.5	0.3
Unemployment rate (% of labour force)	6.1	12.2	8.9	7.0	6.5	6.2	6.0
Consumer price index	3.0	1.2	1.4	1.0	0.8	1.4	1.7
Current account balance (% GDP)	–9.4	–4.2	0.5	–0.6	–0.7	–0.5	–0.3
External funding capacity/needs (% GDP)	–7.9	–2.9	1.4	0.4	0.3	0.5	0.5
Fiscal balance (% GDP)	–4.4	–6.3	–3.0	–0.5	–0.7	–0.6	–0.3

Forecasts

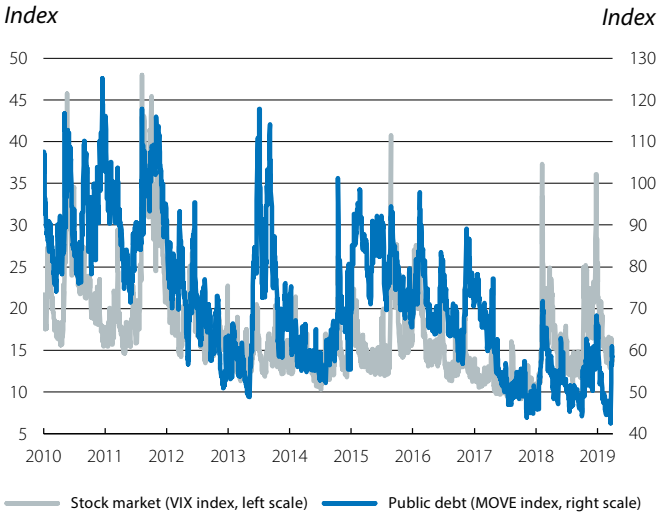
The markets reassess the macroeconomic scenario

Investors doubt the global economic outlook. After the investor optimism of January and February, March was marked by a sense of greater risk aversion, especially due to the renewed concern among investors that the slowdown in the global economy could be more pronounced than expected. This concern, which at the end of 2018 had burst into the markets with sharp stock market corrections, returned to the scene more acutely with the meetings of the major central banks. The Fed, the ECB, the BoE and the BoJ all opted not to modify their monetary policies, highlighting the downside risks in the global economy and reiterating their intention to remain patient over the coming months. Thus, the interest rates of the main advanced economies dropped significantly, to the point that the sovereign yield curve of the US inverted in the 10-year and 3-month spread. In contrast, the stock markets maintained a relatively positive tone and, despite suffering losses in some sessions, managed to register gains in the month overall (albeit at a clearly slower pace than in January and February).

The Fed keeps rates unchanged and moderates the economic outlook for the US. Following March's Federal Open Market Committee (FOMC) meeting, the chairman of the Fed, Jerome Powell, reiterated that the US economy is in good shape, with a strong labour market, an inflation rate at around the 2% target and GDP growth rate somewhat above the potential. However, the members of the Fed revised their GDP growth projections for 2019 and 2020 down slightly (by 0.2 and 0.1 pps, respectively, down to 2.1% and 1.9%) and highlighted the presence of downside risks to the economic scenario. The Fed therefore reiterated the discourse of patience adopted since the beginning of the year and kept the reference rate within the current range of 2.25%-2.50%, by unanimous vote. As such, the new forecast table reflects the expectation that rates will remain stable in 2019 (whereas the projections provided at its meeting last December suggested two rate hikes). Lastly, the Fed also announced its intention to end the reduction in the size of its balance sheet next September (when it is expected to stand at around 3.5 trillion dollars) and, as soon as May, it will begin to slow down the pace of the reduction of its balance sheet.

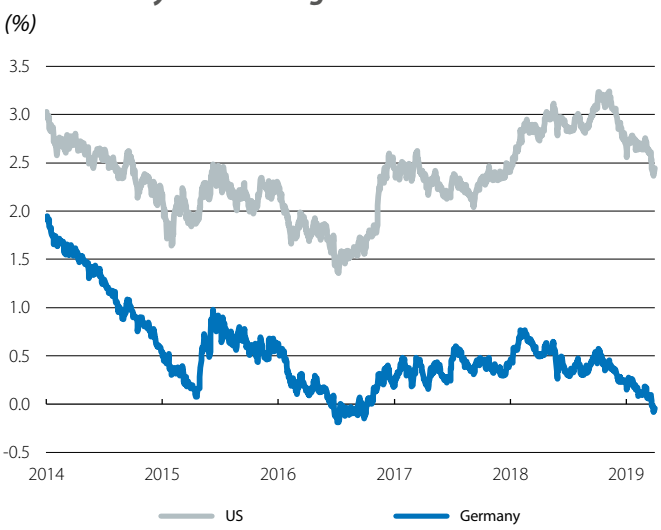
The ECB lowers its forecasts for the euro area and announces new TLTRO programme. At its meeting in March, the institution presented an update of its macroeconomic projections table in which it revised its growth forecasts for the euro area for 2019 down (from 1.7% to 1.1%) due to the persistence of weakness and uncertainty factors (such as those related to the slowdown in international trade, Brexit and the dip in the automotive sector). However, the ECB reiterated that these drawbacks are temporary, indicating that the medium-term outlook is positive and the likelihood of a recession is low. In this context, the members of the ECB indicated their intention not to move interest rates at least until the end of

Implicit volatility in the financial markets



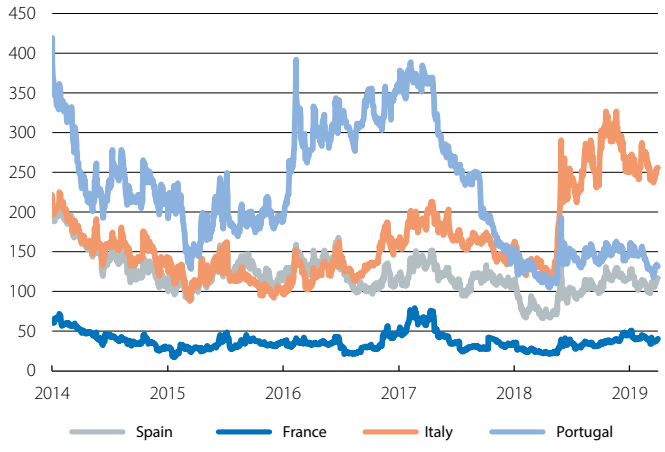
Source: *CaixaBank Research, based on data from Bloomberg.*

Yield on 10-year sovereign bonds



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

Euro area: risk premiums of 10-year sovereign bonds



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

2019 (in previous meetings the timeline indicated was until after the summer of 2019). They also announced the start of a new round of TLTRO (targeted longer-term refinancing operations) starting in September, with a quarterly issuance up until March 2021. With these measures and the reinvestment of the maturities of assets on the balance sheet, the ECB reiterated its intention to maintain an accommodative financial environment to support the recovery of inflation in the euro area.

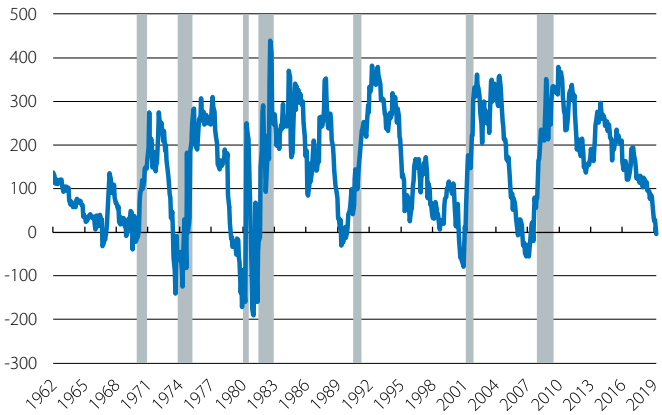
Sovereign interest rates plummet. With the backdrop of the meetings of the major central banks, yields of fixed-income securities worldwide, which had been relatively stable in the year to date, dropped sharply in March. The long-term sovereign rates of the US and Germany fell to levels not seen since late 2017 and 2016, respectively. In the case of the US, there was also an inversion of the sovereign yield curve, as the yield on 10-year bond fell below the 3-month rate for the first time since 2007. Notably, this is something that historically has predicted the onset of a recession in the US about a year in advance (see the Brief Note «On the inversion of the yield curve: a prelude to recession?» available at www.caixabankresearch.com). In addition, in Germany, the yield of the bund entered in negative territory. The risk premiums of the euro area periphery, meanwhile, remained close to the levels of January and February, favoured by announcements from the rating agencies (S&P upgraded Portugal's rating to BBB and maintained Spain's at A–, while Moody's maintained Italy's rating at Baa3).

The stock markets suffer swings, but remain slightly up. In the first few weeks of March, the stock markets continued the gains of the past few months, supported by the positive tone of the trade negotiations between China and the US and the stabilisation of business profit forecasts (which had been declining for the past six months). Nevertheless, after the surge in volatility resulting from the central bank meetings, stock prices fell (especially in the financial sector), wiping out much of the gains. In any case, for the month as a whole, the main US and European equity indices managed to close slightly up.

Emerging currencies weaken again and the oil price climbs. Fears of a sharper slowdown in the global economy also impacted prices in the financial markets of emerging economies, whose currencies had otherwise performed positively so far this year. Especially pronounced were the depreciations of the currencies in Argentina and Brazil, as well as in Turkey, where there was a spike in financial instability in the lead-up to local elections. The price of Brent crude oil, meanwhile, continued its rising trend and reached 68 dollars a barrel, favoured by the production cuts with which OPEC and its partners (most notably Russia) are managing to prevent oversupply in the market.

US: recessions and the slope of the interest rate curve

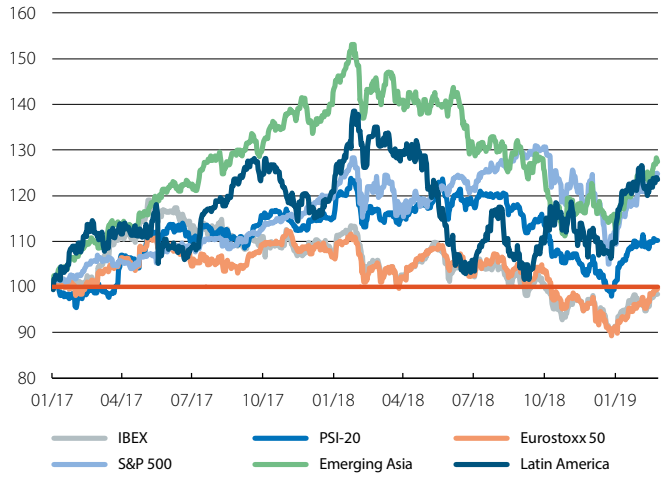
(bps)



Note: *The shaded areas denote periods of recession. We show the difference between 10-year and 3-month sovereign interest rates.*
Source: *CaixaBank Research, based on data from Bloomberg and NBER.*

Main international stock markets

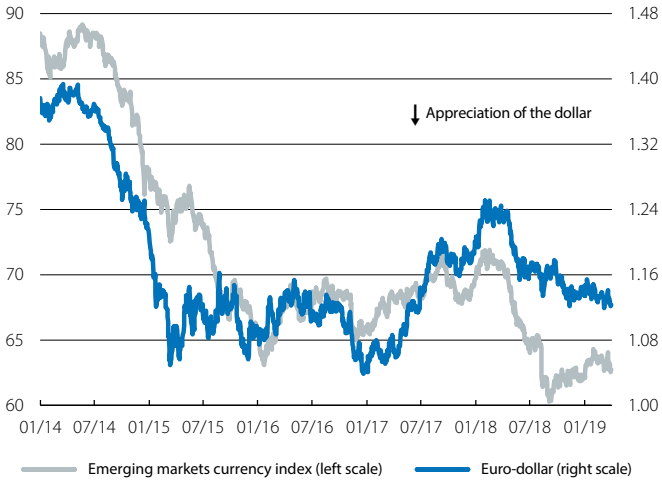
Index (100 = January 2017)



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.*

The US credit cycle: how much should it concern us?

In 2019, the US will reach the longest economic expansion in its modern history if, next July, it surpasses the record of 40 quarters held by the expansion of 1991-2001. That said, it is likely that over the coming quarters economic activity will slow down due to the very maturity of the economic cycle and the fading of the fiscal stimulus implemented in late 2017. Thus, the economy may find itself in a context in which, due to the conjunction of lower income growth among households and firms and higher interest rates implemented by the Fed, financial vulnerabilities that have accumulated over the last few years may be uncovered. Among them is the indebtedness of households and firms, the state of which we analyse below.

Debt and credit follow cyclical trends similar to those of the business cycle, with phases of expansion and recession. In the former, there is an increase in the volume of credit and an improvement in the conditions under which families and businesses can borrow (for example, with lower interest rates or fewer collateral requirements). The latter are characterised by a tightening of access to credit, an increase in the rate of non-performing loans and a contraction in the volume of debt. Later, as firms and households clean up their accounts and manage to improve their risk profile, credit begins to flow once again and the cycle reenters the expansionary phase.

Where does the US credit cycle stand at present? The non-financial private sector (i.e. families and non-financial corporations) has reduced its indebtedness from 170% of GDP in 2008 to below 150% in 2018. However, we must look beyond these figures to distinguish between household and corporate indebtedness, since they often follow different trends,[1] as well as analysing its evolution in comparison with other expansionary phases.[2]

On the household side, in the current expansionary phase, mortgage debt and consumer debt are following different paths. While, on the one hand, the burden of mortgage debt on households' disposable income has fallen by more than 40% from its peak in 2007, the burden of debt for consumption purposes has risen steadily since 2012 and at an average annual rate of 0.6% (see second chart). Even so, given that mortgage debt is a significant part of total household debt, the household debt service as a whole lies below 10% (compared to a high of 13.2% in 2007) and at an all-time low since the data series began (1980). The decline in the debt burden not only reflects a reduction in debt, but it has also been facilitated by the low interest rates that have prevailed in recent years (much of the debt has been contracted at a fixed rate, while old debt contracted at higher rates has been maturing). Finally, another noteworthy trend is the sharp decline in the use of home equity lines of credit (consumer loans in which the home is used as collateral). Therefore, as a whole, household debt represents

1. For example, at present, the credit-to-GDP gap is negative for households and positive for the non-financial corporate sector.
2. We analysed economic expansions according to the classification of the NBER (1983-1990, 1991-2001, 2002-2007 and 2009-present).

US: private debt

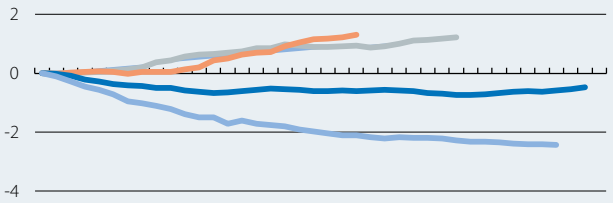
Indicator	Current	High-point of the financial crisis	Average of the current cycle
Non-financial private debt (% of GDP)	147.6	171.1	152.3
Household debt (% of GDP)	75.0	98.6	83.0
Mortgage debt (% of GDP)	49.7	73.5	57.8
Household NPL ratio (%)	2.5	6.6	4.1
Non-financial corporate debt (% of GDP)	72.6	72.5	69.3
Corporate sector credit spread *	274	1,165	369

Note: ** Differential between the interest rates on corporate bonds with a BBB rating or above and those with a BB rating or below.*
Source: *CaixaBank Research, based on data from the Federal Reserve and the Federal Reserve Bank of St. Louis.*

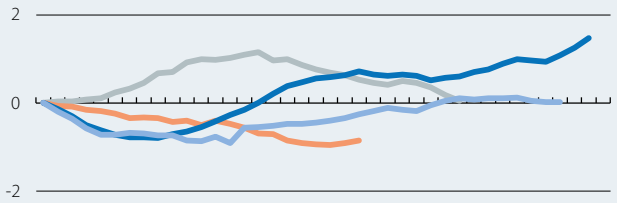
The credit cycle: households *

Cumulative change in pps vs. the beginning of the cycle

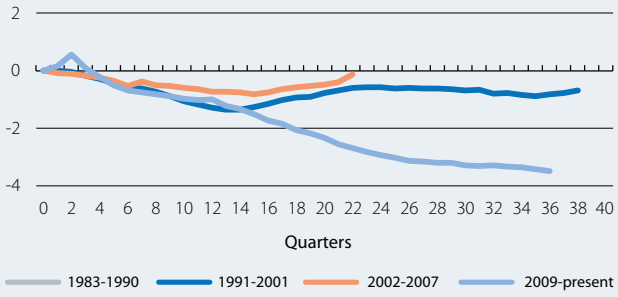
Mortgage debt payments (% of disposable income)



Consumer credit payments (% of disposable income)



PL ratio of households



Note: ** All series are standardised to 0 at the beginning of the expansionary phase determined according to the NBER. The non-performing loan ratio of households includes both consumer loans and mortgages, weighted according each one's relative importance.*
Source: *CaixaBank Research, based on data from the Federal Reserve Bank and the Federal Reserve Bank of St. Louis.*

a clearly more moderate source of risk than in the previous expansionary phase. Furthermore, looking ahead to the next few quarters, the strength in the labour market should allow the non-performing loan rate to remain at low levels.

On the side of non-financial corporate debt, the picture is less rosy. Standing at 73% of GDP, corporate debt is currently around its all-time highs, although, as noted in the last chart, the cumulative increase in the current phase of the cycle has occurred more slowly than in previous expansionary phases. Nevertheless, in view of these levels, indicators such as the ease of access to credit can help us to clarify whether the increase in this debt might signal the beginning of a later phase in the credit cycle.

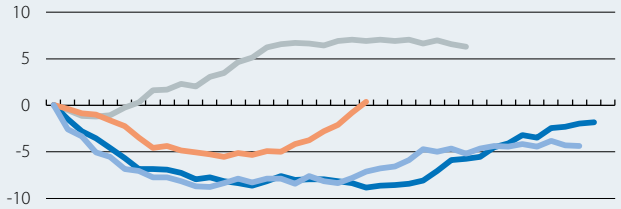
As the second panel of the third chart shows, expansions begin with an improvement in the ease of access to credit[3] (for example, because the positive economic outlook improves borrowers' credit profile). In contrast, in the final stages of the expansion, the deteriorating growth outlook and lower risk tolerance tend to tighten conditions for access to credit. In this regard, the latest data show that in Q4 2018 there was a tightening of credit conditions. On the one hand, this could be a temporary blip (it is the first tightening of conditions in almost three years) as a result of the financial turmoil experienced in the closing weeks of the year. However, some analysts suggest that this is already a sign of greater caution in lending to the corporate sector, due to an anticipation of the possible deterioration in borrowers' credit profile and in the value of collateral.[4]

On this note, the third panel of the third chart shows that, in Q4 2018, there was a slight increase in the risk premium on the debt of companies with a worse credit profile,[5] although it remains at historically low levels. In fact, the same chart indicates that, in the last two expansions, this differential has tended to contract over the course of the business cycle. In other words, the maturity of the expansion has been accompanied by a reduction in the cost of financing for companies with a low credit score. However, this can lead to a deterioration in the quality of the total debt that exists in the market, given that companies with a riskier credit profile can be financed at a relatively lower cost. In this regard, both the IMF and the Fed have warned about the increase in new lending to companies that are already heavily in debt. In particular, they highlight the fact that, in the US, new debt issued by highly leveraged companies has gone from representing slightly more than 20% of the total in 2010 to over 60% in Q3 2018.[6] The concern is that, faced with a tightening of credit conditions (such as a deterioration in the macroeconomic outlook), these companies could find themselves facing difficulties servicing its interest and principal payments, which could amplify the effects of the economic slowdown.

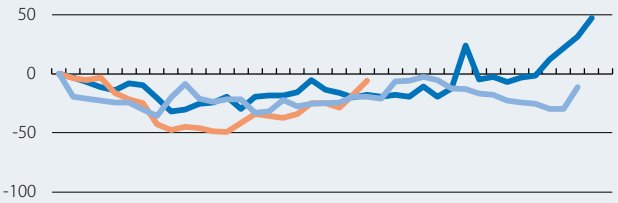
The credit cycle: non-financial companies *

Cumulative change in pps vs. the beginning of the cycle

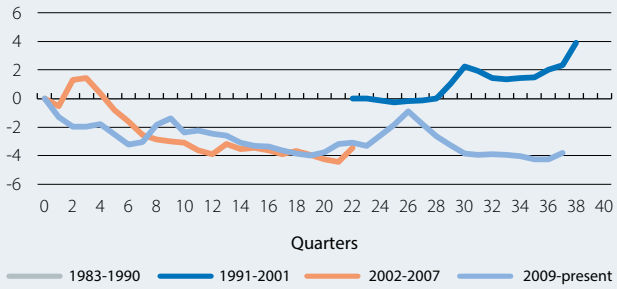
Cyclical component of non-financial corporate debt (% of GDP)



Ease of access to credit



Corporate sector credit spread



Note: ** All series are standardised to 0 at the beginning of the expansionary phase determined according to the NBER. In the first panel, the cyclical component is estimated using the Hodrick-Prescott filter. The second panel shows the percentage of financial institutions that tighten access to credit, according to the responses to the survey by the Federal Reserve. Higher values correspond to a tightening of access to credit, while lower values indicate greater ease of access to credit. In the third panel, we show the differential between the cost of financing for companies with a rating equal to or greater than BBB and for companies with a BB rating or below. Data for this indicator are only available from 1998.*

Source: *CaixaBank Research, based on data from the Federal Reserve and the Federal Reserve Bank of St. Louis.*

All in all, the credit cycle is at a point at which some signals indicate that the expansionary phase still has some way to go, while others point towards pockets of vulnerability. In particular, the increase in the indebtedness of firms that are already highly leveraged poses a risk that could be activated either in the case of a more sudden-than-expected slowdown in economic activity or in the event of signs of overheating that force the Fed to increase interest rates.

Ricard Murillo Gili

3. According to the data from the Senior Loan Officer Opinion Survey, a survey in which financial institutions indicate whether they are tightening or relaxing conditions for access to credit compared with the previous quarter.
4. Capital Economics (2019), «Tighter lending standards point to further slowdown».
5. In particular, the differential between bonds issued by companies with a rating of BBB or above and those with a rating of BB or below.
6. Highly leveraged companies are considered to be those with an EBITDA ratio (earnings before interest, tax, depreciation and amortisation) greater than 5. For more details, see L. Brainard (2018). «Assessing Financial Stability over the Cycle». Federal Reserve Board.

Interest rates (%)

	31-Mar	28-Feb	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	–0.31	–0.31	0	–0.2	1.7
1-year Euribor	–0.11	–0.11	0	0.5	7.8
1-year government bonds (Germany)	–0.55	–0.53	–3	1.4	9.2
2-year government bonds (Germany)	–0.60	–0.52	–8	0.8	0.0
10-year government bonds (Germany)	–0.07	0.18	–25	–31.2	–56.7
10-year government bonds (Spain)	1.10	1.17	–8	–31.9	–6.7
10-year government bonds (Portugal)	1.25	1.47	–22	–47.1	–35.8
US					
Fed funds	2.50	2.50	0	0.0	75.0
3-month Libor	2.60	2.62	–2	–20.8	28.8
12-month Libor	2.71	2.86	–15	–29.5	4.8
1-year government bonds	2.39	2.54	–15	–20.9	30.5
2-year government bonds	2.26	2.51	–25	–22.8	–0.6
10-year government bonds	2.41	2.72	–31	–27.9	–33.4

Spreads corporate bonds (bps)

	31-Mar	28-Feb	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
Itraxx Corporate	66	62	4	–22.7	6.1
Itraxx Financials Senior	79	74	6	–29.0	14.0
Itraxx Subordinated Financials	161	150	11	–67.3	31.9

Exchange rates

	31-Mar	28-Feb	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
EUR/USD (dollars per euro)	1.122	1.137	–1.3	–2.2	–9.0
EUR/JPY (yen per euro)	124.350	126.670	–1.8	–1.2	–5.1
EUR/GBP (pounds per euro)	0.861	0.857	0.4	–4.3	–2.1
USD/JPY (yen per dollar)	110.860	111.390	–0.5	1.1	4.3

Commodities

	31-Mar	28-Feb	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
CRB Commodity Index	425.6	412.8	3.1	4.0	–2.6
Brent ($/barrel)	68.4	66.0	3.6	27.1	–2.7
Gold ($/ounce)	1,292.3	1,313.3	–1.6	0.8	–2.5

Equity

	31-Mar	28-Feb	Monthly change (%)	Year-to-date (%)	Year-on-year change (%)
S&P 500 (USA)	2,834.4	2,784.5	1.8	13.1	7.3
Eurostoxx 50 (euro area)	3,351.7	3,298.3	1.6	11.7	–0.3
Ibex 35 (Spain)	9,240.3	9,277.7	–0.4	8.2	–3.8
PSI 20 (Portugal)	5,206.6	5,185.4	0.4	10.0	–3.7
Nikkei 225 (Japan)	21,205.8	21,385.2	–0.8	6.0	–1.2
MSCI Emerging	1,058.1	1,051.0	0.7	9.6	–9.6

The pace of growth moderates and pockets of risk remain

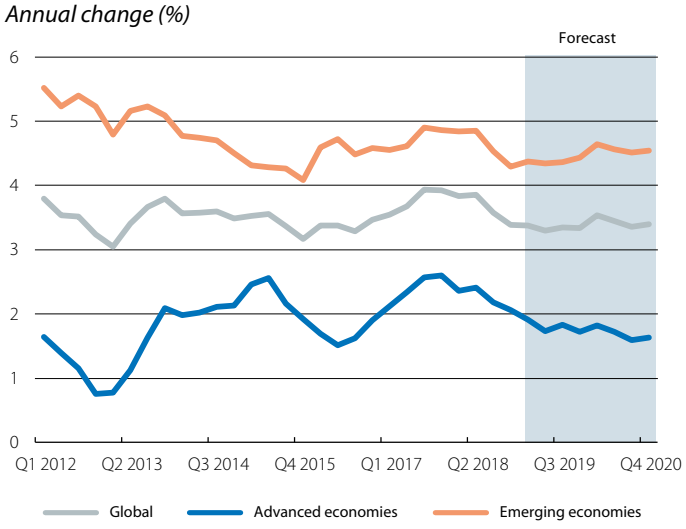
The global economy exhibits more moderate dynamics in the first part of the year. In particular, the global composite Purchasing Managers' Index (PMI) rebounded slightly in February (from 52.1 points in January to 52.6 points in February), although it remains below the levels of 2018 (average of 53.6). The global economic activity data are reflecting the impact of temporary adverse factors in the advanced economies in the early phases of 2019 (such as the federal government shutdown in conjunction with adverse weather conditions in the US, and the difficulties experienced in the automotive sector in the euro area). Overall, the indicators reinforce CaixaBank Research's macroeconomic outlook, which predicts a gentle slowdown in global growth from 3.7% in 2018 down to 3.3% in 2019 – still a favourable growth rate. However, the scenario is dominated by downside risk factors, such as the high global geopolitical uncertainty and doubts over the performance of China in 2019, although on a positive note the trade tensions between the US and China have begun to temper in recent months.

New green shoots emerge in the sphere of trade. Despite the fact that the trade tensions have already begun to take their toll, as reflected in the fall in real trade volumes at the end of 2018, negotiations between the US and China continue to offer a constructive tone and suggest that there will be a reduction in this particular source of global uncertainty over the coming months. Recently, China has announced a new foreign investment law that incorporates some of the US' demands on trade (in particular, those related to the transfer of technology and greater ease of access for foreign companies to operate in the Chinese market). This has raised expectations that the two powers will reach a basic trade agreement in the near future, thus avoiding a renewed escalation of protectionism and allowing trade flows of certain products between the two countries to increase.

The stakes remain high with Brexit and uncertainty increases. The EU granted an extension to Article 50 (Brexit was scheduled to take place on 29 March). As such, the British Parliament will have until 12 April (the deadline set by Brussels) to decide what steps to take. High political tensions are therefore expected in Westminster in the first two weeks of April, with three possible alternatives: the United Kingdom asking for a prolonged extension to re-evaluate which strategy to follow (in this case, it will take part in the European elections in May), Parliament finally approving the withdrawal agreement negotiated by Theresa May (which seems somewhat unlikely, given that Parliament has already rejected it three times and it does not seem that Labour and the Northern Irish Unionists will change their minds), or a no-deal Brexit taking place on 12 April. As things stand, the first option seems the most likely, although the fragility of the government

GDP: global growth

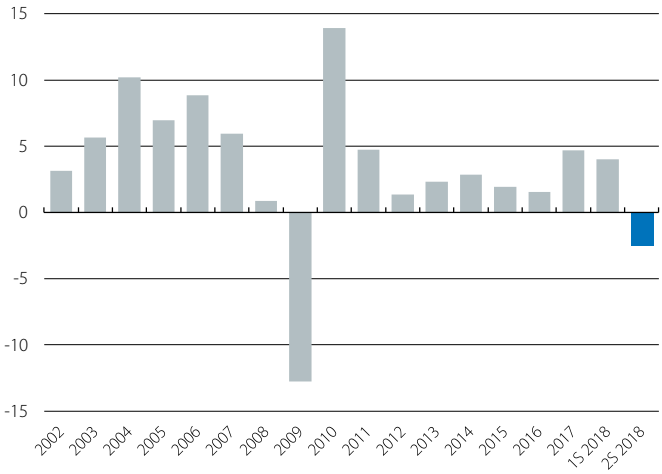
Annual change (%)



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

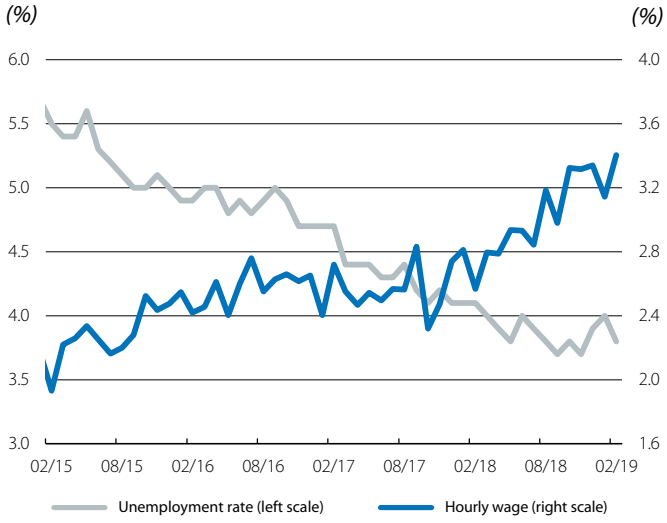
International trade in goods

Annual change (%)



Source: *CaixaBank Research, based on data from the CPB World Trade Monitor (Merchandise).*

US: labour market



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

and the lack of consensus do not allow us to rule out a disorderly departure on 12 April.

US

The US economy is entering a phase of deceleration. Economic activity in the US will slow down in 2019, as the momentum of the fiscal measures introduced in late 2017 and early 2018 will gradually dissipate over the coming quarters. However, this slowdown is expected to be moderate and the economy should grow at just over 2% in 2019. Some of the biggest risks to growth this year are those of a fiscal nature: it is plausible that there could be further government shutdowns, there is a risk that significant spending cuts will be required if the Democrats and Republicans fail to reach agreements on the new spending ceiling, and it seems increasingly unlikely that the current administration will obtain sufficient support for greater infrastructure investment (for an exhaustive analysis, see the Focus «What will be of US fiscal policy? Whatever will be, will be», in this same *Monthly Report*). Besides the total for the year as a whole, it is worth mentioning that three factors may have weighted down the GDP growth data in the first quarter. On the one hand are two temporary factors, namely the partial government shutdown in January and the extreme cold that struck the north of the country and left many large cities paralysed. On the other hand are the traditional problems of seasonal adjustments in the GDP series in Q1, which tend to weigh down the figures in the first quarter of each year.

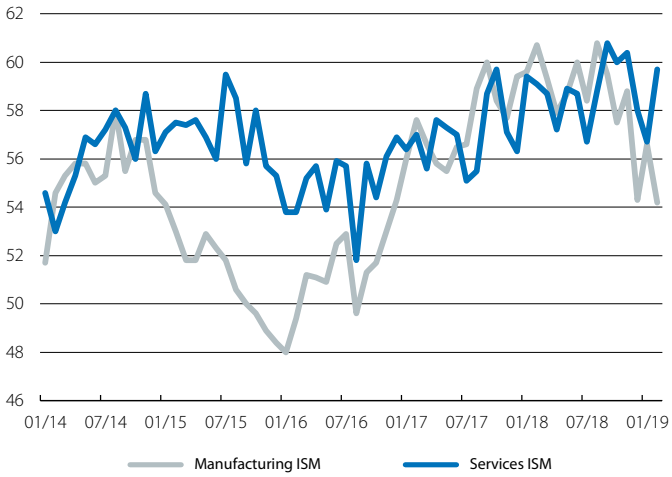
The economic activity indicators remain at notable levels, but the fiscal risks are not to be ignored. In particular, the ISM business sentiment indices remained strong in February (54.2 points for the manufacturing sector and 59.7 for the non-manufacturing sector, both comfortably above the 50-point threshold that separates the expansive territory from the recessive), while other economic activity indicators such as retail sales rose considerably (+2.3% in January). Data for the labour market, meanwhile, proved more moderate in February, but this can be put down to temporary factors and was preceded by an exceptional figure in January.

EURO AREA

Moderation of the European economy in 2019. The economic activity and sentiment indicators for the early part of 2019 in the euro area show a slight improvement over the closing stages of 2018, and are consistent with favourable but moderate growth. In March, the divergence between sectors has been accentuated: the PMI services index continued to thrive (52.7 points) thanks to the strength of domestic demand, while the manufacturing PMI fell to levels not seen since 2012 (47.6 points) due to disruptions in the automotive sector and weaker global demand. As such, the European economy is expected to see modest growth in the first half of the year (around 1.0%), before accelerating slightly in the

US: ISM economic activity indicators

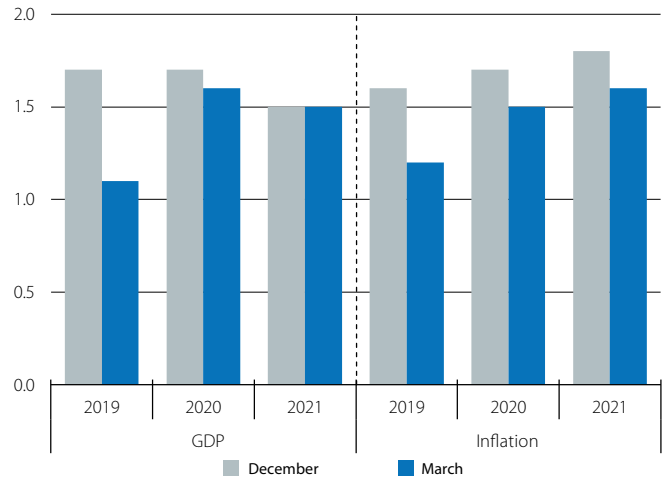
Index



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

Euro area: ECB forecasts of GDP and inflation

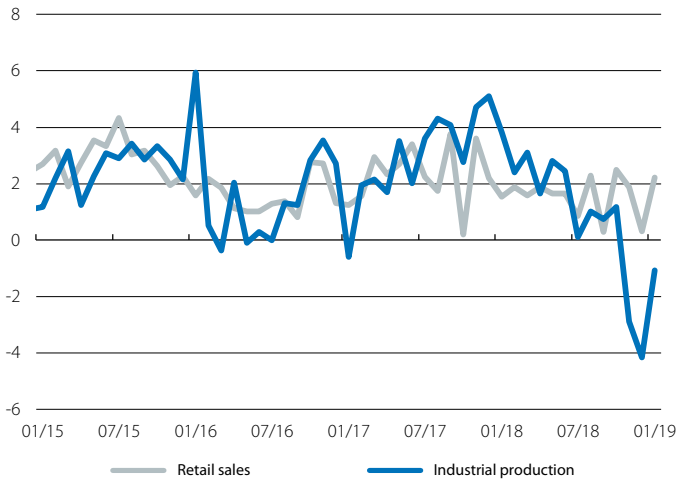
Annual change (%)



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

Euro area: economic activity indicators

Year-on-year change (%)



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

second half (provided that the temporary adverse shocks subside, sentiment improves following an easing of trade tensions and the automotive sector makes progress in fully adapting to the new regulations). Major international bodies such as the OECD and the ECB have lowered their forecasts for 2019 to levels of around 1.0%, but they coincide with those of CaixaBank Research in that, after passing the bump in the road in the first half of 2019, the economy is expected to get back on track.

The German locomotive is running out of steam. The problems experienced by the automotive sector in adapting to the new emissions regulations have combined with sluggish global demand for cars (in the US and the euro area due to the reduced cyclical momentum, and in China because consumers have decided to wait in case the government offers them tax incentives), thus affecting the country's exports and industrial production in Q1 2019. As a result, we have lowered our forecasts for Germany in 2019 by 0.3 pps (down to 1.0%) and those of 2020 by 0.1 pps (1.6%). This, in turn, implies a technical revision of the forecast for the euro area of –1 decimal point, down to 1.3% in 2019.

REST OF THE WORLD

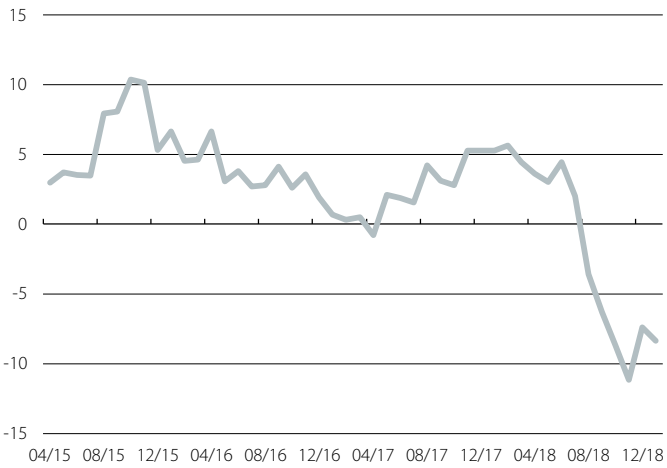
Japan: a pleasant surprise. In quarter-on-quarter terms, the second estimate for Q4 2018 suggested a GDP growth of 0.5% (first estimate: 0.3%). This follows the 0.7% drop in the previous quarter, which was affected by temporary disruptions such as floods and a heatwave. Thus, for 2018 overall, GDP grew by 0.8% (compared to the 0.7% estimated previously).

In China, the government makes moves and gives a reassuring message. The Chinese Government has approved tax cuts, which will help the private sector, as well as measures to encourage municipal expenditure on infrastructure. Overall, this fiscal stimulus estimated to represent around 1.0% of GDP. Although far smaller than fiscal support measures adopted in previous episodes, such as during the turbulence of 2015-2016 or the global financial crisis of 2008-2009 (since there is now less room to implement fiscal measures and the current slowdown is less abrupt), the announcements have nevertheless reassured the markets. This is because they reflect the Chinese cabinet's unequivocal willingness to intervene in order to implement measures that prevent the economy from making a hard landing.

The Turkish economy fails to raise its head. In 2018, Turkey's GDP growth stood at 2.9%, its lowest since the recession of 2009, due to the economic crisis that has been ravaging the country since last summer. After growing just 1.8% year-on-year in Q3, in Q4 GDP fell by 3.0% year-on-year due to the significant contraction of domestic demand, with sharp declines in consumption and investment. In addition, the negative growth dynamics are likely to continue over the coming quarters, so all the indicators suggest that 2019 will be a difficult year for the Ottoman economy.

Euro area: motor vehicle production

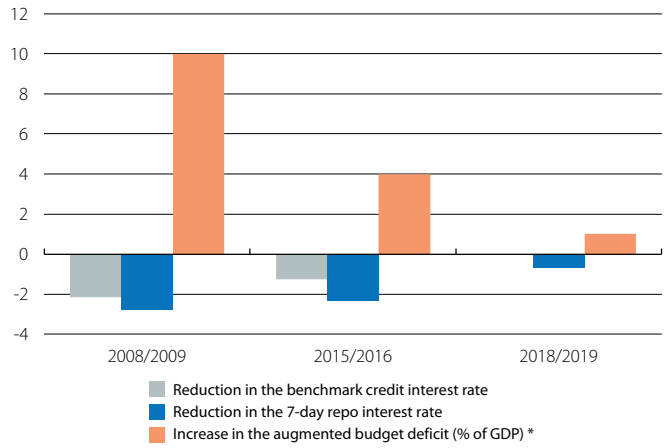
Year-on-year change (4-month moving average)



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

China: economic policy stimuli

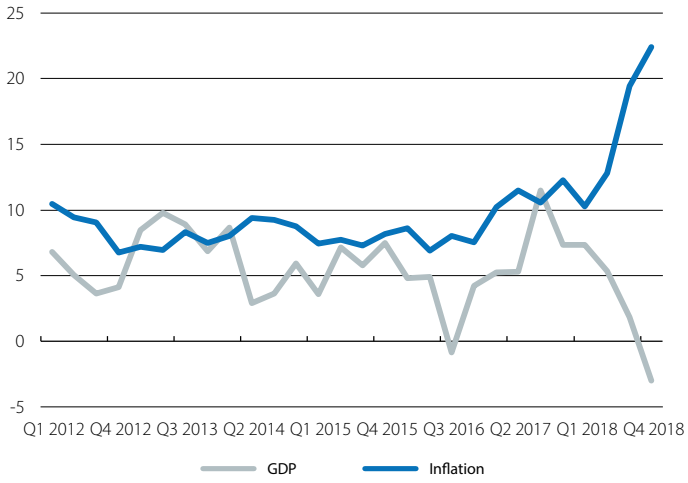
(pps)



Note: ** Central government and local government budget deficit, expressed as a percentage of GDP.*
Source: *CaixaBank Research, based on data from Capital Economics and Thomson Reuters.*

Turkey: GDP and inflation

Annual change (%)



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

What will be of the US fiscal policy? Whatever will be, will be

After growing by 2.9% in 2018, the US finds itself with a labour market in virtually full employment, an easing of trade tensions with China and a monetary policy on neutral ground: the US economy is enjoying good times. However, there are latent risks that could affect the steady pace of economic activity. In this article, we analyse how one of them – fiscal policy – could define the scenario over the coming quarters.

Determining factors for fiscal policy

Let us remember that, at the end of 2017, a significant tax cut was approved[1] and that, in early 2018, President Trump gave the green light to an increase in public expenditure equivalent to 0.7% of GDP, both for 2018 and for 2019. Without a doubt, these clearly expansionary policies have a significant impact on economic growth in the short term (amounting to 0.7 pps in 2018 and 0.2 pps in 2019, according to our estimates).[2] However, their effect will fade over the next few quarters and, thereafter, the role of fiscal policy will depend to a greater extent on three new factors: (i) potential government shut-downs, (ii) automatic spending cuts, and (iii) infrastructure spending (see first chart).

After starting the year with the longest federal government shutdown in US history (35 days), the need for Congress to pass both the federal spending budget and a new debt ceiling could trigger another government closure in 2019. Before the end of the fiscal year, on 30 September, Congress must approve (and the president must ratify) a new budget. Without a budget, many government services are at risk of coming to a standstill. President Trump's current budget proposal, which includes a special provision to finance the famous «wall» with Mexico, is unlikely to generate sufficient consensus in a divided Congress (we should remember that the Lower House is in the hands of the Democrats, while the Upper House is in Republican hands). In this case, Congress must approve a temporary extension to the funding of the federal government – something which in the past has led to many shutdowns of government agencies.

1. Key elements of the tax reform included the cut in corporate tax (from 35% to 21%) and the reduction of the top marginal rate for personal income tax (from 39.6% to 37%).
2. According to estimates by CaixaBank Research, in 2018, the impact of the fiscal stimulus on economic growth was 0.73 pps, with 0.36 pps coming from the tax reform and 0.37 pps from the increase in expenditure. In 2019, the impact of the fiscal stimulus is estimated at 0.24 pps, mainly stemming from the tax reform.

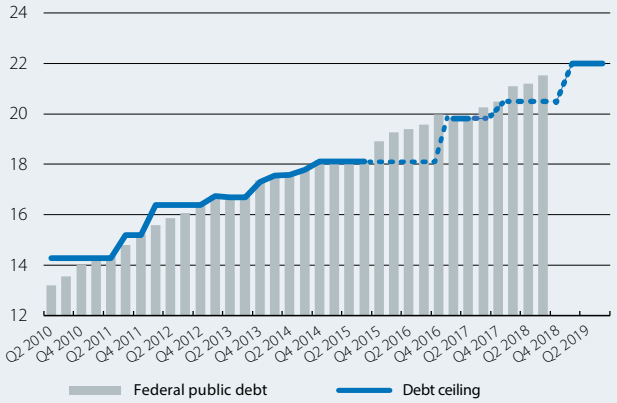
US: key dates

2 March 2019	**The debt ceiling is reinstated** (after being suspended in February 2018).
From August to October 2019	It is estimated that the **Treasury will run out of sufficient liquidity** to continue executing the public expenditure budget.
1 October 2019	Risk of a federal government shutdown: being the beginning of a new fiscal year, **various items of expenditure must be passed**.
1 January 2020	**The expenditure rule of 2017 is reinstated,** which could result in a significant decrease in public spending (~100 billion dollars).

Source: *CaixaBank Research.*

US: public debt and debt ceiling

(USD trillions)



Note: *The dotted line shows periods when the debt ceiling has been suspended.*
Source: *CaixaBank Research, based on data from the US Treasury.*

Secondly, after the First World War, the US Congress established what is known as the debt ceiling: a limit above which the country's Treasury cannot issue any new debt to finance the government. If this figure is reached without the ceiling being increased, or without the enforcement of the ceiling being suspended, the government is also forced to close its doors. After being suspended for a little over a year, on 2 March 2019 the debt ceiling came back into force, with a limit of 22 trillion dollars (see second chart). It is estimated that the limit could be reached between August and October 2019. Thus, the risk of another government shutdown is by no means negligible.

The second factor that could have a negative (and substantial) impact on the growth of the US economy in 2020 is what is known as sequester. US laws establish a series of constraints on the growth of the public budget and limits on public expenditure. On numerous occasions, these limits are suspended and do not apply

(as was also the case with the debt ceiling). In fact, these spending caps are currently suspended until 31 December 2019. However, if Congress fails to approve new limits or does not suspend them again before this date, on 1 January 2020 automatic cuts in federal spending of 126 billion dollars would come into force (71 billion in defence and 55 billion in other areas of expenditure).[3] Although the information available suggests that new, less restrictive limits will be agreed, some kind of spending cut is highly likely, especially in the face of a structural budget deficit which, in 2018, exceeded 5% of GDP.

Finally, and in contrast to the first two fiscal factors mentioned above, the approval of a substantial increase in infrastructure spending could boost growth in 2020. In the 2016 presidential election, one of the few points that the then-candidate Trump and the Democratic candidate Clinton had in common was the need to increase spending on infrastructure. The fact is, the quality of infrastructure in the US has seen one of the most marked declines among advanced countries.[4] However, at present, there seems to be little chance of Congress reaching an agreement on this matter. The plan submitted by the Trump Administration in early 2018 promised 1.5 trillion dollars for infrastructure expenditure in 10 years, of which only 200 billion would be financed specifically by federal expenditure (the bulk of the funds would come from investments from public-private partnerships, which in the US are still rare). However, this plan is more of a wish than a reality, since there is no consensus on the proposal between Democrats and Republicans. Furthermore, in a clearly divided political environment and with the Democratic primaries taking place this summer, it seems unlikely that the Democrats will want to support one of Trump's electoral promises before the 2020 presidential election.

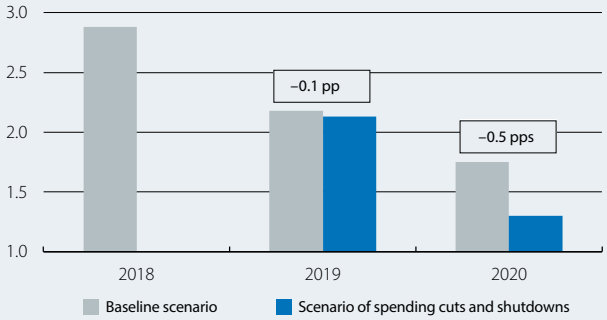
Economic impact

What could be the economic importance of the fiscal factors we have just gone over? To answer this question, we imaged a scenario in which most of the negative fiscal impacts explained above occur. In particular, we assumed that during 2019 there will be another government shutdown with a similar impact to the one that occurred in the closing days of 2018 and in early 2019. We also assumed that the sequester will take effect, resulting in automatic spending cuts of 126 billion dollars, and that Democrats and Republicans will not agree on any significant infrastructure plan.

3. Spending cut estimated by the Senate Committee on the Budget Bulletin (7 June 2018). «Spending Caps and the New Fiscal Cliff». The total value of the automatic spending cut is not known with certainty, but all the estimates place it at around 100 billion dollars.
4. See the article «The US: to invest or not to invest, that is the question» in the Dossier of the MR03/2017.

US: GDP growth scenarios

Annual change (%)



Note: *The baseline scenario assumes only short-lived government shutdowns, with a very contained economic impact. The scenario of spending cuts and shutdowns includes automatic public spending cuts of 126 billion dollars in 2020 and another government shutdown on a scale similar to that of Q1 2019. The boxes in the chart indicate the difference between the baseline scenario and the scenario with spending cuts.*
Source: *CaixaBank Research.*

For the economic impact of the hypothetical government shutdown at the end of 2019, we use the estimates produced by the Congressional Budget Office for the shutdown at the beginning of 2019, according to which it shaved 0.4 pps off annualised quarter-on-quarter GDP growth in Q1 2019.[5] To calculate the potential impact of the sequester, we take different estimates of US fiscal multipliers and apply them to the expected amount of the spending cuts, both in defence and in other areas.[6]

As shown in the third chart, under these assumptions, while economic growth would hold up quite well during 2019, in 2020 it would be significantly affected (5 decimal points below the baseline scenario, reaching 1.3%). The greater resistance of 2019 is due to the fact that most fiscal shocks would occur in late 2019 and early 2020, as well as the fact that 2019 is still propped up by the fiscal stimulus approved in late 2017 and early 2018.

Clàudia Canals

5. See Congressional Budget Office (January 2019), «The Effects of the Partial Shutdown Ending in January 2019». The negative effects on growth have primarily been due to the decline in the economic activity of federal civil servants who were sent home, and to a lesser extent due to the lower expenditure on goods and services by federal agencies and the lower demand resulting from the suspension of federal wages (which will be paid retrospectively). Although the negative effect on growth in Q1 2019 will be offset by a rebound in economic activity in the coming months, a portion of the economic activity will not be recovered.
6. For defence expenditure, we assume a multiplier of 0.4 (based on R.J. Barro and C.J. Redlick (2011), «Macroeconomic Effects from Government Purchases and Taxes», The Quarterly Journal of Economics, 126(1), 51-102). For other areas of expenditure, we use multipliers between 0.7 and 1.0 (C.J. Whalen and F. Reichling (2015), «The fiscal multiplier and economic policy analysis in the United States», Contemporary Economic Policy, 33(4), 735-746). In general, these figures correspond to the lower limit of the estimates, since, in an economy where the output gap has been positive since 2017, the impact of fiscal measures should lie within this lower range of the estimates.

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

UNITED STATES

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Activity								
Real GDP	1.6	2.2	2.6	2.9	3.0	3.0	–	...
Retail sales (excluding cars and petrol)	3.4	4.2	4.4	5.2	5.4	3.5	3.7	...
Consumer confidence *(value)*	99.8	120.5	127.1	127.2	132.6	133.6	121.7	131.4
Industrial production	–2.0	2.3	3.4	3.4	5.0	3.9	3.9	3.6
Manufacturing activity index (ISM) *(value)*	51.3	57.4	59.7	58.7	59.7	56.9	56.6	54.2
Housing starts *(thousands)*	1,177	1,208	1,317	1,261	1,234	1,185	1,273	1,162
Case-Shiller home price index *(value)*	189	200	209	211	212	214	215	...
Unemployment rate *(% lab. force)*	4.9	4.4	4.1	3.9	3.8	3.8	4.0	3.8
Employment-population ratio *(% pop. > 16 years)*	59.7	60.1	60.3	60.4	60.4	60.6	60.7	60.7
Trade balance [1] *(% GDP)*	–2.7	–2.8	–2.9	–2.9	–2.9	–3.0	–3.0	...
Prices								
Headline inflation	1.3	2.1	2.2	2.7	2.6	2.2	1.6	1.5
Core inflation	2.2	1.8	1.9	2.2	2.2	2.2	2.2	2.1

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	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Activity								
Real GDP	0.6	1.9	1.2	1.4	0.1	0.3	–	...
Consumer confidence *(value)*	41.7	43.8	44.4	43.7	43.4	42.9	41.9	41.5
Industrial production	0.2	2.9	2.0	1.3	–0.1	0.7	0.3	–1.0
Business activity index (Tankan) *(value)*	7.0	19.0	24.0	21.0	19.0	19.0	–	...
Unemployment rate *(% lab. force)*	3.1	2.8	2.5	2.4	2.4	2.4	2.5	2.3
Trade balance [1] *(% GDP)*	0.7	0.5	0.4	0.4	0.1	–0.2	–0.4	–0.3
Prices								
Headline inflation	–0.1	0.5	1.3	0.6	1.1	0.9	0.2	0.2
Core inflation	0.6	0.1	0.4	0.3	0.3	0.3	0.4	0.4

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	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Activity								
Real GDP	6.7	6.8	6.8	6.7	6.5	6.4	–	...
Retail sales	10.4	10.3	9.9	9.0	9.0	8.3	8.2	8.2
Industrial production	6.1	6.6	6.6	6.6	6.0	5.7	5.3	5.3
PMI manufacturing *(value)*	50.3	51.6	51.0	51.6	51.1	49.9	49.5	49.2
Foreign sector								
Trade balance [1] *(value)*	512	420	404	377	349	352	373	345
Exports	–8.4	7.9	13.7	11.5	11.7	4.0	9.3	–20.7
Imports	–5.7	16.3	19.4	20.6	20.4	4.4	–1.5	–5.2
Prices								
Headline inflation	2.0	1.6	2.2	1.8	2.3	2.2	1.7	1.5
Official interest rate [2] *(value)*	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Renminbi per dollar *(value)*	6.6	6.8	6.4	6.4	6.8	6.9	6.8	6.7

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

EURO AREA

Activity and employment indicators

Values, unless otherwise specified

	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19	03/19
Retail sales *(year-on-year change)*	2.3	1.7	1.7	1.1	1.6	2.2	...	...
Industrial production *(year-on-year change)*	2.9	3.1	2.3	0.6	–2.0	–1.1	...	...
Consumer confidence	–6.0	–4.2	–5.3	–5.7	–6.9	–7.9	–7.4	–7.2
Economic sentiment	110.1	113.2	111.8	110.9	108.9	106.3	106.2	105.5
Manufacturing PMI	57.4	58.3	55.5	54.3	51.7	50.5	49.3	47.6
Services PMI	55.6	56.4	54.6	54.4	52.8	51.2	52.8	52.7
Labour market								
Employment (people) *(year-on-year change)*	1.6	1.6	1.6	1.4	1.3	–	...	–
Unemployment rate *(% labour force)*	9.1	8.5	8.3	8.0	7.9	7.8	...	...
Germany *(% labour force)*	3.8	3.5	3.4	3.4	3.3	3.2	...	...
France *(% labour force)*	9.4	9.2	9.0	9.0	8.9	8.8	...	...
Italy *(% labour force)*	11.3	10.9	10.7	10.3	10.6	10.5	...	...
Spain *(% labour force)*	17.2	16.2	15.4	15.0	14.5	14.1	...	...

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

Prices

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
General	0.2	1.5	1.3	1.7	2.1	1.9	1.4	1.5
Core	0.8	1.1	1.2	1.2	1.2	1.2	1.2	1.2

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

Foreign sector

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Current balance	**3.4**	**3.5**	**3.6**	**3.9**	**3.6**	**3.2**	**3.2**	**...**
Germany	8.4	8.0	7.9	8.1	7.5	7.3	7.2	...
France	–0.8	–0.6	–0.4	–0.3	–0.5	–0.7	–0.5	...
Italy	2.5	2.8	2.7	2.7	2.7	2.6	2.6	...
Spain	2.3	1.8	1.8	1.6	1.3	0.9	0.9	...
Nominal effective exchange rate [1] *(value)*	**94.3**	**96.5**	**99.6**	**98.5**	**99.2**	**98.5**	**97.8**	**97.4**

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.*

Credit and deposits of non-financial sectors

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

	2016	2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	01/19	02/19
Private sector financing								
Credit to non-financial firms	1.8	2.5	3.3	3.7	4.2	3.9	3.4	3.7
Credit to households [1,2]	1.7	2.6	2.9	2.9	3.1	3.2	3.2	3.3
Interest rate on loans to non-financial firms [3] *(%)*	1.4	1.3	1.2	1.2	1.2	1.2	1.2	...
Interest rate on loans to households for house purchases [4] *(%)*	1.8	1.7	1.6	1.6	1.6	1.6	1.6	...
Deposits								
On demand deposits	10.0	10.1	9.2	8.0	7.3	7.1	6.4	6.9
Other short-term deposits	–1.8	–2.7	–2.2	–1.5	–1.4	–0.9	–0.8	–0.2
Marketable instruments	2.4	1.4	–5.8	–3.2	–5.6	–3.3	–0.1	–0.4
Interest rate on deposits up to 1 year from households *(%)*	0.5	0.4	0.4	0.4	0.3	0.3	0.3	...

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.*

The Spanish economy makes its soft landing

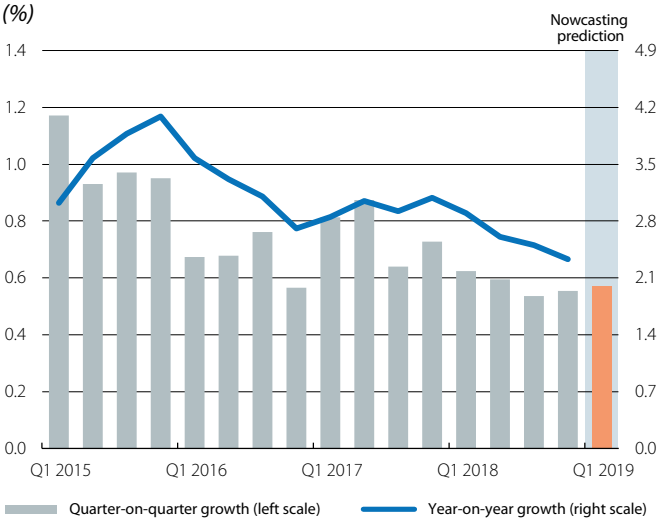
The Spanish economy began 2019 with a positive tone. According to the latest estimate by the National Statistics Institute (NSI), GDP growth for Q4 2018 was somewhat lower than initially estimated (0.6% quarter-on-quarter, instead of the 0.7% originally published). However, the NSI also revised its growth estimates for the first half of 2018, in this case upwards, such that GDP growth for 2018 as a whole is finally estimated at 2.6% (previously, 2.5%). Furthermore, the various indicators relating to the first few months of 2019 have shown a generally positive tone. In particular, in February, the Purchasing Managers' Index (PMI) for the services sector stood at 54.5 points, well above the 50-point threshold that delimits expansive territory and at a level which suggests that the sector's buoyancy of recent months persists. Although this was in stark contrast to the manufacturing sector, which according to its PMI index (49.9 points in February) is still going through a difficult period, industrial production rebounded in January (+2.4% year-on-year) after the drop seen at the end of 2018. Also, on the consumption side, retail sales grew by 1.2% in February (0.3 pps higher than the figure for January and well above the 0.7% average for 2018), suggesting that private consumption performed well in the opening stages of the year.

Growth in Q1 2019 could reach close to 0.6% according to our short-term GDP nowcasting model. As mentioned above, the balance of the economic activity indicators throughout the month was positive and the encouraging performance of the indicators for the labour market and the services sector more than offset the weakness shown by the manufacturing and foreign sectors. This contrast, both between the services and manufacturing sectors and between domestic demand and the foreign sector, is a similar pattern to that observed in recent months and reflects the slowdown in the automotive sector (in response to the need to adapt to the new European regulations on vehicle emissions) as well as the decline in international demand (in a context of a slowdown in global growth). Overall, however, the indicators support the view that the economy will maintain a solid growth rate over the coming quarters, albeit less than in recent years due to it entering a more mature phase of the cycle.

The labour market remains buoyant. In February, affiliation to Social Security increased by 2.86% year-on-year (+38,833 registered workers compared to the prior month, in seasonally-adjusted terms). This is a high rate and very similar to that of January (2.94%), while registered unemployment fell by 181,208 people in year-on-year terms (5.2%). By sector, affiliation increased particularly in services, which registered growth of 2.8%, while in construction and industry affiliation registered growth of 6.7% and 1.7%, respectively. As such, the indicators continue to suggest that

Spain: GDP growth

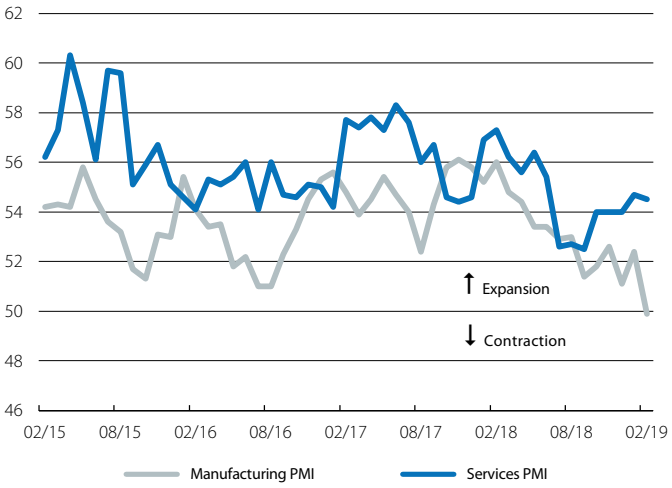
(%)



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

Spain: economic activity indicators

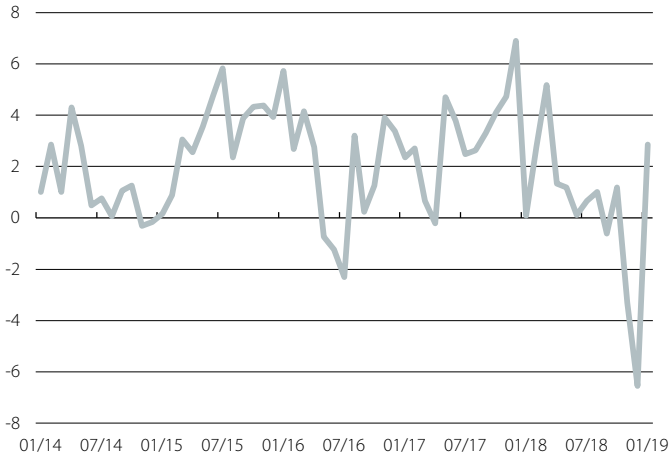
Level



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

Spain: industrial production

Year-on-year change (%)



Note: *Seasonally-adjusted series.*
Source: *CaixaBank Research, based on data from the National Statistics Institute.*

the labour market is strong and that the moderation in employment growth is occurring very gradually. On this basis, it should continue to support the rise in domestic demand over the coming months, while also supporting a gentle slowdown in the growth of the economy as a whole.

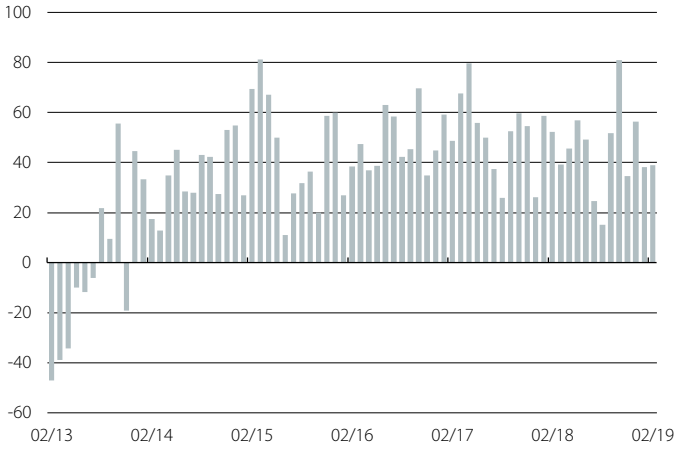
The budget deficit stood at 2.6% of GDP in 2018, 1 decimal point below 2.7% target set by the current government and with a 0.4-pp reduction compared to the figure for 2017. By administration, both the autonomous communities (–0.2%) and local corporations (+0.5%) managed to stay in line with the stability targets. However, the central government and Social Security institute continued to register a notable budget deficit (–1.5% and –1.4% of GDP, respectively). Finally, it should be noted that this allows Spain to withdraw from the excessive deficit procedure (as the deficit lies below 3%).

The net international investment position (NIIP) improved in 2018, but the current account continued to deteriorate. In December 2018, the NIIP stood at –77.2% of GDP, which represents a 6.3-pp improvement over 2017 (when it was –83.5%). This is largely due to revaluations of the instruments in the debt portfolio (assets and liabilities, reflecting changes in their market prices in local currency and the effect of the exchange rate, among other factors). However, in January, the surplus of the foreign sector continued to decline and the current account balance stood at +0.86% of GDP (slightly below the 0.93% of last December). This figure, which represents a 1-pp decline compared to the 1.82% of January 2018, can be attributed to a number of factors. Specifically, 7 tenths are due to the deterioration of the balance of goods (from –2.2% in January 2018 to –2.8% in January 2019, with –0.4 pps due to the deterioration of the balance of non-energy goods) and 3 tenths are due to the increase in the price of oil. The lower trade surplus in services (4.7% in January 2019) deducted a further 3 tenths, of which 1 was due to tourism and 2 to non-tourist services.

The real estate market remains strong. The price of housing published by the NSI, based on sale prices, grew by 6.6% year-on-year in Q4 2018 (0.4% quarter-on-quarter). This places growth for 2018 as a whole at 6.7%, the highest annual growth rate since the start of the recovery in the real estate market. In addition, this occurred in a context of strong growth in demand. In line with the NSI's figures published last month (10.2% growth in 2018, with data based on the property register), the figures from the Ministry of Public Works (based on notarial deeds) suggest a 9.3% increase in home sales over the course of 2018. In this regard, the moderation in home sales in January (–0.2% year-on-year, according to data from the NSI) can be interpreted as a bump in a series that is inherently very volatile. This therefore confirms the positive performance of the sector, which is expected to maintain considerable growth over the coming quarters, albeit at a somewhat more moderate pace (in accordance with the evolution of the economy as a whole).

*Spain: registered workers affiliated to Social Security **

Monthly change (thousands of people)



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

Spain: lending capacity (+) or financing needs (–) by administration

(% of GDP)

	2017	2018		2019
	Figure	Target	Figure	Target
Central government	–1.8	–0.8	–1.5	–0.3
Autonomous communities	–0.4	–0.6	–0.2	–0.1
Local corporations	0.6	0.1	0.5	0.0
Social Security institute	–1.4	–1.3	–1.4	–0.9
Total	**–3.0**	**–2.7**	**–2.6**	**–1.3**

Source: *CaixaBank Research, based on data from the Ministry of Finance and Civil Service.*

*International trade in goods **

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

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

Will Spain's savings rate continue to fall?

The Spanish economy has amassed four consecutive years growing above the euro area average. At the same time, the savings rate has fallen to an all-time low (see first chart).[1] Although at first glance this could suggest that households would have limited margin to accommodate their consumption decisions if the economy were to deteriorate, in this article we will see that it is still too early to draw this conclusion. Not only is the savings rate likely to begin to recover slightly over the coming quarters but, what is more, the financial situation of households has improved substantially compared to the years prior to the financial crisis.

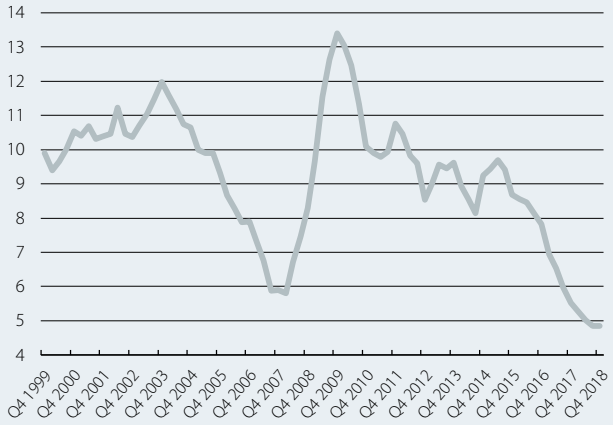
In order to analyse how the savings rate will evolve, we must evaluate the outlook for its two determining factors: consumption and gross disposable income (GDI). Given the close relationship between the two variables (consumption is largely funded by GDI), the main question is what growth differential there will be between them. Consumption has risen sharply since 2015, growing faster than GDI and resulting in a deterioration of the savings rate. Nevertheless, our prediction is that this pattern will reverse in the next few years and consumption will grow below GDI. The reason for this is the fading of the «pent-up demand» effect: the strong momentum of consumption in recent years can be largely put down to the materialisation of consumption plans that consumers had postponed during the financial crisis. Now that they have caught up, households can be expected to moderate their consumption patterns.

To put numbers to this narrative, in the second chart we present the forecast consumption growth predicted by a model that takes into account factors such as the growth in employment, wages, interest rates and housing prices.[2] As the chart shows, the model points towards a moderation in consumption in 2019, followed by a renewed acceleration in 2020. The moderation of growth projected for 2019 reflects a normalisation following its sharp rise between 2015 and 2018, due to the aforementioned «pent-up demand» effect, i. e. the model predicts a temporary adjustment of growth in consumption as it falls back in line with its determining factors. The rebound projected to start in 2020, meanwhile, reflects the end of this adjustment process

1. We define the savings rate as the difference between gross disposable income and consumption (as a fraction of gross disposable income).
2. The model captures differences in the sensitivity of consumption when faced with changes in the factors mentioned above. As such, according to the model, consumption shows greater sensitivity to changes in employment growth than to changes in wage growth, housing prices or interest rates. For more details, see «How much are we going to spend next year?» in the MR11/2018.

Spain: savings rate

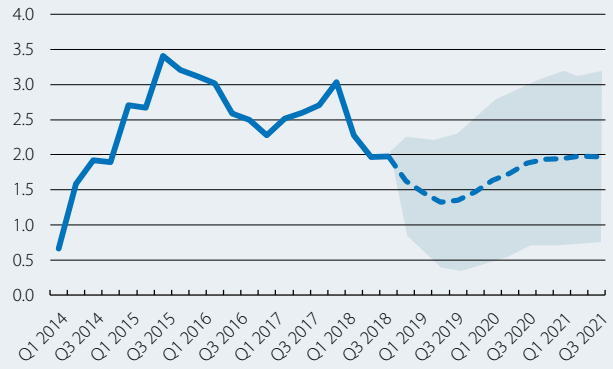
Percentage of gross disposable income (%)



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

Spain: forecast and confidence intervals of private consumption *

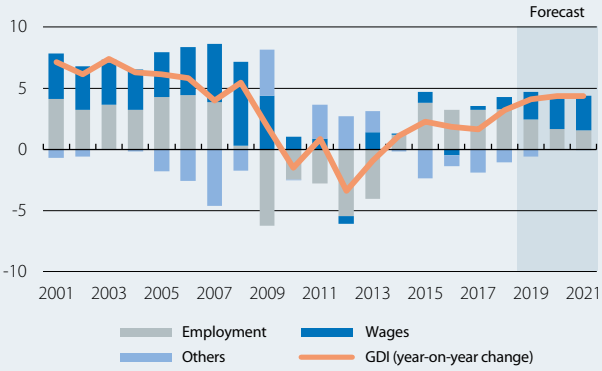
Year-on-year change (%)



Note: ** 90% confidence interval.*
Source: *CaixaBank Research, based on data from the National Statistics Institute and the Bank of Spain.*

Spain: breakdown of gross disposable income

Contribution to the growth of gross disposable income (pps)



Notes: *The category «Others» reflects factors such as the income of self-employed workers and changes in taxes and transfers (higher tax payments explain the negative contribution of this category).*
Source: *CaixaBank Research, based on data from the National Statistics Institute.*

Spain: savings rate forecasts
Annual change (%)

		2019			2020			2021		
	2018	Pessimistic	Central	Optimistic	Pessimistic	Central	Optimistic	Pessimistic	Central	Optimistic
Employment	2.5	1.9	2.2	2.4	1.3	1.6	1.9	1.2	1.5	1.8
Wages	1.4	1.3	2.0	2.5	1.5	2.7	3.0	1.8	2.8	3.0
Savings rate forecast	4.9	4.4	5.1	5.6	4.5	5.8	6.4	4.9	6.4	7.1

Notes: *The forecasts of the savings rate are developed based on the trends in GDI and consumption that are projected in each scenario. The GDI projections are based on assumptions of employment and wage growth (we exclude non-wage incomes). On the consumption side, we take the growth differential predicted using the model in the «Pessimistic» and «Optimistic"» scenarios relative to the model's central scenario, and we apply these growth differentials to the central scenario envisaged by CaixaBank Research.*
Source: *CaixaBank Research, based on data from the National Statistics Institute.*

and the greater expected growth in GDI. In any case, the model predicts that consumption will grow at a solid rate throughout the period in question.

As for GDI, our forecast is that over the next few years households will see their income continue to recover, growing by around 4% per year between 2019 and 2021 (see third chart). This recovery, which has already begun to show in the data available for 2018, will be driven by job creation and the recovery in wage growth, although wages will play a greater role in the rise in GDI to the extent that job creation moderates.[3]

Savings rate scenarios

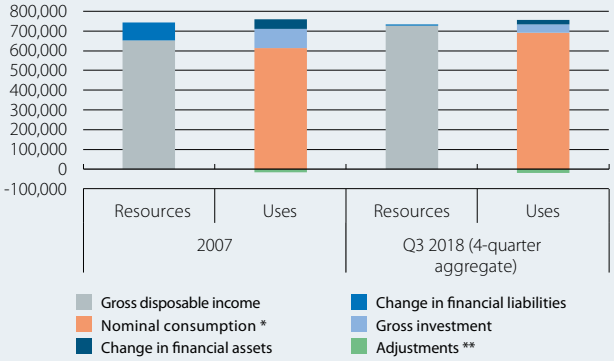
Armed with the growth outlook of the two factors that determine the savings rate and a model that predicts the impact of household income on consumption, we can analyse the evolution of the savings rate in three scenarios: the scenario described above (central), another in which employment and wages perform better than in the previous one (optimistic) and a third, more moderate scenario (pessimistic). As we can see in the table, the savings rate is expected to recover gradually, although if incomes were to grow much slower than expected, as reflected in the pessimistic scenario, savings could even fall slightly before starting to recover.

What are the risks of a low savings rate?

To answer this question, we must assess the financial situation of households: their sources of income and what they use that income for. As we show in the last chart, households are in a healthier financial position than they were prior to the economic crisis. Whereas in 2007 12% of total household resources came from taking on new debt, in the aggregate of the four quarters up to Q3 2018 this figure stood at just 1%. In fact, households have been reducing their level of debt almost continuously since 2011. This trend has allowed

3. The latest data from the quarterly labour cost survey published by the National Statistics Institute show that the labour cost per effective hour grew by 1.4% in 2018, compared to 0.0% in 2017. The gradual recovery in wages is therefore confirmed, and we expect it to continue for the next few years to come.

Spain: household resources and their uses
(EUR thousands)



Notes: ** Nominal consumption is calculated as the difference between gross disposable income and gross savings. ** Adjustments between financial and non-financial accounts, among others. Figures are in nominal terms.*
Source: *CaixaBank Research, based on data from the National Statistics Institute.*

household debt as a percentage of GDI to reach 98.1% in Q3 2018, in aggregate terms over four quarter - well below the peak of 131.4% reached in 2010. As for what this income is used for, we can see that households allocate most of their resources to consumer spending, although they also devote a portion to accumulating financial assets and funding investment plans (mostly real estate investment). It is worth noting, however, that the relative weight of investment has also fallen sharply, from 15% of GDI in 2007 to around 6% in Q3 2018 (four-quarter aggregate figure). In short, whereas in 2007 households saved little in order to maintain a high level of consumption and they took out debt to fund real estate investment, today this pattern has been broken and we can see how the low savings rate is not translating into a higher level of indebtedness.

Oriol Carreras

Activity and employment indicators

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	01/19	02/19	03/19
Industry									
Industrial production index	3.2	0.3	0.9	0.4	–2.9	...	2.4	...	...
Indicator of confidence in industry *(value)*	1.0	–0.1	1.2	–2.6	–1.9	–3.8	–4.0	–5.2	–2.2
Manufacturing PMI *(value)*	54.8	53.3	53.7	52.4	51.8	...	52.4	49.9	...
Construction									
Building permits *(cumulative over 12 months)*	22.9	25.7	28.1	25.8	23.9	...	27.2	...	...
House sales *(cumulative over 12 months)*	14.1	13.9	15.7	13.2	11.0	...	8.1	...	...
House prices	2.4	3.4	3.8	3.2	3.9	...	–	–	–
Services									
Foreign tourists *(cumulative over 12 months)*	10.0	4.0	5.3	1.5	0.9	–5.0	1.0	...	...
Services PMI *(value)*	56.4	54.8	55.8	52.6	54.0	...	54.7	54.5	...
Consumption									
Retail sales	1.0	0.7	0.1	–0.4	1.4	...	0.9	1.2	...
Car registrations	7.9	7.6	9.2	17.0	–7.6	...	–8.0	–8.8	...
Consumer confidence index *(value)*	–3.4	–4.2	–3.0	–3.7	–6.2	–4.8	–6.9	–5.4	–2.0
Labour market									
Employment [1]	2.6	2.7	2.8	2.5	3.0	...	–	–	–
Unemployment rate (% labour force)	17.2	15.3	15.3	14.6	14.4	...	–	–	–
Registered as employed with Social Security [2]	3.6	3.1	3.1	2.9	3.0	...	2.9	2.9	...
GDP	**3.0**	**2.6**	**2.6**	**2.5**	**2.3**	**...**	**–**	**–**	**–**

Prices

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	01/19	02/19	03/19
General	2.0	1.7	1.8	2.2	1.7	1.1	1.0	1.1	1.3
Core	1.1	0.9	1.0	0.8	0.9	...	0.8	0.7	...

Foreign sector

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	01/19	02/19	03/19
Trade of goods									
Exports *(year-on-year change, cumulative over 12 months)*	8.9	2.9	5.2	4.5	2.9	...	2.2	...	...
Imports *(year-on-year change, cumulative over 12 months)*	10.5	5.6	6.9	6.2	5.6	...	4.9	...	...
Current balance	**21.5**	**11.3**	**18.7**	**15.0**	**11.3**	**...**	**10.4**	**...**	**...**
Goods and services	33.6	23.5	30.3	26.7	23.5	...	22.5	...	...
Primary and secondary income	–12.1	–12.3	–11.6	–11.7	–12.3	...	–12.2	...	...
Net lending (+) / borrowing (–) capacity	**24.2**	**17.6**	**21.9**	**18.8**	**17.6**	**...**	**16.8**	**...**	**...**

Credit and deposits in non-financial sectors [3]

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	01/19	02/19	03/19
Deposits									
Household and company deposits	2.8	3.2	3.0	3.4	3.7	...	4.4	5.3	...
Sight and savings	17.6	10.9	11.0	10.3	10.0	...	10.5	11.6	...
Term and notice	–24.2	–19.9	–20.7	–18.7	–16.8	...	–14.6	–13.8	...
General government deposits	–8.7	15.4	17.6	10.4	16.9	...	17.4	16.4	...
TOTAL	**1.9**	**3.8**	**3.8**	**3.8**	**4.5**	**...**	**5.2**	**5.9**	**...**
Outstanding balance of credit									
Private sector	–2.2	–2.4	–2.8	–2.3	–2.2	...	–2.8	–2.3	...
Non-financial firms	–3.6	–5.5	–6.4	–5.6	–5.7	...	–7.0	–5.8	...
Households - housing	–2.8	–1.9	–2.0	–1.7	–1.4	...	–1.2	–1.3	...
Households - other purposes	3.7	5.1	5.0	5.5	4.7	...	4.4	4.2	...
General government	–9.7	–10.6	–9.4	–8.9	–11.8	...	–11.2	–11.4	...
TOTAL	**–2.8**	**–2.9**	**–3.2**	**–2.7**	**–2.8**	**...**	**–3.3**	**–2.8**	**...**
NPL ratio *(%)* [4]	**7.8**	**5.8**	**6.4**	**6.2**	**5.8**	**...**	**5.9**	**...**	**...**

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: making good progress

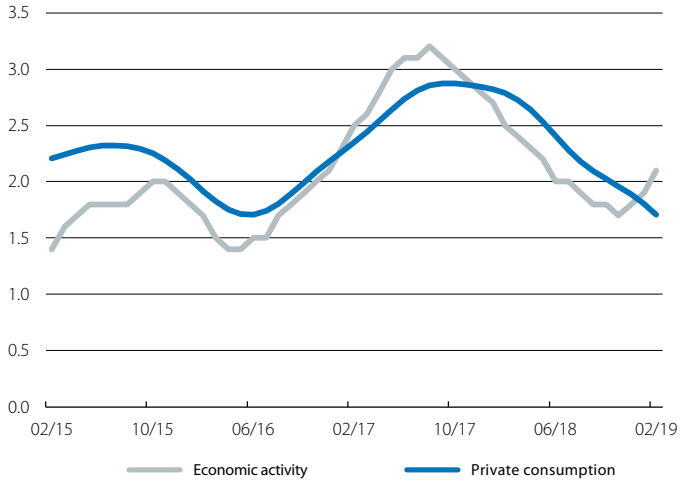
Economic activity performs well at the start of the year. The Bank of Portugal's coincident economic activity indicator rose to 2.1% in February (1.9% in January), while the National Statistics Institute's activity indicator showed 2.4% year-on-year growth in January (having remained at 2.2% since October). In addition, retail sales accelerated in January and February compared to the average in Q4 2018, while other indicators, such as cement sales and commercial vehicle sales, have also given off positive signals. However, these figures coexist with other, not so positive dynamics. On the one hand, in February, the Bank of Portugal's private consumption coincident indicator fell slightly (to 1.7%, compared to 1.8% in January) and the consumer confidence index decreased once again (–8.3 points in February compared to –7.2 in January), reflecting lower optimism among households about the economic outlook for the next 12 months. In the foreign sector, meanwhile, in January the trade balance in goods fell once again (with a 3.3 billion euro widening of the trade deficit, up to 17.9 billion, for the cumulative balance of the past 12 months), faced with higher growth in imports (8.5%) than in exports (4.8%). Overall, therefore, the indicators suggest that the growth rate lies at nearly 2% in Q1 2019.

The recovery of the labour market continues in a more mature cyclical context. In February, the unemployment rate stood at 6.3% (–1.3 pps compared to February 2018), with 64,600 fewer people in unemployment (–16.5% year-on-year). The population in work, meanwhile, reached 4,844,600 people, representing an increase of 62,700 over February 2018 (1.3% year-on-year). However, in both cases the improvement was more moderate than that registered in 2018 (a 20.8% fall in unemployment and a 2.3% rise in the number of people in work). Coupled with the decline in job vacancies on offer (–12.8% year-on-year on average for January and February 2019), this points towards more moderate growth in the labour market. Thus, although the labour market continues to perform well, it is showing signs of a slowdown compared to the past two years, and this trend is expected to continue over the coming quarters, consistent with more moderate GDP growth.

Inflation remains stable in March. According to the non-harmonised consumer price index (CPI), headline inflation remained at 0.9% year-on-year in March (the same figure as in February). This stability was the result of the balance between the acceleration in energy prices (+1.3%, following a fall of –0.7% in February) and the moderation in core inflation, which stood at 0.7% in March (1.0% in February). However, over the coming quarters, a slight acceleration in inflation is expected, given the strong performance of the labour market and the resulting greater buoyancy in wages.

Portugal: coincident economic activity indicators

Year-on-year change



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

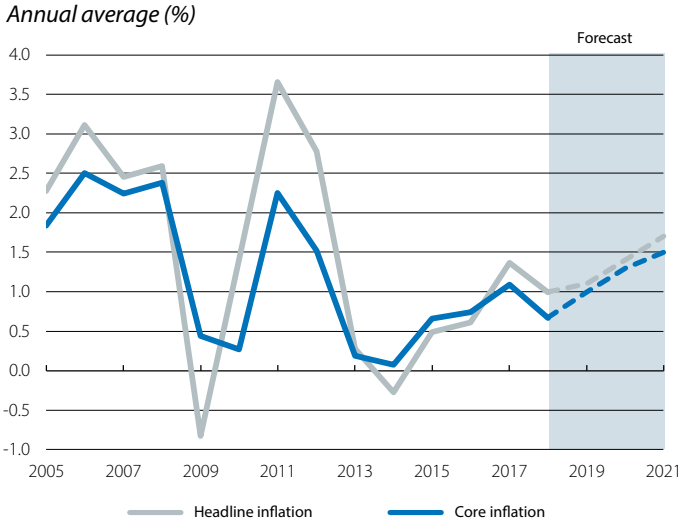
Portugal: job vacancies

(Number at the month end)

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

Portugal: inflation (CPI)

Annual average (%)



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

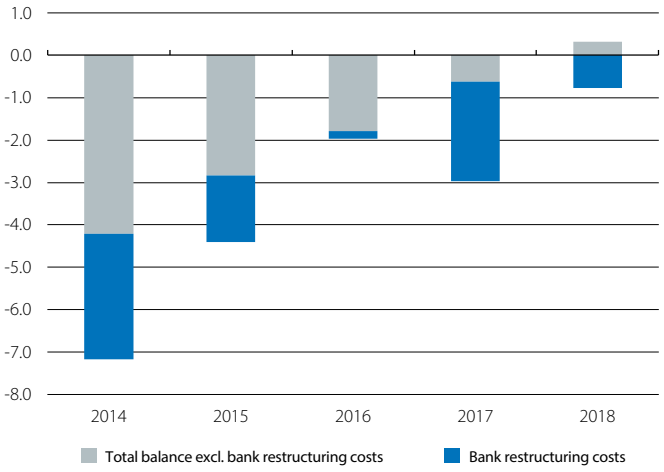
The correction of the budget deficit continues. In particular, the general government deficit stood at 913 million euros in 2018, representing –0.5% of GDP (in 2017 it was –3.0%, or –0.9% excluding the recapitalisation of Caixa Geral de Depósitos). This improvement reflects both strong revenue growth (5.5% year-on-year) and a 0.3% reduction in public expenditure (a decrease that is due to the base effect of the recapitalisation of Caixa Geral de Depósitos, since total expenditure would have increased by 4.4% if we excluded it). The good performance of economic activity and the labour market contributed to the increase in tax revenues (5.9% year-on-year), while the low interest rate environment (coupled with the more favourable financing conditions, after the rating agencies increased Portugal's credit score several times in 2018) contributed to a 6.5% year-on-year drop in interest payments (–481 million euros). Last but not least, in March S&P raised its credit rating for Portugal's sovereign debt from BBB– to BBB.

The external lending capacity deteriorates. In particular, the external lending capacity of the economy as a whole slipped to 0.2% of GDP in 2018 (1.1% in 2017). This was particularly due to the greater funding needs of the non-financial business sector (which went from –0.8% in 2017 to –2.0% in 2018, a deterioration largely driven by the greater investment in the sector). In addition, the financial sector registered a net lending capacity of 1.9% of GDP, marking a clear deterioration compared to the 3.8% registered in 2017. The lending capacity of households, meanwhile, declined more moderately (from 1.0% in 2017 to 0.7% in 2018), while the central government reduced its funding needs to –0.5% of GDP (–3.0% in 2017, or –0.9% if we exclude the recapitalisation of Caixa Geral de Depósitos). Also of note in the households sector was the slight reduction in the savings rate, dropping from 4.7% of disposable income in 2017 to 4.6% in 2018.

The real estate sector ended 2018 on a strong note. In the last quarter of 2018, the home price index grew by 9.3% year-on-year (0.8 pps more than in Q3), with an increase of 9.5% in existing home prices and of 8.5% in the case of new homes. Thus, for 2018 as a whole, the home price index rose at an average annual rate of 10.3% (an acceleration of 1.1 pps compared to 2017). Furthermore, 178,691 homes were sold in 2018, 16.6% more than in 2017. Over the next few quarters, the real estate market is expected to remain buoyant, supported by demand for housing that will continue to be favoured by accommodative financial conditions and tourist activity that is still thriving despite some slowdown. Nevertheless, the recovery in the construction of new homes will contribute to a moderate deceleration in price growth.

Portugal: government balance

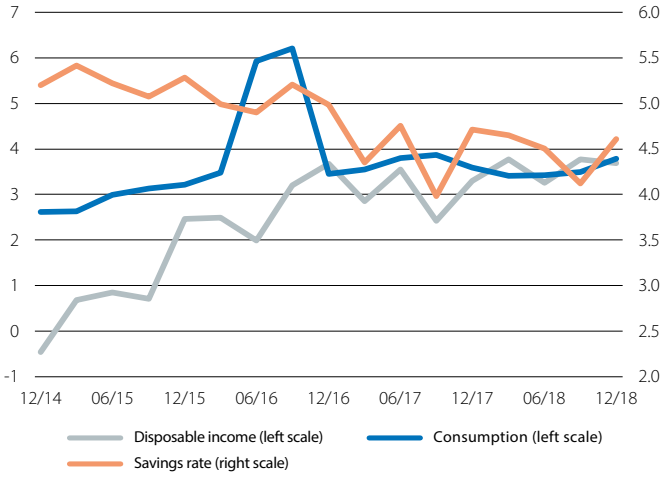
(% of GDP)



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

Portugal: household savings, income and consumption

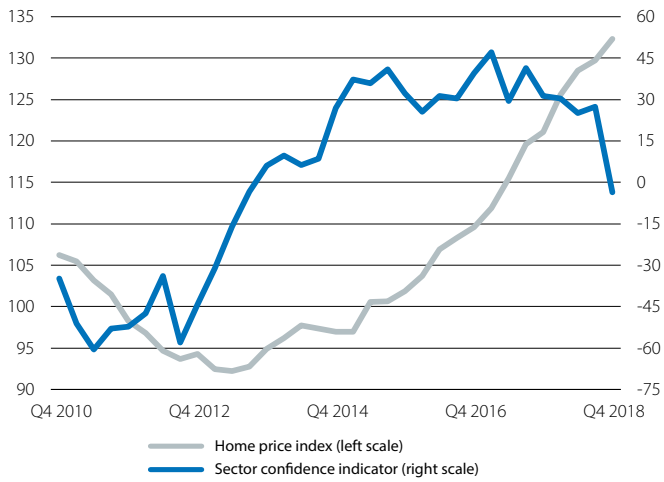
Year-on-year change (%) *(% of disposable income)*



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

Portugal: real estate market

Index (100 = 2015) *Index*



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

Activity and employment indicators

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	11/18	12/18	01/19	02/19	03/19
Coincident economic activity index	2.9	2.1	2.2	1.9	1.8	1.7	1.8	1.9	2.1	...
Industry										
Industrial production index	4.0	–0.1	0.5	–1.8	–1.6	–3.4	–1.7	–3.3	–2.5	...
Confidence indicator in industry *(value)*	2.1	0.8	0.5	0.6	–0.6	–1.0	–0.6	–1.0	–1.3	–2.3
Construction										
Building permits *(cumulative over 12 months)*	15.6	20.0	11.8	13.5	20.0	...	20.0	...	...	...
House sales	20.5	16.8	23.7	18.4	9.4	...	9.4	...	...	...
House prices *(euro / m² - valuation)*	5.1	5.8	6.1	6.2	6.1	6.2	6.1	6.3	6.8	...
Services										
Foreign tourists *(cumulative over 12 months)*	16.0	3.0	11.2	6.9	3.5	3.4	3.0	3.0	...	...
Confidence indicator in services *(value)*	13.3	14.1	12.6	16.9	12.6	12.3	12.2	15.7	16.0	14.4
Consumption										
Retail sales	4.1	3.8	2.6	2.3	4.6	4.3	3.7	5.5	4.9	...
Coincident indicator for private consumption	2.7	2.4	2.5	2.2	2.0	2.0	1.9	1.8	1.7	...
Consumer confidence index *(value)*	–0.1	0.6	2.8	–0.2	–1.7	–1.8	–2.2	–7.2	–8.3	–9.5
Labour market										
Employment	3.3	2.3	2.4	2.1	1.6	1.5	1.5	1.5	1.3	...
Unemployment rate (% labour force)	8.9	7.0	6.7	6.7	6.7	6.7	6.6	6.6	6.3	...
GDP	**2.8**	**2.1**	**2.5**	**2.1**	**1.7**	**...**	**1.7**	**...**	**...**	**...**

Prices

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	11/18	12/18	01/19	02/19	03/19
General	1.4	1.0	1.0	1.4	0.8	0.9	0.7	0.5	0.9	0.9
Core	1.1	0.7	0.6	0.8	0.5	0.5	0.6	0.8	1.0	0.7

Foreign sector

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	11/18	12/18	01/19	02/19	03/19
Trade of goods										
Exports *(year-on-year change, cumulative over 12 months)*	10.0	5.3	7.4	7.0	5.3	4.7	5.3	4.8	...	...
Imports *(year-on-year change, cumulative over 12 months)*	13.1	8.0	9.8	8.6	8.0	7.5	8.0	8.5	...	...
Current balance	**0.9**	**–1.2**	**0.0**	**–0.4**	**–1.2**	**–1.0**	**–1.2**	**–1.4**	**...**	**...**
Goods and services	3.5	2.0	3.1	3.1	2.0	2.1	2.0	1.6	...	...
Primary and secondary income	–2.6	–3.2	–3.1	–3.5	–3.2	–3.1	–3.2	–3.0	...	...
Net lending (+) / borrowing (–) capacity	**2.7**	**0.9**	**1.9**	**1.6**	**0.9**	**1.0**	**0.9**	**0.7**	**...**	**...**

Credit and deposits in non-financial sectors

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

	2017	2018	Q2 2018	Q3 2018	Q4 2018	11/18	12/18	01/19	02/19	03/19
Deposits [1]										
Household and company deposits	1.7	3.8	4.3	4.4	4.2	4.0	4.7	5.0	...	...
Sight and savings	15.7	14.3	15.3	13.6	14.6	14.0	16.2	14.9	...	...
Term and notice	–5.8	–3.0	–2.9	–2.1	–3.1	–3.1	–3.3	–2.0	...	...
General government deposits	1.3	–1.9	–0.8	1.0	–9.9	0.5	–32.3	–15.7	...	...
TOTAL	**1.6**	**3.5**	**4.0**	**4.2**	**3.4**	**3.8**	**2.7**	**4.0**	**...**	**...**
Outstanding balance of credit [1]										
Private sector	–4.0	–1.7	–1.8	–1.4	–1.8	–1.7	–2.1	–2.7	...	...
Non-financial firms	–6.5	–3.8	–3.8	–3.7	–4.5	–4.4	–4.5	–6.0	...	...
Households - housing	–3.1	–1.5	–1.6	–1.2	–1.3	–1.1	–1.7	–1.5	...	...
Households - other purposes	0.9	4.5	4.1	5.8	5.2	5.3	4.2	3.5	...	...
General government	9.3	2.4	14.8	–12.4	–11.6	–10.6	–12.9	–13.5	...	...
TOTAL	**–3.5**	**–1.6**	**–1.2**	**–1.9**	**–2.3**	**–2.1**	**–2.6**	**–3.2**	**...**	**...**
NPL ratio *(%)* [2]	**13.3**	**...**	**11.7**	**11.3**	**...**	**...**	**...**	**...**	**...**	**...**

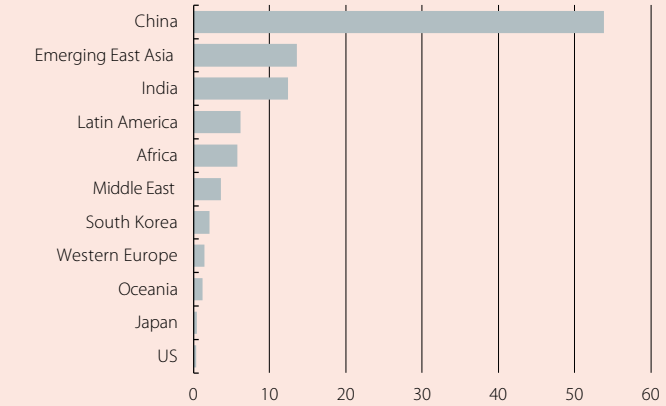
Notes: *1. Aggregate figures for the Portuguese banking sector and residents in Portugal. 2. Period-end figure.*
Source: *CaixaBank Research, based on data from the National Statistics Institute, Bank of Portugal and Datastream.*

The energy mix of the future

Energy represents a very significant component of economic activity (accounting for around 9% of global GDP according to our calculations) and its price fluctuations have an undeniable impact on the economy and the financial markets. In addition, the importance of energy goes beyond the economic sphere, as it shapes global geopolitical relations. Besides geopolitics, energy and its externalities also lie at the heart of the environmental issue. The economic historian Carlo M. Cipolla[1] defined the history of the world's population as the history of energy.

Global growth in energy consumption between 2018 and 2030 by region

Percentage of the global total (%)



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

The expected change in global energy consumption over the next decade is determined by four key and interrelated factors. The first is the environmental imperative, focused on climate change. From this factor, the following two emanate: measures to achieve a lower reliance on coal in the economy in order to reduce carbon dioxide emissions (decarbonisation), and improvements in the electrical network (electrification). It should be noted that those responsible for economic policy must tread very carefully to balance environmental pollution controls with economies' legitimate aspirations for economic growth. This is a common theme in debates on the desirability of a more active green taxation system that includes taxes on carbon emissions, something that has already been demanded by a select group of 27 Nobel Prize winners and the last four presidents of the Fed.[2] This transition can only be achieved with the fourth factor, reducing energy intensity. Energy intensity is the energy consumed per unit of GDP, and reducing it relies on the current environmental policy targets being met.

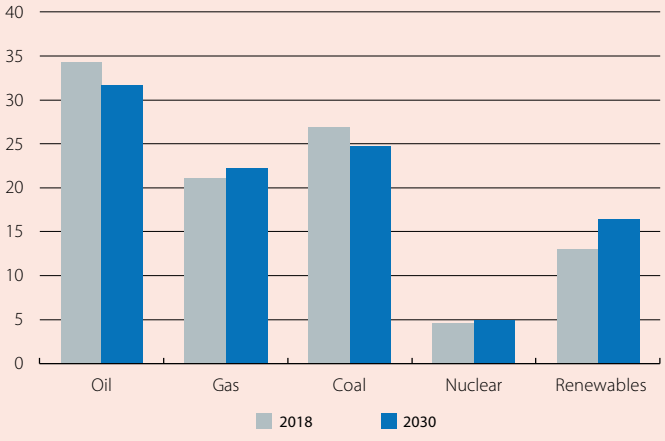
Taking these four factors into account and based on forecasts by the US Energy Information Administration (EIA), it is estimated that between 2018 and 2030, global energy consumption will increase by around 15%, and its economic cost by a little more, around 18%. This higher growth in costs is mostly driven by the transition costs associated with shifting towards other energy sources that are cleaner, but also more expensive. Even so, these increases are likely to be lower than the expected growth in global GDP, which will stand at around 45%. This is thanks to the fact that global energy intensity could fall significantly, by around 20%. By country (see first chart), China, India and the rest of the Emerging East Asia bloc will account for four fifths of the expected increase in global energy consumption between 2018 and 2030 (54.0% corresponding to China, and 12.5% to India). The combined increase of Western Europe, the US and Japan, meanwhile, will represent barely 1.4% of the expected total increase.

But how will the energy mix evolve? According to our scenario, as we can glimpse in the second chart, the energy mix should evolve towards a reduction in the role of oil and coal, from 35% to 32% and from 27% to 25% of the total energy consumption, respectively. On the other hand, renewables could acquire greater importance (going from 13% of the total to 16%), as could natural gas (going from 21% to 22%) and nuclear energy (from 4.6% to 5%). However, achieving the dual objective of strong economic growth while also controlling pollution seems less certain, since emissions would not fall but rather would see an 11.0% rise. That said, such an increase would still represent an improvement on the 13.0% rise registered in 2010-2018, a period with lower global GDP growth (30.4%).

If we focus on the key factors we highlighted above, the environmental imperative is inescapable. The situation is not particularly flattering, because in 2018, 34,854 million metric tonnes of carbon dioxide were released into the atmosphere, 13% more than in 2010, when the objective is to reduce emissions.

Energy mix by primary energy sources

Percentage of global energy consumption (%)



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

1. Carlo M. Cipolla (1962). «The Economic History of World Population». Pelican Books.
2. See the 2019 article «Economist's Statement on Carbon Dividends» at https://www.econstatement.org/.

China has contributed 61% to this increase, because although it is making notable progress in controlling pollution, the very dynamics of its high economic growth and the weight of its heavy industry have played against it. Other emerging economies, especially India, have not made any progress, which will make it difficult to achieve the targets that have been set. This need to reconcile emerging economies' legitimate desire for growth with controlling environmental pollution is what will define the global economy over the next decade.

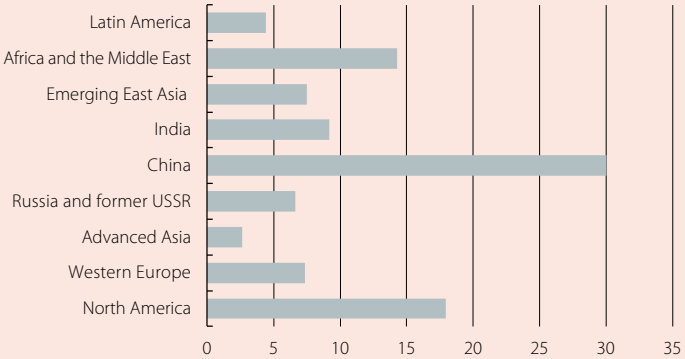
The second factor is decarbonisation, the focus of attention for the environmental imperative where the critical factor is coal: coal represented 26.9% of global energy consumption in 2018 but was responsible for 43.3% of global emissions. Between 2010 and 2018, there has been no reduction in the weight of this energy source. Since it is cheap, it is the primary energy source for China and India, which are the fastest-growing of all large economies (China and India contributed 40.0% of the increase in global energy consumption between 2010 and 2018). The good news is that the shift towards decarbonisation has already begun in China, where coal has gone from representing 68.1% of the total energy consumption in 2010 to 60.2% in 2018. India, in contrast, is not on the same wavelength: coal represented 48.5% of its energy consumption in 2018, above the 46.8% of 2010. What does the future hold? If the Chinese economy maintains the current trend, we will begin to see a significant reduction in the use of coal over the next decade: its weight in global energy consumption is expected to decline by 2.1 pps between now and 2030, largely thanks to improvements in China.

The third key factor, electrification, will be driven by the need to reduce pollution in large cities. Electrification is the best way to achieve this, because it allows the generation of energy from fossil fuels (the main cause of emissions) to be replaced by clean energy sources such as wind or solar. Thus, over the next few decades, a gradual process of electrification is expected, which will require significant investments and will extend to industries such as transportation, buildings and manufacturing. The importance of this phenomenon can be seen when we calculate the electricity fee,the percentage of total energy consumption that corresponds to energy loss resulting from converting primary energy sources into electricity. According to data from the EIA, this loss of energy has remained stable between 2010 and 2018 at slightly above 25%,[3] but it is expected to rise to 26.9% by 2030 with the increase in electrification. In any case, electrification will be a phenomenon with far-reaching implications that will allow for a more sustainable geographical allocation of power generation.

The fourth factor is the reduction of energy intensity, which is essential in order to balance economic growth with the control of pollution. Energy intensity depends on two factors linked to technology: energy efficiency and changes in the composition of GDP. Energy efficiency means consuming less while doing the same thing (for example, reducing the consumption of a car per kilometre travelled). Changes in the composition of GDP, meanwhile, can boost activities that consume less energy. This is achieved if sectorial adjustments are made in the economy, such as reducing the weight of heavy industry in favour of information technologies.

Geographical distribution of forecast energy savings in our scenario between 2018 and 2030 *

Percentage of the total (%)



Note: ** Savings are defined as the difference between the energy consumption in 2030 assuming a constant energy intensity 2018 levels for each country and the energy consumption forecast in 2030 in our scenario.*
Source: *CaixaBank Research, based on data from the EIA, the IMF and the National Statistics Office of China.*

In this regard, the future path of energy intensity at the global level will critically depend on what happens in China. China already plays a key role if we consider that, between 2010 and 2018, it has contributed 28.5% and 60.9% to the global increase in energy consumption and emissions, respectively. As we can see in the third chart, the Asian giant will continue to be a key player, given that it is expected to contribute 30.0% of the energy savings between 2018 and 2030, greater than the sum of the US and Western Europe (16.7% and 7.4%, respectively). It should be noted that China plans to achieve its energy savings primarily through a significant reduction in energy intensity of around 20% (greater than the 17.4% corresponding to 2010-2018). It intends to achieve this through a process of structural transformation as it shifts towards an economic model with a greater weight of the tertiary sector.[4] On the contrary, Western Europe is expected to make a smaller contribution, as it is starting from a relatively more efficient position: in 2018, the amount of energy that Europe spent to produce each euro of its GDP was less than that spent by the US and China (31.6% and 40.9% less, respectively).

In short, the global economy is evolving towards a more sustainability energy mix, which seeks to combine buoyant economic growth with greater control over pollution. Nevertheless, all the indicators suggest that the progress we will see over the next few years will be limited, since, although global GDP is expected to grow well above energy consumption, carbon emissions will continue to rise significantly and the improvement compared to the last decade will be modest. All in all, energy will be a very hot topic over the next decade (and beyond) and the pending challenges will continue to be substantial.

Jordi Singla

3. Which is less than the weight of industry, at 40.4%, but higher than that of transport, trade and residential use (18.9%, 5.3% and 9.4%, respectively).
4. The EIA foresees a faster change of model and predicts a greater reduction in energy intensity (34.7%).

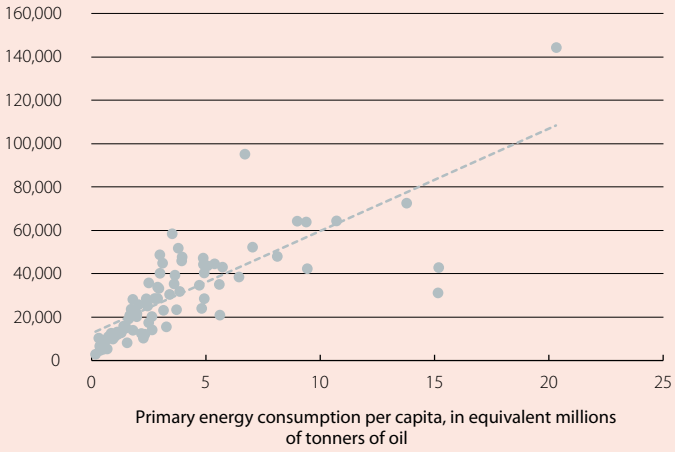
The benefits and costs of the energy mix of the future

For several years now, economic activity has grown faster than energy consumption thanks to technological improvements and the first steps being taken in the transition towards a new energy mix. What is more, this trend looks set to continue. According to projections by the US Energy Information Administration (EIA), global GDP will grow at an average annual rate of 3.1% over the next 12 years, while primary energy consumption will do so at an average rate of 0.9% per annum. These figures illustrate the anticipated improvements in energy savings, which will have significant implications in advanced economies, since it is precisely in those economies that energy consumption per capita is at its greatest (see first chart).

The new energy mix (see the article «The energy mix of the future» in this same Dossier) will be more efficient – in the energy extraction process, less energy will be consumed and the negative effects caused by pollution will be reduced – due to the greater weight of renewables and natural gas, at the expense of coal, which is less efficient and more polluting. Energy efficiency will bring various economic benefits, such as savings on energy bills for consumers, although it will also reduce production in some economic sectors. Nevertheless, the net result is expected to be positive. For example, according to estimates by Roula-Inglesi Lotz,[1] a 1-pp increase in the share of renewables in the energy mix at the global level generates a positive impact on GDP growth of 0.089%. If we take into account the projections of the EIA, the share of renewable energies will increase from the current 13% up to 16% by 2030. This growth of renewable energies could potentially boost global GDP in 2030 by 0.3%, providing an additional economic incentive to carry out this transition.

Richer countries consume more energy

GDP in PPP terms per capita in 2014, in dollars of 2011



Source: *CaixaBank Research, based on data from British Petroleum and the Penn World Table.*

If we focus our analysis on the EU, the developed economic region in which energy is used the most efficiently, there have been set various energy targets for 2030. In order to make progress in creating the Energy Union and to fulfil the Paris agreement, in 2018 the European Council revised its climate and energy targets for 2030: to cut greenhouse gas emissions by 40% compared to 1990 levels, increase the weight of renewable energies in energy consumption to 32% and improve energy efficiency by 32.5% compared to 2005 levels. The EU is making firm progress towards these goals, as it has reduced greenhouse gas emissions by 22% since 1990, it has increased the weight of renewable energies to 17%, and energy efficiency has risen by around 15%.[2] Thus, the EU is on track to meet both the emissions target and that related to achieving a greater role of renewable energies, although it will need to stretch itself further if it wants to achieve the efficiency target.

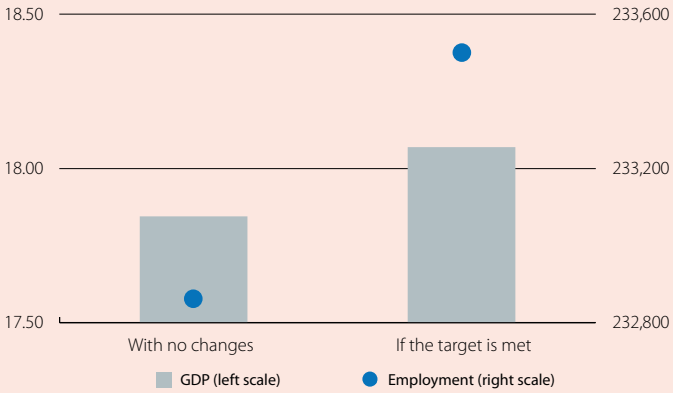
If the EU reaches the strategic objectives of the new energy plan for the year 2030, what will be the macroeconomic impact? According to a study conducted by the European Commission, the investment in technological improvements aimed at increasing energy efficiency in order to achieve the targets set will have a very noticeable impact. In particular, if these objectives are achieved, it estimates that GDP in 2030 will be 1.3% higher than in a scenario with no changes in the energy mix. It also stresses that this transition must be gradual and be accompanied by flexible regulations that take into account the various players and economic sectors in order to avoid causing unwanted disruption in the market, as well as to allow both technology and human capital to adapt to the new environment.

What lies behind this figure? The positive impact on GDP will be generated, in part, by making use of resources that currently lie unused, such as by creating new jobs. In addition, consumers' disposable income will increase as they will use a smaller proportion of their income to cover their energy consumption, thus allowing them to spend more on other products and services. Therefore, it is estimated that some 700,000 new jobs in net terms could ultimately be generated in 2030, which is no small amount.[3]

1. See Roula-Inglesi Lotz (2016). «The impact of renewable energy consumption to economic growth: A panel data application». Energy Economics, 53, 58-63.
2. According to the latest data from the European Commission collected in 2016.
3. This takes into account the possible loss of jobs in the energy sector caused by the improvements in energy efficiency. See the article «Proposal for a Directive of the European Parliament and of the Council amending Directive 2012/27/EU on Energy Efficiency» by the European Commission 2016.

Despite the fact that the improvements in energy efficiency will have a positive impact on Europe's production and labour market, the effects will most likely be highly disparate between different sectors of the economy. On the one hand, the utilities (water, electricity, etc.) and extraction sectors will see a reduction in output because there will be less demand for their products.[4] On the other hand, sectors such as construction and engineering will benefit from investment in energy efficiency and will see an increase in their production. As a whole, the sectors that will benefit play a larger role in the European economy than those that will suffer, so the impact on aggregate income will be positive. The employment results at the sectorial level, meanwhile, will follow a similar pattern to that of production, albeit with one slight difference:[5] the utilities sector is likely to end up employing more workers despite the drop in its production. This is because this sector plays a bigger role in Europe's new energy mix within the field of renewable energies, which are relatively more labour-intensive than other energy sources.[6]

European Union: macroeconomic impact of the new energy mix and of improvements in energy efficiency



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

With regard to the trade balance, with the new energy mix, and thanks to the greater role of renewable energy sources, the EU will become less dependent on imports, especially oil and natural gas. This will allow it to improve its energy security (see article «The geopolitics of energy» in this Dossier for details), making it less vulnerable to the significant volatility in fossil fuel prices. By way of example, it is estimated that between 2018 and 2030, the new energy mix and improvements in energy efficiency achieved by EU countries will reduce the cost of fuel imports by between 175 and 320 billion euros each year. This is a considerable figure if we consider that, in 2017, 260 billion were spent on fuel imports.[7]

In short, in the 19th century and much of the 20th century, coal was the main source of energy. In the 20th century, and with the revolution in land transport following the invention of the car, oil gained importance until it became a key factor, capable of triggering economic turmoil like the crises in the 1970s and 1980s. The 21st century will be the century of natural gas and renewables. The change in the energy mix and th technological improvements that drive energy efficiency are a positive factor for the environment, but, in addition to that, there are also economic incentives to push for this transition. For this reason, it will be essential that countries live up to their commitments and continue to develop policies that promote a more sustainable pattern of economic growth.

Manel Pardo Fernández

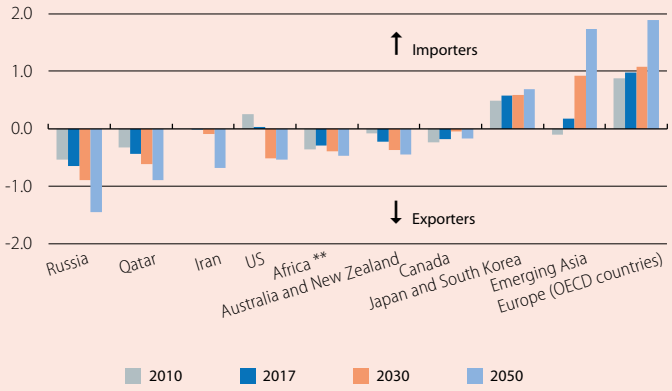
4. All in all, both revenues and production costs in this sector will be reduced, resulting in an ambiguous effect on business profits.
5. Other studies, such as the study «How Many Jobs?» undertaken in 2012 by the authors R. Janssen and D. Staniaszek in The Energy Efficiency Industrial Forum, show that every 1 million euros invested in improving energy efficiency in buildings allows 19 direct jobs to be created in the construction sector.
6. See the article «The macro-level and sectoral impacts of Energy Efficiency policies» by the European Commission 2017.
7. These estimates are highly sensitive to the evolution of the oil price.

The geopolitics of energy

What do you think would happen if, all of a sudden, the country where you live no longer had access to foreign sources of energy and the emergency systems could not supply the entire system for, say, a week? Such a situation (although it is an extreme case!) would evidently have significant adverse consequences for the daily lives of all citizens and highly negative macroeconomic implications. This serves to demonstrate the importance of having access to energy sources, continuously and at an affordable price. Thus, countries that have control over their energy sources can better protect their national interests and, in parallel, exert economic and political influence at the international level. In contrast, economies that are dependent on imports of fossil fuels may suffer energy security problems. In this regard, the current energy mix has led to the development of certain geopolitical relations in which net oil exporters play a significant role (OPEC members and Russia, mainly). Faced with the changes that lie ahead and which will shape the energy mix of the future, we must ask ourselves which states might gain geopolitical influence, which might lose it and whether today's current partnerships will continue for a long time to come.

Main net exporters and importers of natural gas

*(Trillion kilowatt hours)**



Notes: ** This is a term that refers to consumption and is used to quantify the energy capacity used in a particular period of time, in this case an hour. ** Africa's main exporters are Nigeria, Algeria and Libya.*
Source: *CaixaBank Research, based on data from the EIA.*

As we have seen in the article «The energy mix of the future» of this same Dossier, global energy consumption will continue to rise until at least 2030, mainly as a result of the momentum of the emerging Asian economies, albeit at a much slower rate than economic growth. In addition, the change in the composition of energy sources that is expected to take place over the coming years will lead to greater demand for natural gas and renewable energy, to the detriment of oil and coal. These dynamics will have two main implications at the geopolitical level. On the one hand, greater use of renewable energy sources will allow economies that foster them to become more energy independent, since they will be able to consume energy that is generated within their own territory. One of the best examples of a country that is almost energy independent is Iceland, where more than 80% of the energy it consumes comes from renewable energy sources generated within its territory (mainly geothermal and hydro).[1] Renewable energies, therefore, will make it possible to reduce energy dependency. Currently, however, electricity that is generated using renewable sources, or indeed any other energy source, cannot travel long distances, making it hard to export and, consequently, to gain geopolitical influence.

On the other hand, increased consumption of natural gas to the detriment of coal will allow gas exporting countries to gain prominence in international relations, while the main exporters of coal and oil will lose influence.[2] An example of this new trend that can already by seen is Qatar's departure as a member of OPEC announced at the end of 2018, after which the country's Minister for Energy argued that it was a strategic decision in order for the country to focus on the extraction and distribution of natural gas.[3]

As such, the main beneficiaries of this greater use of natural gas will be the biggest current net exporters (Russia and Qatar), as well as those expected to increase their net exports over the coming years (mainly Iran and the US, according to estimates by the US Energy Information Administration, or EIA). On the other hand, those adversely affected by the new energy mix will be Saudi Arabia, given that oil will make up a relatively smaller portion of the new energy mix, and the main exporters of coal, namely Australia and Indonesia, whose exports go to India and, above all, to China.[4] Nevertheless, thanks to its abundant reserves of natural gas, Australia will be able to mitigate the negative impact of the decarbonisation process expected to take place in China by increasing its gas exports.

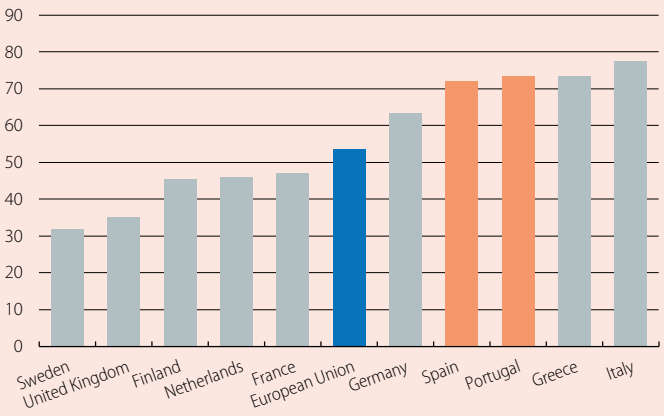
The increase in the consumption of natural gas will not only benefit the countries that export this fuel, however. Since it is primarily transported by pipelines, countries located at strategic points will also be able to benefit politically and economically. A clear example is Turkey, through which a gas pipeline passes that distributes gas from the Caspian Sea to Southern Europe.

1. The remaining 19% corresponds almost entirely to oil consumed by vehicles in land and sea transport. Data published by the National Energy Authority of Iceland.
2. Even if net oil exporters see an increase in their sales of crude oil, they will lose influence relative to exporters of natural gas.
3. Its departure from OPEC was also driven by the diplomatic blockade imposed on it by Saudi Arabia (the most influential state of the cartel) and six other countries starting in 2017.
4. Although China is the largest coal producer in the world, it is a net importer of this fuel.

However, the expected increased use of liquefied natural gas (LNG) will moderate the influence of these transit countries. This form of processed gas can be transported long distances by merchant ships, provided that the receiving ports are equipped to handle it.[5] This facilitates a greater homogenisation of the gas price internationally and provides importing countries greater bargaining power by increasing the range of potential vendors.

European Union: energy dependency in 2016 *

(%)



Note: ** Eurostat defines energy dependency as the ratio between net energy imports and total energy consumption.*
Source: *CaixaBank Research, based on data from Eurostat.*

In this changing environment, focusing on the situation of Europe, a cornerstone of the EU's strategy is to strengthen the region's energy security, which means reducing its high degree of dependency on energy from abroad.[6] Currently, more than half of the energy consumed in the region is imported, a phenomenon which can be seen above all in fossil fuels, where the main trade partners are Russia and Norway (currently, 90% and 69% of all the oil and natural gas consumed, respectively, is imported, and the dependency on imports of these fuels is expected to increase slightly according to European Commission estimates). The EU has expressed some concern in this regard due to the possibility that disruptions in the supply of these products, whether due to infrastructure failures or political or trade disputes, could make the member states that are most dependent on Russian oil and gas more vulnerable. Indeed, this occurred in 2009, when Russia stopped supplying natural gas to Eastern Europe due to its conflict with Ukraine, which until then was the main route through which Russian gas entered the rest of Europe. The work to be done in this regard should include increasing energy production within the EU (mainly through an increase of renewable energy), strengthening the internal energy market and diversifying the routes of entry and the supply of exporting countries. On this note of diversification, the European Commission has pointed out that, in addition to strengthening ties with current partners (mainly Norway, Russia and Saudi Arabia), it is necessary to improve alliances with new partners in the Caspian Sea (most notably Azerbaijan and Turkmenistan). By doing so, it is expected that the EU will be able to become a more energy independent region and, above all, have a greater diversity of suppliers.

If we look at the Iberian Peninsula in greater detail, the situation is a little more adverse than it is in the EU as a whole, since neither Spain nor Portugal have reserves of oil or natural gas and their geographical position makes gaining full access to the internal European market more difficult. This leaves these countries with among the highest energy dependency rates in the EU (see second chart). For this reason, the Integrated National Energy and Climate Plan proposed by the Spanish Government aims to reduce this rate by 15 pps by 2030, mainly through a reduction in energy intensity and greater use of renewable energies.[7] In addition to the increase in the generation of energy through renewable sources, in the Iberian energy mix there will be an increase in the weight of natural gas. The largest exporter of this fuel is Algeria, which accounted for 45% and 35% of imports in Spain and Portugal in 2017, respectively.[8] The alternatives to rely less on Algerian gas involve increasing imports of LNG (especially from the US) and strengthening ties with the European energy market. In fact, if these alternatives were properly developed, the Iberian Peninsula could contribute to reducing Europe's overall energy dependency on Russia by becoming a thriving point of entry for gas coming from the other side of the Atlantic and Algeria.

In short, international relations forged through energy sources will continue to change, this time probably to the benefit of states that export gas. However, more efficient use of energy, together with the commitment to renewable sources, will allow countries that develop them to become more energy independent. As in the 1979 former US president Jimmy Carter words, «No one can ever embargo the sun».

Ricard Murillo Gili

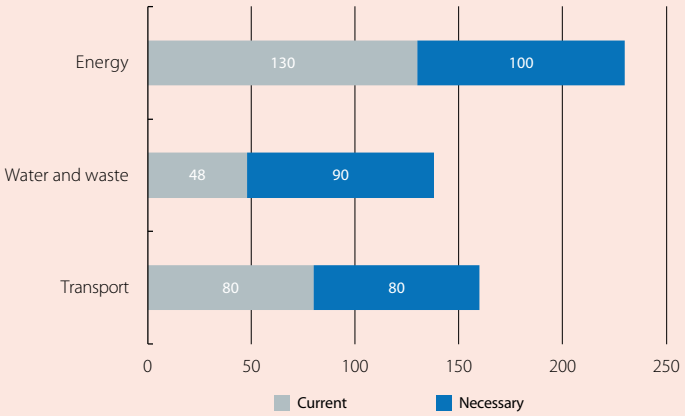
5. In the Iberian Peninsula there are currently ports equipped for LNG in Barcelona, Bilbao, Huelva, Sagunto, Cartagena, Ferrol, Gijón and Sines (Portugal).
6. See European Commission (2014). «European Energy Security Strategy». Communication from the Commission to the European Parliament and to the Council.
7. For further details, see the article «The new energy mix in the Iberian Peninsula: the fight against global warming», in this same Dossier.
8. In fact, the largest exporter of natural gas to Portugal is Spain, representing 45% of the total, most of which likely comes from Algeria. For this reason, Portugal's energy dependency on Algeria is greater than the figure of 35% would suggest.

Green finance in focus

In 2015, in Paris, 196 countries committed to work to limit global warming to 2°C (or below) with respect to pre-industrial levels. In order to comply with the Paris agreements and achieve a transformation towards a low-carbon economy and a more efficient use of resources, major structural changes and a considerable mobilisation of resources are required. In Europe alone, the European Commission estimates that additional investment amounting to 180 billion euros per year (up to 2030) is required in the energy and transport sectors (see the first chart).[1]

The challenge, therefore, is vast and requires the active participation of a wide range of players, including the affected industries and governments. But the role that the financial sector can play in the transition towards a sustainable economy is also key. In this article, we focus on the role of green finance in the fight against climate change and the obstacles that are holding back its full development.

Annual investment needs for sustainable development in the EU
(EUR billions)

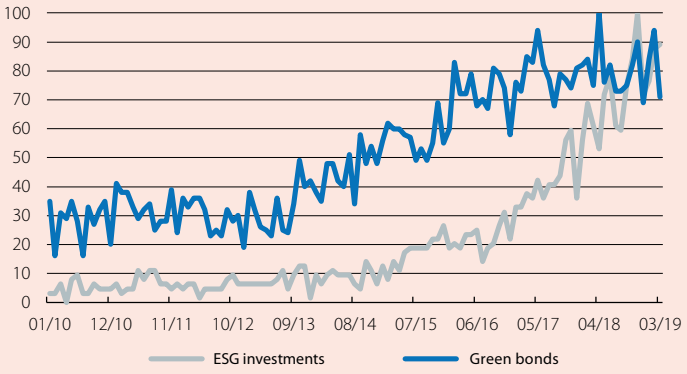


Source: *CaixaBank Research, based on data from the European Commission.*

In effect, the financial sector, as an intermediary between savings and investment in the economy, can facilitate the channelling of funds towards activities that contribute to more sustainable forms of development and have environmental benefits, such as those aimed at reducing air pollution, improving energy efficiency or adapting to and mitigating the effects of climate change. Following this logic, green finance (which is part of a broader concept of sustainable finance)[2] has become a priority issue in several international forums, including the G20 agenda. Furthermore, its development in recent years has been quite remarkable. As the second chart shows, interest in investments and financial instruments linked to sustainability, such as green bonds, is growing rapidly.

However, despite the progress made in recent years, there is still a long way to go and the deployment of private capital to finance green projects is still limited. For example, total green bonds issuances reached 500 billion dollars in November 2018, just 11 years after the first green bond was issued. This may seem like a lot, but this figure represents less than 1% of total bonds issued worldwide.[3] In addition, green infrastructure assets represent less than 1% of the total assets held by institutional investors.[4]

Trend in global web interest
Index (all-time high = 100)



Note: *Web interest measures searches for a specific term relative to the total number of searches registered by Google. The index displayed in the chart shows the web interest of the term relative to its all-time high. The acronym ESG describes an approach that incorporates environmental, social and governance factors into decision-making.*
Source: *CaixaBank Research, based on data from Google Trends.*

In this context, the potential to scale green finance is considerable. To do this, however, a series of institutional and market barriers must be overcome, some of which relate specifically to the mobilisation of resources towards green investment projects.

First of all, there is a lack of a common framework that clearly defines what constitutes a green activity. Specifically, there is currently no standardised classification nor any consistent and reliable labelling of green financial products. This implies that investors cannot be sure that

1. According to the EIB, this figure rises to 270 billion euros if we include the investment needs in water and waste management.
2. Sustainable finance channels funds towards investments with a defined social purpose.
3. Green Finance Study Group (2016). «G20 green finance synthesis report». Toronto: G20 Green Finance Study Group.
4. In addition, it remains difficult to accurately quantify and compare the progress of sustainable finance in the financial markets. This, in part, is due to inconsistencies in definitions, classifications and methodologies, as well as due to the lack of data (historical data, by asset type and by region).

their money is effectively invested in sustainable projects,[5] thus holding back the full development of markets for green financial products.

Secondly, other obstacles to be considered are the asymmetric information problems between investors and the recipients of funds. In short, it is argued that the returns on investments in green projects are difficult to assess due to, among other factors, the lack of definitions, adequate risk assessment models and an information disclosure framework that allows comparisons between projects (such as guides for companies to disclose the way they incorporate elements of sustainability into their investment processes or the effects of their products or investments on the climate).[6] This lack of information contributes to increasing the costs involved in searching for green projects and limits financial flows towards sustainable activities.[7]

Thirdly, economic agents tend not to adequately incorporate –in some cases due to a lack of information– the environmental (physical) risk and transition risk[8] into their financial and investment decisions, whichleads to a distorted assessment of the risk-return between different projects.[9] The fact that agents fail to incorporate the environmental externalities into their analysis implies that, among others, the environmental risk is not reflected in the price of financing and that there is a suboptimal capital allocation between green projects (environmentally friendly) and brown projects (those that do not incorporate the environmental dimension into their analysis and involve an intensive use of fossil fuels). In this regard, an improvement in the transparency and reporting mechanisms so that investors can understand first-hand which companies are less exposed to the effects of climate change, and a correct financial assessment of the environmental risks, would help to discourage investment in the more polluting industries.

In addition, there are also more generic barriers that affect the financing of long-term investments. In particular, some investment projects (including some green projects) require more capital to be financed and/or over a longer than usual time horizon. However, bank financing and financial instruments in capital markets usually have a short to medium term horizon. This maturity mismatch between assets and liabilities used in green projects contributes to there being less financing available for very long-term investments.

In order to overcome these barriers and enhance the role of finance in the ecological transition, broad coordination at the international level integrating all the agents involved is essential, given that this is a global challenge and that establishing a common benchmark and regulatory standards so requires it. In this regard, the European Commission's work to agree on a common taxonomy, such as the Action Plan on Sustainable Finance (presented in 2018) and the working groups created to involve the financial industry in this process is of particular note.

Similarly, it is important that agents have information on climate scenarios[10] in order to properly identify, quantify and mitigate environmental risks and exposures. Also, the regulatory framework must be clear and stable in order to help players anticipate and manage the changes associated with this transition towards a more sustainable economy. Of particular note the initiative of the working group of the Financial Stability Board[11] – led mainly by investors and asset managers – to improve transparency, truthfulness, comparability and the dissemination of information related to climate risks.

In short, various agents (companies, governments and regulators) have a role to play to support this transition towards an economy that is more sustainable in the long term. This includes the financial sector, as an intermediary between savings and investment. However, in order for this transition to be effectively financed, it is essential to work to eliminate the barriers that limit the development of green finance.

Roser Ferrer

5. This is known as greenwashing risk, i.e. the risk that products and services that are presented as being sustainable or environmentally friendly in reality are not.
6. Long-term investors require information on how companies are preparing for the ecological transition, given that better prepared companies can have a competitive advantage over their rivals.
7. See note 4.
8. Linked to the process of adjusting to a low-carbon economy. This includes regulatory changes, those arising from new technologies and changes of preferences that can lead to a revaluation of various assets and create credit exposures for financial institutions.
9. Specifically, companies that invest more intensively in activities with higher risks related to climate change may be more vulnerable to the transition towards a low-carbon economy, which could end up being reflected in lower returns.
10. With homogeneous models that contain disaggregated data and involve the scientific community.
11. Task Force on Climate-related Financial Disclosures https://www.fsb-tcfd.org/about/#

The new energy mix in the Iberian Peninsula: the fight against global warming

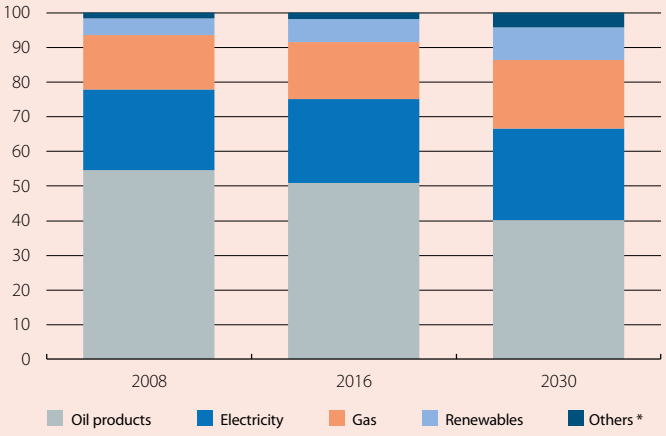
In January 2019, the Mauna Loa observatory in Hawaii recorded the highest ever level of carbon dioxide concentration in the atmosphere, of 411 parts per million (ppm), compared to 290 ppm recorded in 1880. In addition, in 2018 the temperature of the planet's surface exceeded the average temperature recorded between 1951 and 1980 by 0.8ºC.[1] Experts highlight the adverse effects that greenhouse gas emissions, primarily caused by human activity, have on our planet and the urgency with which action should be taken, particularly through changing the energy sources on which we base our consumption. In this context, what is the position of the Iberian Peninsula and what can we expect in the future?

The current energy context in the Iberian Peninsula

Currently, primary energy production[2] in Spain and Portugal is based, essentially, on renewable energy, with solid biofuels topping the list in both cases, followed by wind energy. In addition, primary energy production in both countries is substantially lower than the primary energy consumption[3] (with a ratio of 27.2% in Spain and of 22.9% in Portugal in 2017, compared to the EU average of 48.6%). Although the ratio remains well below the EU average, the two economies have experienced an improvement in the last 10 years, due to the increase in primary energy production and the decline in primary consumption over this period, a signal that we are moving towards a more sustainable model.[4]

Spain: evolution of the energy mix

Percentage of the final energy consumption (%)



Note: ** Others: includes coal and other unspecified energy sources.*
Source: *CaixaBank Research, based on the Integrated National Energy and Climate Plan for 2021-2030, Cepsa.*

As the energy needs in both Spain and Portugal exceed what each country can produce, both of them import much of the energy they consume. In both cases, oil and oil products play a particularly important role, accounting for over 65% of their total energy imports. These are followed by natural gas and coal.

The final energy consumption[5] in Spain and Portugal, meanwhile, is led by oil products, accounting for around 50% of the total (40% in the EU), as can be seen in the charts. This can be explained by the weight of industry and transports in the final energy consumption (together, they represent more than 65% of the total final consumption).[6] Electricity holds the second position in the energy mix of the two countries, accounting for over 20% of the total, although the sources of energy used in domestic electricity production differ between the two countries.[7] In third position in Spain is natural gas, accounting for 17% (10% in the case of Portugal). In Portugal, on the other hand, the third source of energy is renewables (13% of the final energy consumption, versus 7% in Spain).

What to expect in the next decade?

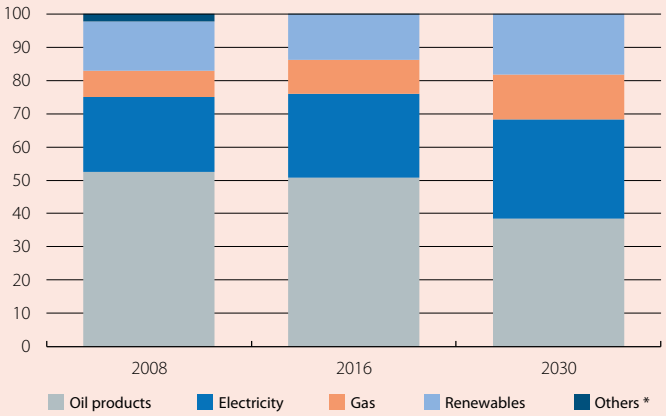
The concern over environmental issues will define the next 10 years. In fact, as explained in the article «Green finance in focus» in this same Dossier, the Paris Agreement, signed in 2015, seeks to limit the average increase in global temperatures to 2ºC above pre-industrial levels and to accelerate efforts to limit the increase to 1.5ºC. Following on from this, the EU committed to reduce greenhouse gases by 40% by 2030, compared to 1990 levels. In this context, Spain must commit to a minimum reduction of 20%,

1. According to data from NASA.
2. Primary energy production is the extraction of energy products for use from natural sources.
3. Primary energy consumption includes the consumption of the energy sector, losses occurring in the transformation and distribution of energy, and the consumption of end users.
4. In 2008, the proportion was 19.0% for Portugal and 22.5% for Spain. One of the reasons for the decline in consumption is the financial crisis in this period.
5. Final energy consumption includes the total energy consumed by end users, such as households, industry, services and transports.
6. The remaining 30% corresponds to domestic activities (such as heating), the service sector and agriculture, among others.
7. In Spain, natural gas, renewables and nuclear energy represent 77% of the domestic electricity production. In Portugal, natural gas, renewable energies and coal represent 97% of electricity production.

and Portugal to a reduction of between 20% and 35% compared to 1990 levels. To achieve this, there will need to be a reduction in greenhouse gases caused by the energy sector, which is largely responsible for their emission into the atmosphere. In turn, and if it is seen through, this transformation will have a significant impact on the economies of the Iberian Peninsula from the point of view of energy dependency.[8] In fact, in 2016, the energy dependency of Spain was 71.9%, and 73.5% in Portugal (EU average, 53.6%).[9]

Portugal: evolution of the energy mix

Percentage of the final energy consumption (%)



Note: ** Others: includes coal and other unspecified energy sources.*
Source: *CaixaBank Research, based on the Integrated National Energy and Climate Plan for 2021-2030, Cepsa, and Portugal's Roadmap for carbon neutrality by 2050.*

Both countries expect to reduce their net greenhouse gas emissions to 0 by 2050. In this regard, both national energy plans anticipate a significant reduction in the role of oil and oil products in the energy mix between now and 2030 (–11.0 pps in Spain and Portugal, compared to 2016), following the relatively modest reductions observed in the last decade (–4.0 pps in Spain and –3.0 pps in Portugal). However, oil products are expected to continue to lead the energy mix in both countries and to represent 40% and 39% of the final energy consumption in Spain and Portugal, respectively. This leadership will be due to the weight of the transport sector, which is highly dependent on oil products. Therefore, if the authorities want to reduce the weight of oil in the energy mix, they should encourage the replacement of fossil fuels for electricity, biofuels or hydrogen.

At the same time, there will be a relatively modest increase in the weight of electricity in the energy mix between now and 2030 (2.0 pps in Spain and 5.0 pps in Portugal, compared to 2016) and, in turn, this trend will encourage greater use of renewable resources. In fact, both countries have clear objectives in this area: Portugal is aiming for 80% of its electricity production to come from renewable sources by 2030 (solar, wind and hydroelectric power, mainly). Spain, meanwhile, aims to achieve a 74% share (wind, solar and hydroelectric).[10] The electrification of the energy mix should take place across the various sectors, but, in the case of industry, the change could be slower than in other sectors, considering the complexity involved in the transformation of business models and the innovation of production processes.

The third main source of energy in the final consumption is expected to remain different in the two countries: in Spain, the projections obtained based on the energy plan and other economic studies suggest that natural gas will continue to occupy the third place, with a weight of 20% in 2030, followed by renewable energies (9%). In contrast, in Portugal renewable sources are expected to retain third position in the energy mix, with 18% of the total. This is not only a result of a very significant increase in the use of these energies between now and 2030, but above all, it is due to the important role that renewables already play in the final energy consumption in Portugal (13% in 2016, compared to 7% in the case of Spain and the EU average) and the substantial investment that the country has made in these resources in recent years.

The change in the energy mix, more geared towards clean energy sources, will have a positive impact not only on the environment, but also on public health and the economy. This change will allow the Iberian economies to reduce their dependency on oil and oil products, and this in turn will reduce the energy bill, thanks to a reduction in imports and, therefore, will contribute to improving the balance of trade.[11] At the same time, investment in renewable energy sources will contribute to economic growth and job creation. However, what impact this more sustainable energy mix will have on the cost of energy for the final consumer remains unclear. To a large extent, this will depend on whether technological progress can continue to reduce the cost of producing renewable energy, as has been the case in recent years.

Vânia Duarte

8. In particular, both countries have a high dependency on oil products and imported oil, with a dependency ratio (measured by the ratio of net imports of oil and oil derivatives compared to the total gross domestic consumption and the oil used in maritime bunkers) of 96.9% and 99.2% for Spain and Portugal, respectively, in 2016.
9. For an in-depth analysis, see the article «The geopolitics of energy» in this same Dossier.
10. Currently, renewables represent 33% and 41% of the total in Spain and Portugal, respectively.
11. Taking into account the Integrated National Energy and Climate Plan for 2021-2030 for Spain and Portugal, the target is to achieve a reduction in the dependency ratio to 59% and 65%, respectively.

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